SJR 10

<TARGET><BILL>SJR 10</BILL><SUBJECT>SJR 10</SUBJECT><COMM>SRES28</COMM></TARGET>

SENATE COMMITTEE REPORT
First Committee of Referral

DATE: 2/27/13

FURTHER:

Date of 5-Day Notice: _____
(in accordance with Uniform Rule 23)

DATE TURNED IN TO OFFICE: 3/5/13

Resources Committee considered SENATE JOINT RESOLUTION NO. 10

SJR 10-ARCTIC: POLICY, USCG, ARCTIC COUNCIL

Relating to the presence and interests of the state and the nation in the Arctic; urging appointment of a representative of the state to the Arctic Council; relating to icebreakers; and relating to United States Coast Guard operations and facilities in the Arctic.

and recommends:

[√] be **replaced** with **CS** SJR 10 (RES) [√] *Same Title* [ ] *New Title*

[ ] adopt **previous CS** _____ (_____) [ ] *Same Title* [ ] *New Title*

[ ] attached amendment(s)

[ ] adopt _____Letter of Intent

[ ] further referral to _____Committee

Dept Abbr.	
ADM	LWF
CED	LAW
COR	LEG
CRT	MVA
EED	DNR
DEC	DPS
DFG	REV
GOV	DOT
DHS	UA

NEW FISCAL NOTE(S)				
Dept.	Fiscal	Indet.	Zero	FN #
S.RES			✓	

PREVIOUS FISCAL NOTE(S)				
Dept.	Fiscal	Indet.	Zero	FN #

[ ] **APPROPRIATION - no fiscal note**

SIGNATURES AND RECOMMENDATIONS:	PRINTED LAST NAME	DO PASS	DO NOT PASS	NO REC	AMEND
	French			✓	
	MICCICHE	✓			
	Bishop	✓			
	McGuire	✓			
	FAIRCLOUGH	✓			
	DYSON	✓			
CHAIR	Giessel	✓			

28-LS0542\C
Nauman
3/22/13

HOUSE CS FOR CS FOR SENATE JOINT RESOLUTION NO. 10(STA)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-EIGHTH LEGISLATURE - FIRST SESSION

BY THE HOUSE STATE AFFAIRS COMMITTEE

Offered:
Referred:

Sponsor(s): SENATORS GIESSEL, McGuire, Hoffman, Micciche, Stevens, Olson, Dyson, Stedman, Bishop, Dunleavy, Gardner

REPRESENTATIVE Kreiss-Tomkins

A RESOLUTION

Relating to the presence and interests of the state and the nation in the Arctic; appreciating the United States' ongoing offer to include a representative of the state on the Arctic Council; relating to icebreakers; and relating to United States Coast Guard operations and facilities in the Arctic.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS this state alone qualifies the United States as an Arctic nation; and

WHEREAS, according to the United States Geological Survey, the Arctic may hold up to 90,000,000,000 barrels of oil, the equivalent of 13 percent of the world's undiscovered oil reserves, and 47.3 trillion cubic meters of natural gas, the equivalent of 30 percent of the world's undiscovered natural gas reserves, and the development of these resources would have a profound economic effect on the state and promote energy security for the nation; and

WHEREAS the amount of Arctic Ocean ice during the summer months has increasingly diminished, resulting in the opening of international shipping lanes through the Arctic; and

WHEREAS the Northwest Passage along North America and the Northern Sea Route

along Eurasia both pass through the Bering Strait and decrease shipping time and costs between the Pacific and Atlantic Oceans compared to traveling conventional routes through the Suez Canal or Panama Canal; and

WHEREAS growing interest in economic and strategic opportunities in the Arctic has led the Russian Federation to announce its interests in the region and, in August 2007, to plant a Russian flag on the Arctic Ocean seabed and resume strategic bomber flights over the Arctic region for the first time since the end of the Cold War; and

WHEREAS Russia has submitted a claim to the United Nations Convention on the Law of the Sea to an area of 460,000 square miles in the Arctic Ocean, an area the size of Germany, France, and Italy combined; and

WHEREAS the United States Coast Guard does not have a base on or adjacent to the Arctic Ocean, inhibiting the nation's ability to respond to situations that could threaten United States sovereignty in the Arctic and reducing the nation's emergency and disaster preparedness in the area; and

WHEREAS increasing interest in the Arctic as a result of emerging geopolitical and economic factors has created a national priority for the United States to map the Arctic floor, which is essential to establish legitimate claims to areas beyond the 200 nautical mile exclusive economic zone and best assert the nation's rights in the international community; and

WHEREAS, as the use of international shipping lanes through the Arctic Ocean becomes possible, the demand for icebreaker vessels is increasing; and

WHEREAS Canada currently has six icebreaker vessels, with a plan to complete a seventh, the 459-foot John G. Diefenbaker, in 2017; and

WHEREAS the Russian icebreaker fleet is the largest in the world, with 36 vessels, including 17 government-operated icebreakers and six nuclear-powered icebreakers with at least 45,000 brake horsepower; and

WHEREAS a seventh nuclear-powered Russian icebreaker is currently under construction, and three more nuclear-powered icebreakers are planned for completion by 2017; and

WHEREAS the most powerful icebreaker in the world, the Russian nuclear-powered 50 Years of Victory, commissioned in 2007, is 524 feet long, has 75,000 horsepower, and can

break ice up to 9.2 feet thick; and

WHEREAS the United States has five icebreakers, only three of which are United States Coast Guard vessels; and

WHEREAS only one of the United States Coast Guard icebreakers, the USCGC Healy, which has 30,000 horsepower and was designed primarily for research purposes, is presently in service; and

WHEREAS, of the two other United States Coast Guard icebreakers, the USCGC Polar Star and the USCGC Polar Sea, constructed in 1976 and 1977, the USCGC Polar Sea is unlikely to return to service and the USCGC Polar Star is not anticipated to return to service until late 2013 at the earliest; and

WHEREAS the Arctic Council is a high-level forum of Arctic states, is the only circumpolar forum that includes all of the Arctic states, and includes participation of Arctic indigenous peoples for the purpose of holding political discussions on Arctic issues shared in common and fostering Arctic cooperation; and

WHEREAS the Arctic Council includes official state representatives from the governments of Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States; and

WHEREAS the chairmanship of the Arctic Council rotates every two years, and, following the chairmanship of Canada beginning in May 2013, the United States will assume chairmanship of the Arctic Council in May 2015; and

WHEREAS the United States has a presence on the Arctic Council only because of Alaska's location in the Arctic; and

WHEREAS, in 2011, in the spirit of cooperation between the Arctic states, and cognizant of the harsh conditions that pose a challenge to search and rescue operations in the Arctic and the vital importance of providing rapid assistance to persons in distress in those circumstances, the Arctic Council signed the council's first legally binding agreement in Nuuk, Greenland, to coordinate search and rescue operations in the Arctic Ocean; and

WHEREAS the official state delegation of Canada to the Arctic Council includes representatives from the governments of the territories of Yukon and Nunavut; and

WHEREAS the official United States delegation to the Arctic Council does not include any officially appointed representative from Alaska; and

WHEREAS the interests of the state are directly affected by Arctic policy;

BE IT RESOLVED that the Alaska State Legislature, recognizing the importance of diplomatic opportunities and the particular effect of Arctic policy on the state's interests, appreciates the United States' ongoing offer since the inception of the Arctic Council to include a designated representative from this state as a member of its official delegation to the Arctic Council; and be it

FURTHER RESOLVED that the Alaska State Legislature urges the United States Congress and the President of the United States to provide the United States Coast Guard with sufficient funding to expand its Arctic operations, to retrofit the nation's existing icebreaker fleet, to build needed vessels and facilities, including icebreakers and a United States Coast Guard base for Arctic operations, to map the United States outer continental shelf for the purpose of preserving and defending the nation's sovereign territorial rights, and to maintain a strong presence in the region; and be it

FURTHER RESOLVED that the Alaska State Legislature urges the United States to continue to assert its political, strategic, environmental, and economic interests in the Arctic, with particular emphasis on the well-being of the state, and to take a leadership role in guiding international Arctic policy through diplomatic, military, and economic means.

COPIES of this resolution shall be sent to the Honorable Barack Obama, President of the United States; the Honorable Joseph R. Biden, Jr., Vice-President of the United States and President of the U.S. Senate; the Honorable John F. Kerry, United States Secretary of State; General Martin E. Dempsey, Chairman of the Joint Chiefs of Staff; the Honorable Janet A. Napolitano, United States Secretary of Homeland Security; the Honorable Robert Menendez, Chair of the U.S. Senate Committee on Foreign Relations; the Honorable Michael T. McCaul, Chair of the U.S. House Committee on Homeland Security; the Honorable Thomas R. Carper, Chair of the U.S. Senate Committee on Homeland Security and Governmental Affairs; the Honorable Barbara Mikulski, Chair of the U.S. Senate Committee on Appropriations; the Honorable Dave Camp, Chair of the U.S. House Ways and Means Committee; the Honorable Bob Corker, ranking member, U.S. Senate Committee on Foreign Relations; Admiral Robert J. Papp, Jr., Commandant of the United States Coast Guard; and the Honorable Lisa Murkowski and the Honorable Mark Begich, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress; and all other members of

the United States Senate.

ALASKA STATE LEGISLATURE

Senate District N
Anchorage Hillside, Indian, Bird, Girdwood, Hope, Cooper Landing, Sterling, Nikiski, Moose Pass, Bear Creek, Seward

State Capitol, Room 427
Juneau AK 99801-1182
907-465-4843
Fax: 907-465-3871
800-892-4843

Senator Cathy Giessel

MEMORANDUM

DATE: March 19, 2013

TO: Representative Bob Lynn, Chair
House State Affairs

FROM: Senator Cathy Giessel

RE: Request to be heard: SJR 10 "Arctic: Policy, USCG, Arctic Council"

I respectfully request that SJR 10 "Arctic: Policy, USCG, Arctic Council" be scheduled to be heard in the House State Affairs Committee at your earliest convenience, pending referral.

SJR 10 urges sufficient funding of the U.S. Coast Guard for its Arctic operations, appreciates the federal government's ongoing collaboration with Alaska in the U.S.'s Arctic Council participation, and recommends the U.S. assert its various Arctic interests through its available means.

Attached please find the following documents:

- CS SJR 10 (SRES) 28-LS0542\N.A
- Sponsor Statement
- Fiscal Note
- Summary of changes from SJR 10 28-LS0542\U, CS SJR 10 (SRES) 28-LS0542\N
- Support Materials
    - Cohen, Szaszdi, Dolbow. "The New Cold War: Reviving the U.S. Presence in the Arctic" Executive Summary. *Heritage Foundation*. October 30, 2008.
    - Coffey. "Arctic Security: Five Principles That Should Guide U.S. Policy." *Heritage Foundation*. Issue Brief 3700. August 15, 2012
    - Major Icebreakers Chart – February 20, 2013
    - USCG Acquisition Directorate Polar Icebreaker
    - Ottawa Declaration (1996)
    - Miller. "Arctic Military Policy Discussed." *Juneau Empire*. February 15, 2013
    - Responses to SRES committee question on icebreaker costs – March 4, 2013

Contact: Joe Byrnes (465-8180)

ALASKA STATE LEGISLATURE

Senator Cathy Giessel

Senate District N

Senate Joint Resolution 10 – Arctic: Policy, USCG, Arctic Council

Sponsor Statement

Updated March 15, 2013

The Arctic has emerged as a region where U.S. strategic, political, environmental, and economic interests are at stake. International interest in the area's resource potential and the navigation opportunities for decreasing shipping times over conventional shipping routes will undoubtedly make the Arctic the focus of significant international concern in the 21st century.

The U.S. interests at stake are of particular concern to Alaskans. International Arctic policy affects Alaskans uniquely compared to other Americans. Only by virtue of Alaska is the U.S. an Arctic nation, but interest exhibited at the federal level in Arctic affairs has not been strong enough to ensure all of Alaska's interests are met. Meanwhile, our competition is mobilizing. The Russians have a fleet of 17 state owned icebreakers, six of which are nuclear powered. In 2007, they ceremonially planted a Russian flag on the Arctic seabed and resumed strategic bomber flights over the Arctic. Russia also submitted a claim to the U.N. Convention to the Law of the Sea, asserting rights to an area the size of Germany, France, and Italy combined. The Canadians and Chinese are also increasing investment in Arctic assets.

One international opportunity we appreciate is the United States' engagement in the Arctic Council. This unique high-level forum of the eight Arctic states (Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States) and Arctic indigenous people, has become an increasingly important diplomatic forum. In May 2015, the U.S. will once again assume chairmanship of the Arctic Council and guide the Arctic affairs conversation. While the U.S.'s participation in the Arctic Council is critical, additional action is warranted to protect Alaska's interests.

The Northwest Passage, located along Alaska's northern coast and northern Canada, and the Northern Sea Route over northern Eurasia pass through the Bering Strait which will experience increasing sea traffic in the years to come. Should disaster strike, be it oil spills or mariners in distress, Alaska and the U.S. should be ready and able to respond. SJR 10 urges Congress to appropriate funding to build all necessary vessels and facilities for the expansion of the Coast Guard's Arctic operations and to project a strong American presence in our northern waters.

SJR 10 promotes Alaska's international interests, which are fundamentally American interests by urging Congress to take a leadership role in guiding international Arctic policy through our nation's diplomatic, military, and economic means.

LEGAL SERVICES

DIVISION OF LEGAL AND RESEARCH SERVICES
LEGISLATIVE AFFAIRS AGENCY
STATE OF ALASKA

(907) 465-3867 or 465-2450
FAX (907) 465-2029
Mail Stop 3101

State Capitol
Juneau, Alaska 99801-1182
Deliveries to: 129 6th St., Rm. 329

MEMORANDUM March 23, 2013

SUBJECT: Arctic Council (HCS CSSJR 10(STA))
(Work Order No. 28-LS0542\C)

TO: Representative Bob Lynn
Attn: Nancy Manly

FROM: Emily Nauman EN
Legislative Counsel

The "N" version of CSSJR 10(RES) contains a defective title. The title is defective in that the reference to *urging* appointment of a representative did not accurately describe the change made by the floor amendment N.2, *appreciating the United States' ongoing offer* to include a representative of the state on the Arctic Council. The title of CSSJR 10(RES) does not disclose this.

Although the bill was passed by the Senate containing this defect, it is my opinion that a title change to correct this defect does not require a concurrent resolution waiving the Uniform Rules. While Uniform Rule 24(c) prohibits a committee from reporting out a committee substitute or amendment that requires a title change, other than a technical one, the title change here is not "required" by an amendment or change in the second house, but rather by the defective title in the first house. Accordingly, our office has in the past considered such changes to be "technical." Unfortunately, because the title change does constitute a change to the bill, the Senate will have to concur in the title change, even if the House passed a version that was otherwise identical to the bill passed by the Senate.

If I may be of further assistance, please advise.

EIN:lnd
13-178.lnd

AMENDMENT

OFFERED IN THE SENATE BY SENATOR GIESSEL

TO: CSSJR 10(RES)

Page 4, lines 3 - 4:

Delete "urges the United States"

Insert "appreciates the United States' ongoing offer since the inception of the Arctic Council"

Page 4, lines 6 - 8:

Delete all material.

ALASKA STATE LEGISLATURE

Senate District N
Anchorage Hillside, Indian, Bird, Girdwood, Hope, Cooper Landing, Sterling, Nikiski, Moose Pass, Bear Creek, Seward

State Capitol, Room 427
Juneau AK 99801-1182
907-465-4843
Fax: 907-465-3871
800-892-4843

Senator Cathy Giessel

SJR 10 "Arctic: Policy, USCG, Arctic Council"
Summary of Changes

To reflect updated information regarding the number of icebreakers, SJR 10 vs\U was conceptually amended in Senate Resources on page 2, line 24, the total number of Russian icebreakers presently commissioned is was changed from 35 to 36.

On page 2, line 25, the correct number of Russian government-operated icebreakers presently commissioned was changed from 22 to 17.

On March 18, 2013, CS SJR 10 vs\N was adopted on the Senate floor and amended on page 4, lines 3-4 had "urges the United States" removed and replaced it with "appreciates the United States' ongoing offer since the inception of the Arctic Council"

On page 4, lines 6-8 were removed.

The most current version is CS SJR 10 (SRES) 28-LS0542\N.A

Sen.Cathy.Giessel@akleg.gov

Summary

Tuesday, February 26, 2013
8:49 AM

Purpose:
Broadly, the overall Arctic Policy of the United States, with particular emphasis on how that policy affects Alaska

1. More icebreakers
2. U.S. Coast Guard funding for all needed vessels and facilities for Arctic operations
3. U.S. to assert its political, strategic, environmental, and economic interests through diplomatic, military, and economic means
4. Appreciate the U.S.'s ongoing invitation for a representative from Alaska to participate in the federal Arctic Council delegation

Reasons:

1. Arctic Potential
    a. Large predicted reserves of oil and gas
        i. 90 billion barrels of oil (13 percent of world's undiscovered oil reserved)
        ii. 47.3 tcm (30 percent of world's undiscovered gas reserves)
        iii. Potential of these resources promoting domestic energy security and helping Alaskan economy
    b. International navigation of the Arctic Ocean
        i. NSR and NWP reduce shipping time between major world ports in Asia and Europe compared to traveling conventional routes through Suez and Panama Canals
2. Russian Arctic Ambitions
    a. Clear interest reflected in several gestures in recent years
        i. Russian strategic bomber flights
    b. Claim to 460,000 mi^2 of area
4. Necessity for Icebreakers
    a. Icebreakers needed for navigation of Northwest Passage and Northern Sea Route and Search and Rescue
    b. Canada has 6
    c. Russia has 17, 6 of which are nuclear, the largest and most powerful icebreaker is also Russian
    d. U.S. only has 3
        i. Healy is a medium research vessel
        ii. Polar Star is just returning to service
        iii. Polar Sea is unlikely to return to service
5. The Arctic Council as a forum for discussion of Arctic International Issues
    a. Has all 8 of the Arctic states
    b. 2011 Search and Rescue agreement
6. Arctic issues uniquely affect Alaska compared to rest of the United States

SJR 10 Elevator Remarks (HSTA)

Wednesday, March 27, 2013
1:55 PM

Thank you
Mister Chair, members of the committee,
My name is **Joe Byrnes**, I am a University of Alaska Intern working for Senator Cathy Giessel.

Broadly speaking, Senate Joint Resolution 10 considers the overall Arctic policy of the United States with particular emphasis on how that policy affects Alaska.

Specifically, SJR 10

1. *Recognizes* the U.S.'s inclusion of a representative from Alaska on the increasingly influential Arctic Council
2. *Urges* Congress to expand the existing US Coast Guard icebreaker fleet to maintain its growing Arctic responsibilities
3. And finally *advises* the U.S. to assert its political, strategic, environmental, and economic interests in the Arctic by pursuing America's vast diplomatic, military, and economic means.

Globally, we see renewed interest in the Arctic because of the diminishing levels of polar sea ice, presenting new opportunities to the world.

Geologists believe the Arctic holds the potential for large quantities of natural resources that could promote domestic energy security and the Alaskan economy.

The decline in the amount of polar ice is also presenting commercial interests with the opportunity to reduce international shipping times, compared to conventional routes, by navigating the Arctic ocean.

Though the rest of the world appears to recognize the potential of the Arctic, there has been relatively inadequate resolve exhibited at the federal level in advancing our Arctic interests.

If you turn your attention to the page titled "Major Icebreakers of the World" in your packets. This paper, published by the US Coast Guard, reveals how our neighbors have demonstrated their Arctic interests.

Icebreakers are essential to carrying out Arctic operations *and* projecting a nation's presence in northern waters. As you can see, Russia has 17 state operated icebreakers. Canada has six. **The U.S. has 3 Coast Guard icebreakers**, only one of which is presently in service.

U.S. interests are at stake in the Arctic and these interests are of particular concern to Alaskans. International Arctic policy affects Alaskans uniquely compared to any other American.

To preserve Alaskan interests, SJR 10 highlights Alaska's engagement with the Arctic Council. Since its inception in 1996, this international high-level forum has emerged as the leading channel for the discussion of international Arctic affairs among all of the Arctic states.

We believe that Alaska's Arctic interests are fundamentally *America's* Arctic interests and whatever avenue we have available to convey those interests should be pursued.

Our nation should seek to unlock the Arctic's potential by having the U.S. take a leadership role

in guiding international Arctic policy. Our belief *is* that adopting the provisions of SJR 10 would be a good step in advancing that goal.

That concludes my prepared remarks

Considerations:
Alteration from original version, numbers of icebreakers:

Updated information regarding the number of Russian icebreakers was amended into the resolution while in Senate Resources. On **page 2, line 24**, the total number of Russian icebreakers presently commissioned is now 36 vessels , and below it on **line 25**, the number of Russian government-operated icebreakers presently commissioned is 17.

Alteration in first resolved clause from SRES CS vs/N and vs/N.A

House CS

A floor amendment was adopted in the senate that revised the resolved language of the resolution and the original title does not properly encapsulate that change.

We choose to highlight the level of engagement by the Lt. Governor, who is the Governor's designee and serves admirably as Alaskan's liaison to the Arctic Council.

Legal Services has informed us that because it is a technical change due to an error, a title change resolution is not required and the House State Affairs CS can legitimately change the title

Legal memo

The language on Page 3, line 30, refers specifically to an Alaskan representative designated at the federal level to serve on the U.S.'s Arctic Council delegation.

OCS mapping completed:

Choose to retain that language because the mapping of the outer continental shelf was a priority for the building of additional icebreakers and illustrated the variety of purposes icebreakers have. Even though the mapping project is completed, the imperatives for the commission of more icebreakers still exist

ALASKA STATE LEGISLATURE

Senate District N
Anchorage Hillside, Indian, Bird, Girdwood, Hope, Cooper Landing, Sterling, Nikiski, Moose Pass, Bear Creek, Seward

State Capitol, Room 427
Juneau AK 99801-1182
907-465-4843
Fax: 907-465-3871
800-892-4843

Senator Cathy Giessel

Response to Sen. French's questions Re: SJR 10 – Arctic: Policy, USCG, Arctic Council

Senator French asked what the cost of a new icebreaker is during the Senate Resources hearing on Monday, March 4, 2013.

A High Latitude Study provided to Congress in July 2011 and appearing in a December 2012 Congressional Research Service report, gave the following estimated acquisition costs of a new polar icebreaker in "rough order-of-magnitude costs":

- $856 million for 1 ship;
- $1.663 billion for 2 ships—an average of about $832 million each;
- $2.439 billion for 3 ships—an average of $813 million each;
- $3.207 billion for 4 ships—an average of about $802 million each;
- $3.961 billion for 5 ships—an average of about $792 million each; and
- $4.704 billion for 6 ships—an average of $784 million each[1]

1 Coast Guard Polar Icebreaker Modernization: Background and Issues for Congress (RL34391;Dec. 21, 2012), by Ronald O'Rourke. Text in ProQuest® Congressional Research Digital Collection; Accessed: March 4, 2013. Page 17

Executive Summary
Backgrounder
Published by The Heritage Foundation
No. 2202
October 30, 2008

The New Cold War: Reviving the U.S. Presence in the Arctic

Ariel Cohen, Ph.D., Lajos F. Szaszdi, Ph.D., and Jim Dolbow

The Arctic is quickly reemerging as a strategic area where vital U.S. interests are at stake. The geopolitical and geo-economic importance of the Arctic region is rising rapidly, and its mineral wealth will likely transform the region into a booming economic frontier in the 21st century. The Arctic coasts and continental shelf are estimated to hold large deposits of oil, natural gas, methane hydrate (natural gas) clusters, and large quantities of valuable minerals.

With the shrinking of the polar ice cap, extended navigation through the Northwest Passage along the northern coast of North America may soon become possible with the help of icebreakers. Similarly, Russia is seeking to make the Northern Sea Route along the northern coast of Eurasia navigable for considerably longer periods of the year. Opening these shorter routes will significantly cut the time and costs of shipping.

Despite the Arctic's strategic location and vast resources, the U.S. has largely ignored this region. The United States needs to develop a comprehensive policy for the Arctic, including diplomatic, naval, military, and economic policy components. This should include swiftly mapping U.S. territorial claims to determine their extent and to defend against claims by other countries. With oil and gas prices recently at historic highs in a tight supply and demand environment, the rich hydrocarbon resources in the Arctic may bring some relief to consumers. These resources, especially the hydrocarbons, also have the potential to significantly enhance the economy and the energy security of North America and the world.

Russian Ambitions. Russia recognizes the multifaceted potential of the Arctic and is moving rapidly to assert its national interests. Moscow has submitted a claim to the U.N. Convention on the Law of the Sea to an area of 460,000 square miles—the size of Germany, France, and Italy combined. The Kremlin is pursuing its interests by projecting military power into the region and by using diplomatic instruments such as the Law of the Sea Treaty. Russia made a show of planting its flag on the Arctic seabed in August 2007 and has resumed strategic bomber flights over the Arctic for the first time since the end of the Cold War.

While paying lip service to international law, Russia's ambitious actions hearken back to 19th-century statecraft rather than the 21st-century law-based policy and appear to indicate that the Kremlin believes that credible displays of power will settle conflicting territorial claims. By comparison, the

This paper, in its entirety, can be found at:
www.heritage.org/Research/EnergyandEnvironment/bg2202.cfm

Produced by the Douglas and Sarah Allison Center for Foreign Policy Studies of the Kathryn and Shelby Cullom Davis Institute for International Studies

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Washington, DC 20002–4999
(202) 546-4400 • heritage.org

Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.

West's posture toward the Arctic has been irresolute and inadequate. This needs to change.

Reestablishing the U.S. Arctic Presence. The United States should not rely on the findings of other nations that are mapping the Arctic floor. Timely mapping results are necessary to defending and asserting U.S. rights in bilateral and multilateral fora. The U.S. needs to increase its efforts to map the floor of the Arctic Ocean to determine the extent of the U.S. Outer Continental Shelf (OCS) and ascertain the extent of legitimate U.S. claims to territory beyond its 200-nautical-mile exclusive economic zone. To accomplish this, the U.S. needs to upgrade its icebreaker fleet. The U.S. should also continue to cooperate and advance its interests with other Arctic nations through venues such as the recent Arctic Ocean Conference in Ilulissat, Greenland.

Specifically, the United States should:

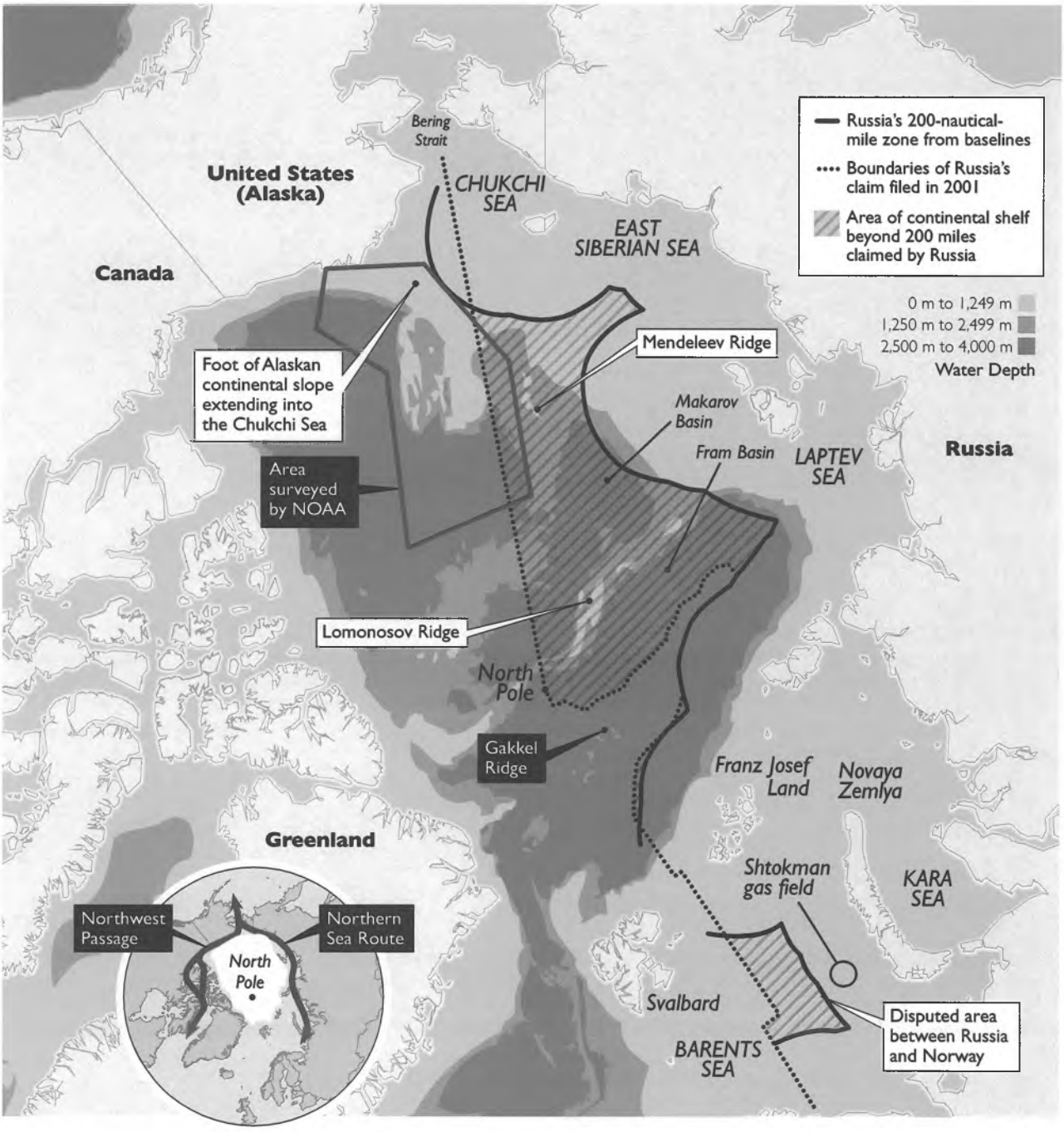
- **Create an interagency task force on the Arctic** bringing together the Departments of Defense, State, Interior, and Energy to develop the overall U.S. policy toward the region. The U.S. should use diplomatic, military, and economic means to maintain its sovereignty in the Arctic, including establishing a Joint Task Force–Arctic Region Command, headed by a Coast Guard flag officer. The U.S. should also establish an Arctic Coast Guard Forum modeled after the successful Northern Pacific Coast Guard Forum.
- **Accelerate the acquisition of icebreakers** to support the timely mapping of the Arctic OCS and the Arctic in general to advance U.S. national interests. The U.S. needs to swiftly map U.S. claims on the OCS and areas adjacent to Alaska to preserve its sovereign territorial rights. Timely mapping will be important as the other Arctic nations submit their claims within the 10-year window. The U.S. should not rely on mapping from other countries to advance its claims or to defend against the claims of other countries.
- **Provide the U.S. Coast Guard with a sufficient operations and maintenance budget** to support an increased, regular, and influential presence in the Arctic.
- **Reach out to Canada, Norway, Denmark, and—wherever possible—Russia**. Diplomacy and cooperation with Canada and European allies with interests in the region will be required to prevent conflict with Russia and to maintain the special relationship with Canada. The U.S. needs to work with Canada to develop a mutually beneficial framework for the commercial exploitation of Arctic hydrocarbons.
- **Create a public–private Arctic task force** to provide a formal avenue for the private sector to advise the U.S. government on Arctic economic development. This task force should include representatives from the energy, natural resources, and shipping sectors.
- **Authorize oil exploration and production** in the Artic National Wildlife Refuge and other promising Arctic areas in order to expand domestic energy production. Congress should also streamline regulations for areas that it has already opened but heavily regulated.

Conclusion. As an Arctic nation, the United States has significant geopolitical and geo-economic interests in the High North. The U.S. should not only have a place at the table, but also a leadership role in navigating the nascent challenges and opportunities, such as disputes over the Outer Continental Shelf, the navigation of Arctic sea-lanes, and commercial development of natural resources and fisheries.

To play this role and to protect its interests, the U.S. needs to revitalize its Arctic policy and commit the necessary resources to sustain America's leadership role in the High North.

—Ariel Cohen, Ph.D., is Senior Research Fellow in Russian and Eurasian Studies and International Energy Security and Lajos F. Szaszdi, Ph.D., is a Researcher in the Douglas and Sarah Allison Center for Foreign Policy Studies, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation. Jim Dolbow is a defense analyst and a member of the Editorial Board at the U.S. Naval Institute.

U.S. and Russian Interests in the Arctic



Source: Jeannette J. Lee, "New Seafloor Maps May Bolster U.S. Arctic Claims," *National Geographic News*, February 12, 2008, at *http://news.nationalgeographic.com/news/2008/02/080212-AP-arctic-grab.html* (June 16, 2008).

Map 1 • B 2202 heritage.org

JuneauEmpire.com

Arctic military policy discussed

Adm. talks Polar Sea, USCG activities at Capitol hearing

Posted: February 15, 2013 - 12:06am

By MARK D. MILLER

JUNEAU EMPIRE

A heavy polar icebreaker reactivated last December will be ready for service by summer, United States Coast Guard Rear Adm. Thomas Ostebo told members of the Alaska State Legislature's joint Armed Services Committee during its first meeting of the year Thursday.

Ostebo, along with U.S. Air Force Lt. Gen. Stephen L. Hoog, commander of Alaskan Command, and U.S. Army Major Gen. Thomas Katkus, commissioner of the Alaska Department of Military and Veterans Affairs, testified before the committee on the status of the U.S. military in Alaska.

The USCGC Polar Star is being readied for active duty now, according to Ostebo, who is the commander of Coast Guard District 17.

"She'll be back in service by next summer, with some early run-up work taking place up here in Alaska," said Ostebo, responding to a question from Sen. Fred Dyson, R-Eagle River. "She comes up here to break some ice and get her crews trained up, and then she'll be turning down towards Antarctica to help with the McMurdo (Sound) breakout next winter."

Ostebo is based in Juneau, from which he oversees Coast Guard operations for all of Alaska.

The USCGC Healy, the Coast Guard's only active polar icebreaker, made port in Juneau last fall on its way down to Seattle for maintenance.

Ostebo praised the Healy as "extremely valuable," but added, "Healy, while quite capable, is limited in her icebreaking capabilities. She is technically a medium icebreaker."

Polar Star and its sister ship, Polar Sea, which Ostebo said is in "caretaker status" right now with no plans to reactivate it, are the largest icebreakers in the world not powered by a nuclear reactor.

During his presentation, Ostebo discussed other Coast Guard activities in the Arctic, such as last year's Arctic Shield exercise, which Hoog also talked about.

Arctic Shield, which spanned February to October 2012, saw an unprecedented level of Coast Guard resources shifted to Alaska's North Slope, above the Arctic Circle and far from the major Coast Guard installations in Kodiak and Sitka. Among other scenarios, it simulated an oil spill near Barrow, testing Coast Guard and U.S. Navy water skimming equipment to assess how the military would handle an actual spill.

"We successfully deployed and operated both Coast Guard and (Department of Defense) skimming equipment from a Coast Guard cutter," said Hoog. "This was the first time DoD equipment had been used in this fashion in Alaska. We captured many lessons learned with regard to execution and logistics."

Unlike the other four branches of the U.S. military, which operate under the Department of Defense, the Coast Guard is under the jurisdiction of the Department of Homeland Security. Despite this division, in Alaska and elsewhere — including the Afghanistan warzone — the Coast Guard works together closely with the Army, Navy, Air Force and U.S. Marine Corps, a point reiterated by Ostebo, Hoog and Katkus throughout their presentations.

In the case of Arctic Shield, Ostebo said the mission was devised by District 17 personnel "to respond to the dramatic increases in Arctic activity" in recent years. He called it "a resounding success."

"The lessons learned and the experience gained from our activities north of the Arctic Circle will help refine and improve the Coast Guard's Arctic presence," said Ostebo.

Rep. Dan Saddler, R-Eagle River, who chaired the committee meeting, asked about the Coast Guard's future Arctic plans.

"Given the increasing outer continental shelf activity ... and the increased shipping along the great circle route and the Northwest Passage and the northern route, what are the long-term plans for any permanent Coast Guard presence in or near the Arctic?" Saddler asked. "Kodiak's great, but it's a little far away."

"Part of the mission of Arctic Shield 2012 was to evaluate our response capability and the assets that we have to provide a long-term presence in the Arctic," Ostebo responded. "Clearly, every indication is that the Arctic will continue to grow in its relevance in the maritime community, and the Coast Guard is evaluating our strategic and long-term presence up there — both off-shore, with more and better capable ships, as well as on-shore presence,

primarily with a seasonal air facility."

Increasing traffic across maritime boundaries like Dixon Entrance and Unimak Pass poses another "very specific and very interesting problem" for the Coast Guard, which is tasked with responding to "maritime accidents" that could could casualties or environmental damage, Ostebo told the committee.

"I probably don't have to remind most of the folks here (of) tragedies that we've had in the past," said Ostebo. "They give me pause and concern for the international strait known as Unimak Pass and for the international strait known as Dixon Entrance, both of which have had major growth in maritime traffic."

Ostebo also talked about the Coast Guard's role in responding to the grounding of the drill ship Kulluk off Kodiak Island last December.

"I'm proud to report that as of today, our two main goals in this mission ... have been accomplished," Ostebo said. "And that first goal was ... nobody gets killed and we don't get anybody hurt. And number two is we have no environmental damage and no pollution. And both of those objectives have been, as of today, completed."

• Contact reporter Mark D. Miller at 586-1821 or at mark.d.miller@juneauempire.com.

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Acquisition Directorate

POLAR ICE BREAKER

Mission execution begins *here.*

PROJECT DESCRIPTION:

The Coast Guard's polar fleet, which includes one 399-foot heavy icebreaker (Coast Guard Cutter Polar Star) and one 420-foot polar icebreaker (Coast Guard Cutter Healy), as well as some ice-capable tugs and tenders, represents a national capability. With commerce and traffic on the Arctic Ocean increasing, including petrochemical exploration and fisheries, the United States has vital national interest in maintaining robust polar icebreaking capability to ensure year-round Coast Guard presence in these important waters.

When refurbished by 2014, the Coast Guard Cutter Polar Star will be the service's only operational heavy icebreaker. This important, but venerable platform will serve until 2020 but that is only the beginning of the story. The Coast Guard's mission requirements, including marine environmental protection, dictate that the service maintain heavy icebreaking capability for the foreseeable future.

The Coast Guard now is in the preliminary phase of a new, heavy polar icebreaker acquisition project. This stage in the process includes developing a formal mission need statement, a concept of operations, and an operational requirements document – all necessary before developing and implementing a detailed acquisition project plan.

In order to fully fund subsequent phases of this project, the Coast Guard believes that a "whole-of-government" approach will be necessary. Obtaining a new, heavy polar icebreaker that meets Coast Guard requirements will depend upon supplementary financing from other agencies whose activities also rely upon the nation possessing a robust, Arctic-capable surface fleet.

Coast Guard Cutter Polar Star

Coast Guard Cutter Healy

(Research Vessel)

Arctic Council

DECLARATION ON THE ESTABLISHMENT OF THE ARCTIC COUNCIL

JOINT COMMUNIQUE OF THE GOVERNMENTS OF THE ARCTIC COUNTRIES ON THE ESTABLISHMENT OF THE ARCTIC COUNCIL

Ottawa, Canada

September 19, 1996

DECLARATION ON THE ESTABLISHMENT OF THE ARCTIC COUNCIL

THE REPRESENTATIVES of the Governments of Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America (hereinafter referred to as the Arctic States) meeting in Ottawa;

AFFIRMING our commitment to the well-being of the inhabitants of the Arctic, including recognition of the special relationship and unique contributions to the Arctic of indigenous people and their communities;

AFFIRMING our commitment to sustainable development in the Arctic region, including economic and social development, improved health conditions and cultural well-being;

AFFIRMING concurrently our commitment to the protection of the Arctic environment, including the health of Arctic ecosystems, maintenance of biodiversity in the Arctic region and conservation and sustainable use of natural resources;

RECOGNIZING the contributions of the Arctic Environmental Protection Strategy to these commitments;

RECOGNIZING the traditional knowledge of the indigenous people of the Arctic and their communities and taking note of its importance and that of Arctic science and research to the collective understanding of the circumpolar Arctic;

DESIRING further to provide a means for promoting cooperative activities to address Arctic issues requiring circumpolar cooperation, and to ensure full consultation with and the full involvement of indigenous people and their communities and other inhabitants of the Arctic in such activities;

RECOGNIZING the valuable contribution and support of the Inuit Circumpolar Conference, Saami Council, and the Association of the Indigenous Minorities of the North, Siberia, and the Far East of the Russian Federation in the development of the Arctic Council;

DESIRING to provide for regular intergovernmental consideration of and consultation on Arctic issues.

HEREBY DECLARE:

1. The Arctic Council is established as a high level forum to:

   (a) provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic indigenous communities and other Arctic inhabitants on common Arctic issues[1], in particular issues of sustainable development and environmental protection in the Arctic.

   (b) oversee and coordinate the programs established under the AEPS on the Arctic Monitoring and Assessment Program (AMAP); Conservation of Arctic Flora and Fauna (CAFF); Protection of the Arctic Marine Environment (PAME); and Emergency Prevention, Preparedness and Response (EPPR).

---

[1]The Arctic Council should not deal with matters related to military security.

(c) adopt terms of reference for, and oversee and coordinate a sustainable development program.

(d) disseminate information, encourage education and promote interest in Arctic-related issues.

2. Members of the Arctic Council are: Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America (the Arctic States).

The Inuit Circumpolar Conference, the Saami Council and the Association of Indigenous Minorities of the North, Siberia and the Far East of the Russian Federation are Permanent Participants in the Arctic Council. Permanent participation equally is open to other Arctic organizations of indigenous peoples*[1] with majority Arctic indigenous constituency, representing:

(a) a single indigenous people resident in more than one Arctic State; or

(b) more than one Arctic indigenous people resident in a single Arctic state.

The determination that such an organization has met this criterion is to be made by decision of the Council. The number of Permanent Participants should at any time be less than the number of members.

The category of Permanent Participation is created to provide for active participation and full consultation with the Arctic indigenous representatives within the Arctic Council.

3. Observer status in the Arctic Council is open to:

(a) non-Arctic states;

(b) inter-governmental and inter-parliamentary organizations, global and regional; and

(c) non-governmental organizations

that the Council determines can contribute to its work.

4. The Council should normally meet on a biennial basis, with meetings of senior officials taking place more frequently, to provide for liaison and co-ordination. Each Arctic State should designate a focal point on matters related to the Arctic Council.

5. Responsibility for hosting meetings of the Arctic Council, including provision of secretariat support functions, should rotate sequentially among the Arctic States.

6. The Arctic Council, as its first order of business, should adopt rules of procedure for its meetings and those of its working groups.

7. Decisions of the Arctic Council are to be by consensus of the Members.

---

[1]*The use of the term "peoples" in this Declaration shall not be construed as having any implications as regard the rights which may attach to the term under international law.

8. The Indigenous Peoples' Secretariat established under AEPS is to continue under the framework of the Arctic Council.

9. The Arctic Council should regularly review the priorities and financing of its programs and associated structures.

THEREFORE, we the undersigned representatives of our respective Governments, recognizing the Arctic Council's political significance and intending to promote its results, have signed this Declaration.

SIGNED by the representatives of the Arctic States in Ottawa, this 19th day of September 1996.

FOR THE GOVERNMENT
OF CANADA

FOR THE GOVERNMENT
OF DENMARK

FOR THE GOVERNMENT
OF FINLAND

FOR THE GOVERNMENT
OF ICELAND

FOR THE GOVERNMENT
OF NORWAY

FOR THE GOVERNMENT OF
THE RUSSIAN FEDERATION

FOR THE GOVERNMENT
OF SWEDEN

FOR THE GOVERNMENT OF
THE UNITED STATES
OF AMERICA

JOINT COMMUNIQUE OF THE GOVERNMENTS OF THE ARCTIC COUNTRIES

ON THE ESTABLISHMENT OF THE ARCTIC COUNCIL

Ministers and Senior Representatives of the Governments of Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America met in Ottawa, Canada, on September 19, 1996, and signed the Declaration on the Establishment of the Arctic Council.

This inaugural meeting was attended by the leaders and senior representatives of three international Arctic indigenous organizations - the Inuit Circumpolar Conference, the Saami Council, and the Association of Indigenous Minorities of the North, Siberia, and the Far East of the Russian Federation, as Permanent Participants in the Council.

Also present at the signing ceremony were the Standing Committee of Parliamentarians of the Arctic Region; the Nordic Council of Ministers; the Nordic Council Finnish Secretariat; the non-Arctic States of Great Britain, Germany, Japan, Poland and the Netherlands; the International Union for Circumpolar Health; the International Arctic Science Committee; the United Nations Environment Programme; the International Union for the Conservation of Nature; the Advisory Committee on Protection of the Sea; and the World Wildlife Fund.

Ministers viewed the establishment of this new intergovernmental forum as an important milestone in their commitment to enhance cooperation in the circumpolar North. The Council will provide a mechanism for addressing the common concerns and challenges faced by their governments and the people of the Arctic. To this end, Ministers referred particularly to the protection of the Arctic environment and sustainable development as a means of improving the economic, social and cultural well-being in the North.

Ministers noted that the indigenous people of the Arctic have played an important role in the negotiations to create the Arctic Council. The Declaration provides for their full consultation and involvement in the Arctic Council. To this end, the Inuit Circumpolar Conference, the Saami Council, and the Association of the Indigenous Minorities of the North, Siberia, and the Far East of the Russian Federation, are named as Permanent Participants in the Arctic Council. Provision is also made for additional organizations representing Arctic indigenous people to become Permanent Participants.

Ministers acknowledged the significant work accomplished under the Arctic Environmental Protection Strategy (AEPS), whose existing programs will be integrated within the Council. They agreed to complete the integration process by the time of the final AEPS Ministerial meeting being held in Norway in 1997.

The Ministers recognized the contribution of international science to the knowledge and understanding of the Arctic region and noted the role that scientific cooperation, through the International Arctic Science Committee and other organizations, is playing in developing a truly circumpolar cooperation.

Ministers welcomed the attendance of the Standing Committee of the Parliamentarians of the Arctic Region and looked forward to its future participation in the meetings of the Council. They also recognized the need for providing the opportunity to non-Arctic countries, governmental and non-governmental organizations with Arctic interests to participate actively, as Observers, in the work of the Council, and to draw on their experience.

Ministers set the initial priority tasks for the start-up of the Council as follows:

- developing, for adoption by the Council, rules of procedure;
- developing, for adoption by the Council, terms of reference for a sustainable development program as a basis for collaborative projects; and
- ensuring an effective transition of the AEPS into the Arctic Council, to be completed at the time of the 1997 AEPS Ministerial meeting in Norway.

Ministers expressed their appreciation to Canada for hosting the inauguration of the Arctic Council, and welcomed Canada's offer to host the first meeting of the Council in 1998.

The Heritage Foundation
LEADERSHIP FOR AMERICA

ISSUE BRIEF

No. 3700 | AUGUST 15, 2012

Arctic Security: Five Principles That Should Guide U.S. Policy

Luke Coffey

The Arctic region is home to some of the roughest terrain and harshest weather found anywhere in the world. Arctic ice is increasingly melting during the summer months, causing new challenges for the U.S. in terms of Arctic security. For example, the decreasing presence of ice will mean new shipping lanes opening, increased tourism, and further natural resource exploration.

This means that more actors than ever before will be operating in the region, and this will present both challenges and opportunities for the U.S. Consequently, the U.S. should organize its Arctic security capabilities appropriately. The decisions and investments made now will greatly impact how the U.S. handles future Arctic security challenges.

1. National Sovereignty as the Highest Priority. National sovereignty should be the cornerstone of U.S. Arctic policy. In the Arctic, sovereignty equals security and stability. Respecting the national sovereignty of others in the Arctic while maintaining the ability to enforce one's own sovereignty will ensure that the chances of armed conflict in the region remain low.

The question of sovereignty is also important in terms of defining actors in the Arctic. Only national or subnational bodies (indigenous people, for example) or purely intergovernmental organizations (such as the Arctic Council or NATO) should have a role in Arctic matters. Nevertheless, due to the possibility of shipping lanes opening, some non-Arctic countries may also have a stake, however small, in the region. For example, the Chinese have applied for Permanent Observer status in the Arctic Council. However, supranational bodies such as the European Commission should be excluded from having a formal role in Arctic matters.

2. A Focus on Situational Awareness. In many ways, the U.S. is blind in the Arctic. Anyone who has visited or operated in the Arctic will agree that situational awareness of what is happening in the region is extremely important for maintaining security there. Since the distances are vast, the terrain is harsh, and the weather is extreme, achieving situational awareness in the Arctic region is a challenge in itself.

The Arctic environment affects many capabilities that are required for good situational awareness. For example, high-frequency radio signals are degraded in latitudes above 70 degrees north due to magnetic and solar phenomena. The Global Positioning System (GPS), which is heavily relied on by both civilian and military authorities, is degraded due to poor satellite geometry. Navigation charts of some of Alaska's shipping lanes have not been properly surveyed since Captain James Cook sailed through in 1778.

The U.S.'s ability to locate, track, and identity surface vessels is limited and depends largely on collaboration with partner nations in the Arctic. Underfunding the civilian and military capabilities required to achieve good situational awareness simply makes an already bad situation worse.

3. A Comprehensive Approach to Arctic Security. In order to establish and maintain sovereignty, robust security capabilities—both military and civilian—are needed. There is a very low threat of armed

This paper, in its entirety, can be found at **http://report.heritage.org/ib3700**

Produced by the
Margaret Thatcher Center for Freedom

The Heritage Foundation
214 Massachusetts Avenue, NE
Washington, DC 20002
(202) 546-4400 | heritage.org

Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.

conflict in the Arctic, and it is in everyone's interest to keep it that way. Currently, the biggest security challenges arise from increased shipping, for both cargo and tourists, and increased natural resource exploration resulting from new possibilities created by melting ice.

The U.S. Coast Guard (USCG) has the primary responsibility for the Arctic waters of the U.S. Although the security challenges currently faced in the Arctic are not military in nature, there is still a requirement for military capability in the region that can support civilian authorities. For example, civilian search-and-rescue and natural disaster response can be augmented by the military.

Air and maritime surveillance and reconnaissance platforms operated by the military could contribute significantly to Arctic security. It is important that there is close coordination between civilian and military authorities, as both bring unique capabilities that are needed to ensure Arctic security.

4. Proper Investment. Currently, the USCG is not properly funded to carry out the tasks that are required to keep America's Arctic region secure and to enforce U.S. sovereignty in the region. The USCG has plans to extend its reach in the Arctic with icebreakers, the establishment of forward-operating locations, aviation assets, and vessels hardened to withstand the harsh conditions of the region. But it is unclear whether this ambition will be met with financial resources.

For example, the funding for its new National Security Cutter has been reduced in the fiscal year 2013 presidential budget request without any explanation from the White House. From managing increased maritime traffic to providing search-and-rescue capability to increasing America's situational awareness, this platform is vital to ensuring America's sovereignty in the region.

The USCG also needs a new strategy for icebreaking capability. Considering the costs associated with building icebreakers and projected funding levels, the USCG will struggle to procure the six icebreakers that it deems necessary to adequately patrol Arctic waters. The USCG should explore options such as buying or even leasing commercial icebreakers with similar capabilities.

5. A Role for NATO. America's security interests in the Arctic extend beyond Alaska. Since four of the five Arctic littoral countries—in addition to Iceland—are also members of NATO, the alliance cannot afford to ignore the Arctic. Although NATO's 2010 Strategic Concept was praised for acknowledging new security challenges for the alliance such as cyber and energy security, Arctic security was not included. In fact, the word *Arctic* cannot be found in either the 2010 Strategic Concept or the 2012 Chicago NATO summit declaration.

As an Arctic power, the U.S. should be promoting Arctic awareness in the alliance and could start by calling for the next NATO summit in 2014 to be held above the Arctic Circle. This would bring immediate awareness of Arctic issues to the alliance.

The U.S. also needs to work closely with Canada, which has legitimate concerns regarding NATO's role in the Arctic. The U.S. should explain to its close partner why NATO could have a positive role in the region. Since NATO is an intergovernmental alliance of sovereign nation-states built on the consensus of all of its members, it has a role to play in Arctic security if it so chooses.

The U.S. Should Lead. America's security interests in the Arctic region will only increase in the years to come. As other nations devote resources and assets in the region to secure their national interests, America cannot afford to fall behind. Since the U.S. is the only littoral Arctic country not to have an Arctic strategy, the White House should lead on the development of a cross-government strategy. However, a strategy is meaningless without the resources to back it up.

*—**Luke Coffey** is the Margaret Thatcher Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation.*

MAJOR ICEBREAKERS OF THE WORLD

RUSSIA
(36)
+ 5 under construction
+ 8 planned

18 gov't operated

- 50 Let Pobedy (2007)
- Sovetskiy Soyuz (1990 refit 2014)
- Rossiya (1985 refit 2007)
- Yamal (1993)
- Vaygach (1990)
- Taymyr (1989)
- L-60 (2015) — N
- L-60 (Estimated 2016) — N
- L-110 (Estimated 2017) — N
- L-60 (Estimated 2017) — N
- Vitus Bering (2013)
- Akademic Trioshnikov (2011)
- Varanda (2008)
- St. Petersburg (2008)
- Moskva (2007)
- Vladislav Strizhov (2006)
- Yuri Topchev (2006)
- Pacific Enterprise (2006)
- Pacific Endeavor (2006)
- Pacific Endurance (2006)
- Kapitan Dranitsyn (1980 refit 1999)
- Kapitan Sorokin (1977 refit 1990)
- Vladimir Ignatyuk (1977 refit 1982)
- Kapitan Khlebnikov (1981)
- Kapitan Nikolayev (1978)
- Krasin (1976)
- Admiral Makarov (1975)
- Yermak (1974)
- Alexey Chirlov (2013)
- Project 2260 (2015)
- Project 21900M (2015)
- Project 21900M (Estimated 2015)
- Project 21900M (Estimated 2015)
- Fesco Sakhalin (2005)
- Vasiliy Golovnin (1988)
- Akademik Federov (1987)
- Ikaluk (1983)
- Smit Sakhalin (1983)
- Dikson (1983)
- Mudyug (1982)
- Magadan (1982)
- Kigoriak (1978)
- Talagi (1978)
- Dudinka (1970)
- Tor (1964)
- R-70202 (2013)
- R-70202 (2014)
- R-70202 (2015)
- R-70202 (2016)

SWEDEN
(7)

- Oden (1989)
- Ymer (1977)
- Frej (1975)
- Atle (1974)
- Vidar Viking (2001)
- Tor Viking II (2011)
- Balder Viking (2011)

FINLAND
(7)

- Nordica (1994)
- Fennica (1993)
- Kontio (1987)
- Otso (1986)
- Sisu (1976)
- Urho (1975)
- Voima (1954 refit 1979)

CANADA
(6)
+ 1 planned

- Louis st. Laurent (1969 refit 1993)
- Terry Fox (1983)
- John G.Diefenbacher (Estimated 2017)
- Amundsen (Estimated return 2013)
- Henry Larsen (1988)
- Des Groseillers (1983)
- Pierre Radisson (1978)

USA
(5)

- Polar Sea (Inactive 2011)
- Polar Star (Estimated return 2014)
- Healy (2000)
- Aivig (2012)
- Nathaniel B. Palmer (1992)

DENMARK
(4)

- Brage Viking (2012)
- Magne Viking (2011)
- Loke Viking (2011)
- Njord Viking (2011)

CHINA
(1)
+ 1 planned

- Xue Long (1993)
- Polar Support Vessel (Estimated 2014)

ARGENTINA
(1)

- Almirante Irizar (estimate return 2012/13)

AUSTRALIA
(1)

- Aurora Australis (1990)

CHILE
(1)

- Almirante Oscar Viel (1967)

ESTONIA
(2)

- Botnica (1998)
- Tarmo (1963)

GERMANY
(1)
+ 1 planned

- Polarstern (1982)
- Polar Research Vessel (Estimated 2016)

JAPAN
(1)

- Shirase (2009)

SOUTH KOREA
(1)

- Araon (2009)

SOUTH AFRICA
(1)

- Agulhas II (2012)

LATVIA
(1)

- Varma

NORWAY
(1)
+ 1 planned

- Svalbard (2002)
- Polar Research Vessel (Estimated 2015)

KEY

Vessels were selected and organized based on their installed power measured in Brake Horse Power (BHP). Vessels with less than 10,000 BHP were not considered to be capable of independent arctic operation. Vessels are ordered by age, youngest first, within power groupings. Vessel outlines reflect relative sizes.

COLOR GUIDE

- Name (year constructed or refit) — *Power Plant* ≥ 45,000 BHP
- Name (year constructed or refit) — *Power Plant* ≥ 20,000 BHP < 45,000 BHP
- Name (year constructed or refit) — *Power Plant* ≥ 10,000 BHP < 20,000 BHP
- Name (anticpated completion) — Under Construction
- Name (anticpated completion) — Planned

NOTES

- Government owned or operated
- Unavailable
- N Nuclear Power
- Designed for Baltic use
- Fleen to the North Pole*

Data derived from various sources
Updated:
20 February 2013

An electronic copy of the most current chart is located at:

http://www.uscg.mil/hq/cg5/cg552/ice.asp

Direct Questions and Comments to:
LCDR Mike Krause- 202 372-1540
e-mail: michael.s.krause@uscg.mil
OR
LCDR Ben Morgan- 202 372-1541
e-mail benjamin.p.morgan@uscg.mil

Developed and maintained by USCG Office of Waterways and Ocean Policy (CG-WWM)

STATE CAPITOL
PO Box 110001
Juneau, Alaska 99811-0001
907-465-3500
fax: 907-465-3532

550 West 7th Avenue #1700
Anchorage, Alaska 99501
907-269-7450
fax 907-269-7463
www.gov.alaska.gov
Governor@alaska.gov

Governor Sean Parnell
STATE OF ALASKA

July 28, 2011

The Honorable Mead Treadwell
Lieutenant Governor of Alaska
State Capitol
Juneau, AK 99801-1182

Re: Delegation of Duties to Lt. Governor

Dear Lt. Governor Treadwell,

The delegations below supersede and replace delegations resulting from my December 30, 2010 letter to you. Alaska's constitution provides that the lieutenant governor shall "perform such duties as may be prescribed by law and as may be delegated to him by the governor." Under this provision, I am delegating the following:

1. Lt. Governor as liaison to Arctic Council and Arctic Research Commission
This delegation of authority related to these organizations is not meant as a broad delegation of authority in every Arctic policy area, but rather my delegation to have you represent the State of Alaska before these organizations. As before, I believe that the DC staff can provide the support you need related to these two organizations.

2. Lt. Governor leadership regarding sea floor mapping and boundary dispute
Please work closely with the DC office and appropriate commissioners (or their direct designees) to instigate action at the federal level with respect to sea floor mapping and resolution of the boundary dispute with Canada. While these matters are essentially federal responsibilities, a proactive role by Alaska would inure to the benefit of our state and the nation.

Finally, I would ask that neither my name nor the office entrusted to me be used by you or the Office of the Lieutenant Governor to direct agency, boards or commission personnel. Commissioners have expressed concern over not knowing something is being requested of their lower level staff by you and your office staff. Additionally, you and I have discussed the concern and confusion generated by you attempting to direct agency work. I need to assure that Commissioners are in the communication loop and that they direct work in the agencies, boards and commissions. Consequently, I am asking that you contact the Commissioner of an agency or the Commissioner's designee for information requests, meeting requests, or other agency contact related to Office of the Lt. Governor's work. Of

course, the Lt. Governor's staff can also contact the Commissioner's designee in your stead. I will have Mike Nizich communicate a list of such contacts.

Adjustments are inevitable as circumstances change. Yet, I remain committed to working with you in the best interests of Alaska.

Regards,

Sean Parnell
Governor

cc: Cabinet Members
David Stone, Chief of Staff, Office of the Lt. Governor
Michelle Toohey, Acting Chief of Staff, Office of the Lt. Governor

ALASKA STATE LEGISLATURE

Senate District N
Anchorage Hillside, Indian, Bird, Girdwood, Hope, Cooper Landing, Sterling, Nikiski, Moose Pass, Bear Creek, Seward

State Capitol, Room 427
Juneau AK 99801-1182
907-465-4843
Fax: 907-465-3871
800-892-4843

Senator Cathy Giessel

MEMORANDUM

DATE: Wednesday, March 27, 2013

TO: Representative Bob Herron

FROM: Senator Cathy Giessel

RE: Response to comments on SJR 10 "Arctic: Policy, USCG, Arctic Council"

We appreciate Nils Andreassen taking the time to read Senate Joint Resolution 10 and offer his comments on this very important issue. We hope the following information can help clear up any misunderstanding with SJR 10

1. In his letter, Mr. Andreassen states, "Russia didn't plant a flag - it was a publicity stunt paid for by a private entrepreneur. So not technically the Russian government."

   There is no dispute that the act of planting the flag was a ceremonial event aimed at garnering publicity and had the equivalent legal bearing to the U.S. planting an American flag on the moon. The resolution does not attempt to assert that it is a legal declaration.

   Inside the first of the two mini-submarines that reached the floor were two members of Russia's lower house of Parliament, one of which was the leader of the expedition, Artur N. Chilingarov. The expedition was part of a larger Russian scientific endeavor to provide further evidence to substantiate Russia's claim that the Lomonosov Ridge under the Arctic Ocean is an extension of Russia's continental shelf.

   The expedition members received a call from Russian President Vladimir Putin thanking them. Sergey V. Lavrov, the Russian foreign minister stated "The goal of this expedition is not to stake out Russia's rights, but to prove that our shelf stretches up to the North Pole."[1]

   The inclusion of this information was to help illustrate the degree of interest the Russian government has placed in the Arctic. Though imprecise by using the term Russian

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[1] C.J. Chivers, "Russians Plant Flag on the Arctic Seabed," *New York Times*, August 3, 2007, Accessed March 3, 2013, http://www.nytimes.com/2007/08/03/world/europe/03arctic.html?_r=0

Federation since the expedition was not government directed, the expedition was led by a citizen of the Russian Federation to help further Russian Federation goals (the Lomonosov Ridge claims) and received praise from Russian Federation officials.

2. Mr. Andreassen correctly points out that Russia has submitted its claim to areas in the Arctic under the UN Convention of the Law of the Seas Treaty (UNCLOS), that other Arctic nations have also submitted claims under UNCLOS, and that the United States Senate, under its Constitutional powers, has not ratified the treaty and thus the United States has not submitted any similar extended continental shelf claims.

   These facts are not disputed in the Resolution. The statement about Russia's claim was added to further demonstrate how Russia has taken an assertive role in the Arctic, one that we believe the U.S. should also take. Because the Russian claim is the largest and Russia has taken such a vocally and demonstratively assertive position on international Arctic policy, we did not believe explaining the claim activities of the other Arctic states was essential to articulate that point.

3. Mr. Andreassen is correct when he states that signers of the UN Convention of the Law of the Seas submit their claims to the Commission on the Limits of the Continental Shelf. However, this commission is an organization created under Annex II of the UN Convention of the Law of the Seas.

4. We appreciate Mr. Andreassen pointing out that data collection for the mapping of the extended continental shelf (ECS) has been completed. According to the U.S. State Department, work requiring icebreakers for ascertaining the extent of the U.S. extended continental shelf has been finished. While other mapping projects (such as the creation of nautical charts for safe navigation) are still needed, ECS mapping data collection requiring icebreakers has been completed

   This information should be updated in the final resolution. The point was added to emphasize the importance of icebreakers (which were necessary to conduct the ECS mapping). Fortunately, the other imperatives of the U.S. to construct more icebreakers are also in the resolution and the removal of this point by no means reduces their importance. Furthermore, statements about the mapping, though completed, underscore the variety of roles these vessels play in, among other ways, scientific research.

5. Mr. Andreassen asserts that the Arctic Council holds policy-relevant discussions, not political.

   We believe that the statements in our resolution are accurate because they reflect the description given on the Frequently Asked Questions page of the Arctic Council website which states (emphasis added):

   > "The Arctic Council is a high-level forum for *political discussions* on common issues to the governments of the Arctic States and its inhabitants. The Arctic Council is the only circumpolar forum for *political discussions* on Arctic issues,

involving all the Arctic states, and with the active participation of its Indigenous Peoples."[2]

6. Mr. Andreassen correctly states that there is a territorial representative as part of Canada's delegation though was not sure of their official capacity. Our correspondence with Canada has confirmed these individuals do have an official capacity and participate actively in Canadian Arctic Council affairs.

   "Each of the three territories (Nunavut, Yukon, and Northwest Territories) regularly send one senior official as the representative to serve as a member of the Canadian delegation to every SAO and Ministerial meeting," reports Jenny Trapnell, the Yukon Territory's Intergovernmental Relations Officer for Circumpolar Relations in an email to our office. "On rare occasions we have been invited to sit at the table with the SAO when discussions of territorial interest or increasing jurisdiction (sustainable development, for example) are discussed. We usually sit directly behind the SAO in the delegation space. We are briefed and debriefed as full members of the delegation, and we pay our own way (travel expenses)."

   Ms. Trapnell says the Yukon tries to participate in Arctic Council working groups as appropriate.

   Ms. Trapnell also states that in Canada, while there is no set protocol about Federal invites, typically "these are sent from the federal minister to our premier for each Ministerial meeting delegation (meetings every two years); invitations to territorial officials to join the SAO meeting delegations and sometimes the Working Group meetings have been provided on an informal basis."

   Sigrid Anna Johnson, the Arctic Council Senior Arctic Official for Canada stated in an email to our office, "Since the inception of the Arctic Council, Canada has invited the three Territorial governments (Yukon, Nunavut and the Northwest Territories) to participate in Arctic Council Ministerial, Senior Arctic Officials' and Working Group meetings, as members of the Canadian delegation. The decision to participate is left to each territorial government. Each territory is responsible for all costs related to their participation."

   Furthermore, Ms. Johnson states that because of the importance the Canadian government places on the views of their citizens who live in the Arctic on Arctic matters, the Canadian federal government has a consultative mechanism called the Arctic Council Advisor Committee to ensure "that territorial government and indigenous peoples' views are considered in Canadian positions tabled at the Arctic Council."

   The reference to Canada's Arctic Council delegation was added to provide perspective on how another Arctic state and our closest ally in Arctic affairs, Canada, allows participation of its subnational governments.

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[2] Arctic Council. Frequently Asked Questions, http://www.arctic-council.org/index.php/en/about/press-room/152-faqs

7. Mr. Andreassen states that Alaska is always invited to participate as part of the official U.S. delegation. "The governor sends his representative to participate - this has included Stefanie Moreland, Mark Robbins, and Lt. Gov. Mead Treadwell. Participation is resource- and time-dependent and so Alaska is not represented at every meeting, nor do we have designees to all the working groups, but we do have active participation at some levels."

   Our resolution seeks a designated position, recognized federally, on the U.S.'s Arctic Council delegation. Julia Gourley, the United States' Arctic Council Senior Arctic Official (SAO) and head of the U.S.'s Arctic Council delegation, stated in an email to our office that on the occasions that Senator Lisa Murkowski and Lt. Governor Mead Treadwell attended Arctic Council meetings it was by approaching her office.

   If the provision is adopted, the U.S.'s delegation to Arctic Council meetings would always include participation from Alaska as a designated position, appointed by Alaska's governor. The State Department would request that an Alaskan governmental representative be present at any meetings of the Arctic Council since all Arctic issues that are relevant to the United States are, by virtue of its location, relevant to Alaska.

8. Mr. Andreassen states that he thinks that funding for icebreakers was included in the Coast Guard reauthorization bill last year.

   During the 112th Congress, HB 2838 "Coast Guard and Maritime Transportation Act of 2012" was signed into law on December 20, 2012 as PL 112-213. It did not specifically authorize icebreaker construction. What did make it into the final version of the bill was a Congressional directive of the Coast Guard to conduct a "business case analysis of the options for and costs of reactivating and extending the service life of the Polar Sea" (Title II, Section 222). However, statements by the Coast Guard Commandant Adm. Papp indicate that reactivation of the Polar Sea would be cost prohibitive.[3]

   Authorizations are not the same as appropriations. Through a separate action, an appropriation of $8 million for FY2013 was made by Congress to initiate survey and design activities for a new Coast Guard icebreaker. However, since the appropriations are annual and the Coast Guard is planning to incrementally fund the project through completion, future appropriations will need to go through Congress each year until the vessel is completed.

   Federal budget sequestration may also adversely impact the decision of the U.S. Coast Guard to operate in the Arctic. Our resolution asks for Congress to provide the U.S. Coast Guard with sufficient funding to expand its Arctic operations, retrofit the existing icebreaker fleet and build new icebreakers and we feel this is a salient request in light of the U.S.'s Arctic interests.

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[3] Coast Guard Polar Icebreaker Modernization: Background and Issues for Congress (RL34391;Dec. 21, 2012), by Ronald O'Rourke. Text in ProQuest® Congressional Research Digital Collection; Accessed: March 4, 2013. Page 18

9. Mr. Andreassen states that "Including military means may be problematic, as it is stated policy of the U.S. that this is a conflict-free zone"

The resolution urges that the U.S. assert its interests through, among other means, military means. This is consistent with National Security Presidential Directive (NSPD) 66. Under section III "Policy," part A it states "It is the policy of the United States to: Meet national security and homeland security needs relevant to the Arctic region." in part B, subsection 6 "Implementation," it states:

> In carrying out this policy as it relates to national security and homeland security interests in the Arctic, the Secretaries of State, Defense, and Homeland Security, in coordination with heads of other relevant executive departments and agencies, shall:
> a. Develop greater capabilities and capacity, as necessary, to protect United States air, land, and sea borders in the Arctic region;
> b. Increase Arctic maritime domain awareness in order to protect maritime commerce, critical infrastructure, and key resources;
> c. Preserve the global mobility of United States military and civilian vessels and aircraft throughout the Arctic region;
> d. Project a sovereign United States maritime presence in the Arctic in support of essential United States interests; and
> e. Encourage the peaceful resolution of disputes in the Arctic region.

Fortunately, there is no armed conflict in the Arctic and present disagreements with our Arctic neighbors are being addressed through diplomatic means. However, we believe that military preparedness in the Arctic is essential to protecting our national sovereignty.

Representative Bob Herron

Rep.Bob.Herron@akleg.gov

State Capitol • Juneau, Alaska 99801-1182
Phone: (907) 465-4942 • Fax: (907) 465-4589

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Chignik
Chignik Lagoon
Chignik Lake
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Eek
Egegik
False Pass
Goodnews Bay
Ivanof Bay
King Cove
Mekoryuk
Nelson Lagoon
Nikolski
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Pilot Point
Platinum
Port Heiden
Portage Creek
Quinhagak
Sand Point
St. George
St. Paul
Togiak
Twin Hills
Ugashik
Unalaska

MEMORANDUM

DATE: March 11, 2013

TO: Senator Cathy Giessel

FROM: Representative Bob Herron

SUBJ.: SJR 10, ARCTIC: POLICY, USCG, ARCTIC COUNCIL

Thank you for introducing SJR 10 - I greatly appreciate the promotion of the ideas in this resolution. I did have some comments on the resolution I'm hoping you would consider.

Regarding page 2, lines 5-6: The Russian government didn't plant a flag on the Arctic Ocean floor - it was a publicity stunt paid for by a private entrepreneur.

Also, countries do not submit their claims to the Convention, but to the Commission on the Limits of the Continental Shelf.

Note regarding , "guiding international arctic policy through… military means" in the last Resolved: the stated policy of the U.S. is that the Arctic is a conflict-free zone.

Canada's Arctic Council chairmanship 2013-2015 Priorities

Address by Minister Aglukkaq at Arctic Frontiers Conference

January 21, 2013 - Tromsø, Norway

Check Against Delivery

I am delighted to speak about Canada's upcoming tenure as chair of the Arctic Council, but I want to start by sharing a little about my history.

In October 2008, I was elected to serve as the member of Parliament for Canada's northern territory of Nunavut. Nunavut is made up of 25 remote communities, each accessible only by air or water.

To put this in a different perspective, Nunavut is a land mass as big as Western Europe and covers three time zones.

I was raised in the remote community of Gjoa Haven or, as Norwegians would pronounce it, "Yo-wa Haa-ven." I will touch on the significance of this in a moment.

In August of last year, Prime Minister [Stephen] Harper appointed me Canada's minister for the Arctic Council.

This is notable for two reasons.

First, the appointment of a dedicated minister for the Arctic Council is a first for Canada. It reflects the importance that our government attaches to the North, to the Arctic Council and to our chairmanship of the council from 2013 to 2015.

Secondly, the appointment of someone who was born and raised in the Arctic to this newly created role reflects the importance placed upon the special knowledge and experience that people of the North can bring to the table.

It's safe to say that people who live in the Arctic are experts in what it takes to survive and thrive in the region. Of course, I've just recently learned that we aren't the only ones who felt this way.

I travelled to Oslo for the first time a couple of days ago and had the opportunity to visit the Fram Museum and the Museum of Cultural History at the University of Oslo.

This was very special for me. I was thrilled to look upon the faces of my ancestors in the wonderful photos taken by a very famous Norwegian—whom I'm sure some of you may know of—Roald Amundsen.

As I mentioned earlier, I grew up in the small Arctic community of Gjoa Haven. My family still lives there, and I still call it home.

Roald Amundsen was the first person to navigate the Northwest Passage, from 1903 to 1906.

Unfortunately, his small ship, the *Gjøa*, became trapped in the ice off King William Island, in a remote area now called Gjoa Haven. He and his small crew spent two winters there.

During that time, Amundsen developed a close relationship with the Inuit, who taught him and his crew how to survive in the harsh climate and conditions of the Arctic. They passed on the expert skills needed for everyday survival that they had learned from the generations before them.

In December of 1911, Amundsen and his crew reached the South Pole, and he stressed that the

knowledge he had gained from the Netsilik Inuit of Gjoa Haven had been absolutely crucial to his success.

The traditional knowledge and expertise of the people living in the Arctic was crucial to Amundsen's success in discovering a new frontier. And I believe it will also be the key to the future success of the Arctic Council.

The quickly changing state of the Arctic region will present a new frontier for all of us in the next few years. We will be faced with challenges and opportunities—some will be positive, some perhaps not.

But if we are to successfully navigate the future of the Arctic, we must build a bridge between the traditional knowledge of the people who live there and the new realities of the present.

For instance, I know how important it is to the Inuit of Canada that Inuit *quayimayatuqangit*, or "traditional knowledge," be included in scientific research and policy making.

With this in mind, my first priority as Canada's minister for the Arctic Council was to have a conversation with Northern Canadians about what our chairmanship priorities could be.

Last fall, I met with premiers, elected officials, Aboriginal leaders, Permanent Participants [of the Arctic Council], business people and researchers in Canada's three northern territories—Nunavut, the Northwest Territories and Yukon.

And now, I am completing a tour of our Arctic Council partners, which I began in December with a visit to Stockholm.

This past week included visits to Reykjavik, Copenhagen, Helsinki, Oslo and now Tromsø [Norway], my last stop.

Discussions with my counterparts, members of the business community and representatives of the Sami have been very productive and informative.

These discussions have underlined the challenges and opportunities ahead, as well as how much our countries have in common.

I heard a clear message during all of my domestic and international consultations: the well-being and prosperity of people living in the North must be at the forefront of Canada's Arctic Council priorities.

Canada's chairmanship of the Arctic Council

That is why I'm excited to tell you that the overarching theme of our tenure as chair of the council will be Development for the People of the North.

With the help of our Arctic Council partners, we will focus on creating economic growth, strong and sustainable Northern communities and healthy ecosystems.

Canada will propose three sub-themes to guide our work.

The first is Responsible Arctic Resource Development.

The development of natural resources is important to the economic future of the Arctic and to the long-term prosperity of its people.

As I said when I represented Canada at the Nuuk [Greenland] ministerial meeting [of the Arctic Council] in May 2011, the potential for wealth and job creation through resource development in the Arctic is great.

Canada is determined to see Northern communities benefit from the economic boom that is unfolding

in the region.

However, this development must be done in a responsible and environmentally sustainable manner so that the land, water and animals that many Northern people still depend upon are not negatively impacted. And we believe that the council must play a strong role in ensuring that this goal is achieved.

Canada will continue the work begun during Sweden's tenure as chair of the Arctic Council to enhance the relationship between the business sector and the council.

Businesses in the Arctic have experience, including lessons learned and best practices, in many areas important to the circumpolar region.

Canada will work with its Arctic Council partners to find more opportunities for the business sector to engage with the council in order to share best practices and lessons learned in the circumpolar region.

Safe Arctic Shipping is our second sub-theme.

Canada will continue the council's work on oil-spill prevention in the Arctic. This is essential.

An oil spill from one of the many ships that will soon be crossing Arctic waterways as the shipping season becomes longer could have serious consequences for the environment and the livelihoods of Northern people.

Canada foresees the development of guidelines for Arctic tourism and cruise ship operators. This work will support the new Arctic search and rescue agreement [Agreement on Cooperation in Aeronautical and Maritime Search and Rescue in the Arctic] signed by all Arctic Council states in Greenland in 2011.

The third and final sub-theme is Sustainable Circumpolar Communities.

My family, friends and all Northerners are facing new challenges as a result of the impact of climate change.

It is critical that the council help people adapt to these changes, including by sharing best practices. We must also explore together how best to advance work on short-lived climate forcing agents, like black carbon. These agents come from industrial centres far from Northern communities but have significant impacts on Northern lifestyles.

Conclusion

In its first 16 years, the Arctic Council has done very important scientific work and shaped global policy on key issues, such as mercury.

Canada will continue this work.

But now we must make sure that we apply the findings of that research in a practical way that will help improve the well-being and prosperity of people living in the Arctic.

During my visit to the Fram Museum on Saturday, I learned about the innovation that went into the design of [Norwegian explorer Fridjot] Nansen's impressive ship.

I also learned that the name of Nansen's ship, *Fram*, means "forward," which is fitting for a ship that was designed to deal with the harsh challenges of sailing Arctic waters—and to go farther north than anyone had gone before.

It is in this spirit that I envision the Arctic Council moving forward.

The Arctic region will be facing not only a time of change and challenge, but also a time of great opportunity.

If we combine the knowledge of the people who have lived in the North for generations with what we have learned through innovative research and technology, we can move forward successfully.

Of this, I have no doubt.

And we must move forward together, in a unified way, with the eight Arctic Council countries and the six Permanent Participant organizations all at the table.

In closing, I wish you a successful conference.

We have much to learn from each other and I appreciate this opportunity to share some of my thoughts with you.

Thank you.

Date Modified: 2013-01-23

"The Arctic Council
is a high-level intergovernmental forum
to promote cooperation, coordination and interaction
among the Arctic States." Read more>>

History

Category: History Published Date

Establishment of the Arctic Council

In 1996, the Ottawa Declaration formally established the Arctic Council as a high-level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues; in particular, issues of sustainable development and environmental protection in the Arctic.

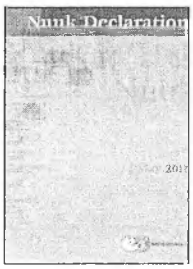
Arctic Council Chairmanship

The Chairmanship of the Arctic Council rotates every two years between the eight member states.

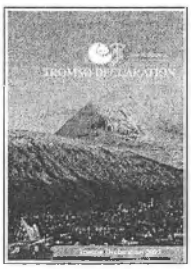
- Canada: Inauguration of Arctic Council - 1998 (Ministerial Meeting held in Iqaluit, Canada 1998)
- United States of America: 1998 - 2000 (Ministerial Meeting held in Barrow, Alaska 2000)
- Finland: 2000-2002 (Ministerial Meeting held in Inari, Finland 2002)
- Iceland: 2002-2004 (Ministerial Meeting held in Reykjavik, Iceland 2004)
- Russian Federation: 2004-2006 (Ministerial Meeting held in Salekhard, Russian Federation, 2006)
- Norway: 2006-March 2009 (Ministerial Meeting held in Tromsø, Norway 2009)
- Denmark: 2009-2011 (Ministerial Meeting held in Nuuk, Greenland 2011)
- Sweden: 2011-2013 (Assumed AC Chairmanship on 12 May 2011)

Local menu

Member States
Chairmanship
Permanent Participants
Working Groups
ACAP
ACAP Documents and Reports
ACAP PSGs
Obsolete Pesticides
Mercury
PCBs
Integrated Hazardous Wastes
Dioxines/Furans
IPCAP
BFRs (closed)
SLCFC
Task Forces
Expert Groups
Observers
History
Contact Us
Available positions

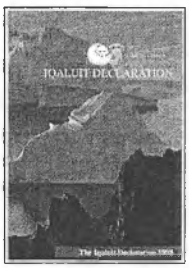


Nuuk Declaration (2011)

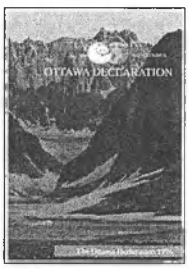


Tromsø Declaration (2009)

Salekhard Declaration (2006)



Iqualuit Declaration (1998)



Ottawa Declaration (1996)

Reykjavik Declaration (2004) Inari Declaration (2002) Barrow Declaration (2000)

Forerunner to the Arctic Council

Arctic Environmental Protection Strategy

In September 1989, on the initiative of the government of Finland, officials from the eight Arctic countries met in Rovaniemi, Finland to discuss cooperative measures to protect the Arctic environment. They agreed to work towards a meeting of circumpolar Ministers responsible for Arctic environmental issues. The September 1989 meeting was followed by preparatory meetings in Yellowknife, Canada in April 1990; Kiruna, Sweden in January 1991; and, Rovaniemi, Finland in June 1991.

In addition to the numerous technical and scientific reports prepared under this initiative, the Arctic Environmental Protection Strategy was developed. This Strategy represents the culmination of the cooperative efforts of the eight Arctic countries: Canada, Denmark, Finland, Iceland, Norway, Sweden, Union of Soviet Socialist Republics, United States of America.

The eight Arctic countries were assisted in the preparation of the Strategy by the following observers: Inuit Circumpolar Conference, Nordic Saami Council, USSR Association of Small Peoples of the North, Federal Republic of Germany, Poland, United Kingdom, United Nations Economic Commission for Europe, United Nations Environment Program, and the International Arctic Science Committee.

Aeronatical and Maritime Search and Rescue (SAR) Agreement

In addition to the Nuuk Declaration, an Aeronautical and Maritime Search and Rescue (SAR) agreement was signed at the Nuuk Ministerial (12 May 2011). The SAR agreement is ground-breaking in the annals of the Arctic Council, as it is the first legally-binding agreement negotiated under the auspices of the Arctic Council.

Tags:

You are here: Home ▸ About us ▸ History Top

Arctic Council Chairmanship Secretariat 2007-2013
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"The Arctic Council
is a high-level intergovernmental forum
to promote cooperation, coordination and interaction
among the Arctic States." Read more>>

Frequently Asked Questions

Category: Press Room Published Date

1 What is the Arctic Council?

The Arctic Council is a high-level forum for political discussions on common issues to the governments of the Arctic States and its inhabitants. The Arctic Council is the only circumpolar forum for political discussions on Arctic issues, involving all the Arctic states, and with the active participation of its Indigenous Peoples.

2 How and when was the Arctic Council established?

In September 1989, on the initiative of the government of Finland, officials from the eight Arctic countries met in Rovaniemi, Finland, to discuss cooperative measures to protect the Arctic environment. The initiative resulted in numerous technical and scientific reports being prepared, culminating in the Arctic Environmental Protection Strategy (June 1991) - a declaration on the protection of Arctic environment. Through this cooperation the Arctic Council formed with the signing of the Ottawa Declaration on 19 September 1996 in Ottawa, Canada.

3 Who are the partners of the Arctic Council?

The Governments of the eight member states (see question 5), the Permanent Participants (PPs), the Working Groups and the Observers.

4 Which countries are members of the Arctic Council?

The Arctic council member states are

- Canada
- Denmark (including Greenland and the Faroe Islands)
- Finland
- Iceland
- Norway
- Sweden
- Russian Federation
- United States of America

5 What is a SAO?

The SAO, or Senior Arctic Official, is appointed by an Arctic state to manage its interests in the Arctic Council. The SAO is thus a government representative, usually from a member states' Ministry of Foreign Affairs. The SAO guides and monitors Arctic Council activities in accordance with the decisions and instructions of the Arctic Council Foreign Ministers.

6 Who are the Permanent Participants (PPs)?

Permanent Participants is a common term for organizations that represent indigenous peoples in the Arctic Council; either by representing a) a single Indigenous People resident in more than one Arctic State; or, b) more than one Arctic Indigenous People resident in a single Arctic State. The PPs participate actively and are fully consulted in all deliberations and activities of the Arctic Council. The Indigenous Peoples Secretariat (IPS) in Copenhagen, Denmark, serves the six Permanent Participant organizations:

- Aleut International Association (AIA)
- Arctic Athabaskan Council (AAC)
- Gwich'in Council International (GCI)
- Inuit Circumpolar Council (ICC)
- Russian Association of Indigenous Peoples of the North, Siberia and Far East (RAIPON)
- Saami Council (SC)

7 What is a Chairmanship?

A Chairmanship of the Arctic Council is the term used for any of the eight Arctic States leading the Arctic Council during a specified time. The chairmanship rotates every two years among the eight Arctic States. Denmark chairs from 2009-2011, Sweden from May 2011-2013. The Chairmanship, assisted by AC Secretariat staff, is responsible for arranging and hosting the Arctic Council meetings during its period.

8 Who are the AC working groups, and what do they do?

The six Arctic Council working groups engage in scientific-oriented studies on issues concerning the Arctic environment and its inhabitants. These include: monitoring, assessing and preventing pollution in the Arctic, climate change, biodiversity conservation and sustainable use, emergency preparedness and prevention; as well as, living conditions of Arctic residents, studies on oil and gas and on Arctic shipping. The reports provide advice and recommendations to the Arctic Council. Click to read more about each working group, its work and publications:

- Arctic Contaminants Action Program (ACAP)
- Arctic Monitoring and Assessment Programme (AMAP)
- Conservation of Arctic Flora and Fauna (CAFF)
- Emergency Prevention, Preparedness and Response (EPPR)
- Protection of the Arctic Marine Environment (PAME)
- Sustainable Development Working Group (SDWG)

9 What does the Arctic Council do?

The Arctic Council is the only circumpolar forum for political discussions on Arctic issues, involving all the Arctic states and with the participation of its Indigenous Peoples. The Arctic Council Working Groups engage in issues such as monitoring, assessing and preventing pollution in the Arctic, climate change, biodiversity conservation and sustainable use, emergency preparedness and prevention, as well as living conditions of Arctic residents etc. The scientific reports provide knowledge, advice and recommendations to the Arctic Council. Senior Arctic Officials and PPs meet at least twice a year, while all partners meet at Ministerial Meetings held every two years in the country holding the Chairmanship. With the increasing international focus on climate change and Arctic issues, the political importance of the Arctic Council has also increased. All Arctic Council decisions require consensus.

10 Who are the Observers?

Under certain conditions, Observer status in the Arctic Council is open to:

a) Non-arctic states (currently 6); (there you will also find contact details of the national representatives)
b) inter-governmental and inter-parliamentary organizations, global and regional (currently 9);
c) non-governmental organizations (currently 11).

11 Does the Arctic Council sponsor projects?

All contributions to the work of the Arctic Council is on a voluntary, project by project basis and is largely provided in the form of people, expertise, scientific data and/or financial resources to implement specific projects in the Working Groups. Thus, the Arctic Council does not sponsor private/university/research projects.

12 How is the Arctic Council connected to the Indigenous Peoples Secretariat?

The Indigenous Peoples Secretariat (IPS) supports the Indigenous Peoples' organizations that are Permanent Participants of the Arctic Council.

13 What is the role of the Arctic Council Secretariat (ASC)

The Arctic Council Secretariat is an administrative office that works under the direction of the Arctic Council Chairmanship. The Secretariat manages logistics related to the biennial member states' meetings and the more frequent SAO meetings. The Secretariat, temporarily located at the Fram Centre in Tromsø, Norway, is also responsible for maintaining the Arctic Council website.

14 Are there employment opportunities at the Arctic Council Secretariat?

When relevant, the Secretariat posts available vacancies on the Arctic Council website.

15 Can I get an internship within the Arctic Council Secretariat?

It is possible to get an internship lasting from two to six months. The ASC gives priority to students from the Arctic states enrolled in a Master's Arctic-related program or other relevant programs. High proficiency in English is a must. Open positions for interns will be announced on the AC website.

16 Where can I find a specific document? Ex. The Tromsø Declaration.

Using the search field titled "Search all of arctic-council.org" in the upper, right corner of the homepage, you can search for any document, report, declaration either by title, place, date, SAO or other suitable search criteria.

17 Where can I find more information about a specific country or region?

Under each member state you can find information and additional links to the country in question. Find out more about the member states.

18 Ministerial meetings

The Arctic Council Ministerial meetings take place biennially and mark the transition from one chairmanship to the next. In addition, Deputy Ministers' meetings have been held biennially by the Danish and Swedish chairmanships in 2010 and 2012.

The next Ministerial Meeting will be held 15 May 2013 in Kiruna, Sweden.

List of past Ministerial Meetings:

- 15 May 2012
  Deputy Ministers' Meeting, Stockholm, Sweden.
- 12 May 2011
  Ministerial Meeting, Nuuk, Greenland.
- 27 May 2010
  Deputy Ministers' Meeting, Copenhagen, Denmark.
- 29 April 2009
  Ministerial Meeting, Tromsø, Norway.
- 26 October 2006
  Ministerial Meeting, Salekhard, Russian Federation.
- 24 November 2004
  Ministerial Meeting, Reykjavik, Iceland.
- 10 October 2002
  Ministerial Meeting, Inari, Finland.
- 13 October 2000
  Ministerial Meeting, Barrow, Alaska, USA.
- 17-18 September 1998
  Ministerial Meeting, Iqaluit, Canada.

Tags:

Top

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PROCLAMATION 2667 OF SEPTEMBER 28, 1945
POLICY OF THE UNITED STATES WITH RESPECT TO THE NATURAL RESOURCES OF THE SUBSOIL AND SEA BED OF THE CONTINENTAL SHELF

Acronym: **Truman Proclamation**

Citation: **10 Fed. Reg. 12,305 (1945).**
Codified as Executive Order 9633 of September 28, 1945.

Executive Purpose:
The Proclamation and Order extend U.S. jurisdiction over the submerged lands and subsoil of the Outer Continental Shelf.

Summary:
The Truman Proclamation extends the U.S. claim to submerged lands and offshore resources of the Outer Continental Shelf (OCS) in the interest of conservation and prudent development of the natural resources of the seabed. For administrative purposes, it places the natural resources of the subsoil and sea bed of the continental shelf under the control of the Secretary of the Interior. When the continental shelf extends to waters that are controlled by another state, the boundaries of the jurisdiction and control are to be negotiated and settled between the United States and the other state.

The Truman Proclamation was codified by the Outer Continental Shelf Lands Act (OCSLA) which affirmed the United States' exclusive jurisdiction over its continental shelf resources and created authority for the Department of the Interior to encourage discover and development of oil through a leasing program. The Proclamation specifically retains the right to free and unimpeded navigation on the high seas of the waters above the continental shelf.

This proclamation was issued at the same time as Proclamation 2668 entitled the "Policy of the United States with Respect to Coastal Fisheries in Certain Areas of the High Seas" and they are often referred to together as the "Truman Proclamations." Although the development of the proclamations and Executive Order substantially occurred under President Roosevelt, it was issued under President Truman and is known under his name.

FEDERAL REGISTER
Title 3 - The President
64 Fed. Reg. 48,701

Proclamation 2667 of September 28, 1945
Continental Shelf of United States
September 28, 1945

A Proclamation

Policy of the United States with Respect to the National Resources of the Subsoil and Sea Bed of the Continental Shelf

WHEREAS the Government of the United States of America, aware of the long range world-wide need for new sources of petroleum and other minerals holds the view that efforts to discover and make available new supplies of these resources should be encouraged; and

WHEREAS its competent experts are of the opinion that such resources underlie many parts of the continental shelf off the coasts of the United States of America, and the with modern technological progress their utilization is already practicable or will become so at an early date and;

WHEREAS recognized jurisdiction over these resources is required in the interest of their conservation and prudent utilization when and as development is undertaken; and

WHEREAS it is the view of the Government of the United States that the exercise of jurisdiction over the natural resources of the subsoil and sea bed of the continental shelf by the contiguous nation is reasonable and just, since the effectiveness of measures to utilize or conserve these resources would be contingent upon cooperation and protection from the shore, since the continental shelf may be regarded as an extension of the land-mass of the coastal nation and thus naturally appurtenant to it, since these resources frequently form a seaward extension of a pool or deposit lying within the territory, and since self-protection compels the coastal nation to keep close watch over activities off its shores which are of the nature necessary for utilization of these resources;

NOW THEREFORE. I, HARRY S. TRUMAN, President of the United States of America, do hereby proclaim the following policy of the United States of America with respect to the natural resources of the subsoil and sea bed of the continental shelf.

Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States, subject to jurisdiction and control. In cases where the continental shelf extends to the shores of another State, or is shared with an adjacent State, the boundary shall be determined by the United States and the Sate concerned in accordance with equitable principles. The character as high seas of the waters above the continental shelf and the right to their free and unimpeded navigation are in no way thus affected.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States of America to be affixed.

DONE at the City of Washington this 28th day of September, in the year of our Lord nineteen hundred and

forty-five, and of the Independence of the United States of America the one hundred and seventieth.

HARRY S. TRUMAN

139 UNCLOS ANNEX II

ANNEX I. HIGHLY MIGRATORY SPECIES

1. Albacore tuna: *Thunnus alalunga*.
2. Bluefin tuna: *Thunnus thynnus*.
3. Bigeye tuna: *Thunnus obesus*.
4. Skipjack tuna: *Katsuwonus pelamis*.
5. Yellowfin tuna: *Thunnus albacares*.
6. Blackfin tuna: *Thunnus atlanticus*.
7. Little tuna: *Euthynnus alletteratus*; *Euthynnus affinis*.
8. Southern bluefin tuna: *Thunnus maccoyii*.
9. Frigate mackerel: *Auxis thazard*; *Auxis rochei*.
10. Pomfrets: Family *Bramidae*.
11. Marlins: *Tetrapturus angustirostris*; *Tetrapturus belone*; *Tetrapturus pfluegeri*; *Tetrapturus albidus*; *Tetrapturus audax*; *Tetrapturus georgei*; *Makaira mazara*; *Makaira indica*; *Makaira nigricans*.
12. Sail-fishes: *Istiophorus platypterus*; *Istiophorus albicans*.
13. Swordfish: *Xiphias gladius*.
14. Sauries: *Scomberesox saurus*; *Cololabis saira*; *Cololabis adocetus*; *Scomberesox saurus scombroides*.
15. Dolphin: *Coryphaena hippurus*; *Coryphaena equiselis*.
16. Oceanic sharks: *Hexanchus griseus*; *Cetorhinus maximus*; Family *Alopiidae*; *Rhincodon typus*; Family *Carcharhinidae*; Family *Sphyrnidae*; Family *Isurida*.
17. Cetaceans: Family *Physeteridae*; Family *Balaenopteridae*; Family *Balaenidae*; Family *Eschrichtiidae*; Family *Monodontidae*; Family *Ziphiidae*; Family *Delphinidae*.

ANNEX II. COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF

Article 1

In accordance with the provisions of article 76, a Commission on the Limits of the Continental Shelf beyond 200 nautical miles shall be established in conformity with the following articles.

Article 2

1. The Commission shall consist of 21 members who shall be experts in the field of geology, geophysics or hydrography, elected by States Parties to this Convention from among their nationals, having due regard to the need to ensure equitable geographical representation, who shall serve in their personal capacities.

2. The initial election shall be held as soon as possible but in any case within 18 months after the date of entry into force of this Convention. At least three months before the date of each election, the Secretary-General of the United Nations shall address a letter to the States Parties, inviting the submission of nominations, after appropriate regional consultations, within three months. The Secretary-General shall prepare a list in alphabetical order of all persons thus nominated and shall submit it to all the States Parties.

3. Elections of the members of the Commission shall be held at a meeting of States Parties convened by the Secretary-General at United

Nations Headquarters. At that meeting, for which two thirds of the States Parties shall constitute a quorum, the persons elected to the Commission shall be those nominees who obtain a two-thirds majority of the votes of the representatives of States Parties present and voting. Not less than three members shall be elected from each geographical region.

4. The members of the Commission shall be elected for a term of five years. They shall be eligible for re-election.

5. The State Party which submitted the nomination of a member of the Commission shall defray the expenses of that member while in performance of Commission duties. The coastal State concerned shall defray the expenses incurred in respect of the advice referred to in article 3, paragraph 1(b), of this Annex. The secretariat of the Commission shall be provided by the Secretary-General of the United Nations.

Article 3

1. The functions of the Commission shall be:
   (a) to consider the data and other material submitted by coastal States concerning the outer limits of the continental shelf in areas where those limits extend beyond 200 nautical miles, and to make recommendations in accordance with article 76 and the Statement of Understanding adopted on 29 August 1980 by the Third United Nations Conference on the Law of the Sea;
   (b) to provide scientific and technical advice, if requested by the coastal State concerned during the preparation of the data referred to in subparagraph (a).

2. The Commission may cooperate, to the extent considered necessary and useful, with the Intergovernmental Oceanographic Commission of UNESCO, the International Hydrographic Organization and other competent international organizations with a view to exchanging scientific and technical information which might be of assistance in discharging the Commission's responsibilities.

Article 4

Where a coastal State intends to establish, in accordance with article 76, the outer limits of its continental shelf beyond 200 nautical miles, it shall submit particulars of such limits to the Commission along with supporting scientific and technical data as soon as possible but in any case within 10 years of the entry into force of this Convention for that State. The coastal State shall at the same time give the names of any Commission members who have provided it with scientific and technical advice.

Article 5

Unless the Commission decides otherwise, the Commission shall function by way of sub-commissions composed of seven members, appointed in a balanced manner taking into account the specific elements of each submission by a coastal State. Nationals of the coastal State making the submission who are members of the Commission and any Commission member who has assisted a coastal State by providing scientific and technical advice with respect to the delineation shall not be a member of the sub-commission dealing with that submission but has the right to participate

as a member in the proceedings of the Commission concerning the said submission. The coastal State which has made a submission to the Commission may send its representatives to participate in the relevant proceedings without the right to vote.

Article 6

1. The sub-commission shall submit its recommendations to the Commission.
2. Approval by the Commission of the recommendations of the sub-commission shall be by a majority of two thirds of Commission members present and voting.
3. The recommendations of the Commission shall be submitted in writing to the coastal State which made the submission and to the Secretary-General of the United Nations.

Article 7

Coastal States shall establish the outer limits of the continental shelf in conformity with the provisions of article 76, paragraph 8, and in accordance with the appropriate national procedures.

Article 8

In the case of disagreement by the coastal State with the recommendations of the Commission, the coastal State shall, within a reasonable time, make a revised or new submission to the Commission.

Article 9

The actions of the Commission shall not prejudice matters relating to delimitation of boundaries between States with opposite or adjacent coasts.

ANNEX III. BASIC CONDITIONS OF PROSPECTING, EXPLORATION AND EXPLOITATION

Article 1
Title to minerals

Title to minerals shall pass upon recovery in accordance with this Convention.

Article 2
Prospecting

1. (a) The Authority shall encourage prospecting in the Area.
   (b) Prospecting shall be conducted only after the Authority has received a satisfactory written undertaking that the proposed prospector will comply with this Convention and the relevant rules, regulations and procedures of the Authority concerning cooperation in the training programmes referred to in articles 143 and 144 and the protection of the marine environment, and will accept verification by the Authority of

The Heritage Foundation
LEADERSHIP FOR AMERICA

ISSUE BRIEF

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Arctic Security: Five Principles That Should Guide U.S. Policy

Luke Coffey

The Arctic region is home to some of the roughest terrain and harshest weather found anywhere in the world. Arctic ice is increasingly melting during the summer months, causing new challenges for the U.S. in terms of Arctic security. For example, the decreasing presence of ice will mean new shipping lanes opening, increased tourism, and further natural resource exploration.

This means that more actors than ever before will be operating in the region, and this will present both challenges and opportunities for the U.S. Consequently, the U.S. should organize its Arctic security capabilities appropriately. The decisions and investments made now will greatly impact how the U.S. handles future Arctic security challenges.

1. National Sovereignty as the Highest Priority. National sovereignty should be the cornerstone of U.S. Arctic policy. In the Arctic, sovereignty equals security and stability. Respecting the national sovereignty of others in the Arctic while maintaining the ability to enforce one's own sovereignty will ensure that the chances of armed conflict in the region remain low.

The question of sovereignty is also important in terms of defining actors in the Arctic. Only national or subnational bodies (indigenous people, for example) or purely intergovernmental organizations (such as the Arctic Council or NATO) should have a role in Arctic matters. Nevertheless, due to the possibility of shipping lanes opening, some non-Arctic countries may also have a stake, however small, in the region. For example, the Chinese have applied for Permanent Observer status in the Arctic Council. However, supranational bodies such as the European Commission should be excluded from having a formal role in Arctic matters.

2. A Focus on Situational Awareness. In many ways, the U.S. is blind in the Arctic. Anyone who has visited or operated in the Arctic will agree that situational awareness of what is happening in the region is extremely important for maintaining security there. Since the distances are vast, the terrain is harsh, and the weather is extreme, achieving situational awareness in the Arctic region is a challenge in itself.

The Arctic environment affects many capabilities that are required for good situational awareness. For example, high-frequency radio signals are degraded in latitudes above 70 degrees north due to magnetic and solar phenomena. The Global Positioning System (GPS), which is heavily relied on by both civilian and military authorities, is degraded due to poor satellite geometry. Navigation charts of some of Alaska's shipping lanes have not been properly surveyed since Captain James Cook sailed through in 1778.

The U.S.'s ability to locate, track, and identity surface vessels is limited and depends largely on collaboration with partner nations in the Arctic. Underfunding the civilian and military capabilities required to achieve good situational awareness simply makes an already bad situation worse.

3. A Comprehensive Approach to Arctic Security. In order to establish and maintain sovereignty, robust security capabilities—both military and civilian—are needed. There is a very low threat of armed conflict in the Arctic, and it is in everyone's interest to keep it that way. Currently, the biggest security challenges arise from increased shipping, for both cargo and tourists, and increased natural resource exploration resulting from new possibilities created by melting ice.

The U.S. Coast Guard (USCG) has the primary responsibility for the Arctic waters of the U.S. Although the security challenges currently faced in the Arctic are not military in nature, there is still a requirement for military capability in the region that can support civilian authorities. For example, civilian search-and-rescue and natural disaster response can be augmented by the military.

Air and maritime surveillance and reconnaissance platforms operated by the military could contribute significantly to Arctic security. It is important that there is close coordination between civilian and military authorities, as both bring unique capabilities that are needed to ensure Arctic security.

4. Proper Investment. Currently, the USCG is not properly funded to carry out the tasks that are required to keep America's Arctic region secure and to enforce U.S. sovereignty in the region. The USCG has plans to extend its reach in the Arctic with icebreakers, the establishment of forward-operating locations, aviation assets, and vessels hardened to withstand the harsh conditions of the region. But it is unclear whether this ambition will be met with financial resources.

For example, the funding for its new National Security Cutter has been reduced in the fiscal year 2013 presidential budget request without any explanation from the White House. From managing increased maritime traffic to providing search-and-rescue capability to increasing America's situational awareness, this platform is vital to ensuring America's sovereignty in the region.

The USCG also needs a new strategy for icebreaking capability. Considering the costs associated with building icebreakers and projected funding levels, the USCG will struggle to procure the six icebreakers that it deems necessary to adequately patrol Arctic waters. The USCG should explore options such as buying or even leasing commercial icebreakers with similar capabilities.

5. A Role for NATO. America's security interests in the Arctic extend beyond Alaska. Since four of the five Arctic littoral countries—in addition to Iceland—are also members of NATO, the alliance cannot afford to ignore the Arctic. Although NATO's 2010 Strategic Concept was praised for acknowledging new security challenges for the alliance such as cyber and energy security, Arctic security was not included. In fact, the word *Arctic* cannot be found in either the 2010 Strategic Concept or the 2012 Chicago NATO summit declaration.

As an Arctic power, the U.S. should be promoting Arctic awareness in the alliance and could start by calling for the next NATO summit in 2014 to be held above the Arctic Circle. This would bring immediate awareness of Arctic issues to the alliance.

The U.S. also needs to work closely with Canada, which has legitimate concerns regarding NATO's role in the Arctic. The U.S. should explain to its close partner why NATO could have a positive role in the region. Since NATO is an intergovernmental alliance of sovereign nation-states built on the consensus of all of its members, it has a role to play in Arctic security if it so chooses.

The U.S. Should Lead. America's security interests in the Arctic region will only increase in the years to come. As other nations devote resources and assets in the region to secure their national interests, America cannot afford to fall behind. Since the U.S. is the only littoral Arctic country not to have an Arctic strategy, the White House should lead on the development of a cross-government strategy. However, a strategy is meaningless without the resources to back it up.

*—**Luke Coffey** is the Margaret Thatcher Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation.*

This paper, in its entirety, can be found at **http://report.heritage.org/ib3700**

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Margaret Thatcher Center for Freedom

The Heritage Foundation
214 Massachusetts Avenue, NE
Washington, DC 20002
(202) 546-4400 | heritage.org

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Commentary-

Russia's Race for the Arctic

By ~~Ariel Cohen, Ph.D.~~
August 8, 2007

By planting the Russian flag on the seabed under the North Pole and claiming a sector of the Continental Shelf the size of Western Europe, Moscow generated a new source of international tension, seemingly out of the blue.

Geopolitics and geoeconomics are driving Moscow's latest moves. The potential profits are certainly compelling. Geologists believe a quarter of the world's oil and gas -- billions of barrels and trillions of cubic feet -- may be located on the Arctic Continental Shelf and possibly under the polar cap.

The Arctic, the final frontier, also harbors precious, ferrous and nonferrous metals, as well as diamonds. At today's prices, these riches may be worth hundreds of billions of dollars. And if the ice caps melt and shrink, not only will these resources will be more accessible than they are today, but a new sea route along the northern coast of Eurasia may be open to reach them.

The other side of the economic coin is political -- the exploration and exploitation of polar petroleum and other resources may be a mega-project for the 21st century -- the kind of opportunity that Russia is seeking to satisfy its ambition to become what President Vladimir Putin has termed "an energy superpower."

In 2001 Russia filed a claim to expand the continental shelf with the United Nations Commission on the Limits of the Continental Shelf under the Law of the Sea Treaty (LOST), to which it is a party. However, in 2002 the commission declared it neither accepts nor rejects the Russian claim, and demanded more study. Russia plans to resubmit the claim, and expects to get the answer by 2010.

Russia's claims are literally on thin ice. Moscow is extending its claim to the Arctic Ocean seabed based on its control of the Lomonosov Ridge and the Mendeleev Ridge, two underwater geological structures that jut into the ocean from the Russian continental shelf. However, it looks like the ridges do not extend far enough to justify Moscow's claims beyond its 200-mile economic zone, while other countries also claim control of the same area.

This latest move by Moscow is also a chilling throwback to the 1930s Stalinist attempts to conquer the Arctic during the years when the U.S.S.R. was seized by fear and hatred. Stalin and his henchmen executed "enemies of the people" by the hundreds of thousands in mock trials and in the basements of the Lubyanka secret police headquarters, or in unnamed killing sites in the woods. Those not yet arrested were forced to applaud the "heroes of the Arctic": pilots, sailors and explorers, in a macabre celebration of Stalinist tyranny.

To the regime's critics, today's expedition is a chilly reminder of the brutal era when millions of Gulag prisoners were sent to the frozen expanses to build senseless mega-projects for the power-crazy dictator.

Today's Russian rhetoric is reminiscent of the past two centuries. The leader of the Arctic expedition, Artur Chilingarov, deputy chairman of the Russian Duma, proclaimed, "The Arctic is ours and we should manifest our presence." Russia's Arctic and Antarctic Institute declared, "This is like placing a flag on the moon" -- conveniently forgetting the United States never claimed the moon as its territory.

Andrei Kokoshin, chairman of a parliamentary committee on the ex-Soviet region, said Russia "will have to actively defend its interests in the Arctic" and called for reinforcing Russia's Northern Fleet and border guard units and building airfields to "ensure full control." Vladimir Putin spoke on a Russian nuclear powered ice-breaker earlier this year, urging greater efforts to secure Russia's "strategic, economic, scientific and defense interests" in the Arctic.

A crisis over Russian claims in the Arctic would be perfectly avoidable, if Russia is prepared to behave in a more civilized manner. If Moscow suggested exploring the Arctic's wealth in a cooperative fashion, in partnership with the United States and other countries aboard, this could become a productive project that furthered international cooperation. However, the current rush to dominate the Arctic Ocean and everything under it indicates that greed and aggression characterize the new Russian polar bear.

The State Department has expressed its skepticism regarding planting of the Russian flag, and said it has no legal standing or effect on Russia's claim. Canada has voiced similar objections.

To stop the expansion, the U.S. should encourage its friends and allies -- Canada, Denmark and Norway -- to pursue their claims in the United Nations Commission on the Limits of the Continental Shelf. While the United Sates has not ratified the Law of the Sea Treaty (LOST), other Arctic countries, including Norway and Denmark, have filed their own claims with the Commission, opposing Russian demands.

The Nordic countries do not view Russia's attempted seabed grab kindly. Nor should they. The U.S. should also encourage Canada to coordinate a possible claim through the International Justice Court in The Hague against the Russian grab.

Russia's decision to take an aggressive stand has left the U.S., Canada and the Nordic countries little choice but to design a cooperative High North strategy, and invite other friendly countries, such as Great Britain, to expend the necessary means to build up the Western presence in the Arctic. This will probably have to include a fleet of modern icebreakers, submersibles, geophysics/seismic vessels, and polar aircraft.

There is too much at stake to leave it to the Russian bear.

~~Ariel Cohen~~ is a senior research fellow for Russian and Eurasian Studies at the Heritage Foundation and the author of "Russian Imperialism: Development and Crisis (1998)."

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By planting the Russian flag on the seabed under the North Pole and claiming a sector of the Continental Shelf the size of Western Europe, Moscow generated a new source of international tension, seemingly out of the blue.

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Russia's Arctic Claims: Neither LOST nor Forgotten

Posted By Ariel Cohen On August 16, 2011 @ 3:12 pm In American Leadership | 3 Comments

The Arctic is becoming the "wild west" of the 21st century, and the Russians have been quick to claim [1] a good part of it as their birthright. The Russian state is after 380,000 square miles of this final frontier, which may store an estimated one-quarter of the world's untapped hydrocarbon reserves. Moscow is expected to submit its claim to the United Nations for arbitration under the Law of the Sea Treaty (LOST) within the next couple of months.

Russia's scramble for the Arctic's minerals was on display for all to behold when Artur Chilingarov, a renowned explorer and Deputy Chairman of the Duma, planted [2] a titanium Russian flag beneath the North Pole in 2007 under Vladimir Putin's orders. Putin also went on a mission to the High North to track and tag polar bears [3], highlighting Russia's Arctic policy priorities.

Russia initiated its claim through the Commission on the Limits of the Continental Shelf (CLCS) in 2001—six years earlier. To boost this claim, this July the Russian research ship *Akademik Fyodorov*, accompanied by a nuclear-powered icebreaker, set off to prove that the Siberian continental shelf connects to underwater Arctic ridges by completing underwater mapping of the area in question. If confirmed, this may boost Russia's claims to the Arctic continental shelf. Other members of the Arctic Council—the U.S., Canada, Denmark, Norway, Sweden, Iceland, and Finland—may stand to lose if the CLCS approves Russian claims in the High North.

Moscow has an unquestionable head start on the rest of the world, and it is not shy about investing in its ambitions. At least six new icebreakers and Sabetta, a new year-round port on the arctic shores—costing $33 billion—are on the agenda, but Prime Minister Putin has said the Kremlin is "open for a dialogue with our foreign partners and with all our neighbors in the Arctic region, but of course we will defend our own geopolitical interests firmly and consistently." Or as they said in Soviet times, "What is mine is mine, and what is yours is negotiable."

The Arctic is of vital geopolitical importance not just to Russia, but to the entire world. It has enormous quantities of hydrocarbon energy and other natural resources, and as the Arctic is no longer completely icebound, in summertime it may become an important transportation route vital to U.S. national security.

Despite this, at present the U.S. has made virtually no effort to strengthen its position in the frozen final frontier. The chief concern is America's lack of icebreakers—even Canada and Finland have more than the United States. Icebreakers are vital to exploring the Arctic and enforcing one's sovereignty there. As of 2010, Russia had 29 icebreakers in total and was building more. The United States had two (including one that is obsolete), with no plans to expand. The Heritage Foundation has exposed [4] this problem extensively:

> The United States has significant geopolitical and geo-economic interests in the High North, but the lack of policy attention and insufficient funding have placed the U.S. on track to abdicate its national interests in this critical region.

The United States must strengthen its position in the Arctic and make its interests clear to friend and foe alike. Washington should reach out to the Arctic Council members to block Russia's expansion plans at the U.N. Meanwhile, the U.S. should fund and build its icebreaking squadron and deploy it in Alaska.

Russia's Arctic aspirations are a serious geopolitical challenge for U.S. and allied interests. America's security and economic prosperity in the 21st century will depend on U.S. ability to access polar waters and the Arctic Ocean bed.

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URLs in this post:

[1] claim: **http://www.csmonitor.com/World/Global-Issues/2011/0814/Russia-s-Arctic-sea-grab**
[2] planted: **http://www.heritage.org/Research/Commentary/2007/08/Russias-race-for-the-Arctic**
[3] track and tag polar bears: **http://news.sky.com/home/world-news/article/15622895**
[4] exposed: **http://www.heritage.org/Research/Reports/2010/06/From-Russian-Competition-to-Natural-Resources-Access-Recasting-US-Arctic-Policy**

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Commentary-

Arctic Security Heats Up

By Peter Brookes
November 6, 2008

By many accounts, the sea ice that covers much of the earth's Arctic region is melting. The size -- that is, the extent -- and thickness of the Arctic ice floes are diminishing, following a three-decade trend and brushing up against last year's historic lows.

While many ruminate about the lives of polar bears, climate change in the Northern Hemisphere and even the fate of small island nations from rising sea levels, there are other possible implications, too -- those of the security kind.

It turns out that while the geographic North Pole belongs to no one, the area around it may hold significant natural resources, including large deposits of previously inaccessible oil and natural gas. Considering the high cost of energy to consumers and the high value of oil and natural gas to producers these days, people and governments, naturally, are paying very close attention to the dramatic changes taking place in the Arctic Ocean.

Circumpolar nations, most notably the U.S., Russia, Canada, Norway and Denmark, are scrambling to claim and control the vast untapped ocean floor under the disappearing ice -- even the transit lanes through the Arctic.

Hello, climate change; goodbye, peaceful pole.

Resource-rich region

The Arctic (an undefined area, but generally above 66 degrees North latitude) may have as much as 90 billion technically recoverable barrels of oil and nearly 2 trillion cubic feet of recoverable natural gas, based on current industry capabilities and practices, according to a just-released four-year study by the U.S. Geological Survey (USGS). By comparison, there are more than 1 trillion barrels of proven oil reserves and more than 6 trillion cubic feet of natural gas globally; the world consumes nearly 90 million barrels of oil a day.

In the first publicly available assessment of the region, the USGS estimates the Arctic accounts for more than 20 percent of the yet-to-be-discovered, technically recoverable resources in the world, including nearly 15 percent of the world's undiscovered oil and 30 percent of its natural gas.

That is good news -- but who owns it?

According to the 1982 United Nations Convention on Law of the Sea, states have a right to a 200-nautical-mile Exclusive Economic Zone (EEZ) off their coasts. The EEZ can be extended if it is part of a country's continental shelf, where the state can claim sovereignty over natural resources. This, of course, can lead to conflicting territorial claims. Indeed, experts assert this issue could be particularly difficult in the Arctic, where states' potential rights to the resources around the largely unexplored North Pole, especially the potentially rich Lomonosov Ridge, an undersea mountain range, more than 1,200 miles long, are likely to overlap.

In May, the five Arctic Ocean-bordering states met on Greenland. The resulting Ilulissat Declaration reaffirmed the nations' commitment to an orderly settlement of conflicting claims concerning the continental shelf, among other issues tied to the Arctic region. Researchers from these countries have been collecting data from the sea bed to support their Arctic aspirations. Of course, some countries are not waiting to mark their territory.

In August 2007, two Russian deep-submergence research vehicles, Mir-1 and -2, planted a titanium flag on the sea bed near the North Pole at a depth of nearly 14,000 feet, claiming for Moscow a territory between the undersea Mendeleev and Lomonosov ridges the size of France, Germany and Italy combined. While some derided the flag-planting as a little more than a geopolitical stunt, the Russians are likely serious about their claims, considering their quest for oil and gas rights -- indeed, energy hegemony across the globe. (Russia is the world's No. 1 producer of natural gas and No. 2 exporter of oil. Some experts believe Russian oil reserves have peaked and will be depleted by 2030.)

In July, Moscow announced it would send its Northern Fleet Navy, based at Severomorsk on the Kola Peninsula, to patrol Arctic waters -- perhaps, the first time it has done so since the fall of the Soviet Union in the early 1990s. Indeed, it was reported in late September that a Northern Fleet submarine had completed a 30-day transit under the Arctic ice, surfacing off the Kamchatka Peninsula in the northern Pacific Ocean.

Some experts are expecting more than a few new submarines and surface ships for Russia's once-mighty Kola Peninsula, including, perhaps, another run at developing aircraft carriers that could be operating in northern climes in the out-years. The shipbuilding program will not include just warships, but also as many as 14 new ice breakers in the coming years. In fact, Russia commissioned the world's largest nuclear-powered ice breaker last year, 50 Years of Victory, bringing the number of nuclear ice-crushing ships available for Arctic duty to seven.

The Russian Navy has tried to downplay its more muscular stance in the Arctic, insisting it is just part of its natural re-emergence as a great naval power. That re-emergence will be bolstered by a 30 percent increase in Russia's defense budget next year. In a throwback to the Cold War, Moscow already has its Long Range Aviation operating widely, including in the Arctic, using Tu-95 reconnaissance and Tu-142 anti-submarine aircraft from bases in Russia's northern and far eastern military districts.

In addition to its military maneuvers, in September, Russian President Dmitry Medvedev instructed the drafting of a new state policy on the Arctic, including a law expressing Moscow's view of the country's northern border. The Kremlin also has sent scientific exhibitions to the Arctic to survey the area and collect evidence, including soil samples, to support Moscow's claim to the Lomonosov Ridge as an extension of Russia's continental shelf. But the Russians are not the only ones gearing up for possible Arctic action.

Canada, for one, is not standing idly by when it comes to the Arctic. Canadian scientists are building their own case for claims on the Lomonosov Ridge -- and a second sub-surface mountain range in the West, called the

Alpha Ridge, in the Beaufort Sea. In support of this, Ottawa also has announced plans to build six to eight medium-sized ships, capable of operating in ice 3 feet thick, to conduct Arctic patrols. Canada has one large and five light- to medium-sized icebreakers; all are reaching the end of their service lives. Some say the mid-sized ships may not be up to the task, instead calling for larger ships for the job of looking after Canada's so-called "High North." One skeptical Canadian politician said the new ships are more aptly called "slush-breakers."

But that is not all. In August, Canadian Prime Minister Stephen Harper announced plans to establish a deep-sea port on Baffin Island to support Canadian air and sea patrols in the region, especially the new-construction ships. Ottawa also plans to build a new winter fighting school at a base on Resolute Bay in the Northwest Passage, 400 miles south of the North Pole, affirming that Canada plans a growing -- and long-term -- presence in the Arctic.

While Canada reportedly has fewer than 200 soldiers and 1,500 volunteer indigenous Inuit rangers operating in the Arctic, providing security to more than 1.5 million square miles of Canadian territory, large-scale, joint exercises, such as the Nanook series, have increased. The commander of Joint Task Force North, which kicked off Nanook '08 in late September, said: "Our purpose is to exert sovereignty, demonstrate sovereignty and security, but also learn how to live off the land and learn more about the operating environment here in the north."

A Canadian commission also recently recommended Ottawa establish a surveillance network to monitor activities in the Arctic as well as build a new research station near the Northwest Passage. Ottawa also wants recognition of its sovereignty over the Northwest Passage, the once-mythical route that offers the quickest and most economic waterway between Asia and Europe, eliminating the need for, and limitations imposed by, the Panama Canal. The route, which by some estimates might be navigable year-round by 2050, would shorten shipping distances between the two continents by more than 2,000 miles, cutting costs and travel time for sea cargo.

Scandinavian scramble

Denmark, which lays claim to the Arctic through its possession of self-governing Greenland, also is getting in the race. Copenhagen boldly claims the Lomonosov Ridge is a geological extension of the large island land mass, which in reality is more white than green.

But conflicting claims are not restricted to the Russians, who are not likely to be intimidated by Danish claims. The Danes also are sparring with the Canadians over ownership of tiny Hans Island, a rocky Arctic outcrop, which both countries claim.

The Danes are not the only ones on the move in Scandinavia. Norway, an energy giant, plans to spend more than $100 million on a new electronic surveillance system to monitor Russian actions in the north, according to a Defense News report in June. Reminiscent of the Cold War and its role as a front-line NATO state in it, Norway will establish radar stations and open-water monitoring facilities in the Barents and Norwegian seas, according to Oslo. The proposed surveillance system is a response not only to Russia's re-invigorated interest in the Arctic, but also to Moscow's heightened military activity on the neighboring Kola Peninsula and surrounding environs.

The Americans, who lay claim to the Arctic through Alaska, also are paying more attention to the region. For instance, in May, the U.S. military launched its annual Northern Edge series of exercises in and around Alaska. Over a two-week period, the exercise involved more than 5,000 personnel from units from as far away as Hawaii and Japan, as well as more than 100 aircraft and a number of U.S. Navy ships. The Russians, not surprisingly, highlighted the annual Alaska exercise this year, using it as a rhetorical foil for justifying their own

military build-up in the Arctic. Although always tight-lipped about its operations, the American silent service is believed to have held submarine exercises with the British last year in northern waters, no doubt to test itself in the Arctic's changing environment.

The diminished ice coverage certainly will change the strategic situation in the Arctic region, long a hopeful safe harbor for Russian fleet ballistic missile submarines in their cat-and-mouse game with adversary attack submarines and anti-submarine aircraft.

While seemingly natural allies on Arctic issues, Canada and the U.S. actually dispute some territory in the Beaufort Sea, known as the Wedge, as well as the navigational status of the Northwest Passage. Washington views the Northwest Passage as international waters, while Ottawa sees it as an internal waterway. Canada has strongly objected to U.S. submarine transits of the passage, which has become a cause celebre in the Canadian press from time to time.

Despite this, in August, a Canadian research ship, Louis S. St. Laurent, and an American Coast Guard cutter, Healy, conducted joint exploration of the northern sea bed, working to develop a three-dimensional map of the sea floor.

So, while all the countries concerned have promised to allow diplomacy, science and international law to resolve how the potentially rich Arctic should be divvied up in terms of sovereignty, it is not clear it will end up that way. For instance, while the cold front that has descended on East-West relations over the Russia-Georgia conflict may not last forever, issues that appear nongermane certainly could get in the way of bilateral or multilateral cooperation. Indeed, even before the Georgia dust-up, an expert group expressed concern about the possibility of the Arctic becoming increasingly militarized as the global demand for energy and raw materials skyrockets, overwhelming well-intentioned diplomatic efforts.

In its report, the USGS called the Arctic region "the largest unexplored prospective area for petroleum remaining on Earth." With little reason to doubt it, that assertion will not be ignored by the major powers that ring the Arctic. With the surge in energy prices being driven by sluggish new production, continuing limits on global refining capability, jittery energy markets and rapidly increasing demand from the likes of India and China, countries are likely to hedge their bets in the Arctic.

U.S. Coast Guard Commandant Adm. Thad Allen, during a recent visit to Alaska, said in a radio interview: "For the last 20 years, the conventional view for policymakers in Washington is that any activity in the Arctic is basically related to science."

Those days are gone -- probably for good. Indeed, Washington is expected to shortly issue a presidential national security directive on the Arctic -- arguably the first major policy statement on the issue in more than a decade.

But it will take more than a presidential policy statement to address the challenges of the Arctic. More resources will have to be devoted to the task, including increasing the number of U.S. ice breakers, which stands at a paltry three superannuated ships.

The U.S. has a lot at stake in the Arctic. Now is not the time for getting a case of cold feet in projecting American power to protect and advance our national interests in the north.

Brookes. Peter is a Senior Fellow in National Security Affairs and Chung Ju-Yung Fellow for Policy Studies in the Asian Studies Center at The Heritage Foundation.

First appeared in the Armed Forces Journal

By many accounts, the sea ice that covers much of the earth's Arctic region is melting. The size — that is, the extent — and thickness of the Arctic ice floes are diminishing, following a three-decade trend and brushing up against last year's historic lows.

Leadership for America Campaign

Energy & Environment Initiative of the
Leadership for America Campaign

About the Author

Peter Brookes Senior Fellow, National Security Affairs

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The Voice of Russia

Arctic: competition for resources on the horizon

Tags: Business, Russia, Opinion & Analysis, World, Arctic

Nikita Sorokin

Feb 1, 2013 19:25 Moscow Time

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Russia's Regional Development Ministry continues consultations with experts on a proposed 'Law on the Russian Arctic'.

According to the United States Geological Survey, the bed of the Arctic Ocean contains one fourth of the world's reserves of oil and natural gas. This treasure trove is quickly opening as climate change melts the Arctic Ice Cap.

Dr Mikhail Babenko is an oil and gas expert of the Worldwide Fund for Nature:

"Seabed minerals, fish and promising transport routes are also becoming available. In 2012, traffic along the Northeast Passage from Europe to Asia posted a sharp rise. Many governments are now after tapping these resources for the sake of speeding up economic growth."

Dr Sergei Pryamikov is in charge of international cooperation programmes at Russia's Arctic and Antarctic Research Institute in St Petersburg:

"Active Arctic exploration brings together some 15 nations. The treaty on the Svalbard Archipelago now brings together as many as 40. Importantly, China, Japan, South Korea and India are also showing great interest in Arctic resources. Several countries advocate a borderless international zone in the Arctic Ocean. Russia, however, continues to insist that Arctic borders do exist, and drawing them must comply with the United Nations Convention on the Law of the Sea."

On August 4 2007, a Russian research vessel placed a Russian flag on the bottom of the Arctic Ocean directly beneath the North Pole. By doing this, Russia called attention to the fact that this part of the ocean bottom is a direct extension of the Arctic Shelf of Eastern Siberia. On August 6th, the Americans sent a coast guard icebreaker to the North Pole. A little later, Denmark dispatched an expedition tasked with finding evidence of a geological connection between the polar seabed and Greenland. Canada announced plans to build a military base of its Baffin Island. Norway set up an Arctic military command, to be armed with 48 Lockheed F-35 patrol jests. The US started frequently sending nuclear submarines on under-ice Arctic missions.

Importantly, patrols of Russian strategic bombers are now a regular feature in the High Arctic. Russia and other countries regularly stage wargames in Arctic and sub-Arctic areas.

The New York Times Aug 2, 2007

SUNDANCE FILM FESTIVAL 2013 OFFICIAL SELECTION

MOSCOW — Two miniature submarines prepared Thursday to descend more than 4 kilometers beneath the ice at the North Pole, according to Russian television.

The crew planned to drop a titanium capsule containing the nation's flag on the sea floor, symbolically claiming almost half of the polar region for Moscow.

In a feat mixing science, exploration and the scramble for potential oil and gas fields, the sub crews are attempting what Russian authorities called the first dive of its kind to the ocean floor at Earth's northernmost point.

The Mir subs and their three-member crews planned to plunge into the murky depths and spend several hours conducting the first close-up survey of the geologic structure of the seabed at the pole, according to Russia's Institute of the Arctic and Antarctic, which organized the expedition. The operation was expected to take eight hours.

The subs, two of only five submersibles in the world that can dive with a crew beyond 3,000 meters, or about 10,000 feet, are expected to return to the surface and their mammoth mother ship, the research vessel Akademik Fyodorov. One of the vehicles was featured in the 1997 movie "Titanic."

Among those aboard the lead sub is Artur Chilingarov, a famed polar explorer who became a hero of the Soviet Union in the 1980s, after leading an expedition aboard a research vessel trapped in Antarctic sea ice. He is currently a deputy speaker of Russia's lower house of Parliament.

"I'm not going to lie; of course it's dangerous," Chilingarov, 68, said on Russian television, in footage broadcast Thursday morning.

The dive was planned to help map the Lomonosov Ridge, a 1,240 mile, or 1,995 kilometer, underwater mountain range that crosses the polar region. The ridge was discovered by the Soviets in 1948 and named after a famed 18th-century Russian scientist, Mikhail Lomonosov.

In December 2001, Moscow claimed that the ridge was an extension of the Eurasian continent, and therefore part of Russia's continental shelf under international law. The United Nations rejected Moscow's application, citing lack of evidence, but Russia is set to resubmit it in 2009.

If recognized, the claim would give Russia control of more than 460,000 square miles, or 1.2 million square kilometers, representing almost half of the Arctic seabed. Little is known about the ocean floor near the pole, but by some estimates it could contain vast oil and gas deposits.

The voyage has some scientific goals, including studies of the climate and biology of the polar region. But its chief aim appears to be to advance Russia's political and economic influence by strengthening its legal claims to the Arctic.

The U.S. State Department noted that Russia had not yet made public the data from its research and said the best available scientific evidence suggested the Lomonosov Ridge was oceanic by nature "and thus not part of any country's continental shelf."

"While the United States remains skeptical, we have not had the opportunity to examine any of the recently obtained data," said Leslie Phillips, a department spokeswoman. "We wish the Russian scientists a safe expedition."

The U.S. Senate has not yet ratified U.S. accession to the Law of the Sea, which would give Washington a seat on the panel that will consider and eventually rule on the Russian claim.

NATIONAL GEOGRAPHIC NEWS
NATIONALGEOGRAPHIC.COM/NEWS

Russia's Arctic Claim Backed By Rocks, Officials Say

Richard A. Lovett
for National Geographic News

September 21, 2007

Rock samples retrieved last month from beneath the Arctic Ocean indicate that the North Pole is part of Mother Russia, the Russian government announced yesterday.

The Russians contend that the Lomonosov Ridge, an undersea structure running across the Arctic Ocean beneath the pole, is a geological extension of the Russian region of Siberia.

Under international law, Russia could lay claim to the potentially oil-rich seabed under the Arctic ice if it can prove that the ridge is part of the country's continental shelf.

In a statement released yesterday, Russia's Ministry of Natural Resources said that a preliminary analysis "confirms the fact that the structure of the Lomonosov Ridge crust matches world analogs of continental crust."

In other words, the rock is of a type found on continental shelves rather than in normal mid-ocean seabeds.

More Rocks Needed

Russian divers took the samples last month during a mini-sub mission that went beneath the ice and planted the Russian flag at the bottom of the Arctic Ocean.

The flag planting itself did nothing to establish a claim under international law.

Ted McDorman, a professor of law at the University of Victoria in British Columbia, said that it's therefore not surprising the Russians took rock samples at the same time.

McDorman noted that even if the Russians prove that the Lomonosov Ridge's rocks are continental in nature, it doesn't necessarily mean that the ridge is part of Russia.

"It might be Canadian or Danish," he said. Or it might not be part of any country.

Resolving that question will involve studying the entire length of the ridge rather than a single location, he said.

"The U.S. view is that even if [the ridge] is continental, there's a significant detachment from the mainland," he said.

Furthermore, some Russian scientists appear to believe that the announcement was premature.

Boris Morgunov, an advisor to the Russian Ministry of Economic Development, told Echo Moscow radio that the only way to fully verify the claim is to drill into the ridge to take core samples, according to the Norwegian-based news service Barents Observer.com.

But many Russian officials do believe they will eventually be able to back up their assertion and begin oil exploration in the region.

"With a high degree of likelihood, Russia will be able to increase its continental shelf by 1.2 million square

kilometers [460,000 square miles] with potential hydrocarbon reserves of not less than 9,000 to 10,000 billion tonnes of conventional fuel beyond the 200-mile [322 kilometer] economic zone in the Arctic Ocean," Viktor Posyolov, an official with Russia's Agency for Management of Mineral Resources, told the Russian news agency Tass.

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Section:
Essays

Arctic Meltdown

The Economic and Security Implications of Global Warming

THE ARCTIC OCEAN is melting, and it is melting fast. This past summer, the area covered by sea ice shrank by more than one million square miles, reducing the Arctic icecap to only half the size it was 50 years ago. For the first time, the Northwest Passage--a fabled sea route to Asia that European explorers sought in vain for centuries--opened for shipping. Even if the international community manages to slow the pace of climate change immediately and dramatically, a certain amount of warming is irreversible. It is no longer a matter of if, but when, the Arctic Ocean will open to regular marine transportation and exploration of its lucrative natural-resource deposits.

Global warming has given birth to a new scramble for territory and resources among the five Arctic powers. Russia was the first to stake its claim in this great Arctic gold rush, in 2001. Moscow submitted a claim to the United Nations for 460,000 square miles of resource-rich Arctic waters, an area roughly the size of the states of California, Indiana, and Texas combined. The UN rejected this ambitious annexation, but last August the Kremlin nevertheless dispatched a nuclear-powered icebreaker and two submarines to plant its flag on the North Pole's sea floor. Days later, the Russians provocatively ordered strategic bomber flights over the Arctic Ocean for the first time since the Cold War. Not to be outdone, Canadian Prime Minister Stephen Harper announced funding for new Arctic naval patrol vessels, a new deep-water port, and a cold-weather training center along the Northwest Passage. Denmark and Norway, which control

Greenland and the Svalbard Islands, respectively, are also anxious to establish their claims.

While the other Arctic powers are racing to carve up the region, the United States has remained largely on the sidelines. The U.S. Senate has not ratified the UN Convention on the Law of the Sea (UNCLOS), the leading international treaty on maritime rights, even though President George W. Bush, environmental nongovernmental organizations, the U.S. Navy and U.S. Coast Guard service chiefs, and leading voices in the private sector support the convention. As a result, the United States cannot formally assert any rights to the untold resources off Alaska's northern coast beyond its exclusive economic zone--such zones extend for only 200 nautical miles from each Arctic state's shore--nor can it join the UN commission that adjudicates such claims. Worse, Washington has forfeited its ability to assert sovereignty in the Arctic by allowing its icebreaker fleet to atrophy. The United States today funds a navy as large as the next 17 in the world combined, yet it has just one seaworthy oceangoing icebreaker--a vessel that was built more than a decade ago and that is not optimally configured for Arctic missions. Russia, by comparison, has a fleet of 18 icebreakers. And even China operates one icebreaker, despite its lack of Arctic waters. Through its own neglect, the world's sole superpower--a country that borders the Bering Strait and possesses over 1,000 miles of Arctic coastline--has been left out in the cold.

Washington cannot afford to stand idly by. The Arctic region is not currently governed by any comprehensive multilateral norms and regulations because it was never expected to become a navigable waterway or a site for large-scale commercial development. Decisions made by Arctic powers in the coming years will therefore profoundly shape the future of the region for decades. Without U.S. leadership to help develop diplomatic solutions to competing claims and potential conflicts, the region could erupt in an armed mad dash for its resources.

GO NORTH, YOUNG MAN

THE ARCTIC has always experienced cooling and warming, but the current melt defies any historical comparison. It is dramatic, abrupt, and directly correlated with industrial emissions of greenhouse gases. In Alaska and western Canada, average winter temperatures have increased by as much as seven degrees Fahrenheit in the past 60 years. The results of global warming in the Arctic are far more dramatic than elsewhere due to the sharper angle at which the sun's rays strike the polar region during summer and because the retreating sea ice is turning into open water, which absorbs far more solar radiation. This dynamic is creating a vicious melting cycle known as the ice-albedo feedback loop.

Each new summer breaks the previous year's record. Between 2004 and 2005, the Arctic lost 14 percent of its perennial ice--the dense, thick ice that is the main obstacle to shipping. In the last 23 years, 41 percent of this hard, multiyear ice has vanished. The decomposition of this ice means that the Arctic will become like the Baltic Sea, covered by only a thin layer of seasonal ice in the winter and therefore fully navigable year-round. A few years ago, leading supercomputer climate models predicted that there would be an ice-free Arctic during the summer by the end of

the century. But given the current pace of retreat, trans-Arctic voyages could conceivably be possible within the next five to ten years. The most advanced models presented at the 2007 meeting of the American Geophysical Union anticipated an ice-free Arctic in the summer as early as 2013.

The environmental impact of the melting Arctic has been dramatic. Polar bears are becoming an endangered species, fish never before found in the Arctic are migrating to its warming waters, and thawing tundra is being replaced with temperate forests. Greenland is experiencing a farming boom, as once-barren soil now yields broccoli, hay, and potatoes. Less ice also means increased access to Arctic fish, timber, and minerals, such as lead, magnesium, nickel, and zinc--not to mention immense freshwater reserves, which could become increasingly valuable in a warming world. If the Arctic is the barometer by which to measure the earth's health, these symptoms point to a very sick planet indeed.

Ironically, the great melt is likely to yield more of the very commodities that precipitated it: fossil fuels. As oil prices exceed $100 a barrel, geologists are scrambling to determine exactly how much oil and gas lies beneath the melting icecap. More is known about the surface of Mars than about the Arctic Ocean's deep, but early returns indicate that the Arctic could hold the last remaining undiscovered hydrocarbon resources on earth. The U.S. Geological Survey and the Norwegian company StatoilHydro estimate that the Arctic holds as much as one-quarter of the world's remaining undiscovered oil and gas deposits. Some Arctic wildcatters believe this estimate could increase substantially as more is learned about the region's geology. The Arctic Ocean's long, outstretched continental shelf is another indication of the potential for commercially accessible offshore oil and gas resources. And, much to their chagrin, climate-change scientists have recently found material in ice-core samples suggesting that the Arctic once hosted all kinds of organic material that, after cooking under intense seabed pressure for millennia, would likely produce vast storehouses of fossil fuels.

World Arctic Oil + NG

The largest deposits are found in the Arctic off the coast of Russia. The Russian state-controlled oil company Gazprom has approximately 113 trillion cubic feet of gas already under development in the fields it owns in the Barents Sea. The Russian Ministry of Natural Resources calculates that the territory claimed by Moscow could contain as much as 586 billion barrels of oil--although these deposits are unproven. By comparison, all of Saudi Arabia's current proven oil reserves--which admittedly exclude unexplored and speculative resources--amount to only 260 billion barrels. The U.S. Geological Survey is just now launching the first comprehensive study of the Arctic's resources. The first areas to be studied are the 193,000-square-mile East Greenland Rift Basins. According to initial seismic readings, they could contain 9 billion barrels of oil and 86 trillion cubic feet of gas. Altogether, the Alaskan Arctic coast appears to hold at least 27 billion barrels of oil.

Although onshore resources, such as the oil in Alaska's Arctic National Wildlife Refuge, have dominated debates about Arctic development in Washington, the real action will take place

offshore, as the polar ice continues to retreat. An early indication of the financial stakes and political controversies involved is a lawsuit that was filed against Royal Dutch/Shell in the U.S. Ninth Circuit Court. Filed jointly by an unusual alliance of environmental groups and indigenous whalers, the case has held up the development of Shell's $80 million leases in the newly accessible Beaufort Sea, off Alaska's northern coast. By 2015, such offshore oil production will account for roughly 40 percent of the world's total. The Alaskan coast might one day look like the shores of Louisiana, in the Gulf of Mexico, lit up at night by the millions of sparkling lights from offshore oil platforms.

POLAR EXPRESS

AN EVEN GREATER prize will be the new sea-lanes created by the great melt. In the nineteenth century, an Arctic seaway represented the Holy Grail of Victorian exploration, and the seafaring British Empire spared no expense in pursuing a shortcut to rich Asian markets. Once it became clear that the Northwest Passage was ice clogged and impassable, the Arctic faded from power brokers' consciousness. Strategic interest in the Arctic was revived during World War II and the Cold War, when nuclear submarines and intercontinental missiles turned the Arctic into the world's most militarized maritime space, but it is only now that the Arctic sea routes so coveted by nineteenth-century explorers are becoming a reality.

The shipping shortcuts of the Northern Sea Route (over Eurasia) and the Northwest Passage (over North America) would cut existing oceanic transit times by days, saving shipping companies--not to mention navies and smugglers--thousands of miles in travel. The Northern Sea Route would reduce the sailing distance between Rotterdam and Yokohama from 11,200 nautical miles--via the current route, through the Suez Canal--to only 6,500 nautical miles, a savings of more than 40 percent. Likewise, the Northwest Passage would trim a voyage from Seattle to Rotterdam by 2,000 nautical miles, making it nearly 25 percent shorter than the current route, via the Panama Canal. Taking into account canal fees, fuel costs, and other variables that determine freight rates, these shortcuts could cut the cost of a single voyage by a large container ship by as much as 20 percent--from approximately $17.5 million to $14 million--saving the shipping industry billions of dollars a year. The savings would be even greater for the megaships that are unable to fit through the Panama and Suez Canals and so currently sail around the Cape of Good Hope and Cape Horn. Moreover, these Arctic routes would also allow commercial and military vessels to avoid sailing through politically unstable Middle Eastern waters and the pirate-infested South China Sea. An Iranian provocation in the Strait of Hormuz, such as the one that occurred in January, would be considered far less of a threat in an age of trans-Arctic shipping.

Arctic shipping could also dramatically affect global trade patterns. In 1969, oil companies sent the S.S. Manhattan through the Northwest Passage to test whether it was a viable route for moving Arctic oil to the Eastern Seaboard. The Manhattan completed the voyage with the help of accompanying icebreakers, but oil companies soon deemed the route impractical and prohibitively expensive and opted instead for an Alaskan pipeline. But today such voyages are fast becoming economically feasible. As soon as marine insurers recalculate the risks involved in

these voyages, trans-Arctic shipping will become commercially viable and begin on a large scale. In an age of just-in-time delivery, and with increasing fuel costs eating into the profits of shipping companies, reducing long-haul sailing distances by as much as 40 percent could usher in a new phase of globalization. Arctic routes would force further competition between the Panama and Suez Canals, thereby reducing current canal tolls; shipping chokepoints such as the Strait of Malacca would no longer dictate global shipping patterns; and Arctic seaways would allow for greater international economic integration. When the ice recedes enough, likely within this decade, a marine highway directly over the North Pole will materialize. Such a route, which would most likely run between Iceland and Alaska's Dutch Harbor, would connect shipping megaports in the North Atlantic with those in the North Pacific and radiate outward to other ports in a hub-and-spoke system. A fast lane is now under development between the Arctic port of Murmansk, in Russia, and the Hudson Bay port of Churchill, in Canada, which is connected to the North American rail network.

In order to navigate these opening sea-lanes and transport the Arctic's oil and natural gas, the world's shipyards are already building ice-capable ships. The private sector is investing billions of dollars in a fleet of Arctic tankers. In 2005, there were 262 ice-class ships in service worldwide and 234 more on order. The oil and gas markets are driving the development of cutting-edge technology and the construction of new types of ships, such as double-acting tankers, which can steam bow first through open water and then turn around and proceed stern first to smash through ice. These new ships can sail unhindered to the Arctic's burgeoning oil and gas fields without the aid of icebreakers. Such breakthroughs are revolutionizing Arctic shipping and turning what were once commercially unviable projects into booming businesses.

THE COMING ANARCHY

DESPITE THE melting icecap's potential to transform global shipping and energy markets, Arctic issues are largely ignored at senior levels in the U.S. State Department and the U.S. National Security Council. The most recent executive statement on the Arctic dates to 1994 and does not mention the retreating ice. But the Arctic's strategic location and immense resource wealth make it an important national interest. Although the melting Arctic holds great promise, it also poses grave dangers. The combination of new shipping routes, trillions of dollars in possible oil and gas resources, and a poorly defined picture of state ownership makes for a toxic brew.

The situation is especially dangerous because there are currently no overarching political or legal structures that can provide for the orderly development of the region or mediate political disagreements over Arctic resources or sea-lanes. The Arctic has always been frozen; as ice turns to water, it is not clear which rules should apply. The rapid melt is also rekindling numerous interstate rivalries and attracting energy-hungry newcomers, such as China, to the region. The Arctic powers are fast approaching diplomatic gridlock, and that could eventually lead to the sort of armed brinkmanship that plagues other territories, such as the desolate but resource-rich Spratly Islands, where multiple states claim sovereignty but no clear picture of ownership exists.

There are few legal frameworks that offer guidance. The Arctic Council does exist to address environmental issues, but it has remained silent on the most pressing challenges facing the region because the United States purposefully emasculated it at birth, in 1996, by prohibiting it from addressing security concerns. Many observers argue that UNCLOS is the correct tool to manage the thawing Arctic. The convention provides mechanisms for states to settle boundary disputes and submit claims for additional resources beyond their exclusive economic zones. Furthermore, UNCLOS sets aside the resources in the high seas as the common heritage of humankind, it allows states bordering ice-covered waters to enforce more stringent environmental regulations, and it defines which seaways are the sovereign possessions of states and which international passages are open to unfettered navigation.

However, UNCLOS cannot be seamlessly applied to the Arctic. The region's unique geographic circumstances do not allow for a neat application of this legal framework. The Arctic is home to a number of vexing problems that, taken in their entirety, make it a special case. These unresolved challenges include carving up the world's longest uncharted and most geologically complex continental shelf among five states with competing claims, resolving differences between Canada and the rest of the world over how to legally define the Northwest Passage, demarcating maritime borders between the United States and Canada in the Beaufort Sea and between Norway and Russia in the Barents Sea, and regulating vessels shielded behind flags of convenience (which obscure the true origin and ownership of the vessels) as they travel across numerous national jurisdictions. Finally, increased oil and gas exploration and the trans-Arctic shipping that comes with it will pose serious environmental risks. Oil tankers present a particularly grave environmental threat, as illustrated by three recent oil spills in the much safer waters of the San Francisco Bay, the Black Sea, and the Yellow Sea.

There are also a handful of unresolved issues at play in the Arctic that are not covered under UNCLOS. Between 1958 and 1992, Russia dumped 18 nuclear reactors into the Arctic Ocean, several of them still fully loaded with nuclear fuel. This hazard still needs to be cleaned up. Furthermore, the Arctic region is home to one million indigenous people, who deserve to have a say in the region's future, especially as regards their professed right to continue hunting bowhead whales, their safety alongside what will become bustling shipping lanes, and their rightful share of the economic benefits that Arctic development will bring. With the prospect of newfound energy wealth, there is also growing talk of Greenland petitioning Denmark for political independence. Finally, there has been an explosion in polar tourism, often involving ships unsuited for navigation in the region. Last year, 140 cruise ships carried 4,000 intrepid travelers for holidays off Greenland's icy coast, a dangerous journey in largely uncharted waters.

Although it is tempting to look to the past for solutions to the Arctic conundrum, no perfect analogy exists. The 1959 Antarctic Treaty, which froze all territorial claims and set aside the continent for scientific research, provides some lessons, but it concerns a continent rather than an ocean. Moreover, Antarctica is far removed from major trade routes, and negotiations unfolded in the entirely different context of the Cold War. As a body of water that links several large economies,

the Mediterranean Sea is somewhat similar to the Arctic Ocean, but its littoral states have always had clearer historical claims, and it has never been covered with ice, at least not in human history. There is simply no comparable historical example of a saltwater space with such ambiguous ownership, such a dramatically mutating seascape, and such extraordinary economic promise.

The region's remarkable untapped resource wealth and unrealized potential to become a fast lane between the Atlantic and Pacific Oceans makes it a key emerging pressure point in international affairs. At this critical juncture, decisions about how to manage this rapidly changing region will likely be made within a diplomatic and legal vacuum unless the United States steps forward to lead the international community toward a multilateral solution.

NORTHERN EXPOSURE

UNTIL SUCH a solution is found, the Arctic countries are likely to unilaterally grab as much territory as possible and exert sovereign control over opening sea-lanes wherever they can. In this legal no man's land, Arctic states are pursuing their narrowly defined national interests by laying down sonar nets and arming icebreakers to guard their claims.

Russia has led the charge with its flag-planting antics this past summer. Moscow has been arguing that a submarine elevation called the Lomonosov Ridge is a natural extension of the Eurasian landmass and that therefore approximately half of the Arctic Ocean is its rightful inheritance. The UN commission that is reviewing the claim sent Russia back to gather additional geological proof, leading Artur Chilingarov, a celebrated Soviet-era explorer and now a close confidant of Russian President Vladimir Putin, to declare, "The Arctic is ours and we should manifest our presence" while leading a mission to the North Pole last summer.

Naturally, other Arctic states are responding. Norway submitted its claim for additional Arctic resources to the commission in 2006, Canada and Denmark are now doing their homework in order to present their own claims. Ottawa and Copenhagen are currently at odds over the possession of Hans Island, an outcropping of desolate rocks surrounded by resource-rich waters in the Nares Strait, between Canada's Ellesmere Island and Greenland. Even the United States, despite its refusal to ratify UNCLOS, has for the past few summers dispatched its sole icebreaker to the Arctic to collect evidence for a possible territorial claim in the event the Senate eventually ratifies the treaty.

There are also battles over sea-lanes. Canada has just launched a satellite surveillance system designed to search for ships trespassing in its waters. Even though the Northern Sea Route will likely open before the Northwest Passage, the desire to stop ships from passing through the Canadian archipelago--especially those from the U.S. Coast Guard and the U.S. Navy--is the cause of much saber rattling north of the border. "Use it or lose it," Canadian Prime Minister Harper frequently declares in reference to Canada's Arctic sovereignty--an argument that plays well with Canadians, who are increasingly critical of their southern neighbor. So far, the delicate 1988 "agreement to disagree" between the United States and Canada over the final disposition of

these waters has remained intact, but the United States should not underestimate Canadian passions on this issue.

The ideal way to manage the Arctic would be to develop an overarching treaty that guarantees an orderly and collective approach to extracting the region's wealth. As part of the ongoing International Polar Year (a large scientific program focused on the Arctic and the Antarctic that is set to run until March 2009), the United States should convene a conference to draft a new accord based on the framework of the Arctic Council. The agreement should incorporate relevant provisions of UNCLOS and take into account all of the key emerging Arctic issues. With a strong push from Washington, the Arctic states could settle their differences around a negotiating table, agree on how to carve up the region's vast resource pie, and possibly even submit a joint proposal to the UN for its blessing.

But even as it pushes for a multilateral diplomatic solution, the United States should undertake a unilateral effort to shore up U.S. interests in the Arctic. The few in the United States who still stubbornly oppose U.S. accession to UNCLOS claim that by ratifying the treaty Washington would cede too much U.S. sovereignty and that customary international law and a powerful navy already allow the United States to protect its Arctic interests. But these are not enough. The United States is the only major country that has failed to ratify UNCLOS, and Washington is therefore left on the outside looking in as a nonmember to various legal and technical bodies. In addition to becoming a party to the convention, the United States must publish an updated Arctic policy, invest in ice-mapping programs, and breathe new life into its inefficient, uncompetitive shipyards, thus enabling it to update the country's geriatric icebreaker fleet, as soon as possible.

The United States should also strike a deal with Canada, leading to a joint management effort along the same lines as the 1817 Rush-Bagot Agreement, which demilitarized the Great Lakes and led to the creation (albeit more than a century later) of the nonprofit St. Lawrence Seaway Development Corporation to manage this critical, and sometimes ice-covered, binational waterway. In the same spirit, the United States and Canada could combine their resources to help police thousands of miles of Arctic coastline. Washington and Ottawa now work collaboratively on other sea and land borders and together built the impressive North American Aerospace Defense Command, or NORAD, system. They are perfectly capable of doing the same on the Arctic frontier, and it is in both countries' national interests to do so.

There is no reason that economic development and environmental stewardship cannot go hand in hand. To this end, Canada could take the lead in establishing an analogous public-private Arctic seaway management corporation with a mandate to provide for the safe and secure transit of vessels in North American Arctic waters while protecting the area's sensitive environment. Shipping tolls levied by this bilateral management regime could pay for desperately needed charts (much of the existing survey information about the Northwest Passage dates to nineteenth-century British exploration), as well as for search-and-rescue capabilities, traffic-management operations, vessel tracking, and similar services that would guard life and property. Such a jointly

managed Arctic seaway system could establish facilities for the disposal of solid and liquid waste, identify harbors of refuge for ships in danger, and enforce a more rigorous code for ship design in order to ensure that vessels traveling through the Northwest Passage have thicker hulls, more powerful engines, and special navigation equipment. The captains and crews of these vessels could also be required to have additional training and, if the conditions warrant, to take aboard an agency-approved "ice pilot" to help them navigate safely.

This bilateral arrangement could eventually be expanded to include other Arctic countries, especially Russia. The United States and Russia, as an extension of the proposed Arctic seaway management corporation, could develop traffic-separation schemes through the Bering Strait and further invest in the responsible development of safe shipping along the Northern Sea Route. Eventually, a pan-Arctic corporation could coordinate the safe, secure, and efficient movement of vessels across the Arctic. Japan, which is vitally dependent on the Strait of Malacca for the overwhelming majority of its energy supplies, would be a natural investor in such a project since it has an interest in limiting the risk of a disruption in its oil supply.

IT'S EASY BEING GREEN

IN 1847, a British expedition seeklng the fabled Northwest Passage ended in death and ignominy because Sir John Franklin and his crew, seeing themselves as products of the pinnacle of Victorian civilization, were too proud to ask the Inuit for help. At the height of its empire, the United States sometimes sees itself as invincible, too. But the time has come for Washington to get over its isolationist instincts and ratify UNCLOS, cooperate with Canada on managing the Northwest Passage, and propose an imaginative new multilateral Arctic treaty.

Washington must awaken to the broader economic and security implications of climate change. The melting Arctic is the proverbial canary in the coal mine of planetary health and a harbinger of how the warming planet will profoundly affect U.S. national security. Being green is no longer a slogan just for Greenpeace supporters and campus activists; foreign policy hawks must also view the environment as part of the national security calculus. Self-preservation in the face of massive climatic change requires an enlightened, humble, and strategic response. Both liberals and conservatives in the United States must move beyond the tired debate over causation and get on with the important work of mitigation and adaptation by managing the consequences of the great melt.

MAP: Arctic Energy Resources: Current Oil and Gas Production Area, Prospective Production Area

MAP: Arctic Shipping Shortcuts: Northwest Passage: 7,000 nautical miles; Current route: 9,000 nautical miles

MAP: Arctic Shipping Shortcuts: Northern Sea Route: 6,500 nautical miles; Current route: 11,200 nautical miles

PHOTO (BLACK & WHITE): The Arctic icecap, September 2001

PHOTO (BLACK & WHITE): The Arctic icecap, September 2007

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By Scott G. Borgerson

Scott G. Borgerson is International Affairs Fellow at the Council on Foreign Relations and a former Lieutenant Commander in the U.S. Coast Guard.

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Congressional Research Service

Coast Guard Polar Icebreaker Modernization: Background and Issues for Congress

Ronald O'Rourke
Specialist in Naval Affairs

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Summary

The Coast Guard's proposed FY2013 budget includes $8 million in acquisition funding to initiate survey and design activities for a new polar icebreaker. The Coast Guard's Five Year Capital Investment Plan includes an additional $852 million in FY2014-FY2017 for acquiring the ship. The Coast Guard anticipates awarding a construction contract for the ship "within the next five years" and taking delivery on the ship "within a decade." The project to design and build a polar icebreaker is a new acquisition project initiated in the FY2013 budget.

Coast Guard polar icebreakers perform a variety of missions supporting U.S. interests in polar regions. The Coast Guard's two existing heavy polar icebreakers—*Polar Star* and *Polar Sea*—have exceeded their intended 30-year service lives, and neither is currently operational. *Polar Star* was placed in caretaker status on July 1, 2006. Congress in FY2009 and FY2010 provided funding to repair it and return it to service for 7 to 10 years; the Coast Guard expects the reactivation project to be completed in December 2012. On June 25, 2010, the Coast Guard announced that *Polar Sea* had suffered an unexpected engine casualty; the ship was unavailable for operation after that. The Coast Guard placed *Polar Sea* in commissioned, inactive status on October 14, 2011.

The Coast Guard's third polar icebreaker—*Healy*—entered service in 2000. Compared to *Polar Star* and *Polar Sea*, *Healy* has less icebreaking capability (it is considered a medium polar icebreaker), but more capability for supporting scientific research. The ship is used primarily for supporting scientific research in the Arctic.

The reactivation of *Polar Star* will result in an operational U.S. polar icebreaking fleet consisting for the next 7 to 10 years of one heavy polar icebreaker (*Polar Star*) and one medium polar icebreaker (*Healy*). The new polar icebreaker for which initial acquisition funding is requested in the FY2013 budget would replace *Polar Star* at about the time *Polar Star's* 7- to 10-year reactivation period ends.

Potential issues for Congress regarding Coast Guard polar icebreaker modernization include the potential impact on U.S. polar missions of the United States currently having no operational heavy polar icebreakers; the numbers and capabilities of polar icebreakers the Coast Guard will need in the future; the disposition of *Polar Sea*; whether the new polar icebreaker initiated in the FY2013 budget should be funded with incremental funding (as proposed in the Coast Guard's Five Year Capital Investment Plan) or full funding in a single year, as normally required under the executive branch's full funding policy; whether new polar icebreakers should be funded entirely in the Coast Guard budget, or partly or entirely in some other part of the federal budget, such as the Department of Defense (DOD) budget, the National Science Foundation (NSF) budget, or both; whether to provide future icebreaking capability through construction of new ships or service life extensions of existing polar icebreakers; and whether future polar icebreakers should be acquired through a traditional acquisition or a leasing arrangement.

Contents

Introduction 1
Background 1
Missions of U.S. Polar Icebreakers 1
Current U.S. Polar Icebreakers 2
Three Coast Guard Ships 2
One National Science Foundation Ship 6
Summary 6
Recent Studies Relating to Coast Guard Polar Icebreakers 8
Coast Guard High Latitude Study Provided to Congress in July 2011 8
January 2011 DHS Office of Inspector General Report 11
2010 U.S. Arctic Research Commission Report 13
2007 National Research Council Report 14
Cost Estimates for Certain Modernization Options 16
New Replacement Ships 16
25-Year Service Life Extensions 17
Reactivate *Polar Sea* for Several Years 17
Funding in FY2013 Budget for New Polar Icebreaker 19
December 1, 2011, Hearing 20
Issues for Congress 20
Impact of Currently Having No Operational Heavy Polar Icebreakers 20
Number and Capabilities of Future Polar Icebreakers 21
Factors to Consider 21
Notional Arguments for Various Numbers 23
Disposition of *Polar Sea* 24
Incremental Funding vs. Full Funding 25
Funding Ships in Coast Guard Budget or Elsewhere 26
New Construction vs. Service Life Extension 27
Procurement vs. Leasing 28
Legislative Activity Following Submission of Proposed FY2013 Budget 31
FY2013 Funding Request 31
Coast Guard and Maritime Transportation Act of 2012 (H.R. 2838) 32
House 32
Coast Guard and Maritime Transportation Act of 2012 (H.R. 5887) 34
House 34
FY2013 Department of Homeland Security Appropriations Act (H.R. 5855/S. 3216) 34
House 34
Senate 34

Figures

Figure 1. *Polar Star* and *Polar Sea* 3
Figure 2. *Polar Sea* 4
Figure 3. *Healy* 5

Coast Guard Polar Icebreaker Modernization: Background and Issues for Congress

Tables

Table 1. U.S. Polar Icebreakers 7
Table 2. Uses of Coast Guard Polar Icebreakers in FY2005-FY2007 7
Table 3. Funding for Acquisition of New Polar Icebreaker, FY2013-FY2017 19
Table 4. Major Icebreakers Around the World 23

Appendixes

Appendix A. Coast Guard Activities Since 2008 To Assess Requirements and Options for Polar Icebreakers 36
Appendix B. Legislative Activity in 111th and 110th Congresses 39
Appendix C. Bill and Report Language Relating to Study of High-Latitude Operations 58
Appendix D. May 2008 Memorandum from DOD Combatant Commanders 60

Contacts

Author Contact Information 61

Congressional Research Service

Introduction

This report provides background information and issues for Congress on the sustainment and modernization of the Coast Guard's polar icebreaker fleet, which performs a variety of missions supporting U.S. interests in polar regions. The Coast Guard's proposed FY2013 budget includes $8 million in acquisition funding to initiate survey and design activities for a new polar icebreaker. The Coast Guard's Five Year Capital Investment Plan includes an additional $852 million in FY2014-FY2017 for acquiring the ship. The Coast Guard anticipates awarding a construction contract for the ship "within the next five years" and taking delivery on the ship "within a decade."

The issue for Congress is whether to approve, reject, or modify Coast Guard plans for sustaining and modernizing its polar icebreaking fleet. Congressional decisions on this issue could affect Coast Guard funding requirements, the Coast Guard's ability to perform its polar missions, and the U.S. shipbuilding industrial base.

Background

Missions of U.S. Polar Icebreakers

The missions of U.S. polar icebreakers can be summarized as follows:

- conducting and supporting scientific research in the Arctic and Antarctic;
- defending U.S. sovereignty in the Arctic by helping to maintain a U.S. presence in U.S. territorial waters in the region;
- defending other U.S. interests in polar regions, including economic interests in waters that are within the U.S. exclusive economic zone (EEZ) north of Alaska;
- monitoring sea traffic in the Arctic, including ships bound for the United States; and
- conducting other typical Coast Guard missions (such as search and rescue, law enforcement, and protection of marine resources) in Arctic waters, including U.S. territorial waters north of Alaska.

Operations to support National Science Foundation (NSF) research activities in the Arctic and Antarctic have accounted in the past for a significant portion of U.S. polar icebreaker operations.[1] Supporting NSF research in the Antarctic has included performing—or, in more recent years, standing ready to assist in—an annual mission, called Operation Deep Freeze, to break through the Antarctic ice so as to resupply McMurdo Station, the large U.S. Antarctic research station located on the shore of McMurdo Sound, near the Ross Ice Shelf.

[1] This passage, beginning with "The missions of...", originated in an earlier iteration of this CRS report and was later transferred by GAO with minor changes to Government Accountability Office, *Coast Guard[:] Efforts to Identify Arctic Requirements Are Ongoing, but More Communication about Agency Planning Efforts Would Be Beneficial*, GAO-10-870, September 2010, p. 53.

Although polar ice is diminishing due to climate change, observers generally expect that this development will not eliminate the need for U.S. polar icebreakers, and in some respects might increase mission demands for them. Even with the diminishment of polar ice, there are still significant ice-covered areas in the polar regions. Diminishment of polar ice could lead in coming years to increased commercial ship, cruise ship, and naval surface ship operations, as well as increased exploration for oil and other resources, in the Arctic—activities that could require increased levels of support from polar icebreakers.[2] Changing ice conditions in Antarctic waters have made the McMurdo resupply mission more challenging since 2000.[3] An April 18, 2011, press report states that the Commandant of the Coast Guard, Admiral Robert Papp,

> sees plenty of reasons the United States will need polar icebreakers for the "foreseeable future," despite speculation that thinning ice in the Arctic could make the icebreakers replaceable with other ice-hardened ships, the admiral said last week....
>
> "I don't see that causing us to back down on some minimal level of polar icebreakers," Papp told *Inside the Navy*. "The fact of the matter is, there's still winter ice that's forming. It's coming down pretty far. We don't need to get up there just during summer months when there's open water."[4]

Current U.S. Polar Icebreakers

The U.S. polar icebreaker fleet currently includes four ships—three Coast Guard ships and one ship operated by the NSF. The ships are described briefly below.

Three Coast Guard Ships

The Coast Guard's three polar icebreakers are multimission ships that can break through ice, support scientific research operations, and perform other missions typically performed by Coast Guard ships.

Heavy Polar Icebreakers Polar Star and Polar Sea

Polar Star (WAGB-10) and *Polar Sea* (WAGB-11),[5] sister ships built to the same general design (**Figure 1** and **Figure 2**), were procured in the early 1970s as replacements for earlier U.S. icebreakers. They were designed for 30-year service lives, and were built by Lockheed Shipbuilding of Seattle, WA, a division of Lockheed that also built ships for the U.S. Navy, but which exited the shipbuilding business in the late 1980s. Neither ship is currently in operational condition.

[2] For more on changes in the Arctic due to diminishment of Arctic ice, see CRS Report R41153, *Changes in the Arctic: Background and Issues for Congress*, coordinated by Ronald O'Rourke.

[3] National Research Council, *Polar Icebreakers in a Changing World, An Assessment of U.S. Needs*, Washington, 2007, pp. 6-7, 14, 63.

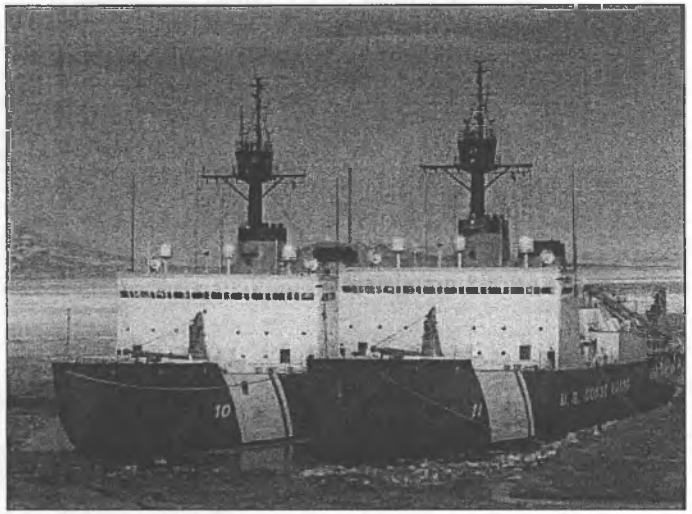
[4] Cid Standifer, "Adm. Papp: Coast Guard Still Needs Icebreakers For Winter, Antarctic," *Inside the Navy*, April 18, 2011.

[5] The designation WAGB means Coast Guard icebreaker. More specifically, W means Coast Guard ship, A means auxiliary, G means miscellaneous purpose, and B means icebreaker.

The ships are 399 feet long and displace about 13,200 tons.[6] They are among the world's most powerful non-nuclear-powered icebreakers, with a capability to break through ice up to 6 feet thick at a speed of 3 knots. Because of their icebreaking capability, they are considered heavy polar icebreakers. In addition to a crew of 134, each ship can embark a scientific research staff of 32 people.

Figure 1. *Polar Star* and *Polar Sea*

Side by side in McMurdo Sound, Antarctica



Source: Coast Guard photo accessed at http://www.uscg.mil/pacarea/cgcpolarsea/history.asp on April 21, 2011.

Polar Star was commissioned into service on January 19, 1976, and consequently is now several years beyond its intended 30-year service life. The ship currently is not in operational condition due to worn out electric motors and other problems. The Coast Guard placed the ship in caretaker status on July 1, 2006.[7] Congress in FY2009 and FY2010 provided funding to repair *Polar Star* and return it to service for 7 to 10 years; the Coast Guard expects the $62.8 million reactivation project to be completed in December 2012.[8] The ship is to undergo testing during the summer of

[6] By comparison, the Coast Guard's new National Security Cutters—its new high-endurance cutters—are about 418 feet long and displace roughly 4,000 tons.

[7] Source for July 1, 2006, date: U.S. Coast Guard email to CRS on February 22, 2008. The Coast Guard's official term for caretaker status is "In Commission, Special."

[8] Source for $62.8 million cost figure: Government Accountability Office, *Coast Guard[:] Observations on Arctic Requirements, Icebreakers, and Coordination with Stakeholders, Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives, Statement of* (continued...)

2013, and be ready for operations in FY2014.[9] Although the repair work on the ship is intended to give it another 7 to 10 years of service, an August 30, 2010, press report quoted the Commandant of the Coast Guard, Admiral Robert Papp, as saying, "We're getting her back into service, but it's a little uncertain to me how many more years we can get out of her in her current condition, even after we do the engine repairs."[10]

Figure 2. *Polar Sea*

Source: Coast Guard photo accessed at http://www.uscg.mil/pacarea/cgcpolarsea/img/PSEApics/FullShip2.jpg on April 21, 2011.

Polar Sea was commissioned into service on February 23, 1978, and consequently is also beyond its originally intended 30-year service life. In 2006, the Coast Guard completed a rehabilitation project that extended the ship's expected service life to 2014. On June 25, 2010, however, the Coast Guard announced that *Polar Sea* had suffered an unexpected engine casualty, and the ship was unavailable for operation after that.[11] The Coast Guard placed *Polar Sea* in commissioned,

(...continued)

Stephen L. Caldwell, Director, Homeland Security and Justice, GAO-12-254T, December 1, 2011, p. 10.

[9] Source: Email from Coast Guard Office of Legislative Affairs to CRS, February 23, 2012.

[10] Cid Standifer, "Papp: Refurbished Icebreaker Hulls Could Last 'An Awful Long Time,'" *Inside the Navy*, August 30, 2010.

[11] On June 25, 2010, the Coast Guard announced that

> POLAR SEA suffered an unexpected engine casualty and will be unable to deploy on its scheduled fall 2010 Arctic patrol and may be unavailable for Operation Deep Freeze [the annual mission to break through the Antarctic ice so as to resupply McMurdo Station], Dec. 20 to Jan 2, 2011.
>
> POLAR SEA will likely be in a maintenance status and unavailable for operation until at least January 2011....
>
> Currently, the 420-foot CGC HEALY, commissioned in 1999, is the service's sole operational polar region icebreaker. While the HEALY is capable of supporting a wide range of Coast Guard missions in the polar regions, it is a medium icebreaker capable of breaking ice up to 4.5-feet thick at three knots.
>
> The impact on POLAR SEA's scheduled 2011 Arctic winter science deployment, scheduled for Jan. 3 to Feb. 23, 2011, is not yet known and depends on the scope of required engine repair.

(continued...)

inactive status on October 14, 2011. The Coast Guard is transferring certain major equipment from *Polar Sea* to *Polar Star* to facilitate *Polar Star*'s return to service.[12]

Medium Polar Icebreaker Healy

Healy (WAGB-20) (**Figure 3**) was procured in the early 1990s as a complement to *Polar Star* and *Polar Sea*, and was commissioned into service on August 21, 2000. The ship was built by Avondale Industries, a shipyard located near New Orleans, LA, that has built numerous Coast Guard and Navy ships, and which now forms part of Huntington Ingalls Industries (HII).[13]

Figure 3. *Healy*

Source: Coast Guard photo accessed at http://www.uscg.mil/history/webcutters/Healy_CGC_1_300.jpg on April 21, 2011.

(...continued)

("Icebreaker POLAR SEA Sidelined By Engine Troubles," *Coast Guard Compass (Official Blog of the U.S. Coast Guard)*, June 25, 2010.)

A June 25, 2010, report stated that "inspections of the Polar Sea's main diesel engines revealed excessive wear in 33 cylinder assemblies. The Coast Guard is investigating the root cause and hopes to have an answer by August." ("USCG Cancels Polar Icebreaker's Fall Deployment," *DefenseNews.com*, June 25, 2010.) Another June 25 report stated that "five of [the ship's] six mighty engines are stilled, some with worn pistons essentially welded to their sleeves." (Andrew C. Revkin, "America's Heavy Icebreakers Are Both Broken Down," *Dot Earth (New York Times blog)*, June 25, 2010.)

[12] Source: October 17, 2011, email to CRS from Coast Guard Congressional Affairs office.

[13] HII was previously owned by Northrop Grumman, during which time it was known as Northrop Grumman Shipbuilding.

Healy is a bit larger than *Polar Star* and *Polar Sea*—it is 420 feet long and displaces about 16,000 tons. Compared to *Polar Star* and *Polar Sea*, *Healy* has less icebreaking capability (it is considered a medium polar icebreaker), but more capability for supporting scientific research. The ship can break through ice up to 4½ feet thick at a speed of 3 knots, and embark a scientific research staff of 35 (with room for another 15 surge personnel and two visitors). The ship is used primarily for supporting scientific research in the Arctic.

One National Science Foundation Ship

The nation's fourth polar icebreaker is *Nathaniel B. Palmer*, which was built for the NSF in 1992 by North American Shipbuilding, of Larose, LA. The ship, called *Palmer* for short, is owned by Edison Chouest Offshore (ECO) of Galliano, LA, a firm that owns and operates research ships and offshore deepwater service ships.[14] NSF uses a contractor, Raytheon Polar Services Company (RPSC), to lease the ship from ECO.[15] *Palmer* is considerably smaller than the Coast Guard's three polar icebreakers—it is 308 feet long and has a displacement of about 6,500 tons. It is operated by a crew of about 22, and can embark a scientific staff of 27 to 37.[16]

Unlike the Coast Guard's three polar icebreakers, which are multimission ships, *Palmer* was purpose-built as a single-mission ship for conducting and supporting scientific research in the Antarctic. It has less icebreaking capability than the Coast Guard's polar icebreakers, being capable of breaking ice up to 3 feet thick at speeds of 3 knots. This capability is sufficient for breaking through the more benign ice conditions found in the vicinity of the Antarctic Peninsula, so as to resupply Palmer Station, a U.S. research station on the peninsula. Some observers might view *Palmer* not so much as an icebreaker as an oceanographic research ship with enough icebreaking capability for the Antarctic Peninsula. *Palmer*'s icebreaking capability is not considered sufficient to perform the McMurdo resupply mission.

Summary

In summary, the U.S. polar icebreaking fleet currently includes

- two heavy polar icebreakers (*Polar Star* and *Polar Sea*), neither currently operational, that are designed to perform missions in either polar area, including the challenging McMurdo resupply mission;
- one medium polar icebreaker (*Healy*) that that is used primarily for scientific research in the Arctic; and
- one ship (*Palmer*) that is used for scientific research in the Antarctic.

[14] For more on ECO, see the firm's website at http://www.chouest.com/.

[15] For more on RPSC, see the division's website at http://rpsc.raytheon.com/

[16] Sources vary on the exact number of scientific staff that can be embarked on *Palmer*. For some basic information on the ship, see http://www.nsf.gov/od/opp/support/nathpalm.jsp, http://www.usap.gov/vesselScienceAndOperations/documents/prvnews_june03.pdfprvnews_june03.pdf, http://nsf.gov/od/opp/antarct/treaty/pdf/plans0607/15plan07.pdf, http://www.nsf.gov/pubs/1996/nsf9693/fls.htm, and http://www.hazegray.org/worldnav/usa/nsf.htm.

Table 1 summarizes the four ships. **Table 2** shows the uses of the three Coast Guard polar icebreakers in FY2005-FY2007 by operational hours.

Table 1. U.S. Polar Icebreakers

	Polar Star	*Polar Sea*	*Healy*	*Palmer*
Operator	USCG	USCG	USCG	NSF
U.S.-Government owned?	Yes	Yes	Yes	No[a]
Currently operational?	No	No	Yes	Yes
Entered service	1976	1978	2000	1992
Length (feet)	399	399	420	308
Displacement (tons)	13,200	13,200	16,000	6,500
Icebreaking capability at 3 knots (ice thickness in feet)	6 feet	6 feet	4.5 feet	3 feet
Ice ramming capability (ice thickness in feet)	21 feet	21 feet	8 feet	n/a
Operating temperature	-60° Fahrenheit	-60° Fahrenheit	-50° Fahrenheit	n/a
Crew (when operational)	155[b]	155[b]	85[c]	22
Additional scientific staff	32	32	35[d]	27-37

Sources: Prepared by CRS using data from U.S. Coast Guard, National Research Council, National Science Foundation, Department of Homeland Security (DHS) Office of Inspector General, and (for *Palmer*) additional online reference sources. n/a is not available.

a. Owned by Edison Chouest Offshore (ECO) of Galliano, LA, and leased to NSF through Raytheon Polar Services Company (RPSC).

b. Includes 24 officers, 20 chief petty officers, 102 enlisted, and 9 in the aviation detachment.

c. Includes 19 officers, 12 chief petty officers, and 54 enlisted.

d. In addition to 85 crew members 85 and 35 scientists, the ship can accommodate another 15 surge personnel and 2 visitors.

Table 2. Uses of Coast Guard Polar Icebreakers in FY2005-FY2007

(in mission hours)

	Polar Star			*Polar Sea*			*Healy*		
Mission area	**FY 05**	**FY 06**	**FY 07**	**FY 05**	**FY 06**	**FY 07**	**FY 05**	**FY 06**	**FY 07**
SAR	31					2			
ATON									
Ice Ops	1,809	1,642				2,658	3,563	3,210	2,930
MEP						16			
LMR	193								
PWCS									
DR						121			94
Support	34			1	802	21	256	424	596
Total	**2,066**	**1,642**	**0**	**1**	**802**	**2,818**	**3,819**	**3,634**	**3,620**

Source: U.S. Coast Guard data provided to CRS on June 12 and 20, 2008.

Notes: **SAR** = search and rescue; **ATON** = aids to navigation; **Ice Ops** = ice operations, polar icebreaking and domestic ice; **MEP** = marine environmental protection; **LMR** = living marine resources; **PWCS** = ports, waterways, and coastal security; **DR** = defense readiness; **Support** = includes operations such as training, public affairs, cooperation with federal, state, and local agencies.

Regarding the data shown in **Table 2**, the Coast Guard states further that

> for CGC [Coast Guard Cutter] HEALY, all of the Polar Operations hours are either transit to/from the operating area or scientific research. For CGC POLAR SEA/POLAR STAR, all of the Polar Operations hours are transit to/from the operating area, scientific research or mobility logistics (icebreaking for re-supply). We estimate 25% transit / 75% scientific research for HEALY and 50% transit / 10% scientific research / 40% mobility logistics for POLAR SEA/POLAR STAR.

Recent Studies Relating to Coast Guard Polar Icebreakers

A number of studies have been conducted in recent years to assess U.S. requirements for polar icebreakers and options for sustaining and modernizing the Coast Guard's polar icebreaker fleet. This section presents the findings of some of these studies.

Coast Guard High Latitude Study Provided to Congress in July 2011

In July 2011, the Coast Guard provided to Congress a study on the Coast Guard's missions and capabilities for operations in high-latitude (i.e., polar) areas. The study, commonly known as the High Latitude Study, is dated July 2010 on its cover.[17] The High Latitude Study concluded the following:

> [The study] concludes that future capability and capacity gaps will significantly impact four [Coast Guard] mission areas in the Arctic: Defense Readiness, Ice Operations, Marine Environmental Protection, and Ports, Waterways, and Coastal Security. These mission areas address the protection of important national interests in a geographic area where other nations are actively pursuing their own national goals....
>
> The common and dominant contributor to these significant mission impacts is the gap in polar icebreaking capability. The increasing obsolescence of the Coast Guard's icebreaker fleet will further exacerbate mission performance gaps in the coming years....
>
> The gap in polar icebreaking capacity has resulted in a lack of at-sea time for crews and senior personnel and a corresponding gap in training and leadership. In addition to providing multi-mission capability and intrinsic mobility, a helicopter-capable surface unit would eliminate the need for acquiring an expensive shore-based infrastructure that may only be needed on a seasonal or occasional basis. The most capable surface unit would be a polar icebreaker. Polar icebreakers can transit safely in a variety of ice conditions and have the endurance to operate far from logistics bases. The Coast Guard's polar icebreakers have conducted a wide range of planned and unscheduled Coast Guard missions in the past. Polar icebreakers possess the ability to carry large numbers of passengers, cargo, boats, and helicopters. Polar icebreakers also have substantial command, control, and communications capabilities. The flexibility and mobility of polar icebreakers would assist the Coast Guard in closing future mission performance gaps effectively....

[17] For examples of bill and report language in recent years relating to the study of Coast Guard missions and capabilities for operations in high latitude areas, see **Appendix C**.

Existing capability and capacity gaps are expected to significantly impact future Coast Guard performance in two Antarctic mission areas: Defense Readiness and Ice Operations. Future gaps may involve an inability to carry out probable and easily projected mission requirements, such as the McMurdo resupply, or readiness to respond to less-predictable events. By their nature, contingencies requiring the use of military capabilities often occur quickly. As is the case in the Arctic, the deterioration of the Coast Guard's icebreaker fleet is the primary driver for this significant mission impact. This will further widen mission performance gaps in the coming years. The recently issued Naval Operations Concept 2010 requires a surface presence in both the Arctic and Antarctic. This further exacerbates the capability gap left by the deterioration of the icebreaker fleet....

The significant deterioration of the Coast Guard icebreaker fleet and the emerging mission demands to meet future functional requirements in the high latitude regions dictate that the Coast Guard acquire material solutions to close the capability gaps....

To meet the Coast Guard mission functional requirement, the Coast Guard icebreaking fleet must be capable of supporting the following missions:

- **Arctic North Patrol.** Continuous multimission icebreaker presence in the Arctic.
- **Arctic West Science.** Spring and summer science support in the Arctic.
- **Antarctic, McMurdo Station resupply.** Planned deployment for break-in, supply ship escort, and science support. This mission, conducted in the Antarctic summer, also requires standby icebreaker support for backup in the event the primary vessel cannot complete the mission.
- **Thule Air Base Resupply and Polar Region Freedom of Navigation Transits.** Provide vessel escort operations in support of the Military Sealift Command's Operation Pacer Goose; then complete any Freedom of Navigation exercises in the region.

In addition, the joint Naval Operations Concept establishes the following mission requirements:

- **Assured access and assertion of U.S. policy in the Polar Regions.** The current demand for this mission requires continuous icebreaker presence in both Polar Regions.

Considering these missions, the analysis yields the following findings:

- **The Coast Guard requires three heavy and three medium icebreakers to fulfill its statutory missions.** These icebreakers are necessary to (1) satisfy Arctic winter and transition season demands and (2) provide sufficient capacity to also execute summer missions. Single-crewed icebreakers have sufficient capacity for all current and expected statutory missions. Multiple crewing provides no advantage because the number of icebreakers required is driven by winter and shoulder season requirements. Future use of multiple or augmented crews could provide additional capacity needed to absorb mission growth.
- **The Coast Guard requires six heavy and four medium icebreakers to fulfill its statutory missions and maintain the continuous presence requirements of the Naval Operations Concept.** Consistent with current practice, these icebreakers are single-crewed and homeported in Seattle Washington.

- **Applying crewing and home porting alternatives reduces the overall requirement to four heavy and two medium icebreakers.** This assessment of non-material solutions shows that the reduced number of icebreakers can be achieved by having all vessels operate with multiple crews and two of the heavy icebreakers homeporting in the Southern Hemisphere.

Leasing was also considered as a nonmaterial solution. While there is no dispute that the Coast Guard's polar icebreaker fleet is in need of recapitalization, the decision to acquire this capability through purchase of new vessels, reconstruction of existing ships, or commercial lease of suitable vessels must be resolved to provide the best value to the taxpayer. The multi-mission nature of the Coast Guard may provide opportunities to conduct some subset of its missions with non government-owned vessels. However, serious consideration must be given to the fact that the inherently governmental missions of the Coast Guard must be performed using government-owned and operated vessels. An interpretation of the national policy is needed to determine the resource level that best supports the nation's interests....

The existing icebreaker capacity, two inoperative heavy icebreakers and an operational medium icebreaker, does not represent a viable capability to the federal government. The time needed to augment this capability is on the order of 10 years. At that point, around 2020, the heavy icebreaking capability bridging strategy expires.[18]

At a July 27, 2011, hearing on U.S. economic interests in the Arctic before the Oceans, Atmosphere, Fisheries, and Coast Guard subcommittee of the Senate Commerce, Science, and Transportation Committee, the following exchange occurred:

> SENATOR OLYMPIA J. SNOWE: On the high latitude study, do you agree with—and those—I would like to also hear from you, Admiral Titley, as well, on these requirements in terms of Coast Guard vessels as I understand it, they want to have—I guess, it was a three medium ice breakers. Am in correct in saying that? Three medium ice breakers.
>
> ADMIRAL ROBERT PAPP, COMMANDANT OF THE COAST GUARD: I agree with the mission analysis and as you look at the requirements for the things that we might do up there, if it is in the nation's interest, it identifies a minimum requirement for three heavy ice breakers and three medium ice breakers and then if you want a persistent presence up there, it would require—and also doing things such as breaking out (inaudible) and other responsibilities, then it would take up to a maximum six heavy and four medium.
>
> SNOWE: Right. Do you agree with that?
>
> PAPP: If we were to be charged with carrying out those full responsibilities, yes, ma'am. Those are the numbers that you would need to do it.
>
> SNOWE: Admiral Titley, how would you respond to the high latitude study and has the Navy conducted its own assessment of its capability?
>
> REAR ADMIRAL DAVID TITLEY, OCEANORGRAPHER AND NAVIGATOR OF THE NAVY: Ma'am, we are in the process right now of conducting what we call a capabilities based assessment that will be out in the summer of this year.
>
> We are getting ready to finish that—the Coast Guard has been a key component of the Navy's task force on climate change, literally since day one when the Chief of Naval

[18] *United States Coast Guard High Latitude Region Mission Analysis Capstone Summary*, July 2010, pp. 10-13, 15.

> Operations set this up, that morning, we had the Coast Guard invited as a member of our executive steering committee.
>
> So we have been working very closely with the Coast Guard, with the Department of Homeland Security, and I think Admiral Papp—said it best as far as the specific comments on the high latitude study but we have been working very closely with the Coast Guard.[19]

January 2011 DHS Office of Inspector General Report

A January 2011 report on the Coast Guard's polar icebreakers from Department of Homeland Security (DHS) Office of the Inspector General stated:

> The Coast Guard does not have the necessary budgetary control over its [polar] icebreakers, nor does it have a sufficient number of icebreakers to accomplish its missions in the Polar Regions. Currently, the Coast Guard has only one operational [polar] icebreaker [i.e., *Healy*], making it necessary for the United States to contract with foreign nations to perform scientific, logistical, and supply activities. Without the necessary budgetary control and a sufficient number of icebreaking assets, the Coast Guard will not have the capability to perform all of its missions, will lose critical icebreaking expertise, and may be beholden to foreign nations to perform its statutory missions. The Coast Guard should improve its strategic approach to ensure that it has the long-term icebreaker capabilities needed to support Coast Guard missions and other national interests in the Arctic and Antarctic regions.[20]

Regarding current polar icebreaking capabilities for performing Arctic missions, the report states:

> The Coast Guard's icebreaking resources are unlikely to meet future demands. [The table below] outlines the missions that Coast Guard is unable to meet in the Arctic with its current icebreaking resources.

Arctic Missions Not Being Met

Requesting Agency	Missions Not Being Met
United States Coast Guard	—Fisheries enforcement in Bering Sea to prevent foreign fishing in U.S. waters and overfishing
	—Capability to conduct search and rescue in Beaufort Sea for cruise line and natural resource exploration ships
	—Future missions not anticipated to be met: 2010 Arctic Winter Science Deployment
NASA	Winter access to the Arctic to conduct oceanography and study Arctic currents and how they relate to regional ice cover, climate, and biology
NOAA and NSF	Winter research
Department of Defense	Assured access to ice-impacted waters through a persistent icebreaker presence in the Arctic and Antarctic[21]

The report also states:

> Should the Coast Guard not obtain funding for new icebreakers or major service life extensions for its existing icebreakers with sufficient lead-time, the United States will have no heavy icebreaking capability beyond 2020 and no polar icebreaking capability of any kind by 2029. Without the continued use of icebreakers, the United States will lose its ability to maintain a presence in the Polar Regions, the Coast Guard's expertise to perform ice operations will continue to diminish, and missions will continue to go unmet.[22]

Regarding current polar icebreaking capabilities for performing Antarctic missions, the report states:

> The Coast Guard needs additional icebreakers to accomplish its missions in the Antarctic. The Coast Guard has performed the McMurdo Station resupply in Antarctica for decades, but with increasing difficulty in recent years. The Coast Guard's two heavy-duty icebreakers [i.e., *Polar Star* and *Polar Sea*] are at the end of their service lives, and have become less reliable and increasingly costly to keep in service....
>
> In recent years, the Coast Guard has found that ice conditions in the Antarctic have become more challenging for the resupply of McMurdo Station. The extreme ice conditions have necessitated the use of foreign vessels to perform the McMurdo break-in....
>
> As ice conditions continue to change around the Antarctic, two icebreakers are needed for the McMurdo break-in and resupply mission. Typically, one icebreaker performs the break-in and the other remains on standby. Should the first ship become stuck in the ice or should the ice be too thick for one icebreaker to complete the mission, the Coast Guard deploys the ship on standby. Since the Polar Sea and Polar Star are not currently in service, the Coast Guard has no icebreakers capable of performing this mission. [The table below] outlines the missions that will not be met without operational heavy-duty icebreakers.

Arctic Missions Not Being Met

Requesting Agency	Missions Not Being Met
NSF	Missions not anticipated to be met: 2010-2011 Operation Deep Freeze – McMurdo Station Resupply
Department of State	Additional inspections of foreign facilities in Antarctica to enforce the Antarctic Treaty and ensure facilities' environment compliance[23]

[19] Source: Transcript of hearing.

[20] Department of Homeland Security, Office of Inspector General, *The Coast Guard's Polar Icebreaker Maintenance, Upgrade, and Acquisition Program*, OIG-11-31, January 2011, p. 1 (Executive Summary). Report accessed September 21, 2011, at http://www.dhs.gov/xoig/assets/mgmtrpts/OIG_11-31_Jan11.pdf.

[21] Department of Homeland Security, Office of Inspector General, *The Coast Guard's Polar Icebreaker Maintenance, Upgrade, and Acquisition Program*, OIG-11-31, January 2011, p. 9.

[22] Department of Homeland Security, Office of Inspector General, *The Coast Guard's Polar Icebreaker Maintenance, Upgrade, and Acquisition Program*, OIG-11-31, January 2011, p. 10.

[23] Department of Homeland Security, Office of Inspector General, *The Coast Guard's Polar Icebreaker Maintenance.* (continued...)

The report's conclusion and recommendations were as follows:

> **Conclusion**
>
> With an aging fleet of three icebreakers, one operational and two beyond their intended 30-year service life, the Coast Guard is at a critical crossroads in its Polar Icebreaker Maintenance, Upgrade, and Acquisition Program. It must clarify its mission requirements, and if the current mission requirements remain, the Coast Guard must determine the best method for meeting these requirements in the short and long term.
>
> **Recommendations**
>
> We recommend that the Assistant Commandant for Marine Safety, Security, and Stewardship:
>
> **Recommendation #1:** Request budgetary authority for the operation, maintenance, and upgrade of its icebreakers.
>
> **Recommendation #2:** In coordination with the Department of Homeland Security, request clarification from Congress to determine whether Arctic missions should be performed by Coast Guard assets or contracted vessels.
>
> **Recommendation #3:** In coordination with the Department of Homeland Security, request clarification from Congress to determine whether Antarctic missions should be performed by Coast Guard assets or contracted vessels.
>
> **Recommendation #4:** Conduct the necessary analysis to determine whether the Coast Guard should replace or perform service-life extensions on its two existing heavy-duty icebreaking ships.
>
> **Recommendation #5:** Request appropriations necessary to meet mission requirements in the Arctic and Antarctic.[24]

The report states that

> The Coast Guard concurred with all five of the recommendations and is initiating corrective actions. We consider the recommendations open and unresolved. The Coast Guard provided information on some of its ongoing projects that will address the program needs identified in the report.[25]

2010 U.S. Arctic Research Commission Report

A May 2010 report from the U.S. Arctic Research Commission (USARC) on goals and objectives for Arctic research for 2009-2010 stated:

(...continued)

Upgrade, and Acquisition Program, OIG-11-31, January 2011, pp. 10-11.

[24] Department of Homeland Security, Office of Inspector General, *The Coast Guard's Polar Icebreaker Maintenance, Upgrade, and Acquisition Program*, OIG-11-31, January 2011, p. 12.

[25] Department of Homeland Security, Office of Inspector General, *The Coast Guard's Polar Icebreaker Maintenance, Upgrade, and Acquisition Program*, OIG-11-31, January 2011, p. 13.

> To have an effective Arctic research program, the United States must invest in human capital, research platforms, and infrastructure, including new polar class icebreakers, and sustained sea, air, land, space, and social observing systems.... The Commission urges the President and Congress to commit to replacing the nation's two polar class icebreakers.[26]

2007 National Research Council Report

A 2007 National Research Council (NRC) report, *Polar Icebreakers in a Changing World: An Assessment of U.S. Needs*, assessed roles and future needs for Coast Guard polar icebreakers.[27] The study was required by report language accompanying the FY2005 DHS appropriations act (H.R. 4567/P.L. 108-334).[28] The study was completed in 2006 and published in 2007. Some sources refer to the study as the 2006 NRC report. The report made the following conclusions and recommendations:

> Based on the current and future needs for icebreaking capabilities, the [study] committee concludes that the nation continues to require a polar icebreaking fleet that includes a minimum of three multimission ships [like the Coast Guard's three current polar icebreakers] and one single-mission [research] ship [like Palmer]. The committee finds that although the demand for icebreaking capability is predicted to increase, a fleet of three multimission and one single-mission icebreakers can meet the nation's future polar icebreaking needs through the application of the latest technology, creative crewing models, wise management of ice conditions, and more efficient use of the icebreaker fleet and other assets. The nation should immediately begin to program, design, and construct two new polar icebreakers to replace the POLAR STAR and POLAR SEA.
>
> Building only one new polar icebreaker is insufficient for several reasons. First, a single ship cannot be in more than one location at a time. No matter how technologically advanced or efficiently operated, a single polar icebreaker can operate in the polar regions for only a

[26] U.S. Arctic Research Commission, *Report on Goals and Objectives for Arctic Research 2009–2010, May 2010*, p. 4. Accessed online December 5, 2011, at http://www.arctic.gov/publications/usarc_2009-10_goals.pdf.

[27] National Research Council, *Polar Icebreakers in a Changing World, An Assessment of U.S. Needs*, Washington, 2007, 122 pp.

[28] H.R. 4567/P.L. 108-334 of October 18, 2004. The related Senate bill was S. 2537. The Senate report on S. 2537 (S.Rept. 108-280 of June 17, 2004) stated:

> The Committee expects the Commandant to enter into an arrangement with the National Academy of Sciences to conduct a comprehensive study of the role of Coast Guard icebreakers in supporting United States operations in the Antarctic and the Arctic. The study should include different scenarios for continuing those operations including service life extension or replacement of existing Coast Guard icebreakers and alternative methods that do not use Coast Guard icebreakers. The study should also address changes in the roles and missions of Coast Guard icebreakers in support of future marine operations in the Arctic that may develop due to environmental change, including the amount and kind of icebreaking support that may be required in the future to support marine operations in the Northern Sea Route and the Northwest Passage; the suitability of the Polar Class icebreakers for these new roles; and appropriate changes in existing laws governing Coast Guard icebreaking operations and the potential for new operating regimes. The study should be submitted to the Committee no later than September 30, 2005.

The conference report on H.R. 4567 (H.Rept. 108-774 of October 9, 2004) stated:

> As discussed in the Senate report and the Coast Guard authorization bill for fiscal year 2005, the conferees require the National Academy of Sciences to study the role of Coast Guard icebreakers.

The earlier House report on H.R. 4567 (H.Rept. 108-541 of June 15, 2004) contained language directing a similar report from the Coast Guard rather than the National Academies. (See the passage in the House report under the header "Icebreaking.")

portion of any year. An icebreaker requires regular maintenance and technical support from shipyards and industrial facilities, must reprovision regularly, and has to effect periodic crew changeouts. A single icebreaker, therefore, could not meet any reasonable standard of active and influential presence and reliable, at-will access throughout the polar regions.

A second consideration is the potential risk of failure in the harsh conditions of polar operations. Despite their intrinsic robustness, damage and system failure are always a risk and the U.S. fleet must have enough depth to provide backup assistance. Having only a single icebreaker would necessarily require the ship to accept a more conservative operating profile, avoiding more challenging ice conditions because reliable assistance would not be available. A second capable icebreaker, either operating elsewhere or in homeport, would provide ensured backup assistance and allow for more robust operations by the other ship.

From a strategic, longer-term perspective, two new Polar class icebreakers will far better position the nation for the increasing challenges emerging in both polar regions. A second new ship would allow the U.S. Coast Guard to reestablish an active patrol presence in U.S. waters north of Alaska to meet statutory responsibilities that will inevitably derive from increased human activity, economic development, and environmental change. It would allow response to emergencies such as search-and-rescue cases, pollution incidents, and assistance to ships threatened with grounding or damage by ice. Moreover, a second new ship will leverage the possibilities for simultaneous operations in widely disparate geographic areas (e.g., concurrent operations in the Arctic and Antarctic), provide more flexibility for conducting Antarctic logistics (as either the primary or the secondary ship for the McMurdo break-in), allow safer multiple-ship operations in the most demanding ice conditions, and increase opportunities for international expeditions. Finally, an up-front decision to build two new polar icebreakers will allow economies in the design and construction process and provide a predictable cost reduction for the second ship. . . .

The [study] committee finds that both operations and maintenance of the polar icebreaker fleet have been underfunded for many years, and the capabilities of the nation's icebreaking fleet have diminished substantially. Deferred long-term maintenance and failure to execute a plan for replacement or refurbishment of the nation's icebreaking ships have placed national interests in the polar regions at risk. The nation needs the capability to operate in both polar regions reliably and at will. Specifically, the committee recommends the following:

- The United States should continue to project an active and influential presence in the Arctic to support its interests. This requires U.S. government polar icebreaking capability to ensure year-round access throughout the region.
- The United States should continue to project an active and influential presence in the Antarctic to support its interests. The nation should reliably control sufficient icebreaking capability to break a channel into and ensure the maritime resupply of McMurdo Station.
- The United States should maintain leadership in polar research. This requires icebreaking capability to provide access to the deep Arctic and the ice-covered waters of the Antarctic.
- National interests in the polar regions require that the United States immediately program, budget, design, and construct two new polar icebreakers to be operated by the U.S. Coast Guard.

- To provide continuity of U.S. icebreaking capabilities, the POLAR SEA should remain mission capable and the POLAR STAR should remain available for reactivation until the new polar icebreakers enter service.
- The U.S. Coast Guard should be provided sufficient operations and maintenance budget to support an increased, regular, and influential presence in the Arctic. Other agencies should reimburse incremental costs associated with directed mission tasking.
- Polar icebreakers are essential instruments of U.S. national policy in the changing polar regions. To ensure adequate national icebreaking capability into the future, a Presidential Decision Directive should be issued to clearly align agency responsibilities and budgetary authorities.[29]

The Coast Guard stated in 2008 that it "generally supports" the NRC report, and that the Coast Guard "is working closely with interagency partners to determine a way forward with national polar policy that identifies broad U.S. interests and priorities in the Arctic and Antarctic that will ensure adequate maritime presence to further these interests. Identification and prioritization of U.S. national interests in these regions should drive development of associated USCG [U.S. Coast Guard] capability and resource requirements." The Coast Guard also stated: "Until those broad U.S. interests and priorities are identified, the current USG [U.S. Government] polar icebreaking fleet should be maintained in an operational status."[30]

Cost Estimates for Certain Modernization Options

New Replacement Ships

The Coast Guard estimated in February 2008 that new replacement ships for the *Polar Star* and *Polar Sea* might cost between $800 million and $925 million per ship in 2008 dollars to procure.[31] The Coast Guard said that this estimate

> is based on a ship with integrated electric drive, three propellers, and a combined diesel and gas (electric) propulsion plant. The icebreaking capability would be equivalent to the POLAR Class Icebreakers [i.e., Polar Star and Polar Sea] and research facilities and accommodations equivalent to HEALY. This cost includes all shipyard and government project costs. Total time to procure a new icebreaker [including mission analysis, studies, design, contract award, and construction] is eight to ten years.[32]

[29] National Research Council, *Polar Icebreakers in a Changing World. An Assessment of U.S. Needs*, Washington, 2007. pp. 2-3.

[30] Coast Guard point paper provided to CRS on February 12, 2008, and dated with the same date, providing answers to questions from CRS concerning polar icebreaker modernization.

[31] Coast Guard point paper provided to CRS on February 12, 2008, and dated with the same date, providing answers to questions from CRS concerning polar icebreaker modernization.

[32] The Coast Guard states further that the estimate is based on the procurement cost of the Mackinaw (WAGB-30), a Great Lakes icebreaker that was procured a few years ago and commissioned into service with the Coast Guard in June 2006. The Mackinaw is 240 feet long, displaces 3,500 tons, and can break ice up to 2 feet, 8 inches thick at speeds of 3 knots, which is suitable for Great Lakes icebreaking. The Coast Guard says it scaled up the procurement cost for the Mackinaw in proportion to its size compared to that of a polar icebreaker, and then adjusted the resulting figure to account for the above-described capabilities of the notional replacement ship and recent construction costs at U.S. Gulf Coast shipyards.

The Coast Guard further stated that this notional new ship would be designed for a 30-year service life.

The High Latitude Study provided to Congress in July 2011 states that the above figure of $800 million to $925 million in 2008 dollars equates to $900 million to $1,041 million in 2012 dollars. The study provides the following estimates, in 2012 dollars, of the acquisition costs for new polar icebreakers:

- $856 million for 1 ship;
- $1,663 million for 2 ships—an average of about $832 million each;
- $2,439 million for 3 ships—an average of $813 million each;
- $3,207 million for 4 ships—an average of about $802 million each;
- $3,961 million for 5 ships—an average of about $792 million each; and
- $4,704 million for 6 ships—an average of $784 million each.

The study refers to the above estimates as "rough order-of-magnitude costs" that "were developed as part of the Coast Guard's independent Polar Platform Business Case Analysis."[33]

25-Year Service Life Extensions

The Coast Guard stated in February 2008 that performing the extensive maintenance, repair, and modernization work needed to extend the service lives of the two ships by 25 years might cost roughly $400 million per ship. This figure, the Coast Guard said, is based on assessments made by independent contractors for the Coast Guard in 2004. The service life extension work, the Coast Guard said, would improve the two icebreakers' installed systems in certain areas. Although the work would be intended to permit the ships to operate for another 25 years, it would not return the cutters to new condition.[34]

An August 30, 2010, press report stated that the Commandant of the Coast Guard, Admiral Robert Papp, estimated the cost of extending the lives of *Polar Star* and *Polar Sea* at about $500 million per ship; the article quoted Papp as stating that *Polar Star* and *Polar Sea* "were built to take a beating. They were built with very thick special steel, so you might be able to do a renovation on them and keep going.... I think there are certain types of steel that, if properly maintained, they can go on for an awful long time. What the limit is, I'm not sure."[35]

Reactivate *Polar Sea* for Several Years

Regarding the potential cost to repair *Polar Sea* and return it to service, at a December 1, 2011, hearing that focused on the polar icebreaker fleet (see "December 1, 2011, Hearing" below), Dave Whitcomb, the chief operating officer of Vigor Industrial—the owner of the shipyard that has

[33] *United States Coast Guard High Latitude Region Mission Analysis Capstone Summary*, July 2010, p. 13.

[34] Coast Guard point paper provided to CRS on February 12, 2008, and dated with the same date, providing answers to questions from CRS concerning polar icebreaker modernization.

[35] Cid Standifer, "Papp: Refurbished Icebreaker Hulls Could Last 'An Awful Long Time.'" *Inside the Navy*. August 30, 2010. Ellipsis as in original.

conducted maintenance and repair work on *Polar Sea* and *Polar Star* for many years—testified that *Polar Sea*

> can be restored to full mission readiness with a comparable longevity [to that of *Polar Star*] at relatively modest cost and in a reasonably short period of time. Vigor Industrial estimates that bringing the Polar Sea up to an operationally capable condition would require approximately 11 million dollars. We base this on the fact that we have done comparable work on the Polar Star already and are well aware of what is required... This work would require approximately two years to complete and might well be finished faster depending on availability of key components.[36]

Whitcomb further testified that the above estimated cost of $11 million includes overhauling the ship's diesel engines ($5 million), replacing the ship's obsolete cranes ($3 million), and upgrading the ship's propellers ($3 million).

Whether the work described above includes everything that would be needed to return *Polar Sea* to service is not clear, particularly given that the Coast Guard is transferring certain major equipment from *Polar Sea* to *Polar Star* to facilitate *Polar Star* 's return to service.[37]

At a March 7, 2012, hearing before the Coast Guard and Maritime Transportation subcommittee of the House Transportation and Infrastructure on the proposed FY2013 budgets for the Coast Guard and maritime transportation programs, Representative Rick Larsen asked Admiral Papp about the possibility of returning *Polar Sea*. Papp replied:

> ADMIRAL PAPP:
>
> I don't have room in my budget regardless of what it [the cost to repair *Polar Sea*] is. I think a lot of people underestimated how much it would cost to reactivate the *Polar Sea*. We're actually having to use parts of *Polar Sea*...
>
> REPRESENTATIVE LARSEN:
>
> Right.
>
> ADMIRAL PAPP:
>
> ...to reactivate *Polar Star*. So I think there are some people who are enthusiastic about the potential for getting *Polar Sea* back out there, but the fact of the matter is I don't have the money to operate it. And I think it's much more expensive to reactivate it than some people are giving in terms of estimates. I would say it's probably an [sic: in] excess of what we're spending on *Polar Star* right now would be to get her back out there.[38]

[36] Testimony [prepared statement] of Dave Whitcomb, Chief Operating Officer, Vigor Industrial, [before the] House Coast Guard and Maritime Transportation Subcommittee, December 1, 2011, p. 3.

[37] Testimony [prepared statement] of Dave Whitcomb, Chief Operating Officer, Vigor Industrial, [before the] House Coast Guard and Maritime Transportation Subcommittee, December 1, 2011, p. 5.

[38] Source: Transcript of hearing.

Funding in FY2013 Budget for New Polar Icebreaker

The Coast Guard's proposed FY2013 budget includes $8 million in acquisition funding to initiate survey and design activities for a new polar icebreaker. The Coast Guard's Five Year Capital Investment Plan includes an additional $852 million in FY2014-FY2017 for acquiring the ship. This funding is located in the Coast Guard's Acquisition, Construction, and Improvements (AC&I) appropriation account.

The Coast Guard anticipates awarding a construction contract for the ship "within the next five years" and taking delivery on the ship "within a decade." The project to design and build a polar icebreaker is a new acquisition project initiated in the FY2013 budget.

Table 3 shows funding in the Coast Guard's FY2013-FY2017 Five Year Capital Investment Plan for the acquisition of a new polar icebreaker. This funding, which totals $860 million, does not necessarily represent the entire acquisition cost of the ship; some additional funding might be required after FY2017. Prior estimates for the acquisition cost of a new polar icebreaker (see "Cost Estimates for Certain Modernization Options" above) and the bell-curve-like funding profile shown in **Table 3** suggest that if any additional funding is required after FY2017, the amount might be less than the FY2017 figure of $82 million.

As shown in **Table 3**, the Coast Guard is proposing to fund the acquisition of this ship using incremental funding (i.e., through a series of annual funding increments).

Table 3. Funding for Acquisition of New Polar Icebreaker, FY2013-FY2017

Millions of then-year dollars

FY13	FY14	FY15	FY16	FY17	Total acquisition cost
8	120	380	270	82	TBD

Source: Coast Guard FY2013-FY2017 Five Year Capital Investment Plan, as shown in U.S. Department of Homeland Security, *Annual Performance Report, Fiscal Years 2011 – 2013*, p. CG-AC&I-12 (pdf page 1,749 of 3,134).

Regarding the $8 million requested for FY2013, the Department of Homeland Security, the parent department of the Coast Guard, states:

> This funding will initiate survey and design activities for a new Coast Guard polar icebreaker, intended to provide continued U.S. Arctic icebreaking capability following the projected end of service life of the CGC POLAR STAR on or about 2022. This effort will build upon requirements analyses undertaken within the past three years, including the High-Latitude Mission Analysis Report, and the Polar Icebreaker Business Case Analysis.
>
> In recognition of emerging operational risks in the Arctic regions, the Coast Guard is committed to developing and implementing an acquisition plan that will ensure seamless and expeditious availability of icebreaking capacity to meet its missions. Specifically, the Coast Guard will deliver a fully operational polar icebreaker within a decade.
>
> This funding will be used to develop programmatic planning documents required under the USCG Major Systems Acquisition Manual, including an Analysis of Alternatives, a Life Cycle Cost Estimate, a Cost Benefit Analysis (CBA), modeling simulation and testing (as required) to build a modern polar icebreaker. These efforts will lead to development of a formal icebreaker acquisition project, with the award for construction anticipated within the next five years.
>
> As conditions in the Arctic evolve, and maritime activity grows, the requirement for sustained surface presence, capable of operating in the ice-covered waters of the Polar regions remains critical. This project will maintain a National icebreaking capability through an efficient, timely and cost effective acquisition.[39]

December 1, 2011, Hearing

On December 1, 2011, the Coast Guard and Maritime Transportation subcommittee of the House Transportation and Infrastructure Committee held a hearing entitled "Protecting U.S. Sovereignty: Coast Guard Operations in the Arctic." The primary (though not only) topic discussed at the hearing was the Coast Guard's polar icebreaker fleet. Witnesses included the Commandant of the Coast Guard, the lieutenant governor of Alaska, a director from the Government Accountability Office (GAO), a deputy director from the NSF, the chief operating officer of a shipyard that has conducted maintenance and repair work on *Polar Sea* and *Polar Star* for many years, and a retired Coast Guard admiral who spent much of his career on Coast Guard polar icebreakers. The prepared statements of the witnesses and the subcommittee's background memorandum for the hearing are available from the committee's website.[40]

Issues for Congress

The issue of Coast Guard polar icebreaker modernization presents several potential issues for Congress, including but not necessarily limited to those discussed below.

Impact of Currently Having No Operational Heavy Polar Icebreakers

One potential issue for Congress concerns the impact of currently having no operational heavy polar icebreakers. Potential oversight questions for Congress include the following:

- What are the mission impacts of currently having no operational heavy polar icebreakers?
- Did the removal of *Polar Star* from operational status in 2006 result in heavier use of *Polar Sea*, and if so, did this heavier use make *Polar Sea's* engine casualty more likely?
- Did the rehabilitation project on *Polar Sea* that was completed in 2006 and which extended the ship's estimated service life to 2014 include work on the ship's engines? Why did the ship experience an engine casualty reportedly involving

[39] U.S. Department of Homeland Security, *Annual Performance Report, Fiscal Years 2011 – 2013*, p. CG-AC&I-40 (pdf page 1,777 of 3,134).

[40] As of December 5, 2011, the materials were posted online at http://transportation.house.gov/hearings/hearingdetail.aspx?NewsID=1458.

excessive wear on engine cylinder assemblies four years after the completion of the rehabilitation project?

- How much would it cost to repair *Polar Sea's* engines and return the ship to operational status?

A July 12, 2010, press report states that with neither *Polar Sea* and *Polar Star* in operational status, the Coast Guard may seek assistance from polar icebreakers operated by other countries:

> "There are a number of our allies that have that [polar icebreaking] capability," [Dana] Goward [director of Coast Guard Office of Assessment, Integration and Risk Management], said. "They're not necessarily positioned optimally for support of U.S. missions in our waters, but if push comes to shove we're sure that we can make arrangements with our allies to support the nation's interests while we get the *Polar Sea* back in operation. We have very strong relationships with other coast guards and other navies, and at the moment I don't see that we would have much choice."

The press report states that *Healy* may be shifted between missions, but that the ship "will not likely spend more days than usual at sea."[41]

Number and Capabilities of Future Polar Icebreakers

Factors to Consider

Another potential issue for Congress is how many polar icebreakers, with what capabilities, the Coast Guard will need in the future. In assessing this issue, factors that Congress may consider include, but are not limited to, the following:

- current and projected mission demands for Coast Guard polar icebreakers as analyzed in the High Latitude Study and other recent studies, including an assessment of how those demands might be affected by NSF decisions on how to acquire icebreaking services to support its research activities;
- the potential for various mission demands (not just those conducted in support of NSF research activities) to be met by non-Coast Guard icebreakers, including leases or charters of icebreakers owned by foreign governments or private firms; and
- the Coast Guard's overall missions-vs.-resources situation, which includes the Coast Guard's requirements to perform many non-polar missions and the Coast Guard's desire to fund programs for performing these non-polar missions.[42]

Regarding the first factor above, the NSF states that although Coast Guard polar icebreakers are very capable, the NSF is mandated by presidential directive to perform its research activities in the most cost-effective way possible, and that it can be more expensive for NSF to support its research activities with Coast Guard polar icebreakers than with charters of icebreakers crewed

[41] Cid Standifer, "Coast Guard Looks To Fill Icebreakers Capability Gap With Polar Sea Out," *Inside the Navy*, July 12, 2010.

[42] For more on some of these other programs, see CRS Report RL33753, *Coast Guard Deepwater Acquisition Programs: Background, Oversight Issues, and Options for Congress*, by Ronald O'Rourke.

by contractor personnel. Although Coast Guard polar icebreakers in the past have performed the annual McMurdo break-in mission, the NSF in recent years has chartered Russian and Swedish contractor-operated icebreakers to perform the mission (with a Coast Guard polar icebreaker standing ready to assist if needed). The NSF has also noted that *Healy*, though very capable in supporting Arctic research, operates at sea for about 200 days a year, as opposed to about 300 days a year for foreign contractor-operated polar icebreakers.

Regarding the second factor above, issues to consider would include, among other things, the potential availability of ships for lease, leasing costs, regulatory issues relating to long-term leases of capital assets for the U.S. government, and the ability of leased ships to perform the missions in question, including the mission of defending U.S. sovereignty in Arctic waters north of Alaska, the challenging McMurdo resupply mission, or missions that emerge suddenly in response to unexpected events.[43]

Regarding the first two factors above, some observers note the size of the polar icebreaking fleets operated by other countries. Countries with interests in the polar regions have differing requirements for polar icebreakers, depending on the nature and extent of their polar activities. **Table 4** shows a Coast Guard summary of major icebreakers around the world.

[43] The potential for using leased ships, and the possible limitations of this option, are discussed at several points in the 2007 NRC report. The report argues, among other things, that the availability of icebreakers for lease in coming years is open to question, that leased ships are not optimal for performing sovereignty-related operations, and that some foreign icebreakers might be capable of performing the McMurdo resupply mission. See, for example, pages 80-81 of the NRC report. See also Jennifer Scholtes, "In Search of Frozen Assets," *CQ Weekly*, October 10, 2011: 2074.

Table 4. Major Icebreakers Around the World

As of September 10, 2012

	Total all types, in inventory (+ under construction + planned)	In inventory, government owned or operated			In inventory, privately owned and operated		
		10,000 to 19,999 BHP	20,000 to 44,999 BHP	45,000 or more BHP	10,000 to 19,999 BHP	20,000 to 44,999 BHP	45,000 or more BHP
Russia	34 (+ 4 + 9)	5	6	6 (all nuclear powered; 5 operational)	8	9	
Sweden	7		4		3		
Finland	8	2	3			3	
Canada	6 (+0 +1)	4 (3 operational)	2				
United States	5 (+0 +1)		1 (Healy)	2 (Polar Sea and Polar Star – neither operational)	1 (Palmer)	1 (Aiviq – built for Shell Oil))	
Denmark	4				4		
Norway	1 (+0 +1)	1					
China	1 (+0 +1)	1					
Argentina	1	1 (not operational)					
Australia	1	1					
Chile	1	1					
Estonia	1	1					
Germany	1 (+0 +1)		1				
Japan	1		1				
South Korea	1	1					
South Africa	1	1					
Latvia	1	1					

Source: Table prepared by CRS based on U.S. Coast Guard chart showing data compiled by the Coast Guard as of September 10, 2012, accessed online October 26, 2012, at http://www.uscg.mil/hq/cg5/cg552/ice.asp.

Notes: Includes some icebreakers designed for use in the Baltic Sea. **BHP** is the brake horsepower of the ship's power plant. A ship with 45,000 or more BHP might be considered a heavy polar icebreaker; a ship with 20,000 to 44,999 BHP might be considered a medium polar icebreaker, and a ship with 10,000 to 19,999 BHP might be considered a light polar icebreaker or an ice-capable polar ship.

Notional Arguments for Various Numbers

Advocates of a Coast Guard polar icebreaker fleet that includes two ships—*Healy* plus one heavy polar icebreaker—might argue that the Coast Guard operated with such a force from July 1, 2006,

when *Polar Star* went into caretaker status, until June 2010, when *Polar Sea* suffered an engine casualty and was removed from service, and that a force with *Healy* plus one heavy polar icebreaker would cost less than a larger polar icebreaker fleet and thereby permit the Coast Guard to better fund programs for performing its various non-polar missions.

Advocates of a Coast Guard fleet that includes three ships—*Healy* plus two heavy polar icebreakers—might argue that the 2007 NRC report recommended a polar icebreaking fleet of three multimission polar icebreakers (i.e., *Healy* plus two additional polar icebreakers), that the Coast Guard operated with such a force from 2000, when *Healy* entered service, until July 1, 2006, when *Polar Star* went into caretaker status, that the 2006-2010 force of *Healy* and one heavy polar icebreaker made it more difficult for the Coast Guard to perform the McMurdo resupply mission using its own assets, that a force that includes two heavy polar icebreakers rather than one would provide more flexibility for responding to polar contingencies or dealing with mechanical problems on a heavy polar icebreaker, and that such a force would still be sufficiently affordable to permit the Coast Guard to adequately fund programs for performing non-polar missions.

Advocates of a Coast Guard fleet that includes *Healy* plus three heavy polar icebreakers might argue that the High Latitude Study found that the Coast Guard requires three heavy (and three medium) icebreakers to fulfill its statutory missions, that a force with three heavy polar icebreakers would provide additional capability for responding to potentially increased commercial and military activities in the Arctic, that it would more strongly signal U.S. commitment to defending its sovereignty and other interests in the region, and that while such a force would be more expensive than a smaller polar icebreaker fleet, the added investment would be justified in light of the growing focus on U.S. polar interests.

Disposition of *Polar Sea*

Another potential issue for Congress concerns the disposition of *Polar Sea*. The Coast Guard has not announced its preferred plan for the ship's disposition; options include the following, among others:

- keeping the ship in preservation status in the Maritime Administration's (MARAD's) National Defense Reserve Fleet (NDRF) for potential reactivation at a later point to meet increased polar icebreaking needs or to replace *Polar Star*, should that ship be removed from service before the end of its anticipated 7- to 10-year post-reactivation service life due to an accident or the failure of critical equipment that cannot be cost-effectively repaired;
- selling or transfer the ship to another government or to a private owner; and
- dismantling the ship and recycle its scrap metal.

Potential oversight questions for Congress include the following:

- When does the Coast Guard plan to announce its preferred plan for the disposition of *Polar Sea*?
- What are the Coast Guard estimates of the potential costs and benefits of various disposition options, including those listed above?

Incremental Funding vs. Full Funding

Another potential oversight issue for Congress concerns the Coast Guard's proposal to fund the acquisition of a new icebreaker using incremental funding (i.e., a series of annual funding increments—see "Funding in FY2013 Budget for New Polar Icebreaker" in "Background") rather than full funding (i.e., placing most or all of the ship's acquisition cost into a single year). Section 31.6 of Office of Management and Budget (OMB) Circular A-11[44] normally requires executive branch agencies to use full funding for acquiring capital assets such as a new ship. The Coast Guard appears to have received permission from OMB to propose the use of incremental funding for acquiring a new polar icebreaker; Congress may choose to approve, reject, or modify this proposal.

Supporters of using incremental funding to acquire a new polar icebreaker could argue that funding this ship in a single year would create a one-year "spike" in Coast Guard funding requirements that could require offsetting and potentially disruptive one-year reductions in other Coast Guard programs, and that using incremental funding mitigates the spiking issue by spreading the ship's cost over several years. Supporters could argue that avoiding such budget spikes is a principal reason why the Navy in recent years has been given permission by OMB and Congress to use incremental funding to procure aircraft carriers and amphibious assault ships,[45] and that a polar icebreaker is analogous to an aircraft carrier or an amphibious assault ship in being a very expensive (for the Coast Guard) ship that is procured once every several years.

Supporters of using full funding to acquire a new polar icebreaker could argue that the acquisition cost of a polar icebreaker (roughly $900 million), though large by Coast Guard standards, is much less than that of an aircraft carrier (more than $11 billion) or an amphibious assault ship (more than $3 billion). They could argue that OMB believes using full funding reduces risks in the acquisition of capital assets,[46] and that permitting the use of incremental funding for the procurement of a polar icebreaker could weaken adherence to the policy by setting a precedent for using incremental funding for acquiring other capital assets costing less than $1 billion.

[44] The text of OMB Circular A-11 is available online at http://www.whitehouse.gov/omb/circulars_a11_current_year_a11_toc.

[45] See, for example, CRS Report RS20643, *Navy Ford (CVN-78) Class Aircraft Carrier Program: Background and Issues for Congress*, by Ronald O'Rourke.

[46] Appendix J to OMB Circular A-11 states, in explaining the requirement for using full funding, that

> Good budgeting requires that appropriations for the full costs of asset acquisition be enacted in advance to help ensure that all costs and benefits are fully taken into account at the time decisions are made to provide resources. Full funding with regular appropriations in the budget year also leads to tradeoffs within the budget year with spending for other capital assets and with spending for purposes other than capital assets. Full funding increases the opportunity to use performance-based fixed price contracts, allows for more efficient work planning and management of the capital project (or investment), and increases the accountability for the achievement of the baseline goals.
>
> When full funding is not followed and capital projects (or investments) or useful segments are funded in increments, without certainty if or when future funding will be available, the result is sometimes poor planning, acquisition of assets not fully justified, higher acquisition costs, cancellation of major investments, the loss of sunk costs, or inadequate funding to maintain and operate the assets.

The issue of incremental funding as an alternative to full funding in the acquisition of Navy ships is discussed at length in other CRS reports.[47]

Funding Ships in Coast Guard Budget or Elsewhere

Another potential issue for Congress, if it is determined that one or more new icebreakers should be procured by the government through a traditional acquisition, is whether the acquisition cost of those ships should be funded entirely through Coast Guard's Acquisition, Construction, and Improvements (AC&I) account, or partly or entirely through other parts of the federal budget, such as the Department of Defense (DOD) budget, the NSF budget, or both.[48] Within the DOD budget, possibilities include the Navy's shipbuilding account, called the Shipbuilding and Conversion, Navy (SCN) account, and the National Defense Sealift Fund (NDSF), which is an account where DOD sealift ships and Navy auxiliary ships are funded.

There is precedent for funding Coast Guard icebreakers in the DOD budget: The procurement of *Healy* was funded in FY1990 in the DOD budget—specifically, the SCN account.[49] Advocates of funding new icebreakers partly or entirely through the SCN account or the NDSF might argue that this could permit the funding of new icebreakers while putting less pressure on other parts of the Coast Guard's budget. They might also argue that it would permit the new icebreaker program to benefit from the Navy's experience in managing shipbuilding programs. Opponents might argue that funding new icebreakers in the SCN account or the NDSF might put pressure on these other two accounts at a time when the Navy and DOD are facing challenges funding their own shipbuilding and other priorities. They might also argue that having the Navy manage the Coast Guard's icebreaker program would add complexity to the acquisition effort, and that it is unclear whether the Navy's recent performance in managing shipbuilding programs is better than the Coast Guard's, since both services have recently experienced problems in managing shipbuilding programs—the Coast Guard with the procurement of new Deepwater cutters, and the Navy in the Littoral Combat Ship (LCS) program and the LPD-17 class amphibious ship program.[50]

The prepared statement of the GAO witness at the December 1, 2011, hearing states:

> Another alternative option addressed by the Recapitalization report would be to fund new icebreakers through the NSF. However, the analysis of this option concluded that funding a new icebreaker through the existing NSF budget would have significant adverse impacts on

[47] See CRS Report RL31404, *Defense Procurement: Full Funding Policy– Background, Issues, and Options for Congress*, by Ronald O'Rourke and Stephen Daggett, and CRS Report RL32776, *Navy Ship Procurement: Alternative Funding Approaches—Background and Options for Congress*, by Ronald O'Rourke.

[48] For more on the NSF, whose budget is normally funded through the annual Commerce, Justice, Science, and Related Agencies appropriations bill, see CRS Report 95-307, *U.S. National Science Foundation: An Overview*, by Christine M. Matthews.

[49] The FY1990 DOD appropriations act (H.R. 3072/P.L. 101-165 of November 21, 1989) provided $329 million for the procurement of *Healy* in the SCN account. (See pages 77 and 78 of H.Rept. 101-345 of November 13, 1989). The NDSF was created three years later, in FY1993, as a fund for procuring DOD sealift ships, among other purposes, and since FY2001 has been used to fund Navy auxiliary ships as well.

[50] For more on Deepwater acquisition programs and the LCS and LPD-17 programs, see CRS Report RL33753, *Coast Guard Deepwater Acquisition Programs: Background, Oversight Issues, and Options for Congress*, by Ronald O'Rourke; CRS Report RL33741, *Navy Littoral Combat Ship (LCS) Program: Background and Issues for Congress*, by Ronald O'Rourke; and CRS Report RL34476, *Navy LPD-17 Amphibious Ship Procurement: Background, Issues, and Options for Congress*, by Ronald O'Rourke.

> NSF operations and that the capability needed for Coast Guard requirements would exceed that needed by the NSF.
>
> The Recapitalization report noted that a funding approach similar to the approach used for the Healy, which was funded through the fiscal year 1990 DOD appropriations, should be considered. However, the report did not analyze the feasibility of this option. We have previously reported that because of the Coast Guard's statutory role as both a federal maritime agency and a branch of the military, it can receive funding through both the Department of Homeland Security (DHS) and DOD. For example, as we previously reported, although the U.S. Navy is not expressly required to provide funding to the Coast Guard, the Coast Guard receives funding from the Navy to purchase and maintain equipment, such as self-defense systems or communication systems, because it is in the Navy's interest for the Coast Guard systems to be compatible with the Navy's systems when the Coast Guard is performing national defense missions in support of the Navy. However, according to a Coast Guard budget official, the Coast Guard receives the majority of its funding through the DHS appropriation, with the exception of reimbursements for specific activities. Also, as the Recapitalization plan acknowledges, there is considerable strain on the DOD budget. A recent DOD report on the Arctic also notes budgetary challenges, stating that the near-term fiscal and political environment will make it difficult to support significant new U.S. investments in the Arctic. Furthermore, DOD and the Coast Guard face different mission requirements and timelines. For example, DOD's recent report states that the current level of human activity in the Arctic is already of concern to DHS, whereas the Arctic is expected to remain a peripheral interest to much of the national security community for the next decade or more. As a result, the Coast Guard has a more immediate need than DOD to acquire Arctic capabilities, such as icebreakers. For example, with preliminary plans for drilling activity approved in 2011, the Coast Guard must be prepared to provide environmental response in the event of an oil spill. Similarly, as cruise ship traffic continues to increase, the Coast Guard must be prepared to conduct search and rescue operations should an incident occur. For these reasons, it is unlikely that an approach similar to the one that was used to build the Healy would be feasible at this time.[51]

At a March 6, 2012, hearing on the Coast Guard's proposed FY2013 budget before the Homeland Security subcommittee of the House Appropriations Committee, Admiral Robert Papp, the Commandant of the Coast Guard, stated:

> But [would] I like to make a case, and this is just Papp's opinion[,] that an icebreaker ought to be a shared cost across the government. The National Science Foundation needs it, the Department of Defense from time to time needs it. Yes, the Coast Guard needs it. But this is something that really begs for an across-government response, and I would say sharing as well.[52]

New Construction vs. Service Life Extension

Another potential issue for Congress is whether requirements for polar icebreakers over the next 25 to 30 years should be met by building new ships, by extending the service lives of existing polar icebreakers, or by pursuing some combination of these options. In assessing this question,

[51] Government Accountability Office, *Coast Guard[:] Observations on Arctic Requirements, Icebreakers, and Coordination with Stakeholders, Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives, Statement of Stephen L. Caldwell, Director, Homeland Security and Justice*, GAO-12-254T, December 1, 2011, pp. 24-25.

[52] Source: Transcript of hearing.

factors to consider include the relative costs of these options, the capabilities that each option would provide, the long-term supportability of older ships whose service lives have been extended, and industrial-base impacts.

Regarding relative costs, as discussed in the "Background" section, the Coast Guard estimates that new icebreakers with a 30-year design life might cost $800 million to $925 million per ship in 2008 dollars, while a 25-year service life extension of *Polar Star* and *Polar Sea* might cost about $400 million per ship in 2008 dollars. (As mentioned earlier, an August 30, 2010, press report stated that the Commandant of the Coast Guard, Admiral Robert Papp, estimated the cost of extending the lives of *Polar Star* and *Polar Sea* at about $500 million per ship.)[53] These estimates, however, should be compared with caution: the estimate for building new ships depends in part on the capabilities that were assumed for those ships, and estimates for service-life extension work can be very uncertain due to the potential for discovering new things about a ship's condition once the ship is opened up for service-life-extension work.

Regarding capabilities provided by each option, the new-construction option would provide entirely new ships with extensive use of new technology, while the service-life-extension option would provide ships that, although modernized and reconditioned, would not be entirely new and would likely make less extensive use of new technologies. Among other things, new-construction ships might be able to make more extensive use of new technologies for reducing crew size, which is a significant factor in a ship's life cycle operating and support costs.

Regarding long-term supportability of older ships, the Coast Guard has expressed concern about the ability to support ships whose service lives have been extended after FY2014, because some contracts that currently provide that support are scheduled to end that year.[54]

Regarding potential impact on the industrial base, 25-year service life extensions would likely provide shipyards and supplier firms with less work, and also exercise a smaller set of shipyard construction skills, than would building new ships.

Procurement vs. Leasing

Another potential issue for Congress is whether future polar icebreakers should be acquired through a traditional acquisition (i.e., the government procuring the ship and owning it throughout its service life) or through a leasing arrangement (under which the icebreakers would be privately built and privately owned, leased to the Coast Guard, and crewed by an all-Coast Guard crew or a mix of Coast Guard personnel and civilian mariners). Factors to consider in assessing this issue include the comparative costs of the two options and the potential differences between them in terms of factors such as average number of days of operation each year and capability for performing various missions. Comparing the potential costs of leasing versus purchasing a capital asset often involves, among other things, calculating the net present value of each option.

At a December 1, 2011, hearing that focused on the polar icebreaker fleet (see "December 1, 2011, Hearing" in "Background"), Admiral Robert Papp, the Commandant of the Coast Guard, stated:

[53] Cid Standifer, "Papp: Refurbished Icebreaker Hulls Could Last 'An Awful Long Time,'" *Inside the Navy*, August 30, 2010. Ellipsis as in original.

[54] CRS discussion with Coast Guard officials, January 30, 2008.

> As far as we can determine, there are no icebreakers available—no heavy icebreakers available for leasing right now. They would have to be constructed [and then leased].
>
> If we were to lease an icebreaker, I'm sure that a company building an icebreaker outside of the government does not have to contend with the same federal acquisition rules that we have to if we were to construct an icebreaker. It could probably be done quicker.
>
> Personally, I'm ambivalent in terms of how we get an icebreaker for the Coast Guard. We've done the legal research. If we lease an icebreaker, we can put a Coast Guard crew on it and still have it as a U.S. vessel supporting U.S. sovereignty.
>
> But the—but they aren't available right now. And the other challenge that we face is the federal acquisition rules and [Office of Management and Budget Circular] A-11 requirements that [direct how to] score the money [in the budget] for leasing. We'd have to put up a significant amount of upfront money even with a lease that we don't have room for within our budget currently.[55]

At another point in the hearing, Admiral Papp stated:

> We have looked at various business case scenarios, each and every time looking at, once again, from our normal perspective, the Coast Guard perspective, which has been owning ships forever. And generally, we keep ships 30-40 years or beyond. There is a point where leasing becomes more expensive, it's at or about the 20-25-year timeline.
>
> I just don't have the experience with leasing to be able to give you a good opinion on it. And once again, I'm ambivalent. We just need the icebreaking capability, I think it's for people who can do the analysis, the proper analysis of—but also have to take into account the capabilities required and we need to get about the business of determining the exact capabilities that we need which would take into account National Science Foundation requirements, Coast Guard requirements, requirements to break-in at McMurdo, to come up with a capable ship.[56]

At another point in the hearing, he stated:

> As I said, sir, I am truly ambivalent to this except from what I experienced. I do have now two points, yes the Navy leases some ships, but we've got a Navy that has well over 300 ships.
>
> So if they lose a leased vessel or something is pulled back or something happens, they have plenty of other ships they can fall back upon. Right now, all I am falling back on is the Coast Guard cutter Healy. And it feels good to know that we own that and that is our ship for 30 or 40 years and we can rely upon it.
>
> In terms of leasing, I don't know. My personal experience is I lease one of my two cars and I pay a lot of money leasing my car. But at the end of the lease period, I have no car and I've spent a lot of money. So I don't know if that's directly applicable to ships as well, but right now I got half my garage is empty because I just turned one in.[57]

[55] Source: Transcript of hearing.

[56] Source: Transcript of hearing.

[57] Source: Transcript of hearing.

At another point in the hearing, he stated:

> We've looked through the legal considerations on this, as long as we have a Coast Guard crew. In fact, you can even make a mixed crew of civilians and Coast Guard people. But as long as it's commanding by—commanded by [a] commissioned officer, you can assert sovereignty, you can take it into war zones and, in fact, the Navy does that as well.[58]

Another witness at the hearing—Mead Treadwell, the lieutenant governor of Alaska—stated:

> [Regarding] The issue of the ships, the company that is building these ships for Shell [Oil] has visited with me and other state officials, and that's why you heard us say in our testimony that we think the leasing option should be considered. We don't have a way to judge the relative cost. But if on the face of it, it seems like it may be a way to get us the capability that the admiral needs.[59]

Another witness at the hearing—Jeffrey Garrett, a retired Coast Guard admiral who spent much of his career on polar icebreakers—stated:

> The perspective I could offer was when I was a member of the Cameron [sic: Commandant's?] staff back in the last '80s here in Washington, we were directed to pursue exactly the same sort of lease versus buy analysis, and in fact, the Coast Guard had a two track procurement strategy to compare leasing a new Polar icebreaker or buying it.
>
> And after over a year of analysis, studies, discussion with other agencies looking around, what became clear was, number one, there was no off-the-shelf asset readily available. And secondly, that in the long run, if you—when you cost it all out and the value of the stream of payments, leasing would actually cost more.
>
> And when we did the recapitalization analysis recently, we also reviewed leasing again, and the I think the findings in that report indicate more expensive over the life of the vessel by about 12 percent.[60]

When asked why this was the finding, Garrett stated:

> A couple of technical things. First of all, whoever builds the ship—and again, this will have to be ship built for the Coast Guard since there's not something off-the-shelf out there that you could lease. Whoever builds it has to raise capital, and nobody can raise capital more inexpensively than the federal government.
>
> Secondly, whoever leases the ship is obviously going to make—want to make a profit on that lease. So just like as Admiral Papp referred to leasing your car, you know, there's going to be a profit involved. And so, if you take the net present value of all of those, of those payments, you got come out with the more expensive package for the same, if you're comparing the same vessel.

[58] Source: Transcript of hearing.

[59] Source: Transcript of hearing. The transcript reviewed by CRS attributes this quote to the GAO witness, Stephen Caldwell, but this appears to be a mistake, as the statement is made by a member of the first witness panel, which included the Commandant of the Coast Guard and the Lieutenant Governor. The GAO witness was a member of the second witness panel. The reference in the quote to "me and other state officials" indicates that the witness speaking was the Lieutenant Governor and not the Commandant.

[60] Source: Transcript of hearing.

> The other, the other issue I think is more intangible and that's just the fact that we're really not talking about an auxiliary like the Naval, like the Navy leases a supply ship or something like that. We're talking about a frontline Coast Guard capital asset, if you will, capital ship that's going to be doing frontline government missions projecting U.S. sovereignty.
>
> And you know, the Navy doesn't lease those kinds of ships for its frontline fleet and the Coast Guard doesn't lease those kinds of ships for its mission capabilities, and that's what we're really talking about in terms of the ship we need here.
>
> So while a lease may look attractive, I think there are several things that indicate it may not be the right way to go. And the—I think that's what we came down to. And again, this is all documented in the past and that late '80s analysis was re-summarizing the president's 1990 report to Congress which basically says leasing is more expensive and it's not the way to go for a new ship. That was the ship that actually became the Healy then.[61]

The prepared statement of Stephen Caldwell, the GAO witness at the hearing, states:

> The three reports discussed earlier in this [GAO] statement all identify funding as a central issue in addressing the existing and anticipated challenges related to icebreakers. In addition to the Coast Guard budget analysis included in the Recapitalization report, all three reports reviewed alternative financing options, including the potential for leasing icebreakers, or funding icebreakers through the National Science Foundation (NSF) or the Department of Defense (DOD). Although DOD has used leases and charters in the past when procurement funding levels were insufficient to address mission requirements and capabilities, both the Recapitalization report and the High Latitude Study determined that the lack of existing domestic commercial vessels capable of meeting the Coast Guard's mission requirements reduces the availability of leasing options for the Coast Guard. Additionally, an initial cost-benefit analysis of one type of available leasing option included in the Recapitalization report and the High Latitude Study suggests that it may ultimately be more costly to the Coast Guard over the 30-year icebreaker lifespan.[62]

Legislative Activity Following Submission of Proposed FY2013 Budget

FY2013 Funding Request

The Coast Guard's proposed FY2013 budget includes $8 million in acquisition funding to initiate survey and design activities for a new polar icebreaker. The Coast Guard's Five Year Capital Investment Plan includes an additional $852 million in FY2014-FY2017 for acquiring the ship. The Coast Guard anticipates awarding a construction contract for the ship "within the next five years" and taking delivery on the ship "within a decade." The project to design and build a polar icebreaker is a new acquisition project initiated in the FY2013 budget.

[61] Source: Transcript of hearing.

[62] Government Accountability Office, *Coast Guard[:] Observations on Arctic Requirements, Icebreakers, and Coordination with Stakeholders, Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives, Statement of Stephen L. Caldwell, Director, Homeland Security and Justice*, GAO-12-254T, December 1, 2011, p. 24.

Coast Guard and Maritime Transportation Act of 2012 (H.R. 2838)

House

On December 5, 2012, the House agreed to Senate amendments to H.R. 2838 with an amendment pursuant to H.Res. 825. On December 12, 2012, the Senate by voice vote agreed to the House amendment to Senate amendment. On December 14, 2012, the bill was presented to the President.

Section 222 of H.R. 2838 as passed by the both the House and Senate states:

> SEC. 222. COAST GUARD POLAR ICEBREAKERS.
>
> (a) In General- The Secretary of the department in which the Coast Guard is operating shall conduct a business case analysis of the options for and costs of reactivating and extending the service life of the Polar Sea until at least September 30, 2022, to maintain United States polar icebreaking capabilities and fulfill the Coast Guard's high latitude mission needs, as identified in the Coast Guard's July 2010, High Latitude Study Mission Analysis Report, during the Coast Guard's recapitalization of its polar class icebreaker fleet. The analysis shall include--
>
> (1) an assessment of the current condition of the Polar Sea;
>
> (2) a determination of the Polar Sea's operational capabilities with respect to fulfilling the Coast Guard's high latitude operating requirements if renovated and reactivated;
>
> (3) a detailed estimate of costs with respect to reactivating and extending the service life of the Polar Sea;
>
> (4) a life cycle cost estimate with respect to operating and maintaining the Polar Sea for the duration of its extended service life; and
>
> (5) a determination of whether it is cost-effective to reactivate the Polar Sea compared with other options to provide icebreaking services as part of a strategy to maintain polar icebreaking services.
>
> (b) Restrictions- The Secretary shall not remove any part of the Polar Sea until the Secretary submits the analysis required under subsection (a).
>
> (c) Deadline- Not later than 270 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate the analysis required under subsection (a).
>
> (d) Requirement for Reactivation of Polar Sea-
>
> (1) SERVICE LIFE EXTENSION PLAN-
>
> (A) IN GENERAL- If the Secretary determines based on the analysis required under subsection (a) that it is cost-effective to reactivate the Polar Sea compared with other options to provide icebreaking services, the Secretary shall develop a service life extension plan for such reactivation, including a timetable for such reactivation.

(B) UTILIZATION OF EXISTING RESOURCES- In the development of the plan required under subparagraph (A), the Secretary shall utilize to the greatest extent practicable recent plans, studies, assessments, and analyses regarding the Coast Guard's icebreakers and high latitude mission needs and operating requirements.

(C) SUBMISSION- The Secretary shall submit the plan required under subparagraph (A), if so required, to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than 180 days after the submission of the analysis required under subsection (a).

(2) DECOMMISSIONING; BRIDGING STRATEGY- If the analysis required under subsection (a) is submitted in accordance with subsection (c) and the Secretary determines under subsection (a)(5) that it is not cost-effective to reactivate the Polar Sea, then not later than 180 days after the date on which the analysis is required to be submitted under subsection (c) the Commandant of the Coast Guard--

(A) may decommission the Polar Sea; and

(B) shall submit a bridging strategy for maintaining the Coast Guard's polar icebreaking services until at least September 30, 2022, to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

(e) Restriction- Except as provided in subsection (d), the Commandant of the Coast Guard may not--

(1) transfer, relinquish ownership of, dismantle, or recycle the Polar Sea or Polar Star;

(2) change the current homeport of either of the vessels; or

(3) expend any funds--

(A) for any expenses directly or indirectly associated with the decommissioning of either of the vessels, including expenses for dock use or other goods and services;

(B) for any personnel expenses directly or indirectly associated with the decommissioning of either of the vessels, including expenses for a decommissioning officer;

(C) for any expenses associated with a decommissioning ceremony for either of the vessels;

(D) to appoint a decommissioning officer to be affiliated with either of the vessels; or

(E) to place either of the vessels in inactive status.

(f) Definition- For purposes of this section--

(1) the term 'Polar Sea' means Coast Guard Cutter Polar Sea (WAGB 11); and

(2) the term 'Polar Star' means Coast Guard Cutter Polar Star (WAGB 10).

(g) Repeal- This section shall cease to have effect on September 30, 2022.

Coast Guard and Maritime Transportation Act of 2012 (H.R. 5887)

House

Section 304 of H.R. 5887 as introduced on June 1, 2012, states:

SEC. 304. USCGC 'POLAR SEA'.

(a) In General- Not later than 180 days after the date of enactment of this Act, the Secretary of the department in which the Coast Guard is operating shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report providing a business-case analysis of the options for and costs of reactivating and extending the service life of the USCGC Polar Sea until the estimated date on which a new polar-class icebreaker is commissioned. The Secretary shall include in the report—

(1) an assessment of the current condition of the USCGC Polar Sea and a determination of the vessel's operational capabilities with respect to fulfilling the Coast Guard's high latitude operating requirements;

(2) a detailed estimate of costs with respect to reactivating and extending the service life of the USCGC Polar Sea to a condition at least comparable to the condition of the USCGC Polar Star when it enters service in 2013; and

(3) a life cycle cost estimate with respect to operating and maintaining the USCGC Polar Sea for the duration of its extended service life.

(b) Restriction- The Secretary shall not remove any major equipment, systems, or other appurtenances from the USCGC Polar Sea for planned or potential work to refurbish the USCGC Polar Star until the Secretary submits the report required under subsection (a).

FY2013 Department of Homeland Security Appropriations Act (H.R. 5855/S. 3216)

House

The House Appropriations Committee, in its report (H.Rept. 112-492 of May 23, 2012) on H.R. 5855, recommends approving the Coast Guard's request for $8 million in FY2013 acquisition funding to initiate survey and design activities for a new polar icebreaker. (Pages 84 and 90)

Senate

The Senate Appropriations Committee, in its report (S.Rept. 112-169 of May 22, 2012) on S. 3216, recommends approving the Coast Guard's request for $8 million in FY2013 acquisition funding to initiate survey and design activities for a new polar icebreaker. (Page 83) The report states:

POLAR ICEBREAKER

The recommendation includes $8,000,000, as requested, to initiate survey and design activities for a new Coast Guard polar icebreaker. The Coast Guard's two heavy polar icebreakers (*Polar Star* and *Polar Sea*), the only U.S. vessels that have the capability to perform year-round operations in the polar regions, are currently inoperable, with the *Polar Sea* set to be decommissioned and *Polar Star* set to be reactivated in 2013 for an additional 7 to 10 years of service life. Both the *Polar Sea* and *Polar Star* were commissioned in the late 1970's and have exceeded their expected service life of 30 years. The Coast Guard's high latitude study, which was completed in 2010, concluded that additional icebreaking assets are necessary in the polar regions. This followed a National Academy of Science study that made similar conclusions. The Coast Guard has indicated that its mission needs statement [MNS] for this acquisition is to be completed by June 2012. The Coast Guard shall submit this document to the Committee no later than 30 days after it receives Departmental approval and brief the Committee on its timeline for completing a concept of operations, market research, specification development, and other acquisition milestones leading to a request for proposal and contract award. (Pages 87-88; material in brackets as in original)

Appendix A. Coast Guard Activities Since 2008 To Assess Requirements and Options for Polar Icebreakers

This appendix presents information on Coast Guard activities since 2008 to assess requirements and acquisition options for polar icebreakers.

The Coast Guard stated in February 2008 that it

> is awaiting the identification and prioritization of U.S. national policy in the Polar Regions in order to identify and develop the appropriate capability. In the meantime, the CG is proceeding with pre-acquisition activities, starting with project identification, to assess current capability gaps in Coast Guard mission performance in the high latitudes regions.[63]

In connection with this statement, it can be noted that a document establishing U.S. national policy in the Arctic—National Security Presidential Directive 66/Homeland Security Presidential Directive 25 (NSPD 66/HSPD 25)—was issued by the George W. Bush Administration on January 12, 2009.[64]

A March 24, 2008, press report stated that

> [Coast Guard] Commanders in Alaska plan to conduct an unprecedented expedition to the Arctic this summer, including a trip already underway by the Healy, to get a clear sense of their capabilities and problems operating above the Bering Strait. When that survey is finished, probably by August [2008], [then-Coast Guard Commandant Admiral Thad] Allen and the commander of District 17, Rear Adm. Arthur "Gene" Brooks, will be able to make their case to Congress for funding and new gear, Allen said.[65]

On July 16, 2008, then-Commandant of the Coast Guard Admiral Thad Allen, testified that

> Today, our nation is at a crossroads with Coast Guard domestic and international icebreaking capabilities. We have important decisions to make. And I believe we must address our icebreaking needs now, to ensure we will continue to prosper in the years and decades to come, whether on the Great Lakes, the critical waterways of the East Coast or the harsh operating environments of the polar region.[66]

An August 17, 2008, press report quoted Admiral Allen as stating that, in light of the time required to build a new polar icebreaker, "I think we're at a crisis point on making a decision."[67]

[63] Coast Guard point paper provided to CRS on February 12, 2008, op cit.

[64] For more on NSPD 66/HSPD 25, see CRS Report R41153, *Changes in the Arctic: Background and Issues for Congress*, coordinated by Ronald O'Rourke.

[65] Philip Ewing, "CG Steps Up Bid to Rescue Icebreaker Funding," *Navy Times*, March 24, 2008.

[66] Transcript of spoken remarks of Admiral Allen at July 16, 2008, hearing on Coast Guard icebreaking needs before the Coast Guard and Maritime transportation subcommittee of the House Transportation and Infrastructure Committee.

[67] Andrew C. Revkin, "A Push To Increase Icebreakers In The Arctic," *New York Times*, August 17, 2008.

Almost two years later—on May 10, 2010—a press report quoted him as stating, "We need to be able to project U.S. sovereignty up there [i.e., the Arctic] and do the missions that we need to do. We need to have a serious discussion about icebreakers. It has not concluded. It's not even started, and you can see me be a little more vocal on that on the 26th of May [2010] because my change of command [i.e., the end of his term in office as Commandant of the Coast Guard] is the 25th of May."[68]

An August 30, 2010, press report stated that the current Commandant of the Coast Guard, Admiral Robert Papp,

> has not yet discussed the matter [of polar icebreakers] with Department of Homeland Security Secretary Janet Napolitano because he has been focused on dealing with the Deepwater Horizon oil spill since he took the helm of the Coast Guard in May.
>
> "I will have to make the case with my secretary on what I think the best way ahead [for icebreakers] is," he said. "I've got my staff looking at those options and what we might do, and then once we discern what the best way ahead is, then we're going to have to sell that to the administration and hopefully get the funding from Congress."[69]

A September 2010 GAO report on the Coast Guard's efforts to identify Arctic requirements in general stated:

> The Coast Guard has taken specific action to identify Arctic requirements and gaps while also collecting relevant information from routine operations. The High Latitude Study is the centerpiece of the agency's efforts to determine its Arctic requirements. The Coast Guard has also established temporary operating locations in the Arctic and conducted biweekly Arctic overflights to obtain more information on the Arctic operating environment. In addition, information gathered during the Coast Guard's routine missions—ice breaking, search and rescue, and others—also informs requirements. The agency's preliminary efforts to identify its Arctic requirements generally align with key practices for agencies defining missions and desired outcomes.
>
> The Coast Guard faces Arctic challenges including limited information, minimal assets and infrastructure, personnel issues, and difficult planning and funding decisions, but is taking initial steps to address these challenges. Specifically, the Coast Guard does not currently have Arctic maritime domain awareness—a full understanding of variables that could affect the security, safety, economy, or environment in the Arctic—but is acquiring additional Arctic vessel tracking data, among other things, to address this issue. In addition, the Coast Guard's Arctic assets and infrastructure are limited and not suitable for the harsh environment, but the agency is testing equipment and using alternative options to mitigate gaps. Finally, the Coast Guard faces uncertainty over the timing of predicted environmental changes in the Arctic, as well as over future funding streams. To address these challenges the Coast Guard obtains scientific data on Arctic climate change and is studying its Arctic resource requirements to support potential future funding needs.[70]

[68] Cid Standifer, Dan Taylor and Zachary M. Peterson, "Notes From The Navy League's Sea-Air-Space Conference And Exhibition, May 3-5, 2010, National Harbor, MD," *Inside the Navy*, May 10, 2010. On May 1, 2010, Janet Napolitano, Secretary of the Department of Homeland Security, announced that Allen would serve as the National Incident Commander for the Administration's response to the Deepwater Horizon oil spill in the Gulf of Mexico. Allen stepped down as Commandant on May 25, 2010, and retired from active duty service in the Coast Guard on June 30, 2010, but continued as a civilian in his role as the National Incident Commander for the oil spill. A September 27, 2010, press report states that Allen would step down as National Incident Commander on September 30, 2010. (Rick Jervis, "BP Spill Shapes Allen's Legacy," *Navy Times.com*, September 27, 2010.

[69] Cid Standifer, "Papp: Refurbished Icebreaker Julls Could Last 'An Awful Long Time.'" *Inside the Navy*, August 30, 2010.

> Coast Guard obtains scientific data on Arctic climate change and is studying its Arctic resource requirements to support potential future funding needs.[70]

The report also stated:

> The Coast Guard has multiple efforts underway to better understand the agency's future requirements and gaps in both the Arctic and Antarctic with its primary effort being the High Latitude Study, an effort undertaken in response to congressional direction. In August 2009, the Coast Guard contracted out the development of the High Latitude Study with the goal of producing three related mission analyses related to (1) Polar icebreaking needs, (2) all 11 Coast Guard missions in the Arctic region, and (3) all 11 Coast Guard missions in the Antarctic region. In carrying out the study, contractors have conducted literature reviews, held workshops to obtain Coast Guard stakeholder input, and conducted site visits and interviews with Coast Guard units in Alaska as well as with other stakeholders, including private sector, federal, state, local, Alaska Native, and international interest groups. Coast Guard officials estimate the study's cost at $1.7 million and that all three volumes will be ready for Coast Guard internal review in summer 2010; however, they won't be released publicly until a later date.
>
> The Arctic mission analysis piece of the High Latitude Study is expected to include
>
> - an analysis of the functional requirements to carry out the Coast Guard's existing missions in the Arctic,
> - an analysis of how the Coast Guard might close any operational gaps,
> - solutions for a range of future demand scenarios such as a mass search and rescue incident or an Arctic oil spill (including looking at partnerships and opportunities to leverage resources), and
> - a rough order of magnitude cost estimate.
>
> According to Coast Guard officials, the High Latitude Study is not expected to detail specific recommended solutions or assets, but rather identify the types of capabilities needed in the Arctic. In addition, while not Arctic-specific, DHS and the Coast Guard have begun a comprehensive Fleet Mix Analysis—an analysis of the capabilities, number, and mix of assets it needs to fulfill the agency's missions. According to Coast Guard officials, this analysis is due to be completed in December 2010 and is expected to include more specific fleet requirements for surface operations in the Bering Sea region of the Arctic but not above the Arctic Circle.[71]

The Coast Guard provided the above-cited High Latitude Study to Congress in July 2011. The study, dated July 2010 on its cover, analyzes and makes a series of findings relating to U.S. needs for polar icebreakers. (See "Coast Guard High Latitude Study Provided to Congress in July 2011" in "Background.")

[70] Government Accountability Office, *Coast Guard[:] Efforts to Identify Arctic Requirements Are Ongoing, but More Communication about Agency Planning Efforts Would Be Beneficial*, GAO-10-870, September 2010, summary page.

[71] Government Accountability Office, *Coast Guard[:] Efforts to Identify Arctic Requirements Are Ongoing, but More Communication about Agency Planning Efforts Would Be Beneficial*, GAO-10-870, September 2010, pp. 24-26.

Appendix B. Legislative Activity in 111th and 110th Congresses

This appendix presents information on legislative activity regarding polar icebreakers in the 111th and the 110th Congresses, beginning with legislative activity for FY2011 and working backwards.

Headings below that lack Public Law (P.L.) numbers indicate bills that were not enacted into law by the end of the 111th and 110th Congresses. Details on the final legislative actions taken on these bills are available from the Legislative Information System (LIS).

FY2011 DOD and Full-Year Continuing Appropriations Act (H.R. 1473/P.L. 112-10)

The text of the FY2011 Department of Defense and Full-Year Continuing Appropriations Act (H.R. 1473/P.L. 112-10 of April 15, 2011) does not provide any funding specifically identified as being for polar icebreaker sustainment or refurbishment, or for acquisition of new polar icebreakers.

FY2011 DHS Appropriations Bill (S. 3607)

Senate

The Senate Appropriations Committee, in its report (S.Rept. 111-222 of July 19, 2010) on S. 3607 of the 111th Congress, did not recommend any funding in the Coast Guard's AC&I account for polar icebreaker sustainment or refurbishment, or for acquisition of new polar icebreakers (pages 82-83). The report states:

> POLAR ICEBREAKER SUSTAINMENT
>
> The Coast Guard shall continue to periodically brief the Committee on progress made to reactivate CGC Polar Star. According to the Coast Guard, reactivation work will be completed by 2013, increasing the fleet of operational polar icebreakers to three. As discussed in the "Operating Expenses" section of this report, the Committee expects sufficient funding to be requested in fiscal year 2012 to field a crew for the vessel.
>
> The Committee recently learned that the Polar Sea has been unexpectedly taken out of service due to excessive wear in its main diesel engines and will likely be in a maintenance status and unavailable for operations until at least January 2011. As a result of this situation, the scheduled fall 2010 Arctic patrol will be cancelled as will an Antarctic Operation Deep Freeze standby period (December 2010-January 2011). The Committee is aware of a root-cause failure-analysis into the underlying cause of the engine wear. The Committee is to be briefed on its results upon its completion and the Coast Guard's plans to address them. (Page 86)

The report also states:

> POLAR OPERATIONS AND MAINTENANCE FUNDING
>
> The Committee notes the budget request once again does not transfer operating and maintenance funds for the polar icebreakers from the National Science Foundation [NSF] to the Coast Guard despite congressional direction to the contrary. P.L. 111-117 transfers $54,000,000 from the NSF to the Coast Guard for icebreaking services to cover all anticipated operation and maintenance costs for fiscal year 2010.[72] For fiscal year 2012, the Committee expects the operating and maintenance budget authority and associated FTE to be included in the Coast Guard's budget request.
>
> The Coast Guard expects the Polar Star to be reactivated in fiscal year 2013. In keeping with the standard practice of crewing ships in advance to ensure appropriate training and readiness, fielding a crew for the Polar Star is required in fiscal year 2012. The Committee expects sufficient funding to be included in the Coast Guard's fiscal year 2012 request for this purpose.
>
> The Committee also notes that the Coast Guard's analysis of national mission needs in the high latitude regions has yet to be completed. This effort was funded in fiscal year 2009 to inform the national polar policy debate. The results of this study are to be submitted expeditiously and include projected assets and resources necessary to address identified requirements. (Page 80; material in brackets as in original)

Coast Guard Authorization Act of 2010 (H.R. 3619/P.L. 111-281)

H.R. 3619 was passed by the House on October 23, 2009, and by the Senate on May 7, 2010. The Senate-passed version substituted the text of S. 1194 as reported by the Senate Commerce, Science, and Transportation Committee (see below), with modifications. The House and Senate resolved their differences and passed the final version of the bill on September 29 and 30, 2010. The bill was presented to the President on October 4, 2010, and signed into law as P.L. 111-281 on October 15, 2010.

House

The Coast Guard Authorization Act of 2010 (H.R. 3619) as reported by the House Committee on Transportation and Infrastructure (H.Rept. 111-303, Part 1, of October 16, 2009) contains two provisions relating to polar icebreaking—Section 311 and Section 1316.

[72] The FY2010 Consolidated Appropriations Act (H.R. 3288/P.L. 111-117 of December 16, 2009) states, in the paragraph that appropriates funds for NSF research and related activities, that the funds are made available provided, among other things, "That from funds specified in the fiscal year 2010 budget request for icebreaking services, $54,000,000 shall be transferred to the U.S. Coast Guard 'Operating Expenses' within 60 days of enactment of this Act...." The conference report on H.R. 3288 (H.Rept. 111-366 of December 8, 2009) states:

> The conference agreement transfers $54,000,000 from NSF to the United States Coast Guard (USCG) for icebreaking services to cover all anticipated operation and maintenance costs for fiscal year 2010. The conferees expect that in future years all operation and maintenance budget authority for these USCG icebreakers will be requested by the Department of Homeland Security. (Page 766)

Section 311 states:

> SEC. 311. ARCTIC MARINE SHIPPING ASSESSMENT IMPLEMENTATION.
>
> (a) Purpose- The purpose of this section is to ensure safe, secure, and reliable maritime shipping in the Arctic including the availability of aids to navigation, vessel escorts, spill response capability, and maritime search and rescue in the Arctic.
>
> (b) International Maritime Organization Agreements- To carry out the purpose of this section, the Secretary of the department in which the Coast Guard is operating shall work through the International Maritime Organization to establish agreements to promote coordinated action among the United States, Russia, Canada, Iceland, Norway, and Denmark and other seafaring and Arctic nations to ensure, in the Arctic—
>
> (1) placement and maintenance of aids to navigation;
>
> (2) appropriate icebreaking escort, tug, and salvage capabilities;
>
> (3) oil spill prevention and response capability;
>
> (4) maritime domain awareness, including long-range vessel tracking; and
>
> (5) search and rescue.
>
> (c) Coordination by Committee on the Maritime Transportation System- The Committee on the Maritime Transportation System established under a directive of the President in the Ocean Action Plan, issued December 17, 2004, shall coordinate the establishment of domestic transportation policies in the Arctic necessary to carry out the purpose of this section.
>
> (d) Agreements and Contracts- The Secretary of the department in which the Coast Guard is operating may, subject to the availability of appropriations, enter into cooperative agreements, contracts, or other agreements with, or make grants to individuals and governments to carry out the purpose of this section or any agreements established under subsection (b).
>
> (e) Icebreaking- The Secretary of the department in which the Coast Guard is operating shall promote safe maritime navigation by means of icebreaking where needed to assure the reasonable demands of commerce.
>
> (f) Demonstration Projects- The Secretary of Transportation may enter into cooperative agreements, contracts, or other agreements with, or make grants to, individuals to conduct demonstration projects to reduce emissions or discharges from vessels operating in the Arctic.
>
> (g) Authorization of Appropriations- There are authorized to be appropriated—
>
> (1) to the Secretary of the department in which the Coast Guard is operating—
>
> (A) $5,000,000 for each of fiscal years 2011 through 2015 for seasonal operations in the Arctic; and
>
> (B) $10,000,000 for each of fiscal years 2012 through 2015 to carry out agreements established under subsection (d); and

> (2) to the Secretary of Transportation $5,000,000 for each of fiscal years 2011 through 2015 to conduct demonstration projects under subsection (f).
>
> (h) Icebreakers-
>
> (1) ANALYSES- Not later than 90 days after the date of enactment of this Act or the date of completion of the ongoing High Latitude Study to assess Arctic polar ice-breaking mission requirements, which ever occurs later, the Commandant of the Coast Guard shall—
>
> (A) conduct a comparative cost-benefit analysis of—
>
> (i) rebuilding, renovating, or improving the existing fleet of icebreakers for operation by the Coast Guard,
>
> (ii) constructing new icebreakers for operation by the Coast Guard, and
>
> (iii) any combination of the activities described in clauses (i) and (ii), to carry out the missions of the Coast Guard; and
>
> (B) conduct an analysis of the impact on mission capacity and the ability of the United States to maintain a presence in the Arctic regions through the year 2020 if recapitalization of the icebreaker fleet, either by constructing new icebreakers or rebuilding, renovating, or improving the existing fleet of icebreakers, is not fully funded.
>
> (2) REPORTS TO CONGRESS-
>
> (A) Not later than 90 days after the date of enactment of this Act or the date of completion of the ongoing High Latitude Study to assess Arctic ice-breaking mission requirements, which ever occurs later, the Commandant of the Coast Guard shall submit a report containing the results of the study, together with recommendations the Commandant deems appropriate under section 93(a)(24) of title 14, United States Code, to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure.
>
> (B) Not later than 1 year after the date of enactment of this Act, the Commandant shall submit reports containing the results of the analyses required under subparagraphs (A) and (B) of paragraph (1), together with recommendations the Commandant deems appropriate under section 93(a)(24) of title 14, United States Code, to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure.
>
> (i) Arctic Definition- In this section the term 'Arctic' has the same meaning as in section 112 of the Arctic Research and Policy Act of 1984 (15 U.S.C. 4111).

Section 1316 states:

> SEC. 1316. ASSESSMENT OF NEEDS FOR ADDITIONAL COAST GUARD PRESENCE IN HIGH LATITUDE REGIONS.
>
> Within 270 days after the date of enactment of this Act, the Secretary of the department in which the Coast Guard is operating shall submit a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives assessing the need for additional Coast Guard prevention and response capability in the high latitude regions. The assessment shall address

needs for all Coast Guard mission areas, including search and rescue, marine pollution response and prevention, fisheries enforcement, and maritime commerce. The Secretary shall include in the report—

(1) an assessment of the high latitude operating capabilities of all current Coast Guard assets, including assets acquired under the Deepwater program;

(2) an assessment of projected needs for Coast Guard forward operating bases in the high latitude regions;

(3) an assessment of shore infrastructure, personnel, logistics, communications, and resources requirements to support Coast Guard forward operating bases in the high latitude regions;

(4) an assessment of the need for high latitude icebreaking capability and the capability of the current high latitude icebreaking assets of the Coast Guard, including—

(A) whether the Coast Guard's high latitude icebreaking fleet is meeting current mission performance goals;

(B) whether the fleet is capable of meeting projected mission performance goals; and

(C) an assessment of the material condition, safety, and working conditions aboard high latitude icebreaking assets, including the effect of those conditions on mission performance;

(5) a detailed estimate of acquisition costs for each of the assets (including shore infrastructure) necessary for additional prevention and response capability in high latitude regions for all Coast Guard mission areas, and an estimate of operations and maintenance costs for such assets for the initial 10-year period of operations; and

(6) detailed cost estimates (including operating and maintenance for a period of 10 years) for high latitude icebreaking capability to ensure current and projected future mission performance goals are met, including estimates of the costs to—

(A) renovate and modernize the Coast Guard's existing high latitude icebreaking fleet; and

(B) replace the Coast Guard's existing high latitude icebreaking fleet.

Senate

On May 7, 2010, the Senate passed S.Amdt. 3912, which amended H.R. 3619 by substituting the text of S. 1194 as reported by the Senate Commerce, Science, and Transportation Committee (see below), with modifications. The Senate then passed H.R. 3619 the same day. **Section 603** of the Senate-passed version of H.R. 3619 states:

SEC. 603. ICEBREAKERS.

(a) ANALYSES- Not later than 90 days after the date of enactment of this Act or the date of completion of the ongoing High Latitude Study to assess polar ice-breaking mission requirements, whichever occurs later, the Commandant of the Coast Guard shall require a nongovernmental, independent third party (other than the National Academy of Sciences) which has extensive experience in the analysis of military procurements to—

(1) conduct a comparative cost-benefit analysis, taking into account future Coast Guard budget projections (which assume Coast Guard budget growth of no more than inflation) and other recapitalization needs, of—

(A) rebuilding, renovating, or improving the existing fleet of polar icebreakers for operation by the Coast Guard,

(B) constructing new polar icebreakers for operation by the Coast Guard,

(C) construction of new polar icebreakers by the National Science Foundation for operation by the Foundation,

(D) rebuilding, renovating, or improving the existing fleet of polar icebreakers by the National Science Foundation for operation by the Foundation, and

(E) any combination of the activities described in subparagraph (A), (B), (C), or (D) to carry out the missions of the Coast Guard and the National Science Foundation;

(2) conduct an analysis of the impact on mission capacity and the ability of the United States to maintain a presence in the polar regions through the year 2020 if recapitalization of the polar icebreaker fleet, either by constructing new polar icebreakers or rebuilding, renovating, or improving the existing fleet of polar icebreakers, is not fully funded; and

(3) conduct a comprehensive analysis of the impact on all Coast Guard activities, including operations, maintenance, procurements, and end strength, of the acquisition of polar icebreakers described in paragraph (1) by the Coast Guard or the National Science Foundation assuming that total Coast Guard funding will not increase more than the annual rate of inflation.

(b) Reports to Congress-

(1) Not later than one year and 90 days after the date of enactment of this Act or the date of completion of the ongoing High Latitude Study to assess polar ice-breaking mission requirements, whichever occurs later, the Commandant of the Coast Guard shall submit a report containing the results of the study, together with recommendations the Commandant deems appropriate under section 93(a)(24) of title 14, United States Code, to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure.

(2) Not later than 1 year after the date of enactment of this Act, the Commandant shall submit reports containing the results of the analyses required under paragraphs (1) and (2) of subsection (a), together with recommendations the Commandant deems appropriate under section 93(a)(24) of title 14, United States Code, to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure.

Final Version

Section 307 of H.R. 3619/P.L. 111-281 states:

SEC. 307. ARCTIC MARINE SHIPPING ASSESSMENT IMPLEMENTATION.

(a) Purpose- The purpose of this section is to ensure safe and secure maritime shipping in the Arctic including the availability of aids to navigation, vessel escorts, spill response capability, and maritime search and rescue in the Arctic.

(b) International Maritime Organization Agreements- To carry out the purpose of this section, the Secretary of the department in which the Coast Guard is operating is encouraged to enter into negotiations through the International Maritime Organization to conclude and execute agreements to promote coordinated action among the United States, Russia, Canada, Iceland, Norway, and Denmark and other seafaring and Arctic nations to ensure, in the Arctic—

(1) placement and maintenance of aids to navigation;

(2) appropriate marine safety, tug, and salvage capabilities;

(3) oil spill prevention and response capability;

(4) maritime domain awareness, including long-range vessel tracking; and

(5) search and rescue.

(c) Coordination by Committee on the Maritime Transportation System- The Committee on the Maritime Transportation System established under a directive of the President in the Ocean Action Plan, issued December 17, 2004, shall coordinate the establishment of domestic transportation policies in the Arctic necessary to carry out the purpose of this section.

(d) Agreements and Contracts- The Secretary of the department in which the Coast Guard is operating may, subject to the availability of appropriations, enter into cooperative agreements, contracts, or other agreements with, or make grants to individuals and governments to carry out the purpose of this section or any agreements established under subsection (b).

(e) Icebreaking- The Secretary of the department in which the Coast Guard is operating shall promote safe maritime navigation by means of icebreaking where necessary, feasible, and effective to carry out the purposes of this section.

(f) Independent Ice Breaker Analyses-

(1) IN GENERAL- Not later than 90 days after the date of enactment of this Act, the Secretary of the department in which the Coast Guard is operating shall require a nongovernmental, independent third party (other than the National Academy of Sciences) that has extensive experience in the analysis of military procurements, to—

(A) conduct a comparative cost-benefit analysis, taking into account future Coast Guard budget projections (which assume Coast Guard budget growth of no more than inflation) and other recapitalization needs, of—

(i) rebuilding, renovating, or improving the existing fleet of polar icebreakers for operation by the Coast Guard;

(ii) constructing new polar icebreakers for operation by the Coast Guard;

(iii) construction of new polar icebreakers by the National Science Foundation for operation by the Foundation;

(iv) rebuilding, renovating, or improving the existing fleet of polar icebreakers by the National Science Foundation for operation by the Foundation; and

(v) any combination of the activities described in clause (i), (ii), (iii), or (iv) to carry out the missions of the Coast Guard and the National Science Foundation; and

(B) conduct a comprehensive analysis of the impact on all Coast Guard activities, including operations, maintenance, procurements, and end strength, of the acquisition of polar icebreakers described in subparagraph (A) by the Coast Guard or the National Science Foundation assuming that total Coast Guard funding will not increase more than the annual rate of inflation.

(2) REPORT- Not later than 1 year after the date of enactment of this Act, the Secretary of the department in which the Coast Guard is operating shall submit a report containing the results of the analyses required under paragraph (1), together with recommendations the Commandant considers appropriate under section 93(a)(24) of title 14, United States Code, to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.

(g) High-Latitude Study- Not later than 90 days after the date of enactment of this Act or the date of completion of the ongoing High-Latitude Study to assess polar icebreaking mission requirements for all Coast Guard missions including search and rescue, marine pollution response and prevention, fisheries enforcement, and maritime commerce, whichever occurs later, the Commandant of the Coast Guard shall submit a report containing the results of the study, together with recommendations the Commandant considers appropriate under section 93(a)(24) of title 14, United States Code, to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.

(h) Arctic Definition- In this section the term 'Arctic' has the same meaning as in section 112 of the Arctic Research and Policy Act of 1984 (15 U.S.C. 4111).

FY2010 and FY2011 Coast Guard Authorization Bill (S. 1194)

Senate

The Senate Commerce, Science, and Transportation Committee reported S. 1194 on October 30, 2009 (S.Rept. 111-95 of October 30, 2009). Section 604 of S. 1194 as reported by the committee states:

SEC. 604. ICEBREAKERS.

(a) ANALYSES- Not later than 90 days after the date of enactment of this Act or the date of completion of the ongoing High Latitude Study to assess polar ice-breaking mission requirements, which ever occurs later, the Commandant of the Coast Guard shall—

(1) conduct a comparative cost-benefit analysis of—

(A) rebuilding, renovating, or improving the existing fleet of polar icebreakers for operation by the Coast Guard,

(B) constructing new polar icebreakers for operation by the Coast Guard for operation by the Coast Guard, and

(C) any combination of the activities described in subparagraphs (A) and (B), to carry out the missions of the Coast Guard; and

(2) conduct an analysis of the impact on mission capacity and the ability of the United States to maintain a presence in the polar regions through the year 2020 if recapitalization of the polar icebreaker fleet, either by constructing new polar icebreakers or rebuilding, renovating, or improving the existing fleet of polar icebreakers, is not fully funded.

(b) Reports to Congress-

(1) Not later than 90 days after the date of enactment of this Act or the date of completion of the ongoing High Latitude Study to assess polar ice-breaking mission requirements, which ever occurs later, the Commandant of the Coast Guard shall submit a report containing the results of the study, together with recommendations the Commandant deems appropriate under section 93(a)(24) of title 14, United States Code, to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure.

(2) Not later than 1 year after the date of enactment of this Act, the Commandant shall submit reports containing the results of the analyses required under paragraphs (1) and (2) of subsection (a), together with recommendations the Commandant deems appropriate under section 93(a)(24) of title 14, United States Code, to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure.

S.Rept. 111-95 summarizes Section 604 on pages 24-25.

On May 7, 2010, the Senate passed S.Amdt. 3912, which amended H.R. 3619 (see above) by substituting the text of S. 1194 as reported by the Senate Commerce, Science, and Transportation Committee, with modifications. The Senate then passed H.R. 3619 the same day.

Arctic Marine Shipping Assessment Implementation Act of 2009 (H.R. 2865/S. 1514/S. 1561)

House

H.R. 2865 was introduced on June 12, 2009. Section 8(1)(A) would authorize appropriations of $750 million per year in FY2011 and FY2012 for the construction of two polar capable icebreakers.

Section 2 states that Congress finds and declares several things, including the following:

The United States has continuing research, security, environmental, and commercial interests in the Arctic region that rely on the availability of icebreaker platforms of the Coast Guard. The Polar Class icebreakers commissioned in the 1970s are in need of replacement.

and

Building new icebreakers, mustering international plans for aids to navigation and other facilities, and establishing coordinated shipping regulations and oil spill prevention and response capability through international cooperation, including the approval of the International Maritime Organization, requires long lead times. Beginning those efforts now, with the completion of an Arctic Marine Shipping Assessment by the eight-nation Arctic Council, is essential to protect United States interests given the extensive current use of the Arctic Ocean and adjacent seas by vessels of many nations.

Section 3 states:

To carry out the purpose of this Act, the Secretary of the department in which the Coast Guard is operating shall work through the International Maritime Organization to establish agreements to promote coordinated action among the United States, Russia, Canada, Iceland, Norway, and Denmark and other seafaring and Arctic nations to ensure, in the Arctic....

(2) appropriate icebreaking escort, tug, and salvage capabilities.

Section 6 states, in its entirety:

The Secretary of the department in which the Coast Guard is operating shall promote safe maritime navigation by means of icebreaking where needed to assure the reasonable demands of commerce.

Senate

S. 1514 was introduced on July 24, 2009. Section 8(1)(A) would authorize appropriations of $750 million per year in FY2011 and FY2012 for the construction of two polar capable icebreakers.

Section 2 states that Congress finds and declares several things, including the following:

The United States has continuing research, security, environmental, and commercial interests in the Arctic region that rely on the availability of icebreaker platforms of the Coast Guard. The Polar Class icebreakers commissioned in the 1970s are in need of replacement.

and

Building new icebreakers, mustering international plans for aids to navigation and other facilities, and establishing coordinated shipping regulations and oil spill prevention and response capability through international cooperation, including the approval of the International Maritime Organization, requires long lead times. Beginning those efforts now, with the completion of an Arctic Marine Shipping Assessment by the eight-nation Arctic Council, is essential to protect United States interests given the extensive current use of the Arctic Ocean and adjacent seas by vessels of many nations.

Section 3 states:

To carry out the purpose of this Act, the Secretary of the department in which the Coast Guard is operating shall work through the International Maritime Organization to establish agreements to promote coordinated action among the United States, Russia, Canada, and other seafaring and Arctic nations to ensure, in the Arctic...

(2) appropriate icebreaking escort, tug, and salvage capabilities....

Section 6 states, in its entirety:

> The Secretary of the department in which the Coast Guard is operating shall promote safe maritime navigation by means of icebreaking where needed to assure the reasonable demands of commerce.

S. 1561 was introduced on August 3, 2009. Section 11(a)(1) would authorize appropriations of $40 million in FY2011 for the design of a new polar class icebreaker. Section 11(a)(2) would authorize appropriations of $800 million per year in FY2011 and FY2012 for the construction of two polar capable icebreakers.

Section 2 states that Congress finds several things, including the following:

> The United States has continuing research, security, environmental, and commercial interests in the Arctic region that rely on the availability of polar class icebreakers of the Coast Guard that were commissioned in the 1970s and are in need of replacement.
>
> and
>
> Building new icebreakers, forward operating bases, aids to navigation, and other facilities, and establishing coordinated shipping regulations and oil spill prevention and response capability through international cooperation requires long lead times.

Section 5 states:

> It is the sense of Congress that, to carry out the purpose of this Act, the Secretary of State, in consultation with the Secretary of Homeland Security, acting through the Commandant of the Coast Guard, should work to establish agreements to promote coordinated action among the United States, Russia, Canada, Iceland, Norway, and Denmark and other seafaring and Arctic nations with respect to…
>
> (4) appropriate icebreaking escort, tug, and salvage capabilities….

Section 6 states:

> (a) Submission of Report Analysis to Congress-
>
> (1) REQUIREMENT FOR SUBMISSION- Not later than 90 days following the completion of the High Latitude Polar Ice-Breaking Mission Analysis Report, the Commandant of the Coast Guard shall submit to the appropriate committees of Congress—
>
> (A) such report; and
>
> (B) consistent with section 93(a)(24) of title 14, United States Code, any recommendations of the Commandant related to such report.
>
> (2) APPROPRIATE COMMITTEES OF CONGRESS DEFINED- In this subsection, the term 'appropriate committees of Congress' means the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.
>
> (b) Mission Requirements Analysis-

> (1) MISSION REQUIREMENTS ANALYSIS- Not later than 90 days after the date of the enactment of this Act, the Commandant of the Coast Guard shall, subject to the availability of appropriations, execute a contract with an independent entity to—
>
> (A) conduct an analysis of future mission requirements of the Coast Guard in the Arctic and Antarctic; and
>
> (B) estimate the necessary resources to provide for such requirements.
>
> (2) SUBMISSION OF ANALYSIS AND ESTIMATE- Not later than 120 days after the date that the contract described in paragraph (1) is executed, the analysis and estimate described in subparagraph (A) and (B) of that paragraph shall be submitted to—
>
> (A) the appropriate committees of Congress;
>
> (B) the Commandant of the Coast Guard; and
>
> (C) the Comptroller General of the United States.
>
> (3) ADDITIONAL RECOMMENDATIONS- Not later than 90 days after the submission of the analysis and estimate described in paragraph (2)—
>
> (A) the Commandant of the Coast Guard shall submit to the appropriate committees of Congress, consistent with section 93(a)(24) of title 14, United States Code, any recommendations of the Commandant related to such analysis and estimate; and
>
> (B) the Comptroller General shall submit to the appropriate committees of Congress any recommendations of the Comptroller General related to such analysis and estimate.
>
> (4) APPROPRIATE COMMITTEES OF CONGRESS DEFINED- In this subsection, the term 'appropriate committees of Congress' means—
>
> (A) the Committee on Commerce, Science, and Transportation and the Committee on Homeland Security and Governmental Affairs of the Senate; and
>
> (B) the Committee on Homeland Security and the Committee on Transportation and Infrastructure of the House of Representatives.

Section 10 states, in its entirety:

> Notwithstanding any other provision of law, the Director of the National Science Foundation shall transfer all amounts provided pursuant to any Act for the procurement of polar icebreaking services to the United States Coast Guard Appropriation Accounts, and such amounts shall remain available until expended for operating expenses, renovation, and improvement.

FY2010 DHS Appropriations Act (H.R. 2892/P.L. 111-83)

House

The House Appropriations Committee, in its report (H.Rept. 111-157 of June 16, 2009) on H.R. 2892, did not recommend any funding in the Coast Guard's AC&I account for polar icebreaker sustainment or acquisition of new polar icebreakers. The report stated:

> POLAR ICEBREAKING OPERATING AND MAINTENANCE COSTS AND FUTURE POLAR NEEDS
>
> The Committee continues to be concerned about Coast Guard's ability to meet its polar operations mission requirements and provide the United States with the capability to support national interests in the polar regions. These interests extend well beyond the realm of scientific research. As such, last year the Committee directed the Coast Guard and the National Science Foundation (NSF) to renegotiate the existing agreement on polar icebreaking in order to return the budget for operating and maintaining these vessels to the Coast Guard for fiscal year 2010, and to provide a new joint plan for Coast Guard support of scientific research by NSF and other Federal agencies, which was to be included in the 2010 budget request. No agreement was reached, and no plan was submitted. Negotiations are apparently underway between the Coast Guard and NSF, but the budget has yet to be returned to the Coast Guard accounts. Therefore, the Committee directs the Coast Guard to continue negotiating the agreement for the return of icebreaking in the 2011 budget, and to provide the joint plan for Coast Guard support as soon as possible.
>
> The Committee further directs the Coast Guard to use existing appropriations to continue its analysis of national mission needs in the high latitude regions to inform national polar policy. (Pages 78-79)

Senate

The Senate Appropriations Committee, in its report (S.Rept. 111-31 of June 18, 2009) on the FY2010 DHS appropriation bill (S. 1298), recommended $32.5 million in the Coast Guard's AC&I account for the reactivation and service life extension of *Polar Star*. Of this amount, $27.3 million is in an AC&I line item for polar icebreaker sustainment, and the remaining $5.2 million is included within a line item for AC&I direct personnel costs (page 76). The Senate included the provisions of S. 1298 in an amendment to H.R. 2892.

The committee's report on S. 1298 stated:

> POLAR ICEBREAKER SUSTAINMENT
>
> The Committee recommends $32,500,000 above the budget request to complete the reactivation and service life extension of Coast Guard Cutter Polar Star. Of this amount, $5,200,000 is funded in the AC&I direct personnel costs PPA [program, project, or activity]. Returning Polar Star to operational status is vital to ensuring the U.S. Government has the ability to project U.S. sovereignty and protect the broad range of security, economic, and environmental interests in the Arctic and Antarctic. Within this amount, the Coast Guard shall begin survey and design and conduct a business case analysis for either a new heavy polar icebreaker class or a major service life extension project for existing heavy icebreakers. The only existing heavy polar class icebreaker, the Polar Sea, has only 7 years remaining in its useful life. (Page 78)

The report also stated:

> POLAR OPERATIONS AND MAINTENANCE FUNDING
>
> The Committee notes the budget request did not include transfer of operating and maintenance funds for the polar icebreakers from the National Science Foundation [NSF] to the Coast Guard as directed in the joint explanatory statement accompanying the Department of Homeland Security Appropriations Act, 2009 (Public Law 110–329). For fiscal year 2011, the Committee expects the operating and maintenance budget authority and associated FTE to be included in the Coast Guard's request. The two agencies shall update the existing Memorandum of Agreement to reflect the change in budget authority. (page 73; material in brackets as in original)

Conference

The conference report (H.Rept. 111-298 of October 13, 2009) on H.R. 2892/P.L. 111-83 of October 28, 2009, provided $32.5 million to complete the reactivation and service life extension of *Polar Star*. Of this total, $27.3 million was provided in the AC&I account in a line item entitled "Polar Icebreaker sustainment" (Page 87). The conference report stated:

> Polar Icebreaker Sustainment
>
> The conference agreement provides an additional $32,500,000 to complete the reactivation and service life extension of the Coast Guard Cutter POLAR STAR as proposed by the Senate. No additional funding for this activity was proposed by the House. Of this amount, $5,200,000 is provided in the Acquisition, Construction, and Improvements direct personnel costs PPA [program, project, or activity]. Funds shall be applied as specified in the Senate report. The conferees believe returning POLAR STAR to operational status is vital to national interests in the polar regions. According to the Coast Guard the only existing operational heavy icebreaker, the POLAR SEA, has only five years of service life remaining. The absence of requested funding to complete fiscal year 2009 efforts to reactivate POLAR STAR, combined with the lack of compliance with standing Congressional direction on the polar icebreaking budget, implies a broader lack of commitment to sustaining polar capabilities and achieving longterm, strategic objectives in the Arctic. The conferees direct the Coast Guard to brief the Committees no later than December 15, 2009, on the program execution plan for reactivation of POLAR STAR and the status of resources required to achieve mission requirements for polar operations. (Page 89)

The conference report also stated, the section on the Coast Guard's Operating Expenses (OE) account:

> Polar Icebreaking Operations and Maintenance Funding
>
> The conferees expect polar icebreaking operations and maintenance budget authority and associated FTE to be included in the Coast Guard's budget request for fiscal year 2011. The National Science Foundation and Coast Guard shall update the existing Memorandum of Agreement to reflect the change in budget authority as proposed by the Senate. Furthermore, the conferees direct the Coast Guard to follow the direction regarding the high latitude study as outlined in the House report. (Page 85)

American Recovery and Reinvestment Act of 2009 (H.R. 1/P.L. 111-5)

A Senate version of H.R. 1 (amendment in Senate, January 30, 2009) stated, in the section on the Coast Guard's Acquisition, Construction, and Improvements (AC&I) account, that of the funds provided in the bill for the AC&I account, "$87,500,000 shall be for the design of a new polar icebreaker or the renovation of an existing polar icebreaker, and major repair and maintenance of existing polar icebreakers." The provision was not included in other House and Senate versions of the bill, or in the conference version of the bill, which was signed into law on February 17, 2009.

FY2009 DHS Appropriations Act (H.R. 2638/P.L. 110-329)

House

The House Appropriations Committee, in its report (H.Rept. 110-862 of September 18, 2008) on the FY2009 DHS appropriations bill (H.R. 6947), stated:

> POLAR ICEBREAKING OPERATING AND MAINTENANCE COSTS AND FUTURE POLAR NEEDS
>
> The Committee is concerned about Coast Guard's ability to meet its polar operations mission requirements and provide the United States with the capability to support national interests in the polar regions. The Committee provides $200,000, as requested, to conduct an analysis of national mission needs in the high latitude regions to inform the national polar policy debate.
>
> In fiscal year 2006 the Committees on Appropriations approved an Administration request for the National Science Foundation (NSF), the primary user of the three Coast Guard polar icebreaker vessels, to fund the costs of operating and maintaining these aging vessels. Because it has become more apparent that the national interest in the polar regions extends beyond scientific research, the Committee questions whether this arrangement should continue. Accordingly, the Committee directs Coast Guard and NSF to renegotiate the existing agreement in order to return the budget for operating and maintaining these vessels to Coast Guard for fiscal year 2010. This change is consistent with a new joint plan for Coast Guard support of scientific research by NSF and other Federal agencies, which also is to be included in the 2010 budget request. NSF shall retain responsibility for the contracting of scientific support services that Coast Guard does not have the capability to perform or cannot perform on a cost-competitive basis. The Committee is aware of a $4,000,000 funding shortfall related to the caretaker status of the POLAR STAR, and directs Coast Guard to address this shortfall within the amounts appropriated for fiscal year 2009. (Page 82)

Senate

The FY2009 DHS appropriations bill (S. 3181) as reported by the Senate appropriations committee would make available about $6.28 billion for the Coast Guard's Operating Expenses (OE) account, provided, among other things, "that notwithstanding any other provision of law, $4,000,000 of the amounts made available under this heading may be available to maintain the USCGC POLAR STAR in caretaker status."

The Senate Appropriations Committee, in its report (S.Rept. 110-396 of June 23, 2008) on S. 3181, stated:

> POLAR ICEBREAKERS
>
> The Committee reiterates its concern with the Coast Guard's ability to meet its current and projected polar operations responsibilities. According to correspondence from the Commandant on May 23, 2008, the Coast Guard will submit a report on polar mission requirements no later than August 31, 2008. The Committee expects this report to address the concerns detailed in the explanatory statement accompanying the Department of Homeland Security Appropriations Act, 2008. The Committee also expects all costs to operate the polar icebreakers for National Science Foundation [NSF] research, including unanticipated maintenance, will be reimbursed by NSF. However, the Committee notes that the NSF budget request states, "Effective with the fiscal year 2009 budget, NSF will no longer provide funds to maintain the USCGC Polar Star in caretaker status because NSF does not envision current or future use of this vessel in support of its mission." Due to the changing environmental conditions and increased activity in the polar regions, as well as the Coast Guard's multi-mission responsibilities in the polar regions that are not science related, the Committee includes statutory language making an additional $4,000,000 available to maintain the USCGC Polar Star in caretaker status. The Committee also notes that the forthcoming report on Coast Guard polar mission requirements will address the sustainability of the current operations and maintenance cost sharing arrangement between the Coast Guard and the NSF to support both current and projected polar icebreaker operations. (Page 81)

Compromise

The FY2009 DHS appropriations bill became Division D of H.R. 2638/P.L. 110-329 of September 30, 2008, a consolidated appropriations act. H.R. 2638 began as a DHS appropriations act and was then amended to become a consolidated appropriations act that contained that includes, among other things, the FY2009 DHS appropriations act. In lieu of a conference report, there was a compromise version of H.R. 2638 that was accompanied by an explanatory statement. Section 4 of H.R. 2638 stated that the explanatory statement "shall have the same effect with respect to the allocation of funds and implementation of this Act as if it were a joint explanatory statement of a committee of conference."

H.R. 2638 provided $30.3 million for polar icebreaker sustainment. The funding was provided in a new line item in the surface ships section of the Deepwater portion of the Coast Guard's Acquisition, Construction, and Improvements (AC&I) appropriation account. The explanatory statement stated:

> Polar Icebreakers
>
> One of the Coast Guard's missions is to provide the United States with the capability to support national interests in the polar regions. In a report recently submitted, the Coast Guard stated that the United States will need a maritime surface and air presence in the Arctic sufficient to support prevention and response regimes as well as diplomatic objectives. However, no funding has been requested for the Coast Guard's aging icebreakers despite its inability to meet current and projected polar operations mission responsibilities. The Coast Guard is directed to follow House report direction regarding the polar icebreaking operating budget. The Coast Guard should work with the National Science Foundation in the coming year to renegotiate the existing polar icebreaking agreement in order to return the budget for operating and maintaining its polar icebreakers to the Coast Guard in fiscal year 2010. The AC&I appropriation includes $30,300,000 to reactivate the USCGC POLAR STAR for an additional 7-10 years of service life.

Coast Guard Authorization Act For FY2008 (H.R. 2830/S. 1892)

House

Section 422 of H.R. 2830 as passed by the House stated:

> SEC. 422. ASSESSMENT OF NEEDS FOR ADDITIONAL COAST GUARD PRESENCE IN HIGH LATITUDE REGIONS.
>
> Within 270 days after the date of enactment of this Act, the Secretary of the department in which the Coast Guard is operating shall submit a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives assessing the need for additional Coast Guard prevention and response capability in the high latitude regions. The assessment shall address needs for all Coast Guard mission areas, including search and rescue, marine pollution response and prevention, fisheries enforcement, and maritime commerce. The Secretary shall include in the report—
>
> (1) an assessment of the high latitude operating capabilities of all current Coast Guard assets, including assets acquired under the Deepwater program;
>
> (2) an assessment of projected needs for Coast Guard forward operating bases in the high latitude regions;
>
> (3) an assessment of shore infrastructure, personnel, logistics, communications, and resources requirements to support Coast Guard forward operating bases in the high latitude regions;
>
> (4) an assessment of the need for high latitude icebreaking capability and the capability of the current high latitude icebreaking assets of the Coast Guard, including—
>
> (A) whether the Coast Guard's high latitude icebreaking fleet is meeting current mission performance goals;
>
> (B) whether the fleet is capable of meeting projected mission performance goals; and
>
> (C) an assessment of the material condition, safety, and working conditions aboard high latitude icebreaking assets, including the effect of those conditions on mission performance;
>
> (5) a detailed estimate of acquisition costs for each of the assets (including shore infrastructure) necessary for additional prevention and response capability in high latitude regions for all Coast Guard mission areas, and an estimate of operations and maintenance costs for such assets for the initial 10-year period of operations; and
>
> (6) detailed cost estimates (including operating and maintenance for a period of 10 years) for high latitude icebreaking capability to ensure current and projected future mission performance goals are met, including estimates of the costs to—
>
> (A) renovate and modernize the Coast Guard's existing high latitude icebreaking fleet; and
>
> (B) replace the Coast Guard's existing high latitude icebreaking fleet.

Senate

Section 917 of S. 1892 as reported in the Senate stated:

> SEC. 917. ICEBREAKERS.
>
> (a) IN GENERAL—The Secretary of the department in which the Coast Guard is operating shall acquire or construct 2 polar icebreakers for operation by the Coast Guard in addition to its existing fleet of polar icebreakers.
>
> (b) NECESSARY MEASURES—The Secretary shall take all necessary measures, including the provision of necessary operation and maintenance funding, to ensure that—
>
> (1) the Coast Guard maintains, at a minimum, its current vessel capacity for carrying out ice breaking in the Arctic and Antarctic, Great Lakes, and New England regions; and
>
> (2) any such vessels that are not fully operational are brought up to, and maintained at full operational capability.
>
> (c) REIMBURSEMENT—Nothing in this section shall preclude the Secretary from seeking reimbursement for operation and maintenance costs of such polar icebreakers from other Federal agencies and entities, including foreign countries, that benefit from the use of the icebreakers.
>
> (d) AUTHORIZATION OF APPROPRIATIONS—There are authorized to be appropriated for fiscal year 2008 to the Secretary of the department in which the Coast Guard is operating such sums as may be necessary to acquire the icebreakers authorized by subsection (a), as well as maintaining and operating the icebreaker fleet as authorized in subsection (b).

The Senate Commerce, Science, and Transportation Committee, in its report (S.Rept. 110-261 of February 5, 2008) on S. 1892, stated:

> Section 917 would require the Secretary to acquire or construct two new polar icebreakers for operation by the Coast Guard. It also would instruct the Coast Guard to maintain their existing polar icebreakers and return them to operational status, if not operational already. This section would authorize such sums as are necessary to carry out this section. Currently, the Coast Guard's icebreaker fleet is funded by the National Science Foundation. However, the funding for these vessels has been inconsistent, allowing the Polar Star to fall behind on the maintenance necessary to keep the vessel in operating condition. With some climate models predicting an ice-free Arctic summer in the future, more international expeditions will be headed to the region to examine newly revealed oil and gas reserves and other natural resources. Canada, Russia, and other countries will begin to compete with the United States over jurisdiction and, without a strong polar icebreaker fleet, our Nation will suffer a severe disadvantage. A recent 2007 report by the National Academy of Sciences found that the United States needs to maintain polar icebreaking capacity and construct at least two new polar icebreakers. This provision follows those recommendations. (Page 29)

In presenting the CBO's estimate of the cost of Section 917 of S. 1892 as reported, the report stated:

> Assuming appropriation of the necessary amounts, CBO estimates that the USCG would spend about $1.4 billion over the next five years to purchase two icebreakers. (Costs to operate and maintain the two new vessels would total about $50 million a year beginning in 2013.) We estimate that an additional $50 million would be spent over the 2008-2010 period

to recondition an existing USCG icebreaker, which is currently out of operation. Operating and maintaining that vessel would cost about $10 million in 2010 and about $25 million annually thereafter. This estimate is based on information provided by the Coast Guard regarding the cost of constructing, operating, and maintaining such vessels to agency specifications. (Page 8; see also pages 6 and 7)

FY2008 Consolidated Appropriations Act (H.R. 2764/P.L. 110-161)

FY2008 funding for the Department of Homeland Security (DHS), which includes the Coast Guard, was provided in the FY2008 Consolidated Appropriations Act (H.R. 2764/P.L. 110-161 of December 26, 2007). The explanatory statement for H.R. 2764/P.L. 110-161, which is intended to be the equivalent of a conference report for the bill, stated the following in its discussion of Division E (the FY2008 DHS appropriations act):

> National Interests in the Polar Regions
>
> The Committees on Appropriations are concerned about Coast Guard's ability to meet its polar operations mission requirements and provide the United States with the capability to support national interests in the polar regions. These mission requirements include, but are not limited to: global reach to the North and South poles; monitoring of U.S.-bound vessel traffic transiting international waterways in the far north; support of the International Ice Patrol; and support of other governmental and scientific organizations in pursuit of marine and atmospheric science activities in the polar regions. The Committees on Appropriations are specifically concerned whether Coast Guard's aging polar icebreaking fleet can meet current mission performance goals and whether this fleet and the service's small cadre of specialized polar operations personnel are capable of meeting projected mission performance goals in light of changing environmental conditions and increased activity in the polar regions. The National Academy of Sciences made several recommendations in this regard in September 2006, but the Administration has taken no action to implement those recommendations.
>
> Therefore, the Commandant is directed to submit a comprehensive polar operations report that fully assesses the Coast Guard's ability to meet current and projected polar mission requirements and includes an evaluation of how Coast Guard's current capabilities and resources must be adapted or enhanced to account for changing environmental conditions and increased activity in the polar regions. This report is to include an analysis of the need for any permanent, forward operating presence in the polar regions in order to meet mission requirements and an assessment of the Coast Guard's ability to meet the requirements of partner agencies operating in the polar regions, such as the National Science Foundation (NSF) and the Departments of Commerce and Defense, under current and projected environmental conditions. Finally, this report should include an appraisal of the sustainability of the current operations and maintenance cost sharing arrangement between the Coast Guard and NSF to support both current and projected polar icebreaker operations.

Appendix C. Bill and Report Language Relating to Study of High-Latitude Operations

This appendix presents examples of bill and report language in recent years relating to the study of Coast Guard missions and capabilities for operations in high-latitude areas. These examples, which are taken from **Appendix B**, include the following:

- The explanatory statement for the **FY2008 Consolidated Appropriations Act** (H.R. 2764/P.L. 110-161 of December 26, 2007), which included FY2008 funding for DHS, stated: "Therefore, the Commandant is directed to submit a comprehensive polar operations report that fully assesses the Coast Guard's ability to meet current and projected polar mission requirements and includes an evaluation of how Coast Guard's current capabilities and resources must be adapted or enhanced to account for changing environmental conditions and increased activity in the polar regions. This report is to include an analysis of the need for any permanent, forward operating presence in the polar regions in order to meet mission requirements and an assessment of the Coast Guard's ability to meet the requirements of partner agencies operating in the polar regions, such as the National Science Foundation (NSF) and the Departments of Commerce and Defense, under current and projected environmental conditions. Finally, this report should include an appraisal of the sustainability of the current operations and maintenance cost sharing arrangement between the Coast Guard and NSF to support both current and projected polar icebreaker operations."
- Section 422 of the **FY2008 Coast Guard Authorization Act** (H.R. 2830) as passed by the House stated: "Within 270 days after the date of enactment of this Act, the Secretary of the department in which the Coast Guard is operating shall submit a report to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives assessing the need for additional Coast Guard prevention and response capability in the high latitude regions. The assessment shall address needs for all Coast Guard mission areas, including search and rescue, marine pollution response and prevention, fisheries enforcement, and maritime commerce. The Secretary shall include in the report ... an assessment of the need for high latitude icebreaking capability and the capability of the current high latitude icebreaking assets of the Coast Guard.... "
- The House Appropriations Committee, in its report (H.Rept. 110-862 of September 18, 2008, page 82) on the **FY2009 DHS Appropriations Act** (H.R. 2638/P.L. 110-329 of September 30, 2008), stated: "The Committee provides $200,000, as requested, to conduct an analysis of national mission needs in the high latitude regions to inform the national polar policy debate."
- The Senate Appropriations Committee, in its report (S.Rept. 110-396 of June 23, 2008, page 81) on the **FY2009 DHS Appropriations Act** (S. 3181), stated: "According to correspondence from the Commandant on May 23, 2008, the Coast Guard will submit a report on polar mission requirements no later than August 31, 2008. The Committee expects this report to address the concerns detailed in the explanatory statement accompanying the Department of Homeland Security Appropriations Act, 2008."

- The House Appropriations Committee, in its report (H.Rept. 111-157 of June 16, 2009, pages 78-79) on the **FY2010 DHS Appropriations Act** (H.R. 2892/P.L. 111-83 of October 28, 2009), stated: "The Committee further directs the Coast Guard to use existing appropriations to continue its analysis of national mission needs in the high latitude regions to inform national polar policy."
- The Senate Appropriations Committee, in its report (S.Rept. 111-31 of June 18, 2009, page 78) on the **FY2010 DHS Appropriations Act** (S. 1298), stated: "Within this amount, the Coast Guard shall begin survey and design and conduct a business case analysis for either a new heavy polar icebreaker class or a major service life extension project for existing heavy icebreakers."
- The conference report (H.Rept. 111-298 of October 13, 2009, page 85) on the **FY2010 DHS Appropriations Act** (H.R. 2892/P.L. 111-83 of October 28, 20097), stated: "Furthermore, the conferees direct the Coast Guard to follow the direction regarding the high latitude study as outlined in the House report."
- Sections 311(h) and 1316 of the **Coast Guard Authorization Act of 2010** (H.R. 3619) as reported by the House Committee on transportation and Infrastructure (H.Rept. 111-303, part 1, of October 16, 2009) (see **Appendix B** for the full texts of these sections).
- Section 603 of the **Coast Guard Authorization Act of 2010** (H.R. 3619) as passed by the Senate (see **Appendix B** for the full text of this section).
- Sections 307(f) and 307(g) of the final version of the **Coast Guard Authorization Act of 2010** (H.R. 3619/P.L. 111-281 of October 15, 2010) (see **Appendix B** for the full texts of these sections).
- The Senate Appropriations Committee, in its report (S.Rept. 111-222 of July 19, 2010, page 80) on the **FY2011 DHS Appropriations Act** (S. 3607), stated: "The Committee also notes that the Coast Guard's analysis of national mission needs in the high latitude regions has yet to be completed. This effort was funded in fiscal year 2009 to inform the national polar policy debate. The results of this study are to be submitted expeditiously and include projected assets and resources necessary to address identified requirements."

The High Latitude Study has a cover date of July 2010. The study was provided to Congress in July 2011. The Coast Guard states that the study was provided to Congress in response to the Coast Guard Authorization Act of 2010 (H.R. 3619/P.L. 111-281), which was enacted into law on October 15, 2010.[73]

[73] Source: Email from Coast Guard Congressional Affairs office to CRS, August 1, 2011.

Appendix D. May 2008 Memorandum from DOD Combatant Commanders

This appendix reprints the text of a May 21, 2008, memorandum for the Chairman of the Joint Chiefs of Staff on the topic of icebreaker support signed by three DOD combatant commanders, each a 4-star general or flag officer.[74]

MEMORANDUM FOR CHAIRMAN, JOINT CHIEFS OF STAFF

FROM: CDR USPACOM / CDR USTRANSCOM / CDR USNORTHCOM

SUBJECT: Icebreaker Support

1. The United States has enduring national, strategic, and economic interests in the Arctic and Antarctic. In the north, the United States is an Arctic nation with broad and fundamental national security interests. In addition to the essential requirements for homeland security and maritime domain awareness, the effects of climate change and increasing economic activity require a more active presence in this maritime domain. In the south, the United States maintains three scientific stations. While the mission of the stations is largely scientific, their presence secures the United States' influential role in the Antarctic Treaty decision making process and maintains the balance necessary to maintain our position on Antarctic sovereignty.

2. To assert our interests in these regions, the United States needs assured access with reliable icebreaking ships. Today, however, two of the three Coast Guard icebreakers are nearing the end of their service lives, with one relegated to caretaker status. Over the past 10 years some routine maintenance has been deferred and there is no service life extension program for these ships. As a result, the nation's icebreaking capability has diminished substantially and is at risk of being unable to support our national interests in the Arctic regions. An example of our reduced icebreaking capability is last season's McMurdo Station resupply mission where USNS GIANELLA spent 50 hours in pack-ice awaiting escort from a leased Swedish icebreaker.

3. In summary, icebreakers are essential instruments of United States policy in the polar regions. We therefore recommend Joint Chiefs of Staff support for the following:

—A program for the construction of new polar icebreakers to be operated by the Coast Guard.

—Coast Guard funding to keep existing icebreakers viable until the new ships enter service.

—Sufficient Coast Guard operations funding to provide increased, regular and reliable icebreaker presence in the polar regions.

[74] Memorandum for Chairman, Joint Chiefs of Staff, from CDR USPACOM / CDR USTRANSCOM / CDR USNOTHCOM, Subject: Icebreaker Support. The Navy Office of Legislative Affairs provided CRS with a copy of the memorandum on September 11, 2008.

[signed]

Victor E. Renuart General, USAF Commander U.S. Northern Command	Norton A. Schwartz General, USAF Commander U. S. Transportation Command	Timothy J. Keating Admiral, USN Commander U.S. Pacific Command

cc :
Commandant, U.S. Coast Guard

Author Contact Information

Ronald O'Rourke
Specialist in Naval Affairs
rorourke@crs.loc.gov, 7-7610

S e
scott.lethard@mail.house.gov
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13-Feb 2012

U.S. Coast Guard Fact Sheet

Fiscal Year 2013 President's Budget

U.S. Coast Guard Headquarters
2100 Second Street, S.W.
Washington, DC 20953
www.uscg.mil

BACKGROUND: The FY 2013 President's Budget requests $9.97 billion for the Coast Guard, including $8.32 billion in discretionary funding. This Budget strikes the optimal balance between sustaining current operations and investing in future capabilities.

KEY POINTS:

- Provides $1.2 billion to *Responsibly Rebuild the Coast Guard.* Investment in recapitalization is a top budget priority in FY 2013.
- Funds current services requirements to *Efficiently Preserve Front-line Operations,* including resources to operate and maintain new assets, and funding for personnel pay and benefit increases.
- Will *Strengthen Resource and Operational Stewardship* through administrative and programmatic reductions to improve efficiency and service delivery, while continuing investment in Coast Guard activities that provide the highest return on investment.
- Recognizes the criticality of the Arctic as a strategic National priority, and *Prepares for the Future* by addressing emerging threats and risks in this region.
- The Coast Guard will continue to provide superior value and service to the American public.

RESPONSIBLY REBUILD THE COAST GUARD: The budget requests $1.2 billion for Acquisition, Construction and Improvements (AC&I). Highlights include:

- **$879.5M** for vessels including National Security Cutter (NSC) #6; Fast Response Cutters (FRC); Offshore Patrol Cutter (OPC) design; Medium Endurance Cutter sustainment; and Polar Icebreaking Vessel pre-acquisition activity.
- **$74.5M** for one HC-144A Maritime Patrol Aircraft (MPA) and H-65 helicopter enhancements/upgrades.
- **$69.4M** for Major Acquisition Systems Infrastructure and other Shore Infrastructure projects.
- **$76.5M** for other projects, including C4ISR systems; Nationwide Automatic Identification System; and CG-Logistics Information Management System.

EFFICIENTLY PRESERVE FRONT-LINE OPERATIONS: The budget requests $6.79 billion to operate and maintain Coast Guard assets and sustain essential front-line operations.

- **$88.9M** to fund increases for civilian pay, and maintain parity of military pay, allowances, and health care with DoD.
- **$54.2M** to annualize critical investments and programs initiated in FY 2012.
- **$47.6M** to operate new assets and infrastructure (e.g., FRC, MPA, RB-M, Rescue21, etc.), training systems, and transition Air Station Cape Cod, MA to operate new HC-144A aircraft.
- **$24.5M** to support the Coast Guard's relocation to the DHS consolidated headquarters at the St. Elizabeths Campus in Washington, DC.

STRENGTHEN RESOURCE AND OPERATIONAL STEWARDSHIP: The FY 2013 budget proposes administrative and programmatic reductions to improve efficiency and service delivery, while continuing investment in Coast Guard activities that provide the highest return on investment. Highlights include:

- Decommission two High Endurance Cutters and three 110-ft patrol boats. These assets are being replaced by new, more capable NSCs and FRCs, respectively.
- Terminate High-Tempo-High-Maintenance (HTHM) patrol boat operations that facilitate augmented operation of eight in-service 110-foot patrol boats.
- Retire three HU-25 aircraft that are being replaced by new MPA aircraft, and close two Seasonal Air Facilities.
- Implement $32.4M in enterprise-wide efficiencies and $56.3M in targeted programmatic reductions.

PREPARE FOR THE FUTURE: The FY 2013 Budget request recognizes the criticality of the Arctic as a strategic National priority, given increasing presence and interest by other Nations, the preponderance of natural resources available in this region, and increasing maritime commercial and recreational activity.

- **$14.1M** to initiate a new Polar Icebreaker acquisition project and enhance infrastructure in Alaska.

View the 2012 Posture Statement and FY 2013 Congressional Justification at: http://www.uscg.mil/posturestatement/

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PUBLIC LAW 112–213—DEC. 20, 2012

COAST GUARD AND MARITIME TRANSPORTATION ACT OF 2012

Public Law 112–213
112th Congress

An Act

Dec. 20, 2012
[H.R. 2838]

To authorize appropriations for the Coast Guard for fiscal years 2013 through 2014, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Coast Guard and Maritime Transportation Act of 2012.
14 USC 1 note.

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "Coast Guard and Maritime Transportation Act of 2012".

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—AUTHORIZATION

Sec. 101. Authorization of appropriations.
Sec. 102. Authorized levels of military strength and training.

TITLE II—COAST GUARD

Sec. 201. Interference with Coast Guard transmissions.
Sec. 202. Coast Guard authority to operate and maintain Coast Guard assets.
Sec. 203. Limitation on expenditures.
Sec. 204. Academy pay, allowances, and emoluments.
Sec. 205. Policy on sexual harassment and sexual violence.
Sec. 206. Appointments of permanent commissioned officers.
Sec. 207. Selection boards; oath of members.
Sec. 208. Special selection boards; correction of errors.
Sec. 209. Prohibition of certain involuntary administrative separations.
Sec. 210. Major acquisitions.
Sec. 211. Advance procurement funding.
Sec. 212. Minor construction.
Sec. 213. Capital investment plan and annual list of projects to Congress.
Sec. 214. Aircraft accident investigations.
Sec. 215. Coast Guard Auxiliary enrollment eligibility.
Sec. 216. Repeals.
Sec. 217. Technical corrections to title 14.
Sec. 218. Acquisition workforce expedited hiring authority.
Sec. 219. Renewal of temporary early retirement authority.
Sec. 220. Response Boat-Medium procurement.
Sec. 221. National Security Cutters.
Sec. 222. Coast Guard polar icebreakers.

TITLE III—SHIPPING AND NAVIGATION

Sec. 301. Identification of actions to enable qualified United States flag capacity to meet national defense requirements.
Sec. 302. Limitation of liability for non-Federal vessel traffic service operators.
Sec. 303. Survival craft.
Sec. 304. Classification societies.
Sec. 305. Dockside examinations.
Sec. 306. Authority to extend the duration of medical certificates.
Sec. 307. Clarification of restrictions on American Fisheries Act vessels.
Sec. 308. Investigations by Secretary.
Sec. 309. Penalties.

Sec. 310. United States Committee on the Marine Transportation System.
Sec. 311. Technical correction to title 46.
Sec. 312. Deepwater ports.

TITLE IV—MARITIME ADMINISTRATION AUTHORIZATION

Sec. 401. Short title.
Sec. 402. Authorization of appropriations for national security aspects of the merchant marine for fiscal year 2013.
Sec. 403. Maritime environmental and technical assistance.
Sec. 404. Property for instructional purposes.
Sec. 405. Short sea transportation.
Sec. 406. Limitation of National Defense Reserve Fleet vessels to those over 1,500 gross tons.
Sec. 407. Transfer of vessels to the National Defense Reserve Fleet.
Sec. 408. Clarification of heading.
Sec. 409. Mission of the Maritime Administration.
Sec. 410. Amendments relating to the National Defense Reserve Fleet.
Sec. 411. Requirement for barge design.
Sec. 412. Container-on-barge transportation.
Sec. 413. Department of Defense national strategic ports study and Comptroller General studies and reports on strategic ports.
Sec. 414. Maritime workforce study.
Sec. 415. Maritime Administration vessel recycling contract award practices.

TITLE V—PIRACY

Sec. 501. Short title.
Sec. 502. Training for use of force against piracy.
Sec. 503. Security of Government-impelled cargo.
Sec. 504. Actions taken to protect foreign-flagged vessels from piracy.

TITLE VI—MARINE DEBRIS

Sec. 601. Short title.
Sec. 602. Short title amendment; references.
Sec. 603. Purpose.
Sec. 604. NOAA Marine Debris Program.
Sec. 605. Repeal of obsolete provisions.
Sec. 606. Coordination.
Sec. 607. Confidentiality of submitted information.
Sec. 608. Definitions.
Sec. 609. Severe marine debris event determination.

TITLE VII—MISCELLANEOUS

Sec. 701. Distant water tuna fleet.
Sec. 702. Technical corrections.
Sec. 703. Extension of moratorium.
Sec. 704. Notice of arrival.
Sec. 705. Waivers.
Sec. 706. National Response Center notification requirements.
Sec. 707. Vessel determinations.
Sec. 708. Mille Lacs Lake, Minnesota.
Sec. 709. Transportation Worker Identification Credential process reform.
Sec. 710. Investment amount.
Sec. 711. Integrated cross-border maritime law enforcement operations between the United States and Canada.
Sec. 712. Bridge permits.
Sec. 713. Tonnage of Aqueos Acadian.
Sec. 714. Navigability determination.
Sec. 715. Coast Guard housing.
Sec. 716. Assessment of needs for additional Coast Guard presence in high-latitude regions.
Sec. 717. Potential Place of Refuge.
Sec. 718. Merchant mariner medical evaluation program.
Sec. 719. Determinations.
Sec. 720. Impediments to the United States-flag registry.
Sec. 721. Arctic deepwater seaport.
Sec. 722. Risk assessment of transporting Canadian oil sands.

TITLE I—AUTHORIZATION

SEC. 101. AUTHORIZATION OF APPROPRIATIONS.

Funds are authorized to be appropriated for each of fiscal years 2013 and 2014 for necessary expenses of the Coast Guard as follows:

(1) For the operation and maintenance of the Coast Guard—

(A) $6,882,645,000 for fiscal year 2013; and

(B) $6,981,036,000 for fiscal year 2014;

of which $24,500,000 is authorized each fiscal year to be derived from the Oil Spill Liability Trust Fund to carry out the purposes of section 1012(a)(5) of the Oil Pollution Act of 1990 (33 U.S.C. 2712(a)(5)).

(2) For the acquisition, construction, rebuilding, and improvement of aids to navigation, shore and offshore facilities, vessels, and aircraft, including equipment related thereto—

(A) $1,545,312,000 for fiscal year 2013; and

(B) $1,546,448,000 for fiscal year 2014;

to remain available until expended and of which $20,000,000 is authorized each fiscal year to be derived from the Oil Spill Liability Trust Fund to carry out the purposes of section 1012(a)(5) of the Oil Pollution Act of 1990 (33 U.S.C. 2712(a)(5)).

(3) For the Coast Guard Reserve program, including personnel and training costs, equipment, and services—

(A) $138,111,000 for fiscal year 2013; and

(B) $140,016,000 for fiscal year 2014.

(4) For environmental compliance and restoration of Coast Guard vessels, aircraft, and facilities (other than parts and equipment associated with operation and maintenance)—

(A) $16,699,000 for fiscal year 2013; and

(B) $16,701,000 for fiscal year 2014;

to remain available until expended.

(5) To the Commandant of the Coast Guard for research, development, test, and evaluation of technologies, materials, and human factors directly related to improving the performance of the Coast Guard's mission with respect to search and rescue, aids to navigation, marine safety, marine environmental protection, enforcement of laws and treaties, ice operations, oceanographic research, and defense readiness—

(A) $19,848,000 for fiscal year 2013; and

(B) $19,890,000 for fiscal year 2014.

(6) For alteration or removal of bridges over navigable waters of the United States constituting obstructions to navigation, and for personnel and administrative costs associated with the Alteration of Bridges Program—

(A) $16,000,000 for fiscal year 2013; and

(B) $16,000,000 for fiscal year 2014.

SEC. 102. AUTHORIZED LEVELS OF MILITARY STRENGTH AND TRAINING.

(a) ACTIVE DUTY STRENGTH.—The Coast Guard is authorized an end-of-year strength for active duty personnel of 47,000 for each of fiscal years 2013 and 2014.

(b) MILITARY TRAINING STUDENT LOADS.—The Coast Guard is authorized average military training student loads for each of fiscal years 2013 and 2014 as follows:

(1) For recruit and special training, 2,500 student years.

(2) For flight training, 165 student years.

(3) For professional training in military and civilian institutions, 350 student years.

(4) For officer acquisition, 1,200 student years.

TITLE II—COAST GUARD

SEC. 201. INTERFERENCE WITH COAST GUARD TRANSMISSIONS.

Section 88 of title 14, United States Code, is amended by adding at the end the following:

"(e) An individual who knowingly and willfully operates a device with the intention of interfering with the broadcast or reception of a radio, microwave, or other signal (including a signal from a global positioning system) transmitted, retransmitted, or augmented by the Coast Guard for the purpose of maritime safety is—

"(1) guilty of a class E felony; and

"(2) subject to a civil penalty of not more than $1,000 per day for each violation.".

SEC. 202. COAST GUARD AUTHORITY TO OPERATE AND MAINTAIN COAST GUARD ASSETS.

Section 93 of title 14, United States Code, is amended by adding at the end the following:

"(e) OPERATION AND MAINTENANCE OF COAST GUARD ASSETS AND FACILITIES.—All authority, including programmatic budget authority, for the operation and maintenance of Coast Guard vessels, aircraft, systems, aids to navigation, infrastructure, and other assets or facilities shall be allocated to and vested in the Coast Guard and the department in which the Coast Guard is operating.".

SEC. 203. LIMITATION ON EXPENDITURES.

Section 149(d) of title 14, United States Code, is amended by adding at the end the following:

"(3) The amount of funds used under this subsection may not exceed $100,000 in any fiscal year.".

SEC. 204. ACADEMY PAY, ALLOWANCES, AND EMOLUMENTS.

Section 195 of title 14, United States Code, is amended—

(1) by striking "person" each place it appears and inserting "foreign national"; and

(2) by striking "pay and allowances" each place it appears and inserting "pay, allowances, and emoluments".

SEC. 205. POLICY ON SEXUAL HARASSMENT AND SEXUAL VIOLENCE.

(a) ESTABLISHMENT.—Chapter 9 of title 14, United States Code, is amended by adding at the end the following:

"§ 200. Policy on sexual harassment and sexual violence

"(a) REQUIRED POLICY.—The Commandant of the Coast Guard shall direct the Superintendent of the Coast Guard Academy to prescribe a policy on sexual harassment and sexual violence applicable to the cadets and other personnel of the Academy.

"(b) MATTERS TO BE SPECIFIED IN POLICY.—The policy on sexual harassment and sexual violence under this section shall include specification of the following:

"(1) Programs to promote awareness of the incidence of rape, acquaintance rape, and other sexual offenses of a criminal nature that involve cadets or other Academy personnel.

"(2) Information about how the Coast Guard and the Academy will protect the confidentiality of victims of sexual harassment or sexual violence, including how any records,

statistics, or reports intended for public release will be formatted such that the confidentiality of victims is not jeopardized.

"(3) Procedures that cadets and other Academy personnel should follow in the case of an occurrence of sexual harassment or sexual violence, including—

"(A) if the victim chooses to report an occurrence of sexual harassment or sexual violence, a specification of the person or persons to whom the alleged offense should be reported and options for confidential reporting, including written information to be given to victims that explains how the Coast Guard and the Academy will protect the confidentiality of victims;

"(B) a specification of any other person whom the victim should contact; and

"(C) procedures on the preservation of evidence potentially necessary for proof of criminal sexual assault.

"(4) Procedures for disciplinary action in cases of criminal sexual assault involving a cadet or other Academy personnel.

"(5) Sanctions authorized to be imposed in a substantiated case of sexual harassment or sexual violence involving a cadet or other Academy personnel, including with respect to rape, acquaintance rape, or other criminal sexual offense, whether forcible or nonforcible.

"(6) Required training on the policy for all cadets and other Academy personnel who process allegations of sexual harassment or sexual violence involving a cadet or other Academy personnel.

"(c) ASSESSMENT.—

Deadline.

"(1) IN GENERAL.—The Commandant shall direct the Superintendent to conduct at the Academy during each Academy program year an assessment to determine the effectiveness of the policies of the Academy with respect to sexual harassment and sexual violence involving cadets or other Academy personnel.

"(2) BIENNIAL SURVEY.—For the assessment at the Academy under paragraph (1) with respect to an Academy program year that begins in an odd-numbered calendar year, the Superintendent shall conduct a survey of cadets and other Academy personnel—

"(A) to measure—

"(i) the incidence, during that program year, of sexual harassment and sexual violence events, on or off the Academy reservation, that have been reported to an official of the Academy; and

"(ii) the incidence, during that program year, of sexual harassment and sexual violence events, on or off the Academy reservation, that have not been reported to an official of the Academy; and

"(B) to assess the perceptions of the cadets and other Academy personnel with respect to—

"(i) the Academy's policies, training, and procedures on sexual harassment and sexual violence involving cadets or other Academy personnel;

"(ii) the enforcement of such policies;

"(iii) the incidence of sexual harassment and sexual violence involving cadets or other Academy personnel; and

"(iv) any other issues relating to sexual harassment and sexual violence involving cadets or other Academy personnel.

"(d) REPORT.—

"(1) IN GENERAL.—The Commandant shall direct the Superintendent to submit to the Commandant a report on sexual harassment and sexual violence involving cadets or other Academy personnel for each Academy program year.

"(2) REPORT SPECIFICATIONS.—Each report under paragraph (1) shall include, for the Academy program year covered by the report, the following:

"(A) The number of sexual assaults, rapes, and other sexual offenses involving cadets or other Academy personnel that have been reported to Academy officials during the Academy program year and, of those reported cases, the number that have been substantiated.

"(B) A plan for the actions that are to be taken in the following Academy program year regarding prevention of and response to sexual harassment and sexual violence involving cadets or other Academy personnel.

"(3) BIENNIAL SURVEY.—Each report under paragraph (1) for an Academy program year that begins in an odd-numbered calendar year shall include the results of the survey conducted in that Academy program year under subsection (c)(2).

"(4) TRANSMISSION OF REPORT.—The Commandant shall transmit each report received by the Commandant under this subsection, together with the Commandant's comments on the report, to—

"(A) the Committee on Commerce, Science, and Transportation of the Senate; and

"(B) the Committee on Transportation and Infrastructure of the House of Representatives.

"(5) FOCUS GROUPS.—

"(A) IN GENERAL.—For each Academy program year with respect to which the Superintendent is not required to conduct a survey at the Academy under subsection (c)(2), the Commandant shall require focus groups to be conducted at the Academy for the purposes of ascertaining information relating to sexual assault and sexual harassment issues at the Academy.

"(B) INCLUSION IN REPORTS.—Information derived from a focus group under subparagraph (A) shall be included in the next transmitted Commandant's report under this subsection.

"(e) VICTIM CONFIDENTIALITY.—To the extent that information collected under the authority of this section is reported or otherwise made available to the public, such information shall be provided in a form that is consistent with applicable privacy protections under Federal law and does not jeopardize the confidentiality of victims.".

(b) CLERICAL AMENDMENT.—The analysis for chapter 9 of title 14, United States Code, is amended by inserting after the item relating to section 199 the following:

"200. Policy on sexual harassment and sexual violence.".

SEC. 206. APPOINTMENTS OF PERMANENT COMMISSIONED OFFICERS.

Section 211 of title 14, United States Code, is amended by adding at the end the following:

Definition.

"(d) For the purposes of this section, the term 'original', with respect to the appointment of a member of the Coast Guard, refers to that member's most recent appointment in the Coast Guard that is neither a promotion nor a demotion.".

SEC. 207. SELECTION BOARDS; OATH OF MEMBERS.

Section 254 of title 14, United States Code, is amended to read as follows:

"§ 254. Selection boards; oath of members

"Each member of a selection board shall swear—

"(1) that the member will, without prejudice or partiality, and having in view both the special fitness of officers and the efficiency of the Coast Guard, perform the duties imposed upon the member; and

"(2) an oath in accordance with section 635.".

SEC. 208. SPECIAL SELECTION BOARDS; CORRECTION OF ERRORS.

(a) IN GENERAL.—Chapter 11 of title 14, United States Code, is amended by inserting after section 262 the following:

"§ 263. Special selection boards; correction of errors

"(a) OFFICERS NOT CONSIDERED DUE TO ADMINISTRATIVE ERROR.—

Determination.

"(1) IN GENERAL.—If the Secretary determines that as the result of an administrative error—

"(A) an officer or former officer was not considered for selection for promotion by a selection board convened under section 251; or

"(B) the name of an officer or former officer was not placed on an all-fully-qualified-officers list;

the Secretary shall convene a special selection board to determine whether such officer or former officer should be recommended for promotion and such officer or former officer shall not be considered to have failed of selection for promotion prior to the consideration of the special selection board.

"(2) EFFECT OF FAILURE TO RECOMMEND FOR PROMOTION.—If a special selection board convened under paragraph (1) does not recommend for promotion an officer or former officer, whose grade is below the grade of captain and whose name was referred to that board for consideration, the officer or former officer shall be considered to have failed of selection for promotion.

"(b) OFFICERS CONSIDERED BUT NOT SELECTED; MATERIAL ERROR.—

Determination.

"(1) IN GENERAL.—In the case of an officer or former officer who was eligible for promotion, was considered for selection for promotion by a selection board convened under section 251, and was not selected for promotion by that board, the Secretary may convene a special selection board to determine whether the officer or former officer should be recommended for promotion, if the Secretary determines that—

"(A) an action of the selection board that considered the officer or former officer—

"(i) was contrary to law in a matter material to the decision of the board; or

"(ii) involved material error of fact or material administrative error; or

"(B) the selection board that considered the officer or former officer did not have before it for consideration material information.

"(2) EFFECT OF FAILURE TO RECOMMEND FOR PROMOTION.—If a special selection board convened under paragraph (1) does not recommend for promotion an officer or former officer, whose grade is that of commander or below and whose name was referred to that board for consideration, the officer or former officer shall be considered—

"(A) to have failed of selection for promotion with respect to the board that considered the officer or former officer prior to the consideration of the special selection board; and

"(B) to incur no additional failure of selection for promotion as a result of the action of the special selection board.

"(c) REQUIREMENTS FOR SPECIAL SELECTION BOARDS.—Each special selection board convened under this section shall—

"(1) be composed in accordance with section 252 and the members of the board shall be required to swear the oaths described in section 254;

"(2) consider the record of an applicable officer or former officer as that record, if corrected, would have appeared to the selection board that should have considered or did consider the officer or former officer prior to the consideration of the special selection board and that record shall be compared with a sampling of the records of—

"(A) those officers of the same grade who were recommended for promotion by such prior selection board; and

"(B) those officers of the same grade who were not recommended for promotion by such prior selection board; and

"(3) submit to the Secretary a written report in a manner consistent with sections 260 and 261. Reports.

"(d) APPOINTMENT OF OFFICERS RECOMMENDED FOR PROMOTION.—

"(1) IN GENERAL.—An officer or former officer whose name is placed on a promotion list as a result of the recommendation of a special selection board convened under this section shall be appointed, as soon as practicable, to the next higher grade in accordance with the law and policies that would have been applicable to the officer or former officer had the officer or former officer been recommended for promotion by the selection board that should have considered or did consider the officer or former officer prior to the consideration of the special selection board.

"(2) EFFECT.—An officer or former officer who is promoted to the next higher grade as a result of the recommendation of a special selection board convened under this section shall have, upon such promotion, the same date of rank, the same effective date for the pay and allowances of that grade, and the same position on the active duty promotion list as the

officer or former officer would have had if the officer or former officer had been recommended for promotion to that grade by the selection board that should have considered or did consider the officer or former officer prior to the consideration of the special selection board.

President. "(3) RECORD CORRECTION.—If the report of a special selection board convened under this section, as approved by the President, recommends for promotion to the next higher grade an officer not eligible for promotion or a former officer whose name was referred to the board for consideration, the Secretary may act under section 1552 of title 10 to correct the military record of the officer or former officer to correct an error or remove an injustice resulting from the officer or former officer not being selected for promotion by the selection board that should have considered or did consider the officer or former officer prior to the consideration of the special selection board.

Regulations. "(e) APPLICATION PROCESS AND TIME LIMITS.—The Secretary shall issue regulations regarding the process by which an officer or former officer may apply to have a matter considered by a special selection board convened under this section, including time limits related to such applications.

"(f) LIMITATION OF OTHER JURISDICTION.—No official or court of the United States shall have authority or jurisdiction over any claim based in any way on the failure of an officer or former officer to be selected for promotion by a selection board convened under section 251, until—

"(1) the claim has been referred to a special selection board convened under this section and acted upon by that board; or

"(2) the claim has been rejected by the Secretary without consideration by a special selection board convened under this section.

"(g) JUDICIAL REVIEW.—

"(1) IN GENERAL.—A court of the United States may review—

"(A) a decision of the Secretary not to convene a special selection board under this section to determine if the court finds that the decision of the Secretary was arbitrary or capricious, not based on substantial evidence, or otherwise contrary to law; and

"(B) an action of a special selection board under this section to determine if the court finds that the action of the special selection board was contrary to law or involved material error of fact or material administrative error.

"(2) REMAND AND RECONSIDERATION.—If, with respect to a review under paragraph (1), a court makes a finding described in subparagraph (A) or (B) of that paragraph, the court shall remand the case to the Secretary and the Secretary shall provide the applicable officer or former officer consideration by a new special selection board convened under this section.

"(h) DESIGNATION OF BOARDS.—The Secretary may designate a selection board convened under section 251 as a special selection board convened under this section. A selection board so designated may function in the capacity of a selection board convened under section 251 and a special selection board convened under this section.".

(b) SELECTION BOARDS; SUBMISSION OF REPORTS.—Section 261(d) of title 14, United States Code, is amended by striking "selection board" and inserting "selection board, including a special selection board convened under section 263,".

(c) FAILURE OF SELECTION FOR PROMOTION.—Section 262 of title 14, United States Code, is amended to read as follows:

"§ 262. Failure of selection for promotion

"An officer, other than an officer serving in the grade of captain, who is, or is senior to, the junior officer in the promotion zone established for his grade under section 256 of this title, fails of selection if he is not selected for promotion by the selection board which considered him, or if having been recommended for promotion by the board, his name is thereafter removed from the report of the board by the President.". President.

(d) CLERICAL AMENDMENT.—The analysis for chapter 11 of title 14, United States Code, is amended by inserting after the item relating to section 262 the following:

"263. Special selection boards; correction of errors.".

(e) APPLICABILITY; RULE OF CONSTRUCTION.—

(1) APPLICABILITY.—The amendments made by this section shall take effect on the date of enactment of this Act and the Secretary may convene a special selection board on or after that date under section 263 of title 14, United States Code, with respect to any error or other action for which such a board may be convened if that error or other action occurred on or after the date that is 1 year before the date of enactment of this Act. Effective date. Time period. 14 USC 261 note.

(2) RULE OF CONSTRUCTION.—Sections 271, 272, and 273 of title 14, United States Code, apply to the activities of— 14 USC 271 note.

(A) a selection board convened under section 251 of such title; and

(B) a special selection board convened under section 263 of such title.

SEC. 209. PROHIBITION OF CERTAIN INVOLUNTARY ADMINISTRATIVE SEPARATIONS.

(a) IN GENERAL.—Chapter 11 of title 14, United States Code, as amended by this Act, is further amended by inserting after section 426 the following:

"§ 427. Prohibition of certain involuntary administrative separations

"(a) IN GENERAL.—Except as provided in subsection (b), the Secretary may not authorize the involuntary administrative separation of a covered individual based on a determination that the covered individual is unsuitable for deployment or other assignment due to a medical condition of the covered individual considered by a Physical Evaluation Board during an evaluation of the covered individual that resulted in the covered individual being determined to be fit for duty.

"(b) REEVALUATION.—

"(1) IN GENERAL.—The Secretary may require a Physical Evaluation Board to reevaluate any covered individual if the Secretary determines there is reason to believe that a medical condition of the covered individual considered by a Physical

Evaluation Board during an evaluation of the covered individual renders the covered individual unsuitable for continued duty.

"(2) RETIREMENTS AND SEPARATIONS.—A covered individual who is determined, based on a reevaluation under paragraph (1), to be unfit to perform the duties of the covered individual's office, grade, rank, or rating may be retired or separated for physical disability under this chapter.

"(c) COVERED INDIVIDUAL DEFINED.—In this section, the term 'covered individual' means any member of the Coast Guard who has been determined by a Physical Evaluation Board, pursuant to a physical evaluation by that board, to be fit for duty.".

(b) CLERICAL AMENDMENT.—The analysis for chapter 11 of title 14, United States Code, as amended by this Act, is further amended by inserting after the item relating to section 426 the following:

"427. Prohibition of certain involuntary administrative separations.".

SEC. 210. MAJOR ACQUISITIONS.

(a) IN GENERAL.—Subchapter I of chapter 15 of title 14, United States Code, is amended by adding at the end the following:

"§ 569a. Major acquisitions

Reports.

"(a) IN GENERAL.—In conjunction with the transmittal by the President to Congress of the budget of the United States for fiscal year 2014 and biennially thereafter, the Secretary shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives a report on the status of all major acquisition programs.

"(b) INFORMATION TO BE INCLUDED.—Each report under subsection (a) shall include for each major acquisition program—

"(1) a statement of the Coast Guard's mission needs and performance goals relating to such program, including a justification for any change to those needs and goals subsequent to a report previously submitted under this section;

"(2) a justification explaining how the projected number and capabilities of assets acquired under such program meet applicable mission needs and performance goals;

"(3) an identification of any and all mission hour gaps, accompanied by an explanation of how and when the Coast Guard will close those gaps;

"(4) an identification of any changes with respect to such program, including—

"(A) any changes to the timeline for the acquisition of each new asset and the phaseout of legacy assets; and

"(B) any changes to—

"(i) the costs of new assets or legacy assets for that fiscal year or future fiscal years; or

"(ii) the total acquisition cost;

"(5) a justification explaining how any change to such program fulfills the mission needs and performance goals of the Coast Guard;

"(6) a description of how the Coast Guard is planning for the integration of each new asset acquired under such program into the Coast Guard, including needs related to shore-based infrastructure and human resources;

"(7) an identification of how funds in the applicable fiscal year's budget request will be allocated, including information on the purchase of specific assets;

"(8) a projection of the remaining operational lifespan and life-cycle cost of each legacy asset that also identifies any anticipated resource gaps;

"(9) a detailed explanation of how the costs of legacy assets are being accounted for within such program; and

"(10) an annual performance comparison of new assets to legacy assets.

"(c) ADEQUACY OF ACQUISITION WORKFORCE.—Each report under subsection (a) shall—

"(1) include information on the scope of the acquisition activities to be performed in the next fiscal year and on the adequacy of the current acquisition workforce to meet that anticipated workload;

"(2) specify the number of officers, members, and employees of the Coast Guard currently and planned to be assigned to each position designated under section 562(c) of this subchapter; and

"(3) identify positions that are or will be understaffed and actions that will be taken to correct such understaffing.

"(d) CUTTERS NOT MAINTAINED IN CLASS.—Each report under subsection (a) shall identify which, if any, Coast Guard cutters that have been issued a certificate of classification by the American Bureau of Shipping have not been maintained in class, with an explanation detailing the reasons why the cutters have not been maintained in class.

"(e) MAJOR ACQUISITION PROGRAM DEFINED.—In this section, the term 'major acquisition program' means an ongoing acquisition undertaken by the Coast Guard with a life-cycle cost estimate greater than or equal to $300,000,000.".

(b) CLERICAL AMENDMENT.—The analysis for chapter 15 of title 14, United States Code, is amended by inserting after the item relating to section 569 the following:

"569a. Major acquisitions.".

(c) REPEALS.—

(1) Section 408(a) of the Coast Guard and Maritime Transportation Act of 2006 (14 U.S.C. 663 note) is repealed.

(2) Title 14, United States Code, is amended—

(A) in section 562, by repealing subsection (e); and

(B) in section 573(c)(3), by repealing subparagraph (B).

SEC. 211. ADVANCE PROCUREMENT FUNDING.

(a) IN GENERAL.—Subchapter II of chapter 15 of title 14, United States Code, is amended by adding at the end the following:

"§ 577. Advance procurement funding

"(a) IN GENERAL.—With respect to any Coast Guard vessel for which amounts are appropriated and any amounts otherwise made available for vessels for the Coast Guard in any fiscal year, the Commandant of the Coast Guard may enter into a contract or place an order, in advance of a contract or order for construction of a vessel, for—

"(1) materials, parts, components, and labor for the vessel;

"(2) the advance construction of parts or components for the vessel;

"(3) protection and storage of materials, parts, or components for the vessel; and

"(4) production planning, design, and other related support services that reduce the overall procurement lead time of the vessel.

"(b) USE OF MATERIALS, PARTS, AND COMPONENTS MANUFACTURED IN THE UNITED STATES.—In entering into contracts and placing orders under subsection (a), the Commandant may give priority to persons that manufacture materials, parts, and components in the United States.".

(b) CLERICAL AMENDMENT.—The analysis for chapter 15 of title 14, United States Code, as amended by this Act, is further amended by inserting after the item relating to section 576 the following:

"577. Advance procurement funding.".

SEC. 212. MINOR CONSTRUCTION.

(a) IN GENERAL.—Section 656 of title 14, United States Code, is amended by adding at the end the following:

"(d) MINOR CONSTRUCTION AND IMPROVEMENT.—

"(1) IN GENERAL.—Subject to the reporting requirements set forth in paragraph (2), each fiscal year the Secretary may expend from amounts made available for the operating expenses of the Coast Guard not more than $1,500,000 for minor construction and improvement projects at any location.

"(2) REPORTING REQUIREMENTS.—Not later than 90 days after the end of each fiscal year, the Secretary shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives a report on each project undertaken during the course of the preceding fiscal year for which the amount expended under paragraph (1) exceeded $500,000.".

(b) CLERICAL AMENDMENTS.—

(1) HEADING.—Section 656 of title 14, United States Code, as amended by this Act, is further amended by striking the section designation and heading and inserting the following:

"§ 656. Use of certain appropriated funds".

(2) ANALYSIS.—The analysis for chapter 17 of title 14, United States Code, is amended by striking the item relating to section 656 and inserting the following:

"656. Use of certain appropriated funds.".

SEC. 213. CAPITAL INVESTMENT PLAN AND ANNUAL LIST OF PROJECTS TO CONGRESS.

(a) CAPITAL INVESTMENT PLAN.—Section 663 of title 14, United States Code, is amended to read as follows:

"§ 663. Capital investment plan

"(a) IN GENERAL.—On the date on which the President submits to Congress a budget pursuant to section 1105 of title 31, the Commandant of the Coast Guard shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate—

(b) CERTIFICATE TO OPERATE.—The Commandant of the Coast Guard may not certify a sixth National Security Cutter as Ready for Operations before the Commandant has—

Plans.

(1) submitted to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives program execution plans detailing—

(A) how the first 3 National Security Cutters will achieve the goal of 225 days away from homeport in fiscal years following the completion of the Structural Enhancement Drydock Availability of the first 2 National Security Cutters; and

(B) increased aerial coverage to support National Security Cutter operations; and

Contracts.

(2) awarded a contract for detailed design and construction for the Offshore Patrol Cutter.

SEC. 222. COAST GUARD POLAR ICEBREAKERS.

Analysis. Termination date.

(a) IN GENERAL.—The Secretary of the department in which the Coast Guard is operating shall conduct a business case analysis of the options for and costs of reactivating and extending the service life of the Polar Sea until at least September 30, 2022, to maintain United States polar icebreaking capabilities and fulfill the Coast Guard's high latitude mission needs, as identified in the Coast Guard's July 2010, High Latitude Study Mission Analysis Report, during the Coast Guard's recapitalization of its polar class icebreaker fleet. The analysis shall include—

(1) an assessment of the current condition of the Polar Sea;

(2) a determination of the Polar Sea's operational capabilities with respect to fulfilling the Coast Guard's high latitude operating requirements if renovated and reactivated;

(3) a detailed estimate of costs with respect to reactivating and extending the service life of the Polar Sea;

(4) a life cycle cost estimate with respect to operating and maintaining the Polar Sea for the duration of its extended service life; and

(5) a determination of whether it is cost-effective to reactivate the Polar Sea compared with other options to provide icebreaking services as part of a strategy to maintain polar icebreaking services.

(b) RESTRICTIONS.—The Secretary shall not remove any part of the Polar Sea until the Secretary submits the analysis required under subsection (a).

(c) DEADLINE.—Not later than 270 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate the analysis required under subsection (a).

(d) REQUIREMENT FOR REACTIVATION OF POLAR SEA.—

(1) SERVICE LIFE EXTENSION PLAN.—

Determination.

(A) IN GENERAL.—If the Secretary determines based on the analysis required under subsection (a) that it is cost-effective to reactivate the Polar Sea compared with other options to provide icebreaking services, the Secretary shall develop a service life extension plan for such reactivation, including a timetable for such reactivation.

(B) UTILIZATION OF EXISTING RESOURCES.—In the development of the plan required under subparagraph (A), the Secretary shall utilize to the greatest extent practicable recent plans, studies, assessments, and analyses regarding the Coast Guard's icebreakers and high latitude mission needs and operating requirements.

(C) SUBMISSION.—The Secretary shall submit the plan required under subparagraph (A), if so required, to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate not later than 180 days after the submission of the analysis required under subsection (a). Deadline.

(2) DECOMMISSIONING; BRIDGING STRATEGY.—If the analysis required under subsection (a) is submitted in accordance with subsection (c) and the Secretary determines under subsection (a)(5) that it is not cost-effective to reactivate the Polar Sea, then not later than 180 days after the date on which the analysis is required to be submitted under subsection (c) the Commandant of the Coast Guard— Deadline.

(A) may decommission the Polar Sea; and

(B) shall submit a bridging strategy for maintaining the Coast Guard's polar icebreaking services until at least September 30, 2022, to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate. Termination date.

(e) RESTRICTION.—Except as provided in subsection (d), the Commandant of the Coast Guard may not—

(1) transfer, relinquish ownership of, dismantle, or recycle the Polar Sea or Polar Star;

(2) change the current homeport of either of the vessels; or

(3) expend any funds—

(A) for any expenses directly or indirectly associated with the decommissioning of either of the vessels, including expenses for dock use or other goods and services;

(B) for any personnel expenses directly or indirectly associated with the decommissioning of either of the vessels, including expenses for a decommissioning officer;

(C) for any expenses associated with a decommissioning ceremony for either of the vessels;

(D) to appoint a decommissioning officer to be affiliated with either of the vessels; or

(E) to place either of the vessels in inactive status.

(f) DEFINITION.—For purposes of this section—

(1) the term "Polar Sea" means Coast Guard Cutter Polar Sea (WAGB 11); and

(2) the term "Polar Star" means Coast Guard Cutter Polar Star (WAGB 10).

(g) REPEAL.—This section shall cease to have effect on September 30, 2022. Termination date.

Timeline

2011

January 2011
Fabrication begins
April 2011
Keel-Laying Ceremony
June 2011
Erection begins

2012

February 2012
Erection complete
June 2012
Launch ceremony
October 2012
Builder's trials
November 2012
Builder's sea trials (phase 1)

2013

April 2013
Builder's sea trials (phase 2)
May 2013
Acceptance trials
Delivery

2014

Early 2014
Sikuliaq ready for science operations.

About the Name 'Sikuliaq'

Pronounced [see-KOO-lee-auk], 'Sikuliaq' is an Inupiaq word meaning "young sea ice."

For more information:

Daniel Oliver, Project Manager
University of Alaska Fairbanks
Seward Marine Center
201 Railway Avenue, P.O. Box 730
Seward, AK 99664-0730
Phone: (907) 224-4305
dkoliver@alaska.edu

Terry Whitledge, Principal Investigator
University of Alaska Fairbanks
Institute of Marine Science
234 Irving II, P.O. Box 757220
Fairbanks, AK 99775-7220
Phone: (907) 474-7229
terry@ims.uaf.edu

R/V SIKULIAQ

Alaska Region Research Vessel

NSF

UAF UNIVERSITY OF ALASKA FAIRBANKS

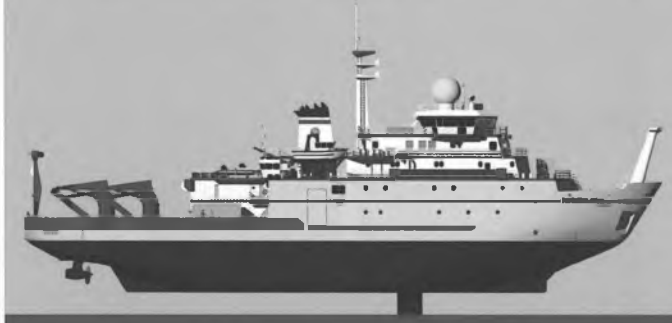
www.sfos.uaf.edu/arrv

THE R/V SIKULIAQ

The Sikuliaq, pronounced [see-KOO-lee-auk] is the Alaska Region Research Vessel and will be a 261-foot oceanographic research ship capable of bringing scientists to the ice-choked waters of Alaska and the polar regions.

When complete, the vessel will be one of the most advanced university research vessels in the world and will be able to break ice up to 2.5 feet thick.

Currently under construction at Marinette Marine Corporation, a shipyard in Marinette, Wisconsin, the Sikuliaq will be ready for unrestricted science operations in 2014 and will be home ported at the University of Alaska Fairbanks Seward Marine Center in Seward.



ABOUT THE SIKULIAQ

The Sikuliaq will be owned by the National Science Foundation and operated by the University of Alaska Fairbanks as part of the U.S. academic research fleet. It will be used by scientists in the U.S. and international oceanographic community through the University-National Oceanographic Laboratory System.

The $123 million for the ship construction contract is funded entirely by the American Recovery and Reinvestment Act. The total cost for the project is $200 million.

FEATURES

The Sikuliaq will allow researchers to collect sediment samples directly from the seafloor, host remotely operated vehicles, use a flexible suite of winches to raise and lower scientific equipment, and conduct surveys throughout the water column and sea bottom using an extensive suite of scientific sonar systems.

The ship will also be able to transmit real-time information directly to classrooms all over the world. The Sikuliaq will have accommodations for up to 26 scientists, marine technicians and students at a time, including those with disabilities.

Although the Sikuliaq has global capability and will be used in other polar and sub-polar regions, its predominant operating area is expected to be in the productive and diverse waters of the western Arctic surrounding Alaska.

Characteristics	Sikuliaq
Overall Length	261 feet
Draft	18.9 feet
Beam	52 feet
Performance	
Cruising Speed	11 knots
Endurance	45 days
Ice-breaking	2.5 feet at 2 knots
Capacities	
Scientist Berths	26
Crew Berths	20
Science Labs	2100 square feet
Lab or Storage Vans	Up to 4 vans
Deck Working Area	4360 square feet
Fresh Water Storage	13,190 gallons
Water Making Capacity	6000 gallons/day
Fuel Capacity	170,000 gallons
Disability Accommodations	Yes: labs, galley, staterooms

Aiviq

Aiviq in heavy seas on 30 December 2012.

Career	
Name:	*Aiviq*
Namesake:	Walrus
Owner:	Edison Chouest Offshore
Port of registry:	Galliano, Louisiana, United States[1]
Ordered:	July 2009
Builder:	North American Shipbuilding, Larose, Louisiana LaShip, Houma, Louisiana
Cost:	$200 million
Yard number:	247
Laid down:	3 February 2010
Launched:	1 November 2011
Christened:	24 March 2012
Completed:	20 April 2012
In service:	2012–
Identification:	IMO number: 9579016 Call sign: WDG2524 MMSI: 367141000 [2][3]
Status:	In service[3]
General characteristics	
Type:	Anchor handling tug supply vessel (AHTS)
Tonnage:	12,892 GT 3,867 NT 4,129 DWT
Length:	110 m ()
Beam:	24.4 m ()

Draught:	8.6 m ()
Depth:	10.4 m ()
Ice class:	ABS A3
Installed power:	4 × Caterpillar C280-12 (4 × 4,060 kW)
Propulsion:	Two ducted controllable pitch propellers Three bow thrusters and two stern thrusters
Speed:	15 knots (km/h; mph) in open water 5 knots (km/h; mph) in 1 m (ft) ice
Crew:	28: accommodation for 64
Aviation facilities:	Helideck

Alviq is an American icebreaking anchor handling tug supply vessel (AHTS) owned by Edison Chouest Offshore (ECO). The $200 million vessel was built in 2012 by North American Shipbuilding in Larose, Louisiana and LaShip in Houma, Louisiana. She has been chartered by Royal Dutch Shell to support oil exploration and drilling in the Chukchi Sea off Alaska.[4] The primary task of the vessel is towing and laying anchors for drilling rigs, but she is also equipped for oil spill response.[5][6]

Construction

In July 2009, Edison Chouest Offshore won a $150 million contract for the construction of an icebreaking anchor handling tug supply vessel for Royal Dutch Shell. The 360-foot (m) vessel, largest ever built by the company, would be used to support Shell's drilling operations in the Beaufort Sea and Chukchi Sea off Alaska.[7] In January 2010, it was announced that the vessel would be constructed in Louisiana. The hull would be built by North American Shipbuilding in Larose while the construction of the superstructure and the final assembly of the vessel would take place in the company's own shipyard, LaShip, in Houma. In all, the construction would take just over two years and provide work for about 800 people.[8]

Laid down on 3 February 2010,[1] the newbuilding "Hull 247" was presented to Shell executives on 30 September 2011. By then, the price of the vessel had climbed to $200 million due to material and equipment factors, such as the price of steel.[9][10] The vessel was launched on 1 November 2011.[1] According to Edison Chouest spokesman Gary Chouest, *"It [*Aiviq*] will be the world's largest and most powerful anchor-handling icebreaker."*[5]

In 2011, Shell invited Inupiak schoolchildren to submit essays suggesting names for the vessel. Twelve-year-old Elizabeth Itta submitted the winning essay, describing how the Walrus, "Alviq" in the Inupiak language, use their tusks to break ice. She won a cash prize for her school and an invitation to attend the ship's launching ceremony on 24 March 2012.[11][12] The vessel went for sea trials in April and was delivered on 20 April 2012.[1][13]

The construction of the new icebreaker and Shell's Arctic drilling operation off Alaska have raised concerns about the ability of the United States Coast Guard to operate in ice-infested waters since the Coast Guard has only one operational icebreaker, USCGC *Healy*.[14]

Career

Grounding of *Kulluk*

Kulluk aground on the southeast side of Sitkalidak Island, Alaska, on 1 January 2013.

On 27 December 2012, while *Aiviq* was towing the mobile offshore drilling unit *Kulluk* off the coast of Kodiak Island, Alaska, the towing line between the icebreaker and the drilling rig parted due to a mechanical failure of the towing shackle.[15] Shortly after the tow had been regained, the main engines of *Aiviq* failed likely due to fuel issues[16] and the vessel lost propulsion power in 20-foot (m) seas. In the following morning, power was successfully restored on one of the four main engines and the vessel was able to hold position in the heavy weather.[17] United States Coast Guard cutter USCGC *Alex Haley* was dispatched to the scene to monitor the situation.[18] In response to the incident, the Coast Guard, Shell and Edison Chouest established an Unified Command to coordinate the operation.[19] Shell-contracted vessels *Guardsman* and *Nanuq* were also en route to the scene.[17]

On 29 December, the Unified Command authorized the drilling rig to drop its anchor to slow its drift towards the coast and ordered the Coast Guard to evacuate the 18 crew members on *Kulluk* by helicopter as a precaution.[20][21] Sikorsky HH-60 Jayhawk helicopters operated by the Coast Guard also delivered essential equipment parts to *Aiviq* and later power was restored on all four engines. Together with *Nanuq*, *Aiviq* was able to hold the drilling rig stationary during the crew evacuation and later continue towing the vessel away from the coast.[22][23]

On 30 December, the tow lines of *Aiviq* and *Nanuq* parted again, and *Kulluk* began drifting towards the coast. Another tugboat, the 10,000-horsepower *Alert* operated by Crowley Marine Services,[24] also arrived to the scene from Prince William Sound.[25] Shortly after midnight, *Alert* was able to secure connection to the 400-foot (m) towing line previously used by *Aiviq* and later in the morning the icebreaker had also reconnected to *Kulluk* about 19 nautical miles (km; mi) southeast from Kodiak Island.[26] USCGC *Alex Haley* also returned to the scene from Kodiak, where the cutter had repaired her fouled port propeller, and relieved the crew of USCGC *Spar* as on scene commander. The helicopter crews were also preparing to deploy several technicians aboard the drilling rig to evaluate the condition of the towing lines.[27]

Later in the evening, *Kulluk* was again set adrift after the Coast Guard ordered *Alert* to separate from the rig, now only 4 nautical miles (km; mi) from the nearest point of land, to maintain the safety of the nine crew members on board the tug in nearly 30-foot (m) seas.[27][28] Only moments later, *Kulluk* was grounded near the uninhabited Sitkalidak Island at a depth of about 32–48 feet **(unknown operator: u'['unknown operator: u'['unknown operator: u'[' unknown operator: u'[').**[29]

The salvage operation was awarded to the Dutch salvage company Smit International.[30] A team of five salvage experts boarded *Kulluk* on 2 January 2013 to assess the structural integrity of the grounded drilling barge.[30] On 3 January, it was reported that *Kulluk* had suffered damage since the grounding but its structural integrity had not been compromised and there have been no leaks from the rig's fuel tanks.[31] At the time of the grounding, *Kulluk* was carrying 139,000 gallons of diesel fuel and 12,000 gallons of lubricating and hydraulic oil.[32] By 4 January, 14 vessels had been mobilized for the recovery operation and the United States Department of Defense provided two Boeing CH-47 Chinook helicopters to transport heavy salvage gear to the site.[33]

Kulluk was successfully refloated on 6 January and towed to a sheltered location in Kiliuda Bay, some 30 nautical miles (km; mi) from the original grounding location, on the following day.[34][35]

General characteristics

Aiviq is 110 metres () long overall and 95.5 metres () between perpendiculars. Her hull has a beam of 24.4 metres (ft) and depth of 10.4 metres ().[1] Fully laden, she draws 8.6 metres () of water.[36] Since *Aiviq* is an anchor handling tug and supply vessel, she is fitted with a large towing winch located amidships as well as chain lockers and storage tanks for both liquid and dry bulk cargo under the main deck.[37] Her gross tonnage is 12,892, net tonnage 3,867 and deadweight tonnage 4,129 tonnes.[1]

Aiviq is powered by four 12-cylinder Caterpillar C280-12 four stroke medium speed diesel engines, each producing 4,060 kW (hp) at 1,000 rpm. The engines are coupled to two 4.6-metre (ft) Schottel controllable pitch propeller in nozzles via Flender reduction gearboxes.[1][38] The propulsion system gives *Aiviq* a service speed of 15 knots (km/h; mph) in open water and 5 knots (km/h; mph) in 1-metre () level ice, and a bollard pull of 200 metric tons.[36] She also has two 2,000 kW shaft generators and four 1,700 kW Caterpillar 3512C auxiliary diesel generators that provide power for onboard consumers, including the firefighting system. She has three bow thrusters, one of them of azimuthing fold-down type, and two stern thrusters that give her dynamic positioning capability. For redundancy and improved handling, she has two high-lift rudders.[1][4][37] The propellers of *Aiviq* are reportedly designed to be quieter than normal in order to be less disruptive to local marine life.[39]

Aiviq is classified by the American Bureau of Shipping. Her ice class, A3, indicates that she is strengthened for navigation in polar ice conditions with the presence of multiyear ice floes. Furthermore, the notation "Ice Breaker" states that she is designed and constructed for breaking ice to open navigable channels for other ships.[1]

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Nathaniel B. Palmer (icebreaker)

Icebreaker *Nathaniel B. Palmer*, serving the National Science Foundation.

Career (US)	
Name:	R/V *Nathaniel B. Palmer*
Namesake:	Nathaniel Palmer
Owner:	Offshore Service Vessels LLC
Operator:	Lockheed Martin Antarctic Support Contract
Builder:	North American Ship Building
Yard number:	137[1]
Launched:	1992
In service:	1992
Identification:	• IMO number: 9007257[1] • MMSI Number: 200155768 • Callsign: WBP3210[1]
Status:	In service
General characteristics	
Class & type:	ABS A1, AMS, E, ACC
Type:	Research vessel
Tonnage:	6,174 GT
Length:	94 m (ft)
Beam:	18.3 m (ft)
Draft:	6.8 m (ft)
Depth:	9.1 m (ft)
Ice class:	A2
Installed power:	4 x Caterpillar 3608
Propulsion:	• Main propulsion: 12,720 hp (kW) • Bow Thruster: 1,400 hp (kW) • Stern Thruster: 800 hp (kW)
Endurance:	75 days

Complement:	69
Crew:	22
Aircraft carried:	helicopter

The **Nathaniel B. Palmer** is an ice-capable research ship owned by Offshore Service Vessels LLC, operated by Edison Chouest Offshore, Inc. and chartered by the United States National Science Foundation. The Nathaniel B. Palmer is tasked with extended scientific missions in the Antarctic.[2][3] The Nathaniel B. Palmer was purpose-built for and delivered to the NSF by Edison Chouest Offshore's North American Shipbuilding facility in 1992.[2]

The Nathaniel B. Plamer carries a helicopter, accommodates up to 37 scientists, has a crew of 22 and is capable of missions lasting up to 75 days.[2]

The vessel is named after merchant marine and ship builder Nathaniel Brown Palmer, credited by some historians with the discovery of Antarctica.[2]

Gallery

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External links

- R/V Nathaniel B. Palmer's current position (http://www.sailwx.info/shiptrack/shipposition.phtml?call=WBP3210)
- United States Antarctic Program Vessel Science and Operations (http://www.usap.gov/vesselScienceAndOperations/)
- USAP Research Vessels news in (http://antarcticsun.usap.gov/aroundTheContinent/contentHandler.cfm?id=1198) The Antarctic Sun (http://antarcticsun.usap.gov)
- Lockheed Martin Antarctic Support Contract (http://www.lockheedmartin.com/us/products/antarctic-support-contract.html)

Sikuliaq

Career	
Name:	*Sikuliaq*
Namesake:	Iñupiaq for "young sea ice"
Owner:	National Science Foundation[1]
Operator:	University of Alaska Fairbanks School of Fisheries and Ocean Sciences
Port of registry:	Seward, Alaska[2]
Ordered:	5 February 2010
Builder:	Marinette Marine Corporation, Marinette, Wisconsin
Cost:	US$200 million
Laid down:	11 April 2011
Launched:	13 October 2012
Completed:	2014 (proposed)
Identification:	IMO number: 9578945[1]
Status:	Under construction
General characteristics [3]	
Type:	Research vessel
Displacement:	3,665 long tons (t)
Length:	261 ft (m)
Beam:	52 ft (m)
Draft:	(5.715 m)
Depth:	28 ft (m)
Installed power:	Four diesel engines 5,750 hp (kW) (combined)
Propulsion:	Diesel-electric Two Wärtsilä Icepod 2500 azimuth thrusters
Speed:	14.2 knots (km/h; mph) 2 knots (km/h; mph) in 2.5 feet (m) ice
Range:	18,000 nautical miles (km; mi) at 10 knots (km/h; mph)[4]
Endurance:	45 days
Capacity:	24 science berths 2–4 20-feet science vans
Crew:	20 (+2)

Sikuliaq is an American research vessel currently under construction at Marinette Marine Corporation in Marinette, Wisconsin, for the National Science Foundation. Expected to enter service in January 2014, the $200 million vessel will replace the 1966-built research vessel *Alpha Helix* that was retired in 2007. *Sikuliaq*, named after the Iñupiaq word for "young sea ice" and pronounced "see-KOO-lee-auk", will be operated by the University of Alaska Fairbanks School of Fisheries and Ocean Sciences and homeported in Seward, Alaska.

Description

Mission and capabilities

Sikuliaq allows up to 26 scientists and students to conduct multi-disciplinary studies in high latitude open seas, near-shore regions and single-year sea ice, and facilitates the real-time virtual participation of classroom students via broadband connections. The major research opportunities include the effect of climate change and increased human use of Arctic regions on various issues such as ocean circulation and ecosystem dynamics.[5][6]

One of the most advanced research vessels ever built, *Sikuliaq* has extensive scientific facilities. In addition to 2,250 square feet (m^2) of built-in laboratories, she can accommodate two to four 20-foot scientific containers on the 4,360-square-foot (m^2) aft deck. In addition, *Siquliak* is fitted with flexible over-side handling equipment such as an A-frame in the stern as well as a number of science winches and cranes on the aft deck. She also has a retractable transducer centerboard (drop keel) for deploying various sensors under the vessel.[3][5]

Design

Sikuliaq is 261 feet (m) on and has a maximum beam of 52 feet (m). At a displacement of 3,665 long tons (t), she draws (5.715 m) of water. Designed for operations in ice-infested waters, the vessel has a sloping icebreaker bow and a hull that is two feet wider at the bow than in the stern to reduce ice resistance.[7] She is served by a crew of 20 and has provisions for two additional marine technicians.[3]

Powered by four diesel engines with a combined output of 5,750 hp (kW), *Sikuliaq* has a diesel-electric powertrain, meaning that the main diesel generators produce power for electric motors coupled to the propellers. She is the first vessel ever to be fitted with Icepods, Wärtsilä's brand of ice-strengthened azimuth thrusters that can be rotated 360 degrees about the vertical axis. The Z-drive thrusters are "pulling", meaning that the propellers are facing to the direction the vessel is moving to improve the hydrodynamic efficiency. In addition, they are "can-mounted", meaning that the thrusters can be disconnected and lifted off for maintenance without docking the vessel.[4] She is also fitted with a bow thruster to assist maneuvering at low speeds.[3][7][8]

The maximum speed of *Sikuliaq* in calm water is 14.2 knots (km/h; mph). In addition, she can break first-year sea ice up to 2.5 feet (m) thick at a constant speed of 2 knots (km/h; mph). She also has dynamic positioning capability.[5] *Sikuliaq* has an operational endurance of 45 days and can sail 18,000 nautical miles (km; mi) at 10 knots (km/h; mph).[3][4]

Construction

The original science mission requirement of the new research vessel was prepated by a committee of the UNOLS Fleet Improvement Committee in 1998.[9] In 2001, Congress appropriated $1 million for a design study of a suitable vessel.[5] The vessel, called Alaska Region Research Vessel (ARRV), was designed by The Glosten Associates, a Seattle-based group of naval architects, in 2004.[10]

In May 2009, the National Science Foundation announced that it had received funding for the construction of an ice-capable research vessel designed to support scientific research in high-latitude waters.[10] In December 2009, the $123 million contract for the construction of the $200 million vessel was awarded to Marinette Marine Corporation of Marinette, Wisconsin, and the ceremonial signing of the contract was held on 5 February 2010.[11][12] In January 2010, the University of Alaska Fairbanks chose an Alaska Native name *Sikuliaq*, meaning "young sea ice" in the Iñupiaq language, after receiving more than 150 suggestions.[13]

The keel of the vessel was laid down on 11 April 2011 and she was launched on 13 October 2012. *Sikuliaq* is expected to arrive in her homeport of Seward, Alaska, in January 2014.[2][14]

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External links

Official website (http://www.sfos.uaf.edu/sikuliaq/home-index.html)

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The Arctic North end of Russia is believed to hold as much as a quarter of all the world's oil deposits - an utterly monstrous economic prize, hidden in one of the toughest and least hospitable environments on the planet. Getting to this prize, and then transporting it back to refineries, is a monolithic task that requires one of the most awe-inspiring pieces of machinery man has ever built - the nuclear icebreaker. Purpose-built to the point of being almost unseaworthy on the open waves, these goliaths smash their way through 3-meter (10-foot) thick ice crusts to create viable pathways for other vessels - but fascinating new technologies could mean the days of the dedicated icebreaker are numbered.

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Making hay in the Arctic

Where there's a well, there's a way. An oil well, that is. Black gold. Texas tea. And some of the world's richest reserves of the stuff are buried beneath the beds of the Berents sea, North of Russia and well into the Arctic Circle. It's estimated that this area holds somewhere around a quarter of all the oil reserves in the world.

But it's an area that gets no sun at all for at least one day every year, and which is so cold that the sea itself freezes over with 2-meter (6.5-foot) thick ice for more than two thirds of the year. When it's not frozen over, there's 12-meter (40 foot) waves to deal with. It's one of the world's most extreme environments; inhospitable doesn't even begin to cover it.

Here's a satellite photo of the top left corner of that map, showing just how

much ice we're talking about in wintertime.

Getting resources like oil and natural gas out of the earth - and safely back to shore - would be prohibitively expensive, if the prize wasn't worthwhile. Where these sorts of quantities of fossil fuels are concerned, however, all bets are off and just about any expense can be justified.

... and the expense we'd like to take a look at today is the nuclear-powered icebreaker - a vessel whose sole task is to smash its way through packed sea ice and clear a path for other ships to follow in.

It's a specialist job that boats have been designed to tackle since the 1830s - and it's interesting to note that while today's enormous icebreakers generally use nuclear power to generate the immense thrust needed to power through the ice fields, in other ways the design hasn't changed too much for nearly 200 years.

How icebreakers work

So, let's take a look at how they work. For starters, where a regular ship has

a pointed bow to slice through the waves, an icebreaker's bow is a much smoother shape, almost like the back of a spoon. When the ship hits ice, the smooth bow causes the front end of the ship to ride up on top of the ice, so the vessel's immense weight can then crush it from above.

It's a truly extraordinary sight in motion.

The hull is shaped to push the crushed ice out of the way of the ship's propulsion system, where it could cause significant damage. The hull is strengthened and reinforced to deal with the additional stress it has to handle, and it's also coated with a low-friction solution that makes it easier to glide over the ice rather than catching or grabbing as it rides over.

The final main element to an icebreaker is enormous power - and for this, it's worth taking a look at the greatest icebreaker ever to ride the White Sea: Russia's NS 50 Let Pobedy (50 *лет* Победы, which translates to 50 Years of Victory).

The 50 Let Pobedy is 159 meters long (524 ft) and weighs 23,439 metric tons (25,837 tons). That's peanuts next to the massive tankers and container ships it clears a path for, but it makes it the largest icebreaker in the world.

Nuclear Power - the only practical choice

for Arctic icebreakers

In order to constantly provide enough power to shove that bulk up over mile after mile of ice, the 50 Let Pobedy (let's just call it the Victory) runs a pair of nuclear reactors that generate a combined 55.2 megawatts (74,000 horsepower), which hits the water through three electric propulsion motors.

Why nuclear? Well, to put it simply, the fuel demands of the task at hand would be outrageous using any other power source. Burning diesel, the Victory would use more than 100 tons (90.7 metric tons) of fuel a day, and have a severely restricted range as a result. But running on nuclear power, she burns less than half a kilo (1 pound) of uranium even on the toughest day, at constant full power across 2.8-meter (9.2-foot) thick ice.

With nuclear reactors on board, fuel stops become almost a thing of the past - a handy feature considering they work in extremely remote areas and have no other compelling reason to come in to port. In fact, the world record for endurance is held by one of Victory's older cousins, the Arktika, which stayed in service on the ice for 357 days without entering a port once.

In fact, the specific needs of icebreaking vessels make them one of the only cases where nuclear propulsion is economically practical - barring nuclear submarines, which take advantage of the fact that the reactors don't require oxygen to run. Nuclear reactors are more expensive to build than combustion engines, and enriched uranium doesn't come cheap - but at the end of the day, by virtue of sheer volume, the fuel costs end up being much, much lower than an equivalent diesel engine.

No, the main issue is insurance. Imagine trying to insure one of these things, given the catastrophic and lasting damage that could occur in the "unlikely event" of an accident. Luckily, so far, there has not been a major incident.

Icebreakers - almost unseaworthy outside their element

Icebreakers are an excellent example of a laser-focused vehicle. In the same way as a half-million dollar sports car can be a real pain around the speed humps and u-turns of the city, these goliaths of the Arctic are very poorly designed for operation outside their specific envelope.

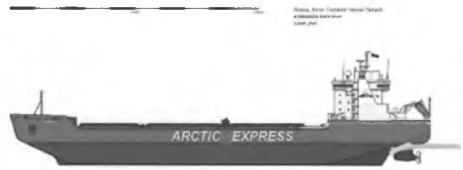
The key element here is that rounded bow. A shape best suited to riding up

on ice shelves and crushing them from above, it causes the ships to roll from side to side in the waves when sailing on open water, making for a very seasick ride for the crew.

When the seas come up (remember those 12-meter waves we spoke about earlier?) the shape opens itself up to another problem - where a typical pointed bow can pierce through an oncoming wave, greatly reducing its effect on the boat, the rounded bow of an icebreaker lets the water slam into it at full force.

These are certainly not comfortable vessels on the open water. Even once on the ice, the crew has to deal with the constant jarring and shuddering of ice breaking beneath the boat, as well as the low, constant rumble it produces.

A relatively new development in engine design, however, might put dedicated icebreakers out of service for all but the thickest surfaces.



Double-acting reversible tankers - ships that go both ways

In the 1990s, a new class of propulsion device was designed. Previously, most ships had a fixed propeller system which could run either in forward or reverse, and some sort of rudder arrangement for steering, but the development of the azimuth thruster pod instantly changed the state of the game.

These hardy propulsion pods hung under the ship's hull, housing a motor and propeller, with the ability to rotate each pod 360 degrees to provide thrust in any direction. This makes the ships much more maneuverable.

It turns out, the pods also have a special advantage in icebreaking applications. These "Azipod" propulsion units typically have their propellers facing forwards and operate in a pulling motion to take advantage of an untroubled stream of water. When you turn them 180 degrees and run the

ship backwards, it turns out that the intense agitating power of the Azipods can actually help break ice from underneath.

In fact, ships running astern (backwards) with Azipods leading the way have proven to be significantly more efficient at breaking ice than ships with the same bow shape running with rear propulsion.

This means that you can build ships with an icebreaking bow and Azipods at the rear, and a regular wave piercing bow at the front - double-acting reversible ships that can efficiently drive forward in the open sea without any of the roll effect of a dedicated icebreaker, but that can turn tail and run butt-first if they run into sea ice and need to smash through it. They can perform both jobs with high efficiency, while carrying cargo.

Here's an example, the MT Tempera - one of the first double acting cargo ships. Here she is running ahead in open water:

And backing up to break through the ice:

These double-acting ships, many of which are now in operation, more or less render the dedicated icebreakers obsolete where the ice is only a meter or a meter and a half thick - which opens up a lot of shipping routes. But the big boys like the 50 Let Pobedy are still needed when the going gets really tough with ice beyond 2 meters thick.

I hope you've enjoyed this quick overview - the icebreaker and double acting ship class is such an impressive answer for such a specific problem in such a harsh environment that we thought it was worth a feature.

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About the Author

Loz loves motorcycles - at the age of two, he told his mother "don't want brother, want mogabike." It was the biker connection that first brought Loz to Gizmag, but since then he's covered everything from alternative energy and weapons to medicine, marital aids - and of course, motorcycles. Loz also produces a number of video pieces for Gizmag, including his beloved bike reviews. He frequently disappears for weeks at a time to go touring with his vocal band Suede. All articles by Loz Blain

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38 Comments

very interesting article, I learned something new today, thank you

robinyatesuk2003
20th December, 2011 @ 06:41 pm PST

What an excellent article Loz - and glad you're still with us after your little incident months ago.

Todd Dunning
20th December, 2011 @ 06:42 pm PST

Why is its butt called the Mastera?

Ozuzi
20th December, 2011 @ 09:02 pm PST

Sorry Ozuzi, my mistake, the Mastera is the Tempera's sister ship.

Loz
20th December, 2011 @ 10:23 pm PST

Nice article indeed!

Just a question, was the azimuth thrust unit (or Z-drive) not already developed in the 1950's ?

If memory serves me right, it was the founder of the schottel company in germany who made the first models.

U.S. Department of Homeland Security
United States Coast Guard

Aircraft, Boats, and Cutters: Cutters

399-foot Polar Class Icebreakers (WAGB)

The largest cutters operated by the Coast Guard are the icebreakers. These cutters, specifically designed for open-water icebreaking have reinforced hulls, special icebreaking bows, and a system that allows rapid shifting of ballast to increase the effectiveness of their icebreaking. The Polar Sea and Polar Star were built in the 1970s and the newest and most technologically advanced icebreaker, the Cutter HEALY was added to the fleet in November 1999. They serve in Arctic/Antarctic serving science and research as well as providing supplies to remote stations. All three icebreakers are under the control of Pacific Area, Ice Operations Section.

Polar Class Icebreakers in service: Characteristics:

- POLAR STAR (WAGB-10) Seattle, WA
- POLAR SEA (WAGB-11) Seattle, WA

Length:	399 ft
Beam:	83.5 ft
Designed Draft:	28 ft
Top of Mast Above Waterline:	138 ft
Displacement:	13,194 tons
Potable Water:	26,586 gal
General Cargo:	400 tons
Cargo Volume (upper/lower hold):	350/250 m^3
Max Cargo Dimensions:	7' W x 11' L x 7' H
Commissioned:	1976 & 1978

U.S. Department of Homeland Security

United States Coast Guard

USCGC POLAR SEA (WAGB 11)

Slated for Decommission but held by USCG Reauth Act

Bering Sea Ecosystem Study (BEST) 2010 Science Cruise

Coast Guard Cutter POLAR SEA (WAGB 11) is one of the world's most powerful, conventionally propelled icebreakers.

POLAR SEA was built by Lockheed Shipbuilding and Construction Company in Seattle. Homeported in Seattle since being commissioned in 1977, POLAR SEA has operated around the globe. POLAR SEA is designed to perform science, icebreaking, and all Coast Guard missions in both polar regions. With a reinforced hull and up to 75,000 horsepower, POLAR SEA can break up to 21 feet of ice, or 6 feet of ice at a continuous speed of 3 knots. POLAR SEA can carry two HH-65 CG Helicopters for science and logistics support. Berthing is available for approximately 150 crewmembers, and as many as thirty-five scientists and technicians. POLAR SEA is equipped as a scientific platform with five internal laboratories and space for an additional seven portable laboratories on deck. Computers onboard have the capability to process real-time satellite images to aid in ice navigation, science planning, and weather forecasting.

POLAR SEA is also a unique platform used to support the Coast Guard's other missions in the polar regions. The ship's icebreaking capabilities allow her to perform logistics, search and rescue, ship escort, environmental protection, and enforcement of laws and treaties in places most ships cannot reach.

POLAR SEA STATUS

POLAR SEA is homeported in Seattle, WA.

U.S. Department of Homeland Security

United States Coast Guard

USCGC POLAR STAR (WAGB-10)

Seattle, WA

Overview

USCGC POLAR STAR (WAGB-10) is a United States Coast Guard Heavy Icebreaker. Commissioned in 1976, the ship was built by Lockheed Shipbuilding and Construction Company of Seattle, Washington along with her sister ship, POLAR SEA (WAGB-11).POLAR STAR is one of the largest ships in the US Coast Guard and one of the world's most powerful non-nuclear ships. The POLAR STAR is home ported in Seattle, Washington. This site is intended to provide you with basic information about our unit. If you are a member of the Coast Guard or a spouse of a member reporting to this unit, you will also find information that will be helpful to review prior to reporting in. Please visit again and feel free to e-mail questions and comments.

U.S. Department of Homeland Security

United States Coast Guard

Aircraft, Boats, and Cutters: Cutters

420-foot Icebreaker (WAGB)

The 420 foot icebreaker employs the power to break 4.5 feet of ice at three knots continuously or up to eight feet by ramming. The Polar Icebreaker/Research Vessel was built by Avondale Industries in New Orleans. USCGC HEALY is named in commemoration of Captain Michael A. Healy, US Revenue Marine.

Characteristics:

Length:	420 ft
Beam:	82 ft
Designed Draft:	29 ft
Displacement:	16,000 tons
Propulsion:	Disel Electric, AC/AC Cycloconvertor
Shaft Horsepower:	30,000 Max HP
Commissioned:	June 1999

420-foot WAGBs in Service:

- HEALY (WAGB 20) Seattle, WA

U.S. Department of Homeland Security

United States Coast Guard

USCGC HEALY (WAGB-20)

Seattle, Washington

The Coast Guard Cutter HEALY (WAGB - 20) is United States' newest and most technologically advanced polar icebreaker.

HEALY is designed to conduct a wide range of research activities, providing more than 4,200 square feet of scientific laboratory space, numerous electronic sensor systems, oceanographic winches, and accommodations for up to 50 scientists. HEALY is designed to break 4 ½ feet of ice continuously at three knots and can operate in temperatures as low as -50 degrees F. The science community provided invaluable input on lab lay-outs and science capabilities during design and construction of the ship. At a time when scientific interest in the Arctic Ocean basin is intensifying, HEALY substantially enhances the United States Arctic research capability.

As a Coast Guard cutter, HEALY is also a capable platform for supporting other potential missions in the polar regions, including logistics, search and rescue, ship escort, environmental protection, and enforcement of laws and treaties.

HEALY STATUS

The United States Coast Guard Cutter HEALY has returned from Arctic West Summer 2012.

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Posted January 3, 2013 2:05 PM

Coast Guard Polar Icebreaker Gets Another Lifeline

By JOHN C. MARCARIO, Associate Editor

ARLINGTON, Va. — The U.S. Coast Guard hit another snag in its desire to scrap the broken-down Polar Sea when President Barack Obama signed legislation that forbids the service from further disassembling the icebreaker until a business case analysis is conducted for the options and costs of reactivating and extending its the service life until at least Sept. 30, 2022.

The service has until September to submit the analysis to the House Committee on Transportation and Infrastructure and the Senate Committee on Commerce, Science and Transportation.

There are three polar icebreakers in the fleet — Polar Star, Polar Sea and Healy — but only Healy is active. The Coast Guard intends to reactivate Polar Star by 2013, but the future of Polar Sea, which has been out of operation since 2010, has been in legislative limbo for more than a year.

The bill, H.R. 2838, or The Coast Guard and Maritime Transportation Act of 2012, was signed into law by Obama on Dec. 20.

The study is supposed to detail an assessment of the current condition of Polar Sea, determine its operational capabilities with respect to fulfilling the Coast Guard's high-latitude operating requirements if renovated and reactivated, and determine whether it is cost-effective to reactivate the ship compared with other options to provide icebreaking services.

It's estimated that a new polar icebreaker could cost upwards of $1 billion.

If it's determined that it would be cost-effective to reactive Polar Sea, the service must develop a reactivation timetable. If the service determines it would not be cost-effective, the icebreaker will have to be decommissioned no later than 180 days after the report is submitted.

No parts of Polar Sea will be removed prior to the analysis being submitted and no later than 270 days after the enactment of the law.

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Coast Guard Reactivates Heavy Icebreaker Polar Star

By: Mickey McCarter

12/17/2012 (8:00am)

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The US Coast Guard (USCG) reactivated Friday its sole heavy icebreaker, the USCG Cutter Polar Star, after a $56 million refurbishing at Vigor Industrial, Seattle, Wash.

After the four-year restoration, the 34-year-old Polar Star will undergo trials next year before returning to service for another seven to 10 years, according to the Coast Guard.

Once cleared, Polar Star will join the only other Coast Guard icebreaker, the medium-class USCG Cutter Healy, in clearing increasingly navigable Arctic waters and extending US presence further north.

The Coast Guard refurbished Polar Star in part through taking major parts from the USCG Cutter Polar Sea, another heavy icebreaker inactive since 2010.

USCG Commandant Adm. Robert Papp announced his intent to scrap the remains of the Polar Sea this month in a speech at the Navy League on Dec. 6, but the Senate passed a Coast Guard authorization bill Dec. 12 that prohibits the Coast Guard from doing so.

President Barack Obama is expected soon to sign the Coast Guard Authorization Act for Fiscal Years 2012 and 2013 (HR 2838), which tasks the Coast Guard with proving that scrapping the 399-foot Polar Sea is the best option before it takes any action. The House passed the authorization bill on Dec. 5.

Sen. Maria Cantwell (D-Wash.) sponsored the amendment to the Coast Guard reauthorization bill to prevent the Coast Guard from scrapping Polar Sea.

"Icebreakers are critical to our national security and America's interests in the Arctic," Cantwell said in a statement Thursday. "As commerce in the Arctic continues to increase, our nation's need for icebreakers will continue to grow. This bill preserves the option of refurbishing the Polar Sea and supports shipbuilding jobs in the Puget Sound as America determines the most cost-effective way to meet our mission requirements for icebreakers."

Refurbishing Polar Sea could take five years and employ 300 workers, Cantwell's office estimated. Building a new heavy icebreaker could take eight to 10 years and employ more than 1,000 workers.

Vigor Shipyards

Vigor Shipyards, a shipbuilder also competing for the USCG Offshore Patrol Cutter contract, served as lead contractor in refurbishing the Polar Star, which is expected to return to service by the end of FY 2013. Vigor Shipyards also provides service to the Healy when required.

Polar Star relies upon three shafts connected to a 16-foot four-blade propeller, according to Vigor. Its diesel-electric plant produces up to 18,000 shaft horsepower and it has a gas turbine system capable of generating 75,000 shaft horsepower.

"A special heeling system is designed to rock the ship to keep it from getting stuck in ice. Pumps transfer liquids between three pairs of connected tanks on opposite sides of the ship, moving 35,000 gallons from one side to the other in less than a minute. The system can create 24,000 foot-tons (64,800 kilowatt-seconds) of torque," Vigor's website said.

The Polar Star can clear ice and also support scientific discovery, helicopter reconnaissance, cargo transfers and search and rescue operations.

Vigor characterized restoring the heavy icebreakers as an "affordable, proven, prompt and practical alternative" while the United States builds and fields new icebreakers.

The FY 2013 USCG budget includes $8 million to start initial activities for procuring a new heavy icebreaker, which eventually would cost about $1 billion to build. The Coast Guard could potentially hold a competition to award a contract for the new heavy icebreaker in the next few years if it receives projected funding in its five-year budget plan.

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Mar 12 - 13 Alexandria, VA	Joint Civil & DoD CBRN Symposium

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Poll of the Week

North Korea has a nuclear bomb and delivery capability. Iran appears to also be closer to having a nuclear bomb capability. Do you believe the West and it's allies will soon be forced to take military action?

- Yes
- No

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Coast Guard won't dismantle Polar Sea as planned

January 3, 2013 | By Zach Rausnitz

USCGC Polar Sea. Image: USCG

The Coast Guard is prohibited from dismantling the heavy icebreaker *Polar Sea* for the near future under the reauthorization that President Obama signed into law Dec. 20.

The *Polar Sea* was set to be used for parts by the end of 2012, Coast Guard Commandant Adm. Robert Papp said as recently as Dec. 6.

An amendment in the reauthorization bill from Sen. Maria Cantwell (D-Wash.) requires the Coast Guard to submit an analysis to Congress by September 2013 of the condition of the *Polar Sea*, a cost estimate of extending its service life, and a comparison to other options.

The *Polar Sea* is one of two heavy Coast Guard icebreakers; it suffered massive engine failure in 2010 and has been set for decommissioning since February 2011. Salvaging parts from the crippled ship was put on a last minute hold in June following the intervention of three senators from Washington and Alaska.

The Coast Guard's other heavy icebreaker, the *Polar Star*, is undergoing a $57 million refurbishment by Vigor Shipyards in Seattle, with a planned return to service in 2013.

"As commerce in the Arctic continues to increase, our nation's need for icebreakers will continue to grow," Cantwell said in a Dec. 13 press release.

If the Coast Guard determines that it is cost effective to reactivate the *Polar Sea*, it must provide Congress a plan to do so under the reauthorization.

If it determines otherwise, the Coast Guard can decommission the *Polar Sea*, but it will have to submit to Congress a strategy to maintain its polar icebreaking services until September 2022.

The reauthorization also prohibits the Coast Guard for now from changing the current homeport of either the *Polar Sea* or *Polar Star*.

For more:

- go to the text of H.R. 2838, the Coast Guard reauthorization bill
- go to Sen. Cantwell's press release

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Papp: Polar Sea set for dismantling this month - UPDATED
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District One Command Center (ME, MA, VT,NH, RI, CT, Eastern NY, & North East NJ)	First Coast Guard District Capt. John Foster Williams Bldg. 408 Atlantic Avenue Boston, MA 02110-3350	617-223-8555/ -56/57/58/59
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WebMemo
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Breaking an Ice-Bound U.S. Policy: A Proposal for Operating in the Arctic

James Jay Carafano, Ph.D., and James Dean

The United States is losing the race to protect its own interests in the Arctic region. It is important to create a sensible policy to field an adequate fleet of U.S.-owned ice-breakers. An adequate, competent, and sustainable fleet is the key to maintaining American presence in the region, protecting U.S. sovereignty, working with allies, and rebuilding the nation's edge in global commerce.

Making America more competitive at a time when Washington is looking to cut corners in federal spending requires creative solutions to demanding problems. The U.S. can jump-start its fleet by privatizing ice-breaker operations and using ships as platforms for national security and federal scientific activities. This initiative would save federal dollars by eliminating old, inadequate, and expensive-to-operate assets while greatly expanding U.S. capacity to operate in the Arctic.

Adapting to a Changing World. Global shipping patterns will change in the years ahead. Melting of Arctic ice will open up new passages for transit, offering significantly shorter routes between Europe and North America and the Pacific—perhaps up to 40 percent faster sailing times and significant fuel savings and emissions reductions. Seasonal commercial lanes through the Arctic ice could appear within less than five years. The ability to navigate the region will increase the search for and development of significant natural resources including oil. Scientific research in the Arctic will also expand.

America's capacity to exercise its sovereignty, protect its interests, and participate in global scientific research and commerce, however, is collapsing. The U.S. had eight polar ice-breakers in 1970. Today, the U.S. Coast Guard has three. The youngest was commissioned 10 years ago, and the other two are approaching 35 and 40 years old, respectively One other ship is owned by the National Science Foundation. The Department of Homeland Security Inspector General recently concluded that the Coast Guard has neither sufficient ships nor budgetary authority to accomplish its current missions. In contrast, other powers including Russia, Finland, China, South Korea, and South Africa are looking to expand their capacity significantly. America is leaving itself out in the cold.

The lead that other nations will enjoy includes more than just numbers. A new generation of energy-efficient ships with advanced ice-breaking capability is being developed. The best modern ships are multi-purpose vessels that remain operational throughout the year.

Ice-breaker competition is important for more than just commercial advantages. Ice-breakers are a key component of maritime and national security infrastructure. They can serve, for example, as mobile stations or search-and-rescue assets in addition to aiding maritime law enforcement and navigation.

This paper, in its entirety, can be found at:
http://report.heritage.org/wm3168

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Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.

A New Paradigm. Ensuring that the U.S. is not left behind will require a new paradigm. First, the U.S. should look to commercialize its ice-breaker fleet.

The U.S. can learn a lesson from Finland. Nearly 80 percent of that nation's trade is exchanged by shipping—and the Baltic Sea around Finland freezes every winter. The Finnish ice-breaker fleet helps ensure that upwards of one-third of the nation's ports remain operational year-round. While the Finnish Transport Agency is responsible for coordinating, developing, and managing winter navigation, ice-breaking services are contracted out. Outside the ice-breaking season, the ice-breakers are leased to offshore operations around the globe. The U.S. government should consider turning over ice-breaking operations to American-owned and operated vendors.

In order to protect U.S. commercial, national security, and scientific interests, U.S. operators should provide facilities, capabilities, and assets so that commercial ice-breakers can perform national security functions. For example, these ships should be capable of hosting U.S. Coast Guard Law Enforcement Detachments (maritime law enforcement personnel that deploy aboard vessels to conduct and support law enforcement). Leasing support from the commercial operators would be far more cost-effective than operating an old and increasingly obsolete federal fleet.

To aid commercial ice-breaking, Congress should exempt U.S. firms from the requirement to comply with the Jones Act. The Merchant Marine Act of 1920, also known as the Jones Act, was meant to save the merchant marine industry by requiring that ships that traveled American waters be built in the United States and manned by American crews.

Like many other protectionist policies, the premises of the Jones Act seem plausible: Require goods moving from one U.S. port to another to travel on U.S.-built ships, with U.S. crews, and you will protect U.S. maritime and shipbuilding jobs. The last serious review of the Jones Act (a series of congressional hearings in the 1990s) revealed that more than 40,000 American merchant seamen and 40,000 longshoremen had lost their jobs despite Jones Act protectionism. Over the first 76 years of the act, more than 60 U.S. shipyards had gone out of business, eliminating 200,000 jobs.

If the intent of the Jones Act was to save U.S. jobs, it failed. As a result, state-of-the-art ice-breakers can be built overseas today at far less expense. Exempting U.S. contractors from having to comply with an outdated law that has brought more damage than benefit to the U.S. maritime industry would provide a strong incentive for future ice-breaker operators.

Breaking the Ice. It is time for the United States to jump-start an Arctic policy that is as cold as a dead car battery. Moving ahead on what will be a crucial commercial, national security, and sovereignty issue for the U.S. in the future requires bold new solutions. The Administration and Congress should:

- Retire the federal fleet of ice-breakers and replace them with contracted services provided by U.S.-operated commercial vendors.
- Require that U.S. commercial vendors be capable of providing assets that will serve national security, law enforcement, and other federal maritime missions.
- Exempt U.S. commercial ice-breaker operators from the Jones Act.

Washington's goal should be nothing short of providing America the most advanced and robust ice-breaker fleet in the world.

—James Jay Carafano, Ph.D., is Deputy Director of the Kathryn and Shelby Cullom Davis Institute for International Studies and Director of the Douglas and Sarah Allison Center for Foreign Policy Studies, a division of the Davis Institute, and James Dean is Deputy Director, Foreign, Defense, Trade, and Homeland Security Policy, in the Government Relations Department at The Heritage Foundation.

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The Lone Icebreaker: U.S. Sovereignty in the Arctic

Posted By Tyler Davis On December 9, 2011 @ 4:00 pm In American Leadership | 2 Comments

The United States Coast Guard is being left behind in the Arctic. While countries such as Russia are building up their icebreaker fleet and actively increasing their presence in the Arctic, the United States is losing its only form of sovereignty [1] in the region.

On December 1, Rear Admiral Jeffrey M. Garrett, U.S. Coast Guard, testified before Congress on protecting U.S. sovereignty in the Arctic. He stated in Second Line of Defense [1] that "the Icebreaker fleet represents the main surface presence that the U.S. can exert in what is essentially a maritime domain in the Arctic Ocean." Yet today, the Coast Guard has an icebreaker fleet of only three ships. Worse yet, two of these ships are out of commission due to maintenance work and will not be available for at least seven more years.

The lone icebreaker in commission is the *USCGC Healy* [2], which conducts all types of missions from search and rescue to navigational aid to scientific research. Though the ship has been effective at its job in the Arctic, it is designed to break through ice of only medium thickness; for ice of heavy thickness, the *Healy* is absolutely useless. And like the other two icebreakers, it is quickly aging.

Without efforts to modernize the fleet, the future of the U.S. national maritime interest and security in the Arctic is looking pretty bleak. Icebreakers are a necessity in the region, and without them the U.S. might as well throw in the towel. These ships are key to year-round access to the Arctic and are the only U.S. insurance policy for future hazardous events. If something happens to the *Healy*, then the United States would not only lose access to the region but would not be able to react to potential oil spills and would become less effective in search-and-rescue missions.

Complicating matters even further, ice in the Arctic is melting, producing more ocean area for the transportation of goods and services in the region. Essentially, whoever best utilizes this route will control trade and transportation of goods and materials in the upper hemisphere. With all other nations around the Arctic building their icebreaker fleets and exploiting the key transportation route that connects the Atlantic and Pacific Oceans, the United States is falling behind.

In order to create an icebreaking fleet [3] to maintain U.S. presence in the region, the Administration should look toward privatizing the fleet. Allowing private companies to own and operate the U.S. icebreaking fleet and perform national security functions would not only allow for crucial modernization but also save federal dollars and expand U.S. capabilities in the Arctic. This is particularly important at a time when the government is looking to cut corners in federal spending.

Ultimately, something must be done. If the U.S. does not act fast, it will come in last in the race for the Arctic.

Tyler Davis is currently a member of the Young Leaders Program at The Heritage Foundation. For more information on interning at Heritage, please visit:
http://www.heritage.org/about/departments/ylp.cfm [4]

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URLs in this post:

[1] sovereignty: **http://www.sldinfo.com/an-update-on-the-us-and-the-arctic/**
[2] USCGC Healy:
http://republicans.transportation.house.gov/Media/file/TestimonyCGMT/2011-12-1-Garrett.pdf
[3] icebreaking fleet: **http://www.heritage.org/research/reports/2011/02/breaking-an-ice-bound-us-policy-a-proposal-for-operating-in-the-arctic?query=Breaking+an+Ice-Bound+U.S.+Policy:+A+Proposal+for+Operating+in+the+Arctic**
[4] http://www.heritage.org/about/departments/ylp.cfm:
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Arctic Shield: Coast Guard Looking North

Posted By Brian Slattery On October 26, 2012 @ 9:29 am In Protect America | No Comments

The Arctic has become a hotbed of interest in recent years. The Coast Guard has recognized this trend and is pursuing more presence in the region, but will its resources be able to keep up with rapidly increasing traffic?

Rear Admiral Thomas P. Ostebo, commander of the 17th District of the U.S. Coast Guard, recently testified [1] before Congress during a field hearing about Arctic issues and the sea service's exercise "Arctic Shield 2012."

Ostebo explained the purpose of the exercise, the lessons learned, and what new assets and capabilities they brought to the region. While the exercise is considered a success, the Coast Guard requires more resources to make these capabilities a reality.

Notably at Arctic Shield, the Coast Guard stationed two helicopters in Barrow, Alaska (the northernmost point in the U.S.), to afford the sea service increased presence, situational awareness, and reach within the Arctic Circle. The *USCGC Bertholf* [2], the first-in-class of the National Security Cutter (NSC) fleet, also deployed to the region, marking an important milestone for a cutter class intended to provide increased range and presence farther from the coast.

Both of these firsts indicate that the Coast Guard is aware of growing interests in the Arctic [3] for natural resources such as hydrocarbons and fisheries, expanding sea lanes, and tourism. In spite of Arctic Shield's success, the Coast Guard may have trouble keeping up [4] with real-world increased traffic in northern U.S. waters while executing its various other missions.

The sea service has already been operating with old and overused equipment, particularly in its High Endurance Cutter fleet. The *Hamilton*-class fleet has been sailing since the 1960s and has extended well beyond its intended service life. The NSC, intended to replace this fleet, has been cut from a requirement of 16 vessels to just eight [5].

Sadly, the Coast Guard is having trouble meeting even that reduced requirement. The Department of Homeland Security's (DHS) fiscal year 2013 budget request removes advanced funding [6] for the seventh and eighth planned NSCs, which would effectively eliminate their production. No justification has been offered by the Coast Guard or DHS as to how this will affect Coast Guard missions and maritime security.

Also critical to missions in the Arctic is America's icebreaking capability [7]. Regrettably, this is one capability that is more lacking than even the High Endurance Cutter fleet. The U.S. Coast Guard has two heavy-duty icebreakers, neither of which is currently operational. One is set to be revitalized [8], but this will be costly and add only a few years to the vessel's service life.

A new heavy-duty icebreaker would cost nearly a billion dollars and take a decade to build [9]. Considering that the Coast Guard's total recapitalization budget for fiscal year 2013 is $1.2 billion, it would be difficult to afford much else if the sea service wishes to buy a new icebreaker, even over 10 years.

Moreover, what will be covering Arctic waters during the decade that the vessel is being built? The U.S. should instead pursue leasing commercial icebreakers that can serve Coast Guard missions when necessary. This will be cost effective and provide presence more immediately [10].

Representative Frank LoBiondo (R–NJ), chairman of the House Coast Guard and Maritime Transportation Subcommittee, has claimed that the Coast Guard is caught in a "death spiral [11]" because growing missions are dramatically outpacing fleet modernization and replacement. His colleagues in the House and Senate should recognize the critical security America gains from the Coast Guard and provide adequate funding for the sea service to perform its missions.

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URLs in this post:

[1] testified: **http://www.sldinfo.com/the-uscg-and-the-arctic/**
[2] USCGC Bertholf: **http://www.uscg.mil/pacarea/bertholf/**
[3] growing interests in the Arctic: **http://www.heritage.org/research/reports/2012/08/arctic-security-five-principles-that-should-guide-us-policy**
[4] trouble keeping up: **http://blog.heritage.org/2012/04/18/an-sos-for-the-coast-guard/**
[5] cut from a requirement of 16 vessels to just eight: **http://blog.heritage.org/2012/02/29/reducing-national-security-cutter-fleet-threatens-u-s-sovereignty-at-sea/**
[6] removes advanced funding: **http://www.fas.org/sgp/crs/weapons/R42567.pdf**
[7] icebreaking capability: **http://blog.heritage.org/2011/12/09/the-lone-icebreaker-u-s-sovereignty-in-the-arctic/**
[8] revitalized: **http://www.uscg.mil/acquisition/icebreaker/default.asp**
[9] cost nearly a billion dollars and take a decade to build: **http://seattletimes.com/html/editorials/2018405262_edit22polar.html**
[10] cost effective and provide presence more immediately: **http://www.heritage.org/research/reports/2011/02/breaking-an-ice-bound-us-policy-a-proposal-for-operating-in-the-arctic**
[11] death spiral:
http://www.msnbc.msn.com/id/49331866#__utma=14933801.954055385.1349869529.1349869529.1350675356.2&__utmb=14933801.1.10.1350675356.2&__utmz=14933801.1350675356.2.2.utmcsr=google|utmccn=%28organic%29|utmcmd=organic|utmctr=%28not%20prov

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United States Is Poorly Prepared to Defend Interests in Arctic

Posted By James Carafano On July 9, 2011 @ 11:45 am In American Leadership | 2 Comments

When it comes to Arctic policy, the White House is delivering a series of self-inflicted wounds. Though it keeps cranking out more and more policy statements, the U.S. has invested little in addressing the emerging challenges of competition in the region. The Arctic, for example, can potentially be tapped to develop vast oil reserves.

[1]

Sadly, the fact is the United States is poorly prepared to protect its interests. The Administration's answer to the problem largely amounts to signing the U.N. Convention on the Law of the Sea—a treaty that has a boatload of problems [2].

Even more depressing, the White House has shown no interest in ensuring the U.S. can effectively operate in the Arctic. Rear Admiral Jeffrey M. Garrett (retired) recently wrote [3]:

> The nation's multi-mission polar icebreaker fleet is being downsized by a third with the imminent decommissioning of USCGC Polar Sea. This will leave only the Polar Star, 35 years old and half-way through an expensive 2 ½-year refit, and the 11-year old Healy. Unanticipated engine problems in Polar Sea forced the cancellation of two Arctic deployments in late 2010 and early 2011, the result of attempting to keep complex 1960s-era technology in use beyond its reasonable service life.

Garrett laments [3], however, that "a pair of replacement icebreakers, replacing the unsupportable and expensive to operate Polar Star and Polar Sea would catapult the U.S. from a paper Arctic power to one with real capabilities, across the spectrum of national power. New, efficient, environmentally-compliant icebreakers would give the U.S. positive

> control of its Arctic Ocean and Bering Sea frontier—as well as the ability to sustain its Antarctic presence credibly."
>
> One potential way to address this challenge is to follow the lead of other nations and develop a commercial icebreaker force. A Heritage proposal argues [4] that "[t]he U.S. can jump-start its fleet by privatizing ice-breaker operations and using ships as platforms for national security and federal scientific activities. This initiative would save federal dollars by eliminating old, inadequate, and expensive-to-operate assets while greatly expanding U.S. capacity to operate in the Arctic."

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URLs in this post:

[1] Image: **http://www.foundry.org/wp-content/uploads/arctic-ocean.jpg**
[2] boatload of problems: **http://washingtonexaminer.com/opinion/columnists/2011/06/lost-would-be-loser-us**
[3] wrote: **http://www.sldinfo.com/?p=20640**
[4] proposal argues: **http://www.heritage.org/research/reports/2011/02/breaking-an-ice-bound-us-policy-a-proposal-for-operating-in-the-arctic**

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Q and A with Anchorage Downtown Rotary

Governor Sean Parnell
May 29, 2012

Good day and thank you. Thank you, Lieutenant Governor, for that kind introduction. The Lieutenant Governor's job is one I know a lot about, since I was there at one point. We certainly learned the necessity of having a Lieutenant Governor in that line of succession.

It's not often easy being the Lieutenant Governor. Our lieutenant governors, from Mead on back, have been capable of far more than they are permitted in that position, and that's just the nature of the job. So Mead, I appreciate you doing the work in that position.

Also want to say thank you for allowing me to be an honorary member of the Downtown Rotary. It is an honor.

But I have to tell you that I've noticed a few changes. I was once a member of South Anchorage Rotary, and there used to be happy bucks. And I'm hearing high 20s and high 10s, and I'm thinking, "What has changed around here? Inflation has gripped everybody!" So I came with a buck in my pocket I thought, no that's just cheap, I can't do that!! But I'm going to raise a "high 20" here. I understand as an honorary member I don't have to pay any fines, but I still want to give thanks and praise when needed, and in this case my wife, Sandy, and I successfully launched our youngest daughter from high school, as she graduated about a week ago, so here is a $20 for Rachel and all other high school graduates this year.

Today I'm not going to stand up here and read a speech at you. I'm going to have an interactive dialogue with you. It's something I know we've enjoyed before, this organization and me. And it's something I'd like to do today.

While you're thinking of your questions, I just would like you to stand up and identify yourself and ask a question. Let's have an interactive dialogue. I'm used to having the press do this. This is designed for me to hear from you, to permit you the accessibility to your Governor that you deserve. It also sharpens me in terms as what's important to you and helps me serve you better in this role.

The Lieutenant Governor was great about spotlighting some of our good news, some of our achievements in this administration. I think Alaska is well-positioned economically. You go anywhere else in this country, people are out of work, people are mad about it, can't find work.

In this state there is opportunity for work. And you might say we're flat economically or we're only slow growth, but if you go anywhere else that opportunity isn't there.

We've got immense resources that we own and have the potential to access to utilize and grow our economy. We've got educational opportunities. We've got Village Public Safety Officers now, by the end of this fiscal year, we'll have funded 116, where three years ago we had 48 positions. That means about 50 more communities have a law enforcement officer in them, which means that the cost of assaults and abuse go down because the numbers go down when you can call someone and actually get help in a village where there was none before.

I think about our children and I think about the runaways in this town, 48 percent of who, if you use national statistics, become trafficking victims and get locked into a life of prostitution at 13 and 14 and 15 [years of age]. This year, we have signed into law some tougher penalties for trafficking for sex and human trafficking.

So when I think about serving you as Governor, I think about the economic side, I think about making sure that our budget is restrained and we are actually pushing the growth of government down and increasing private sector opportunities.

And I think about strengthening our families and giving families more opportunities, whether in the education arena, public safety arena, health arena, those are all areas that we focus on.

Finally, another priority is our military – our military support. The Lieutenant Governor mentioned I was in Dillingham yesterday and attended a Memorial Day ceremony there, probably one of the more touching Memorial Day ceremonies I've been to. They actually gave an American flag to every family in Dillingham who had lost somebody in a war. They gave about 90 flags, in a community that size. An honor guard gave military honors to each family – one, by one, by one.

And we also honored our Alaska Territorial Guard. We heard stories of 1942, when the Japanese Empire was on a roll attacking our shores. Nazi U-boats had sunk about 500 of our ships off our North American shores. Nobody was able to help stop those wins by our enemies of the time. Governor Gruening got in a floatplane, I'm told, and flew into about 100 villages and raised up the Alaska Territorial Guard. Flew into Dillingham as his first stop out of Anchorage, is how the story went, got off there, contacted one of his friends in that community, gave him a sign-up sheet, and said, "We need to raise up a Territorial Guard to guard our country." ... And in short order about 6,400 men, women and teenagers answered the call.

They were never given veterans status, even though they served our country, until about 12 years ago. We have spent the last four years or so working to get the surviving members of the Alaska Territorial Guard their discharge papers because they, too, served our country and deserve that kind of recognition and benefits that flow from that, as do their families.

So it was our honor to provide those discharge papers and certificates to four Alaska Territorial Guard members in Dillingham who had not received them, nor received honor for their service.

So that's just a snapshot in terms of where we are in the cycle...The Legislature, as you know, is done for the year... There are some things we worked well together on, and other things that were really tough.

We worked well on the budget. The Lieutenant Governor mentioned the spending limit. It took us three years to get there, but we worked well together on limiting State spending and the growth there. Difficulties, of course, with oil, and trying to incentivize production and bringing that back on line.

But some huge successes with our administration in resolving Point Thomson; getting alignment on a large-diameter gasline, the all-Alaska gasline through our state to tidewater, with the three producers and TransCanada; resolving long-standing litigation, such as the Moore case and Kasayulie case, education-related cases to bring equity to rural Alaska when it comes to education funding and opportunity.

Lots of good news, but instead of me preparing a text for you, let's have some interactive dialogue.

Question: Could you comment on things you are interested in or excited about in the technology sector?

Governor Parnell: For me the Broadband Initiative is one key area. I appreciate the fact that telecommunications enables business and enables our lives to be better. And also just assuring our rural communities have access to telecommunications networks. That is one way they can survive economically, they can utilize that for commerce.

Question: About four years ago we agreed, as State and federal government to build a visitor center at Mile 136 of the Park Highway. The State has funded about $12 million in road construction. Where are we with building that facility?

Governor Parnell: That's a good question, and it's one I don't have an answer for, but I do have some good people here with me who will get back with you on that.

Question: Can you bring us up to speed on the Susitna-Watana dam project?

Governor Parnell: From an energy perspective, this will bring relief and long-term economic growth opportunities for the entire Railbelt and probably beyond, as well. Two years ago, with the Legislature, we set a statewide policy that said, as a state we want to see, by 2025, 50 percent of our electricity generation and transmission come from renewable sources.

Susitna-Watana is a key ingredient to reaching that goal. If we don't have Susitna-Watana, we will diminish our opportunity to have that renewable energy and that affordable energy across a lot of years. A year ago we provided two years' worth of funding to the Alaska Energy Authority to their project team for Susitna-Watana. They are engaged in the design aspect right now and in licensing with FERC. So this is a project that is very important to us as an Administration, but it is resident now in AEA, and we'll continue working it hard.

Question: I'm excited to hear about *Choose Respect*, and many of us know domestic violence and violent crime have been a huge problem. And I'm wondering if in the *Choose Respect* program there is anything innovative or different, or are we doing what we've been doing, but more so.

Governor Parnell: I think we are writing a new page in history for our entire northern hemisphere. Let me describe that; The *Choose Respect* initiative has prevention components, intervention and enforcement components, and support services components.

Let's talk about prevention for a moment. I really think this is going to start with us as individuals. Government is not going to be able to solve this, this is going to be up to Alaskans to step forward and be the answer.

In 2010, 18 communities participated in *Choose Respect* rallies, in March of that year, to raise awareness and take a stand for Alaskans. And to show some courage, that we're willing to talk about this, that we're willing to give permission to speak about this epidemic among us.

Last year, in 2011, about 64 communities joined that same effort.

This year, over 120 communities.

There is nowhere else that I'm aware of in North America, where anything like this has caught fire, at least in the last 40 years. The last time I can think of when something like this happened was the civil rights marches in the '60s. Really, it's us standing up for our fellow citizens saying, "You deserve dignity. You deserve respect. You don't deserve abuse." Those of you who have experienced it in your own homes, you don' deserve to carry that shame and that guilt. And as Alaskans we are opening up and giving permission to speak about these things because they are so harmful to individuals and collectively to our communities.

There's also the government funding on the prevention side. There's about $12 million more in pilot projects in Dillingham and Bethel and throughout other areas of our state.

The enforcement side of it: I touched on a little bit before when I talked about our communities in rural Alaska. Many don't have access to law enforcement. You pick up the phone to get help and it's three days or four days away, because there is no officer in the community. There is no VPSO, VPO, or Trooper. Nobody.

When I came into office I said we are going to fund at least 15 [additional] VPSOs per year, plus the trooper support to put them into communities, because objectively we know from studies that if you have a law enforcement presence in a community, the number of assaults diminishes and the safety of that community increases. So we've kept our promise and we've moved 15 per year, plus the trooper support behind them.

I just spoke yesterday in Dillingham with the new VPSO in Manokotak. He received 10 weeks of training at the Sitka training academy for public safety, and is now on the job.

I asked the Dillingham trooper yesterday, in the public safety office, "Tell me what your biggest concerns, your most reported reasons for having to respond to the public." And he said: Alcohol and domestic violence, in tandem.

So we've got prevention efforts, increased law enforcement efforts. And we've also increased our shelter beds and services. But it is going to take a comprehensive approach to end the epidemic. I am not naïve enough to think we will ever get rid of this crime, but I am idealistic enough to believe in the power of Alaskans to make a difference other people's lives, when we're willing to step up and step in.

Question: How optimistic are you that Shell will be able to proceed with drilling in the Chukchi Sea this summer?

Governor Parnell: That is one of the few bright spots in our economy. I am much more optimistic this summer than in prior years. I'm always cautious, though, because we've been here before. We've been in this place where ships have been on the way, the drill ship is on its way, contractors are on the way, then we've been turned back by a lawsuit, or by a federal agency's inaction, or opposing action.

This year I am cautiously optimistic that they'll be able to move forward. And when I look at the North Slope, I see that huge economic opportunity for Alaskans. And when I look at Point Thomson, I see it as a huge economic opportunity for Alaskans. That settlement we negotiated requires that billions of dollars are spent within the next one to three years.

My real desire is also to move forward in our own oil patch on State lands, and turn the production decline to an incline to a million barrels a day. That's what this whole effort has been about in terms of changing our tax structure at these high oil prices.

It's something I have hope for, for the future. Obviously it was dashed this year by those who prefer to just manage for status quo decline and say "we're just fine, thank you." I'm not willing to accept that. I think we're on a path where Alaskans are better informed and where our legislators are

better informed, and we are going to come back next year and continue to fight.

Question: Going back to the Susitna-Watana dam, I've been troubled by the lack of detailed economic analysis. [Dams this size in the Lower 48 they stopped building 40 or 50 years ago, as they didn't really pay out. My concern is this is an enormous project that can only be built with State money, is that really where we should be spending State money?]

Governor Parnell: These are serious questions. The need for long-term renewable energy source in this Railbelt is important. And I think those are questions I'd be happy to tell AEA to get up here and provide some response to. It's not about the State writing a check for billions of dollars. It's about writing a check for a portion of it and financing the rest, and how that gets recovered. And those are the questions you should be asking, but until we have a design and a public process, it's hard to know exactly where that will fall, but I'm happy to have them come give a briefing on it.

Question: I have a question on Arctic policy. We heard from Fran Ulmer recently, and she gave us a primer on some of the key issues we should be aware of, such as the Law of the Sea. How should we as a state be organizing ourselves, as just a state of one nation that is considered an Arctic nation. How do we avoid the party politics and do what's best for Alaska?

liaison for the State of AK

Governor Parnell: Every policy we implement here is part of our Arctic policy. There's not one policy, like erosion of our shores and the corresponding threat to our communities, that can be stated as anything less than an Arctic policy. So our oil policy is an Arctic policy, our housing policy is an Arctic policy. Everything we do is focused on life in the Arctic for Alaskans and maximizing the benefit of those resources for Alaskans.

I can tell you we interact with Arctic considerations in places like the Arctic Council, where our Lieutenant Governor is the liaison for the State of Alaska. I can tell you there is nothing that we do in this state that is not geared toward the Arctic because that's where we live. And we've done a good job of educating Washington to turn to us when they have Arctic issues. So the Lieutenant Governor and I have each testified about the need for a new ice breaker, and put money into the budget to study and figure out about where a new Arctic port should be… So there are policy items that are individual and specific, but they're within the umbrella of everything we do reflects the Arctic policy of our state. I never want to lose sight of that. If you have suggestions on how we might specifically move differently, please let us know.

Question: On the Alaska Performance Scholarship, I wanted you to recap where it stands now.

Governor Parnell: That is one of our significant wins for Alaska, and Alaskans will win for generations at this point.

Two years ago we passed criteria for the Alaska Performance Scholarship, that said if you young people are willing to take more rigorous coursework than the minimum that is required to graduate from high school, then you can earn these scholarships.

Depending upon your grades, the scholarships vary from about $4,700 at the top end, to $2,300 at the bottom end of the scholarships.

I've seen more young people being able to take advantage of having earned these scholarships and using them here in state.

This year we were able to complete a funding mechanism that is sustainable on a long-term basis for these scholarships. It's called the Higher Education Fund.

We put $400 million into the fund, and we will live off the interest and earnings. We now have criteria established and a sustainable funding mechanism for the Alaska Performance Scholarship.

As part of the compromise to get the Higher Education Fund through the House and Senate, we had to coordinate and cooperate and allow not only the APS scholarships to come from there, but the AlaskAdvantage program, which is the needs-based program, as well. What's left, perhaps, is is a smaller infusion into that fund, but there is enough money for the performance scholarships at this juncture.

The class of 2011 – that class made use of those performance scholarships, and the university reported they had less need for remedial coursework on a percentage basis among the entering class.

So this year you'll have the 2011 cohort in the university system, and job training as well, and you'll have the 2012 cohort of students, all who are using those scholarships and who have taken more math and more science, etc. It will raise the level of academic achievement and will raise the quality of employees you get in your companies.

For example, one company told me last week they have to take in 12 applications to find one person who is really qualified, just for basic reading, writing, and math skills. That should not be; that should not be what our schools are turning out. This performance scholarship is already lifting the bar and incenting young people to take more rigorous coursework than the minimums required.

Now also something else is happening. Our administration, in coordination with the board of education, is increasing the high school graduation requirements. That should be in place in June.

Question: I wanted to go back to the topic of domestic violence. About 20 years ago, I was on our AWAIC (Abused Women's Aid in Crisis) Board, and at that time there was a lot of misunderstanding about the violence. First of all, it was believed it only happened in low-income places; and also that it only happened with men abusing women. Since then, the whole discussion has changed, and it has changed partly because of people like you showing leadership and making it a topic of conversation we can all talk about, so people's level of awareness is raised. Twenty years ago, when you were a legislator, you were one of our biggest supporters and one of the people who helped us change the dialogue and raise the level of awareness, so I want to thank you for a very long commitment to this.

Governor Parnell: Thank you. It was my legislative service that made me first aware of the issue here in Anchorage. It was my ride-along with Anchorage police officers that did that. I realized this issue is not limited, as you said, to any gender, any economic status or group.

And it is something that I don't find comfortable to talk about. I don't like to talk about it. But we must.

It's almost akin to what is an easier topic to talk about now than it was: Forty years ago, had you tried to take the car keys away from your friend after they'd been drinking at a party, you probably would have been punched. But today you designate drivers, you take the keys away from your friend, get somebody to drive you. It's an accepted behavior.

I'd like that to be an accepted conversation to have among friends and family, to say, "Can I get you some help." Like I said, I don't like talking about these issues, but we must, if we're going to stop the cancer that's eating us from within.

Question: I'd like to ask you about public pension funds and some of the other endowments. There have been some things written

lately about how these funds are all predicated on the idea they will get returns of 7 or 8 percent. And for all that we love having low-cost consumer loans, and business loans, is it really realistic, and can we budget based on the idea that these funds won't have to be subsidized because they really won't earn that much?

Governor Parnell: Well we already are. Let me describe something that happened here. Our pension system, particularly the Tier I, (we're now at about Tier IV Plus,) the earlier State pensions and local government pensions, as well, effectively dug a hole through, in part, stock market, [results] that [were] lower than expected, in 2008 and beyond. The bottom line is those pensions accrued a liability of about $11 billion, is where that liability stands now. So every year as a State we're writing a check, this year it's about $610 million, just against that unfunded liability.

In addition to that, we're having to make payments for existing employees' pensions, for the State's contribution.

So the question for us is how do you manage that $11 billion unfunded liability. Because it's in our Constitution – that pension is a promise. We'll make good on the pensions, but how do you do it in a smart fashion?

Right now that $11 billion liability, which we're helping municipal governments with as a State [and the State is paying for its own,] that $11 billion liability is being paid off on an annual basis.

And it's going to increase on an annual basis from $610 million. it is going to climb to over $1 billion dollars and then will decrease as our pensioners pass on. That's one way to meet that unfunded liability.

Another way is to increase that annual payment to almost $900 million and pay it like a flat mortgage.

Another way to do it is to say we've got billions in the bank. Let's take a few billion and dump it into pensions … and then we get to your problem: If you dump it into a pension plan, you lose that flexibility with that cash, to hold it as cash, and if they invest it in the stock market poorly, it's gone. We saw that with the judicial retirement system. We put $49 million into it a couple years back, and the value of the pension plunged and we still owe the same amount.

So far we have taken the approach that we will make the annual payments, maintain the flexibility with our cash. But we're still going to make good on those pensions.

I will tell you that the Legislature in 2003 or 2004 changed that pension program so that it is no longer a defined benefit. For new employees coming in, it's a defined contribution plan. We're paying for past liability, accrued liability, and we won't have that going forward unless the retirement system changes again.

If you think about the federal government having issues with Social Security and Medicare, our financial issue is going to be that pension unfunded liability.

Question: A long-range transportation plan, where are we on that? Our roads are deteriorating, there are more people, and the same amount of roads, and we're not funding our roads or maintenance. Can you speak to that?

Governor Parnell: Sure. First off, we are funding, but probably not to your satisfaction. When I came into office I said we need to take care of the assets we have. So we've never set aside money for deferred maintenance before. I said here's our five-year plan. We're going to put $100 million toward deferred maintenance, about $37 million of that will go to maintain roads and streets. Another chunk goes to the university. Another chunk goes to public buildings, trying to keep our assets from deteriorating. In addition to that the DOT budget has a maintenance fund as well.

The bottom line is, can we do more, absolutely. Here in Anchorage, the roads, counting the Seward Highway, will see roughly $100 million to $110 million worth of maintenance, in town and headed out of town.

Winter and Construction will be the two seasons for the next few years. But can we do more? Absolutely we can. I encourage you at Rotary to invite our DOT Commissioner, Marc Luiken, to lay out the long-range transportation for you so you can see what that looks like.

Thank you, and I appreciate you having me here!

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August 3, 2007

Russians Plant Flag on the Arctic Seabed

By C. J. CHIVERS

Correction Appended

MOSCOW, Aug. 2 — A Russian expedition descended in a pair of submersible vessels more than two miles under the ice cap on Thursday and deposited a Russian flag on the seabed at the North Pole. The dive was a symbolic move to enhance the government's disputed claim to nearly half of the floor of the Arctic Ocean and potential oil or other resources there.

The expedition, covered intensely by Russian news organizations and state-controlled television, mixed high-seas adventure with the long Russian tradition of polar exploration. But it was also an openly choreographed publicity stunt.

Inside the first of the mini-submarines to reach the sea floor were two members of Russia's lower house of Parliament. One of them, Artur N. Chilingarov, led the expedition to seek evidence reinforcing Russia's claim over the largely uncharted domain. That claim, which has no current legal standing, rests on a Russian assertion that the seabed under the pole, called the Lomonosov Ridge, is an extension of Russia's continental shelf and thus Russian territory.

At least one country with a stake in the issue registered its immediate disapproval of the expedition. "This isn't the 15th century," Peter MacKay, Canada's foreign minister, said on CTV television. "You can't go around the world and just plant flags and say, 'We're claiming this territory.' "

Russia submitted its claim in 2001 to an international commission, which has ruled that the available data is not sufficient to support it. But Russia has pressed on.

"We must determine the border, the most northerly of the Russian shelf," Mr. Chilingarov said on national television before the dive, which was billed as the first of its sort — a descent into the inky darkness far beneath a large window cut into the ice sheet by a nuclear-powered ice breaker.

After resurfacing more than eight hours later, Mr. Chilingarov spoke as if he had been the first to the moon. "If a hundred or a thousand years from now someone goes down to where we were, they will see the Russian flag," he said. The flag is reproduced in titanium. He later added, "Our task is to remind the world that Russia is a great Arctic and scientific power."

The day's events underscored both Russia's restored sense of confidence and the international competition for access, influence and extraction rights in the far north, which has intensified as oil and gas prices have surged and as trends in global warming have encouraged speculation that the region could become more navigable.

President Vladimir V. Putin called the members of the expedition to thank them personally, an unmistakable sign of the significance of the claim to the Kremlin, which has reestablished itself as a world power in recent years in part through its control of its oil, gas, minerals and other commodities.

Eight countries — Canada, Denmark, Norway, Russia, Sweden, Iceland and Finland and the United States — have Arctic Ocean coastlines and, under international convention, have rights to economic zones within 200 miles of their shores. Denmark has sent its own scientific expeditions to study the opposite end of the ocean-spanning ridge and to seek proof that it is torn from the continental shelf north of Greenland, which is a Danish territory.

Several other countries seek to extend their influence in the circle, seeing the mostly unpopulated region's potential for providing a hydrocarbon and mineral rush. The ultimate demarcation, if geologists' estimates of its deposits prove true, could be a key to future national wealth and power.

Russia's foreign minister, Sergey V. Lavrov, speaking from the Philippines, ignored criticism, saying that Russia's claims were sound and in time could be established as fact.

"The goal of this expedition is not to stake out Russia's rights, but to prove that our shelf stretches up to the North Pole," he said on Radio Mayak. "There are concrete scientific methods for this."

The expedition mixed public and private financing, much of which Mr. Chilingarov raised. Any new evidence it collected for the Russian government would eventually have to be submitted to a commission on continental shelf borders, which is elected by members of the United Nations Convention on the Law of the Sea.

Russia has a long tradition of northern exploration and extraction, and since early Soviet times the Kremlin has had research stations on the Arctic ice. Stalin first dispatched a team in 1937, at the height of the Great Terror.

Whatever the merits of any future submission, Russian scientists marveled at the expedition on Thursday, which involved two small submarines, known as the Mir-1 and Mir-2, descending from a drifting, shifting ice pack to the sea floor more than 14,000 feet beneath the surface.

The pair spent about an hour on the sea floor and left behind the reproduction of the Russian tricolor flag at 1:36 p.m., Moscow time, according to Russia's official news agency.

Then they ascended, which the scientists said was the most difficult task, because they had to find their way back to the hole on the surface. The submarines are too small to break through the ice on their own, and errant navigation could have left them trapped beneath the cap.

Once news reached Moscow that the journey had succeeded, scientists spoke with evident pride. "We can say that is a great technical and technological achievement," said Leopold I. Lobkovsky, deputy director of geological studies at the P. P. Shirshov Institute of Oceanology here, which provided a research vessel for the expedition.

Another scientist, Ivan Y. Frolov, director of the Arctic and Antarctic Research Institute in St. Petersburg,

cautioned that whatever the brief dive had found, it would do little to settle disputes about future demarcation. But he noted certain values in the event, which was one element in the annual summer expedition to study climate, the sea and the ice.

"I doubt that this one submersion will make a breakthrough in the problem that is being discussed in the media," he said. "It was a good chance to demonstrate the capabilities of this equipment and the depths that can be reached, and to demonstrate the courage of Mr. Chilingarov, which is great."

Andrew C. Revkin contributed reporting from New York.

Correction: August 9, 2007

An article on Friday about a Russian expedition that deposited a Russian flag on the seabed at the North Pole included an incomplete list of countries with Arctic Circle territory. The list includes Sweden, Iceland and Finland, in addition to the five named in the article — Canada, Denmark, Norway, Russia and the United States.

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Arctic countries have decided to join hands and gorge on Arctic resources

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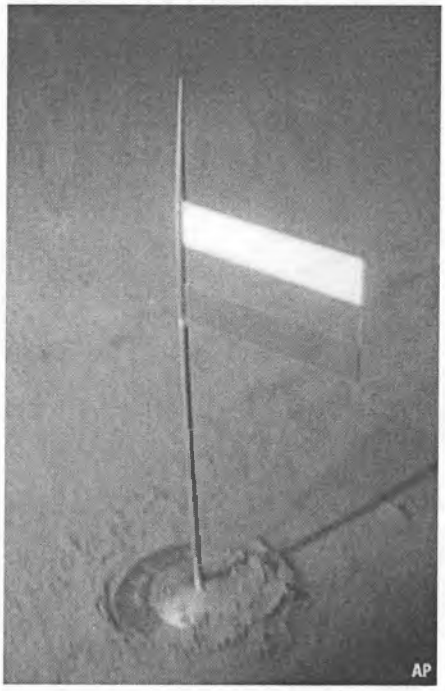

THE GEOPOLITICS OF the new Arctic entered the mainstream on August 2nd 2007. Descending by *Mir* submersible to a depth of over 4km, a Russian-led expedition planted a titanium Russian flag beneath the North Pole (pictured). The news shocked the world.

The Lomonosov ridge under the pole, which is probably rich in minerals, is claimed by Russia, Canada and Denmark. The Russians, it was assumed, were asserting their claim, perhaps even launching a scramble for Arctic resources. One of their leaders, Artur Chilingarov, Russia's leading polar explorer and a Putin loyalist, fanned the flames. "The Arctic has always been Russian," he declared. Yet the expedition turned out to have been somewhat international, initiated by an Australian entrepreneur and a retired American submarine captain, and paid for by a Swedish pharmaceuticals tycoon.

Even so, fears of Arctic conflict have not gone away. In 2010 NATO's top officer in Europe, James Stavridis, an American admiral, gave warning that "for now, the disputes in the north have been dealt with peacefully, but climate change could alter the equilibrium". Russia's ambassador to NATO, Dmitry Rogozin, has hinted at similar concerns. "NATO", he said, "has sensed where the wind comes from. It comes from the north." The development of the Arctic will involve a rebalancing of large interests. The Lomonosov ridge could contain several billion barrels of oil equivalent, a substantial prize. For Greenland, currently semi-autonomous from Denmark, Arctic development contains an even richer promise: full independence. That would have strategic implications not only for Denmark but also for the United States, which has an airbase in northern Greenland.

There are also a few Arctic quirks that turn the mind to

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confrontation. Most countries in the region (the United States being the main exception) have powerful frontier myths around their northern parts. This is truest of the biggest: Russia, for which the Arctic has been a source of minerals and pride in feats of Russian explorers, scientists and engineers since the late 19th century; and Canada, which often harps on Arctic security, perhaps as a means of differentiating itself from the United States.

Asia
Greenland
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During the cold war the Arctic bristled with Soviet submarines and American bombers operating from airbases in Iceland and Greenland. The talk of Arctic security risks sometimes betrays a certain nostalgia for that period. Some people also worry about Arctic countries militarising the north. Canada conducted its biggest-ever military exercise in the north, involving 1,200 troops, in the Arctic last year.

Yet the risks of Arctic conflict have been exaggerated. Most of the Arctic is clearly assigned to individual countries. According to a Danish estimate, 95% of Arctic mineral resources are within agreed national boundaries. The biggest of the half-dozen remaining territorial disputes is between the United States and Canada, over whether the north-west passage is in international or Canadian waters, hardly a *casus belli*.

> The risks of Arctic conflict have been exaggerated. Far from violent, the development of the Arctic is likely to be uncommonly harmonious

Far from violent, the development of the Arctic is likely to be uncommonly harmonious, for three related reasons. One is the profit motive. The five Arctic littoral countries, Russia, the United States, Canada, Denmark and Norway, would sooner develop the resources they have than argue over those they do not have. A sign of this was an agreement between Russia and Norway last year to fix their maritime border in the Barents Sea, ending a decades-long dispute. The border area is probably rich in oil; both countries are now racing to get exploration started.

Another spur to Arctic co-operation is the high cost of operating in the region. This is behind the Arctic Council's first binding agreement, signed last year, to co-ordinate search-and-rescue efforts. Rival oil companies are also working together, on scientific research and mapping as well as on formal joint ventures.

The third reason for peace is equally important: a strong reluctance among Arctic countries to give outsiders any excuse to intervene in the region's affairs. An illustration is the stated willingness of all concerned to settle their biggest potential dispute, over their maritime frontiers, according to the international Law of the Sea (LOS). Even the United States accepts this, despite its dislike for treaties—though it has still not ratified the United Nations Convention on the Law of the Sea, an anomaly many of its leaders are keen to end.

The LOS entitles countries to an area of seabed beyond the usual 200 nautical miles, with certain provisos, if it can be shown to be an extension of their continental shelf. Whichever of Russia, Canada and Denmark can prove that the Lomonosov ridge is an extension of its continental shelf will therefore have it. It will be up to the countries themselves to decide this: the UN does not rule on disputed territories. The losers will not do too badly, though: given the Arctic's wide continental shelves, the LOS guarantees each a vast amount of resource-rich seabed.

The 2007 furore over the Russian flag led to an important statement of Arctic solidarity, the Ilulissat Declaration, issued by the foreign ministers of the five countries adjoining the Arctic Ocean (to the chagrin of the Arctic Council's other members, Sweden, Iceland and Finland). This expressed their commitment to developing the Arctic peacefully and without outside interference. Possible defence co-operation between Arctic countries points in the same direction. Their defence chiefs met for the first time in Canada in April in what is to become an annual event.

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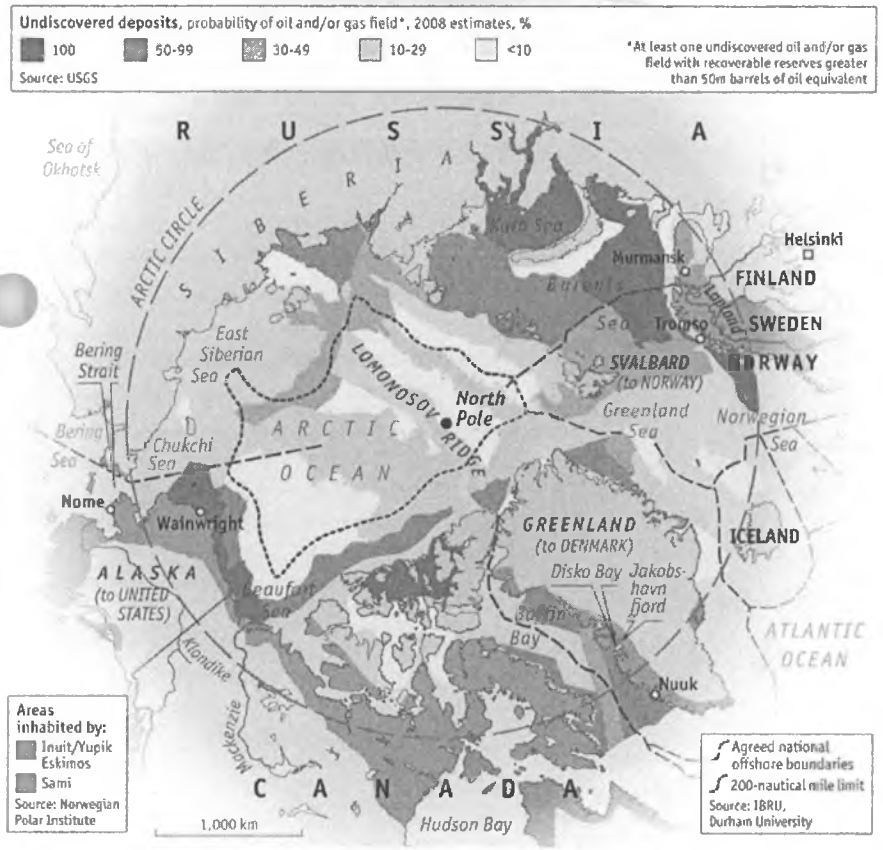
A warm atmosphere

The Arctic Council, founded in 1996, was not designed as a regional decision-making forum, though outsiders often see it that way. Its mission was to promote conservation, research sustainable development in the Arctic. The fact that six NGOs representing indigenous peoples were admitted to the club as non-voting members was evidence of both this ambition and the countries' rather flaky commitment to it. But since 2007, under Danish, Norwegian and now Swedish chairmanship, the council has become more ambitious. Next year it will open a permanent secretariat, paid for by Norway, in the Norwegian city of Tromso. A second binding pact, on responding to Arctic oil spills, is being negotiated; others have been mooted.

Russia, which has at least half of the Arctic in terms of area, coastline, population and probably mineral wealth, is in the thick of the new chumminess. It has a reputation for thinking more deeply about Arctic strategy—in which Mr Putin and his prime minister, Dmitry Medvedev, are both considered well-versed—than any other power, and appears to have concluded that it will benefit more from collaboration than from discord. Indeed its plans for the Northern Sea Route may depend upon international co-operation: Norway and Iceland both have ambitions to provide shipping services in the region.



Russia's ambassador for Arctic affairs, Anton Vasiliev, is one of the council's most fluent proponents of such collaborations. At a recent conference in Singapore, convened by *The Economist*, he surprised many by declaring Russia eager to standardise safety procedures for Arctic oil and gas production. "The Arctic is a bit special for civility," he says, "You cannot survive alone in the Arctic: this is perhaps true for countries as well as individuals."

The United States is less prominent in Arctic affairs, reflecting its lesser interest in the region and lukewarm enthusiasm for international decision-making. Although its scientists lead many of the council's working groups on subjects such as atmospheric pollution and biodiversity, it only hesitantly supports the council's burgeoning remit.

Frustrated advocates of a more forthright American policy for the Arctic, mostly from Alaska, lament that the United States hardly sees itself as an Arctic country, a status it owes to its

Arctic Council's original purpose & mission when est. in 1996 was to promote conservation, research, & sus dev in the Arctic

Pacts:
1. coordinate search & rescue efforts
2. Arctic oil spills

cut-price $7.2m purchase of Alaska (Russian America as was) in 1867. A common complaint is the United States' meagre ice-breaking capability, highlighted last winter when an ice-capable Russian tanker had to be brought in to deliver fuel to the icebound Alaskan town of Nome.

The African Arctic

As governments wake up to the changing Arctic, global interest in the region is booming. A veteran Scandinavian diplomat recalls holding a high-level European meeting on the Arctic in the early 1990s to which only her own minister turned up. "Now we're beating countries away," she says. "I've had a couple of African countries tell me they're Arctic players."

Asia's big trading countries, including strong exporters like China and Japan, shipbuilders like South Korea and those with shipping hubs, like Singapore, make a more convincing case for themselves. All have applied to join the council as observers, as have Italy and the EU. Half a dozen European countries with traditions of Arctic exploration, including Britain and Poland, are observers already.

Watch our animation of the receding Arctic ice-shelf and the shipping routes it could unlock

Some council members are reluctant to expand their club. Canada is especially wary of admitting the EU because the Europeans make a fuss about slaughtering seals; Russia has a neurotic fear of China. Even the relaxed Scandinavians are in no hurry to expand the council. Yet the disagreement has been overblown. If the EU, China and others were to be denied entry to the council, they would no doubt try to raise Arctic issues elsewhere, probably at the UN, which is a far more dreadful prospect for Arctic countries. So the end of Sweden's chairmanship, in May 2013, these national applicants are likely to be admitted.

But Greenpeace, which also wants to be an observer, may not be, even though another green NGO, the World Wildlife Fund (WWF), already is. Several Arctic governments have been put off by Greenpeace's aggressive methods. Greens against governments, not country against country, looks likely to be the most serious sort of Arctic conflict. That is progress of a sort.

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Special report: The Arctic

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The science

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Much of the change in the Arctic is understood; little of it is reassuring

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NY-ALESUND IS a special place in Arctic science. A huddle of wooden buildings by an icy fjord on Norway's island of Spitsbergen, high in the Barents Sea, it is the world's most northerly civilian settlement. Ten countries—Norway, France, Germany, Britain, the Netherlands, Italy, Japan, South Korea, India and China—have research stations in the village, and scientists from many others pass through. All are welcome to the twin wonders of Arctic conditions and Norwegian management.

If you want to study clouds, barnacle geese, seismology, sea ice, zooplankton and any number of pollutants, all indicators of how the Arctic and the world are changing, Ny-Alesund is the place. The only rules are: remove your boots inside, carry a rifle outside (there are often polar bears about) and fly no national flags. The marbie lions outside the Chinese station are tolerated but frowned upon.

The melting Arctic is the main subject of discussion in Ny-Alesund, and evident. Your correspondent visited in late winter, yet the fjord was unfrozen. The glacier at its head is rapidly retreating. How unusual is this?

Monitoring sea ice is a fairly recent activity. It began seriously e 1950s, from aboard nuclear submarines. Satellite monitoring started in 1979. Since then the summer sea ice has shrunk by 12% a decade. That is consistent with the trend predicted by climate-change models over the past three decades, an indication that their mathematical simulations of

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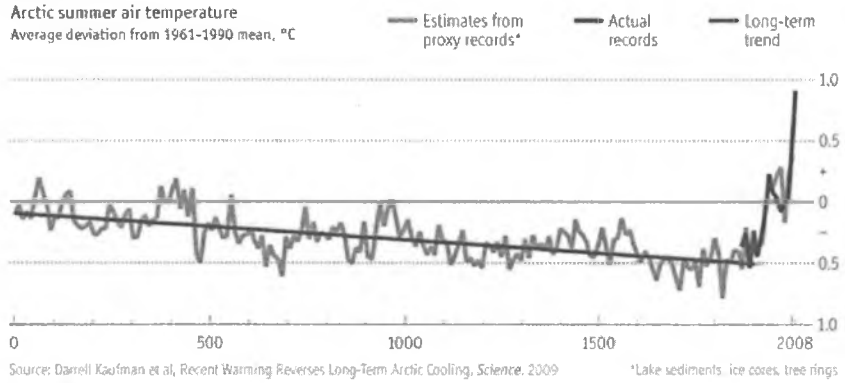
global warming are roughly right. Using Viking epics, whaling and pollen records, log books, the debris shed by melted ice rafts, diatoms (silicon-armoured algae found in marine sediments), ice cores and tree rings, scientists have reconstructed a record of the Arctic past which suggests that the summer sea ice is at its lowest level for at least 2,000 years. Six of the hottest years on record—going back to 1880—have occurred since 2004. According to the IPCC, the last time the polar regions were significantly warmer was about 125,000 years ago.

This transformation is in fact happening faster than anyone had predicted. According to an authoritative 2011 assessment for the Arctic Council, "it is now becoming very clear that the cryosphere is changing rapidly and that neither observations nor models are able to tell the full story." The albedo effect probably explains most of it, as indicated by research published in *Nature* in 2010. Its American authors found the greatest rise in the Arctic's temperature during autumn, when the sea ice is at its minimum, over newly exposed sea. More powerful than expected, this positive feedback is active throughout the melting process: when white snow melts to expose darker sea ice; when melt pools form on the ice; and when sea water is exposed. With each change the Arctic surface absorbs more heat.

Too balmy



On thin ice

A simultaneous thinning of the sea ice is also speeding up the shrinkage, because thinner ice is more liable to melt. According to Peter Wadhams of Cambridge University, the average thickness of the pack ice has fallen by roughly half since the 1970s, probably for two main reasons. One is a rise in sea temperatures: in the summer of 2007 coastal parts of the Arctic Ocean measured 7°C—bracingly swimmable. The other was a prolonged eastward shift in the early 1990s in the Arctic's prevailing winds, known as the Arctic Oscillation. This moved a lot of ice from the Beaufort Gyre, a revolving current in the western Arctic, to the ocean's other main current, the Transpolar Drift Stream, which runs down the side of Siberia. A lot of thick, multi-year ice was flushed into the Atlantic and has not been replaced.

Attention has recently also focused on a suite of lesser-known greenhouse gases, including ozone and methane, and on soot from diesel exhaust and forest fires. These are known as "short-lived climate forcers". Though they linger in the atmosphere for a relatively short time, they can have a powerful greenhouse effect. Soot, or black carbon, stays in the atmosphere for an average of six days, whereas carbon dioxide lasts for centuries, even millennia. Yet black carbon has an unusually potent warming effect in the snowy Arctic because the dark soot, after being rained or snowed onto bright snow or ice, continues to absorb heat.

There is speculation that high levels of atmospheric soot from American and European factory flues caused a mini-thaw in the Arctic in the 1930s. The UN's Environment Programme estimates that reducing black carbon and methane emissions could cut Arctic

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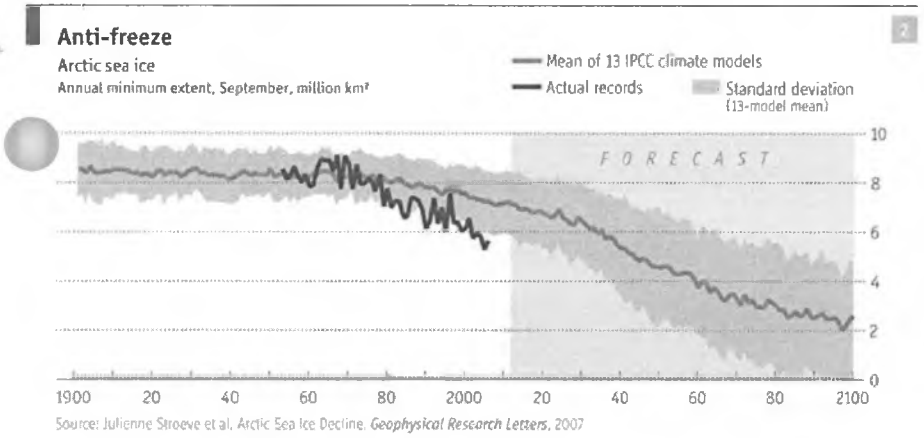

Source: Julienne Stroeve et al, Arctic Sea Ice Decline, *Geophysical Research Letters*, 2007

warming by two-thirds over the next three decades. That would not prevent the disappearance of the summer sea ice, but it might delay it by a decade or two.

As Ny-Alesund's spring research season began, a team of French soot researchers were among the first arrivals, after the Northern fulmars gliding over the fjord. They headed straight up Mount Zeppelin, which rises 473 metres behind the village and has a small laboratory on its summit, filled with whirring dials and a hum of motors, sucking in air from the winds racing overhead. With luck, the Frenchmen will reveal the role of soot in the Arctic melt. Yet the main reason is already known. A dial in the lab showing atmospheric carbon dioxide reads 398 parts per million, a 40% increase since the start of the industrial revolution.

A sea of worries

Around 125,000 years ago—when the IPCC thinks the Arctic was last much warmer than today—polar meltwater raised the sea level by 4-6 metres. If that happened again it would displace a billion people and inundate most of the world's biggest cities, including New York, London and Mumbai. The chances of that are uncomfortably high—though it might take a couple of centuries—because of another Arctic surprise.

The IPCC's prediction in 2007 of a rise in sea levels of up to 59cm by the end of this century was attended by large uncertainties over the world's big ice sheets. Greenland's is up to 3km (1.9 miles) deep and contains enough water to raise the sea level by 7.5 metres; the Antarctic ice sheets are much bigger and could potentially cause a 57-metre rise. In recent years they have also been monitored by satellite, with the first data obtained in 1992. Until about 2000 the ice sheets seemed to be more or less stable, with increased snowfall on their tops compensating for increased melting at the margins.

But in Greenland something has changed. The ice sheet's recent rate of loss—around 200 gigatonnes a year—represents a fourfold increase on a decade ago. Half this

The recent rate of loss of Greenland's ice sheet—around 200 gigatonnes a year—represents a fourfold increase on a decade ago

melting is thought to be due to the warming atmosphere. The other half is due to warmer seawater, caused by global warming or a shift in Atlantic currents, or both. As a result, the sea is eating away the edge of the ice sheet at a faster rate. Between 2002 and 2007 the Jakobshavn Isbrae, a big glacier in western Greenland, retreated by 3km a year, shedding a total of over 36 billion tonnes of ice.

If the climate stabilises soon, the ice cap might resettle at a slightly lower mass than it has today, raising sea levels by only a few centimetres. But if the warming continues, the ice cap will continue to melt. Sooner or later, it is thought, a tipping-point would be reached when the decline would become terminal. "How long will the ice cap last?" asks Dorthe Dahl-Jensen of the University of Copenhagen, who has studied the subject in depth. "We don't know because we don't fully understand what determines the velocity of its ice streams." But such a collapse has happened before. Around 15,000 years ago the Barents Sea ice sheet, which

stretched from northern England to Siberia, disintegrated in perhaps less than 1,000 years, probably because of warming seas.

Melting glaciers point to another fear: disruption to the ocean's overturning circulation. As warm surface waters flow north they cool and get saltier, which makes them denser. This denser water sinks and returns to the south at depth. The Gulf Stream and its northern extension, the North Atlantic Drift, are part of this circulation system, which is the main reason why Norway's coast is 20°C warmer in winter than Canada's at the same latitude.

Previous shutdowns of this system, deep-sea sediments suggest, were caused by massive infusions of freshwater into the North Atlantic; one of them, around 8,200 years ago, was caused by the sudden emptying of a vast North American lake. That would have made the Atlantic's upper layers less dense, so less liable to sink. And now the Arctic's upper layers are getting less dense, for several reasons: melting Arctic glaciers, rising surface-water temperatures, increased precipitation and an absence of salt concentrations resulting from sea-ice formation.

A paper published in *Nature* in 2005, by Harry Bryden of the National Oceanography Centre in Southampton and colleagues, presented the first data from an array measuring the overturning circulation. They seemed to suggest that the system might have slowed by 30% compared with 1957. As more data have become available, however, it is becoming clear that the difference can be explained largely by seasonal fluctuations. No climate model has predicted a complete shutdown during this century, though many suggest that a slowdown is possible.

Not every Arctic feedback will result in further warming. Less ice on rivers, lakes and the sea will lead to more evaporation, probably increasing cloud cover at mid-levels, which should have a cooling effect. Increased evaporation from the exposed sea should also mean more snowfall to compensate for the ice cap's losses (though together with rapid erosion at the margins this could increase the gradient of the ice cap, making it less stable.) But this is small consolation for another big fear: rapid thawing of the Arctic permafrost.

Best kept cold

Roughly a quarter of the northern hemisphere, including most of the Arctic land, is covered by this layer of frozen rock, soil and organic carbon. Formed over millennia, it varies in depth from a few centimetres to up to 1,500 metres in Siberia. Much of the Arctic's shallow continental shelf is also covered by permafrost. According to an estimate made in 2009, terrestrial permafrost holds about 1.7 trillion tonnes of carbon, roughly twice as much as the atmosphere. By another estimate subsea permafrost stores an additional 0.5 trillion tonnes. And underlying it there may be another 0.8 trillion tonnes in the form of methane hydrates, an icy white material discovered in the 1960s.

Though tricky to get at, methane hydrates could be a massive energy source. Globally they are estimated to contain more energy than all known deposits of fossil fuels. Yet if even a small portion of the methane contained in them were to be abruptly emitted, the warming effect could be catastrophic. Methane is a short-lived greenhouse gas—it stays in the atmosphere for 6-10 years before being oxidised—but it is 25 times more efficient than carbon dioxide at trapping heat. And no one is sure how stable the hydrates are.

Given the scale of these risks, it is extraordinary how little research has been done on permafrost. "There are a lot of white spots in our knowledge," admits Leonid Yurganov, a permafrost expert at the University of Maryland—Baltimore County. But a lot has recently been learned, which suggests that an explosive methane release is very unlikely. Ice cores going back 800,000 years show no trace of such an event. Nonetheless, the release of permafrost or subsea carbon could be gradual and still cause a lot of warming, and that does seem likely.

Once unfrozen, the permafrost's organic matter is either swiftly broken down by microbes that emit carbon dioxide or, in waterlogged conditions, which are common, it is eaten by a

group of bacteria called methanogens that release methane. Either way the permafrost becomes a source of greenhouse gas. Yet the bacteria also release nitrates, which stimulate plant growth, so the thawing ground may sometimes become a carbon sink. All three things are now happening.

Watch our animation of the receding Arctic ice-shelf and the shipping routes it could unlock

A 2011 study for America's National Oceanic and Atmospheric Administration found evidence of thawing permafrost in most parts of the Arctic. Record high temperatures were logged at a three-decade-old permafrost station in Alaska, though there was no recorded change to the frozen surface in western Canada. Last year an American-Russian research team observed plumes of methane, some more than a kilometre across, bubbling up from the Siberian Sea, suggesting that its permafrost layer was no longer sealing the methane hydrates below. Such methane release might be due to a range of causes, including the resettling of subsea sediments, thermal contractions and seismic activity as well as thawing permafrost, and in this instance it was not clear what was responsible.

One of the best available guides to this risk is a survey of 41 permafrost scientists published in *Nature* last year. They predicted that at the current rate of global warming between 48% and 63% of terrestrial permafrost would be thawed to a depth of 3 metres by 2100. In the process, they expected between 7% and 11% of its stored organic matter to be released into the atmosphere. Only a little over 2% of that would be in the form of methane, but this would be responsible for 30-50% of the resultant warming. It would be impossible to prevent these emissions: they would probably continue for centuries.

In 2009 and 2010 Europe and America experienced two of the coldest winters on record. That was not because global warming is not happening, but because the climate system is complicated. Arctic warming changes the temperature gradient between the tropics and the poles, which affects weather patterns across the northern hemisphere. Several recent papers, including one published by American and Chinese researchers in the *Proceedings of the National Academy of Sciences* in February, have suggested this could be behind the chilly winters. The theory is that they were caused by warmish, wet air rising from the exposed Arctic Ocean in autumn, creating areas of high pressure which destabilised the Arctic boundary layer. This sent snow-laden winds blowing into Europe and Siberia. It is too early to be sure about this. But compared with the disasters that a melting Arctic could bring, grumbling about the weather might seem like a comforting diversion.

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December 7, 2012

Where Are America's Badly Needed Icebreakers?

Less ice in the Arctic means more traffic on the seas. But because of years of budget cuts and delays, the U.S. is woefully short of the icebreakers the Coast Guard needs to monitor an increasingly active area and respond to potential disasters.

BY KALEE THOMPSON

Tyler Wintermute

When the heavy-duty icebreaker *Polar Star* pulls away from the Coast Guard pier in Seattle this month, it will mark the first time the 36-year-old ship has left port in more than six years. With rebuilt engines, a revamped propeller system, and three new cranes, the *Polar Star* is emerging from a $60 million renovation intended to extend its operational life by seven to 10 years.

Several months will be devoted to sea trials. Then, next fall, the ship will embark for the annual resupply of Antarctica's McMurdo science station, a job that has been outsourced to leased Russian and Swedish ships for the past six years. Until a few years ago, the U.S. had two icebreakers capable of tackling such thick ice: the *Polar Star* and its sister ship, the *Polar Sea*. Both were commissioned in the 1970s, with an expected life span of 30 years. In 2006 budget cuts forced the *Polar Star* into a soft retirement. Then, in 2010, the *Polar Sea* suffered a catastrophic engine failure. The crippled ship was laid up in Seattle, its parts soon cannibalized as *Polar Star* replacements and spares. Today the *Polar Sea* is in "inactive" status, most likely destined for the scrap yard.

The U.S. is now in a crisis of icebreaking capability. Though the outsourced McMurdo mission has been a blow to American pride, the much more dangerous shortcoming is in the Arctic, which this year saw the smallest expanse of summer sea ice since satellite records have been kept. Retired Coast Guard Rear Adm. Jeffrey Garrett, former captain of three icebreakers, worries about the depletion of the U.S. fleet just as northern waters are opening up. "There is less ice, which is permitting a lot more human activity in a whole bunch of different arenas—oil and gas exploration, tourist ships, commercial ships," he says. In the 1980s one or two ships attempted to maneuver through the Northwest Passage each summer season. In 2011 more than 30 ships navigated the world's northernmost waters, some of them tankers carrying multimillion-gallon loads of oil and natural gas. This fall Shell Oil began drilling exploratory shallow-water wells off the Alaskan coast.

There's no question that climate change is ushering in a busier, more politically contentious, and environmentally vulnerable Arctic. And it's just as clear that the U.S. is not ready for that future.

For the past two years the U.S. has had just one operational oceangoing icebreaker, the medium-duty *Healy*. "The polar icebreakers were designed as heavy icebreakers that can do a little bit of science. The *Healy* was designed as a scientific research ship that can break a little bit of ice," says *Polar Star* Capt. George Pellissier. Last year the *Healy* was diverted from a scientific mission to break a passage into Nome, Alaska. The remote Inuit community had missed its prewinter shipment of heating and vehicle fuel due to a massive storm—known locally as a blizzicane. Cutting an ice passage to and from the village took the *Healy* well over a month. It was a job better suited to a more powerful ship. "This country led the world in the development of modern icebreakers," Garrett says. "Back in the '60s we had eight of them."

Even with the *Polar Star* once again in operation, a two-ship fleet of one medium and one heavy icebreaker is not enough to maintain an effective presence near both poles. If the U.S. is a reluctant Arctic power, other countries are ready to step into the role. Russia, which in 2007 sent two manned submersibles to drop a titanium capsule containing a flag on the seabed at the North Pole, is anticipating that the northern sea route will become as important to global shipping as the Suez Canal and has already announced a fleet of four new nuclear-powered icebreakers. China's first icebreaker began its maiden voyage this July. A second Chinese ship, a polar research vessel, is due to enter service in 2014.

Beefed-up search-and-rescue capabilities in the far north have been on the Coast Guard's agenda for years, and for the past several summers Coasties have been experimenting with a temporary outpost near Barrow, Alaska, the northernmost U.S. settlement. They've discovered that building a permanent base would be a massively expensive engineering project. There are no roads connecting Arctic Alaska to the more populated part of the state, and no natural harbors north of Nome. Permafrost underlies everything, and that permafrost is melting.

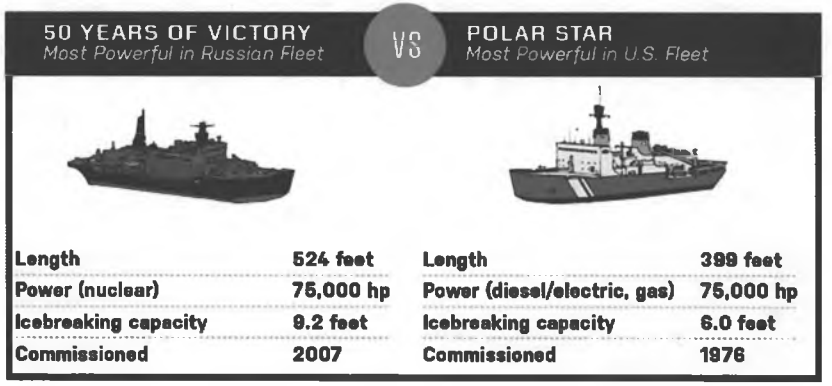
Difficult to create USCG base on Arctic possible alternative is a large capable icebreaker that could function as a mobile base

There may be a better option. "If you've got an icebreaker that can carry two helicopters, has a heavy-lift crane, has cargo space—spots on deck for carrying standard containers—has a command-and-control communications facility, it can be your floating base," Garrett says. With a heavy-lift davit system, such a ship could carry the Coast Guard's standard 47-foot surfboats, which can handle heavy weather and be used to conduct missions of up to 24 hours. The ship could act as a platform to respond to an oil spill, rescue passengers from a foundering tourist or research vessel, and conduct law-enforcement missions. Such a role could be played by the *Polar Star,* which can hangar two helicopters.

Given that designing, building, and commissioning such ships takes nearly a decade, the commitment to build more is already overdue. There are only four or five shipyards in the U.S. capable of building heavy icebreakers, whose thick steel and tight framing make them inherently more expensive than other ships of the same size. More efficient engines could allow new vessels to operate with lower horsepower, even while maintaining equivalent icebreaking capability, and they could run on cleaner liquefied natural gas. A new ship may also be built with rotating thrusters instead of traditional propellers, improving maneuverability.

Last February, Washington took a step in the right direction, allocating $8 million to survey and design a new polar icebreaker. A fully equipped ship will cost about $850 million. That cost is high. But the cost of inaction? Of risking impotence in the face of the first major catastrophe in the evolving Arctic? That cost is sure to be much higher.

World's Key Oceangoing Icebreaking Fleets



Most of the world's icebreaker fleets are expanding and modernizing to extend Arctic navigation into the spring and fall, provide access to offshore resources, and keep subarctic icy waters navigable. Russia has the largest fleet and plans to add at least four more vessels, including one that can smash ice more than 13 feet thick. The U.S. has two ships (the more powerful one can break ice up to 6 feet thick), and none in the pipeline.

Russia
Fleet: 32
Status: A new nuclear-powered breaker due in 2017 will be the world's most powerful with over 80,000 hp.

Finland
Fleet: 8
Status: The smallest of its aging fleet, the *Voima*, is the oldest active icebreaker in the world, entering service in 1954.

Sweden
Fleet: 7
Status: The *Oden* and the *Vidar Viking* were the first nonnuclear surface vessels to reach the North Pole.

Canada
Fleet: 6
Status: Slated for service in 2017, the *John G. Diefenbaker* will be Canada's largest flagged icebreaker at 459 feet.

Denmark
Fleet: 4
Status: Since 2011 the Danes have flagged four new icebreakers for duty on the Baltic Sea.

USA
Fleet: 2
Status: The *Polar Star* can handle thick ice; the Healy isn't designed for constant Arctic use.

China, Germany, Norway

Fleet: 1
Status: All three nations are developing polar research vessels, with China's second ship set to enter service as early as 2014.

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http://www.popularmechanics.com/technology/military/navy-ships/where-are-americas-badly-needed-icebreakers-14829862

Senator Maria Cantwell

Search: GO **Dec 13 2012**

Congress Passes Cantwell Amendments to Protect Seattle-based Icebreaker, Improve Tsunami Debris Cleanup

Senate passes Coast Guard bill, goes to President Obama's desk for signature

3 Cantwell amendments: will postpone scrapping of Polar Sea icebreaker, force risk assessment of tar sands supertankers in Washington waters, and improve tsunami debris cleanup

WASHINGTON, D.C. – Late last night, Congress passed several amendments authored by U.S. Senator Maria Cantwell (D-WA) to protect Washington state's coastal economy and environment, and to maintain the nation's capability to deploy icebreaker vessels, as part of the Coast Guard authorization bill. The bill, *The Coast Guard Authorization Act for Fiscal Years 2012 and 2013* (HR 2838), has already passed the House and now heads to the President's desk for his signature.

Cantwell wrote and successfully fought to include three amendments to the bill that will have a significant impact on Washington state. These amendments will:

Prohibit the Coast Guard from decommissioning the Seattle-based icebreaker *Polar Sea* unless the Coast Guard conducts a study showing that scrapping the vessel is the most cost-effective option and provides a plan to meet the nation's need for additional icebreakers;

Require the Coast Guard to conduct a study within 180 days to examine the risk additional tar sands oil supertanker, tanker and barge traffic poses to the Salish Sea – including the Puget Sound, Strait of Juan de Fuca, Strait of Georgia, Haro, and Rosario Straits –and study the best way to clean up a spill of tar sands oil; and

Creates a plan and direct the marine debris interagency task force to coordinate cleanup of tsunami debris, if the National Oceanic and Atmospheric Administration (NOAA) director finds the level of debris to be a "severe marine debris event." The NOAA Administrator would have to make this designation within 30 days of the bill being signed into law.

A summary of the Cantwell amendments is below:

ICEBREAKERS

Cantwell's icebreaker amendment prohibits the Coast Guard from scrapping the *Polar Sea* icebreaker until it submits a plan for maintaining the nation's icebreaker capability and proves that scrapping the vessel is the most cost-effective option.

"Icebreakers are critical to our national security and America's interests in the Arctic," said Cantwell. **"As commerce in the Arctic continues to increase, our nation's need for icebreakers will continue to grow. This bill preserves the option of refurbishing the *Polar Sea* and supports shipbuilding jobs in the Puget Sound as America determines the most cost-effective way to meet our mission requirements for icebreakers."**

Refurbishing a large icebreaking vessel like the *Polar Sea* can take roughly five years and employ upwards of 300 workers. Building a new vessel can take eight to ten years and employs more than 1,000 workers.

The *Polar Sea* is currently docked in Seattle and was scheduled to be dismantled in early 2013, after a planned 2012 dismantling was postponed thanks to an agreement with the Coast Guard Cantwell helped secure in June. Scrapping the *Polar Sea* would leave the United States with only one operational icebreaker, the *Healy*, which only has medium icebreaking capability. The *Polar Sea*'s sister ship, the *Polar Star*, is currently being refurbished after years in inactive or caretaker status.

Melting polar ice caps are opening new passageways through the Arctic ice and creating new opportunities for trade and international commerce. The Coast Guard needs a minimum of six heavy duty icebreakers and an additional four medium icebreakers to meet Coast Guard and Navy mission requirements, according to a recent Coast Guard study. The United States Navy currently has no icebreaking capability.

Cantwell and U.S. Representative Rick Larsen (D-WA-02) have repeatedly made the case for strengthening the nation's fleet of polar icebreakers and for protecting the *Polar Sea*. As the ranking Democrat on the Coast Guard and Maritime Transportation Subcommittee, Larsen has convened hearings and authored legislation to protect the vessels and led efforts in the House to pass this bill.

In September 2011, Cantwell and Senator Mark Begich (D-AK) introduced legislation to prevent the decommissioning and scrapping of the *Polar Sea*, called *The Preserve Our Large Arctic Response Capability* (POLAR-C) *Act of 2011*.

TSUNAMI DEBRIS

Another Cantwell provision within the Coast Guard bill orders the Administrator of NOAA to form an interagency task force to develop a tsunami debris cleanup plan, if the debris constitutes a "severe marine debris event." Within 30 days of the bill becoming
law, the NOAA Administrator must determine if the Japanese tsunami produced a "severe marine

debris event."

The action plan would make tsunami debris cleanup more effective by coordinating and directing all debris removal in Washington state and across the West Coast. In addition to the action plan, NOAA would also complete a comprehensive analysis about the debris' economic and environmental impacts, and when and where it will arrive. This will give Washington state coastal communities the information they need to understand the local impact of debris and how to best prepare for its arrival and removal.

"Washington state's coastal economy supports 165,000 jobs and nearly $11 billion in economic activity," said Cantwell, **"Washington coastal communities are already facing the impacts of tsunami debris. We need the federal government to be an active leader and partner in developing comprehensive tsunami debris research, mitigation and cleanup plans."**

In addition to pushing for a debris removal plan, Cantwell also is working to secure federal support for cleanup. On December 10, Cantwell joined five other senators in a bipartisan request for a $20 million federal investment for debris removal in a letter to the chair and ranking member of the Senate Committee on Appropriations.

TAR SANDS SUPERTANKERS

The Coast Guard bill contains a Cantwell amendment that directs the Coast Guard to complete a study about the impacts of higher levels of oil supertanker, tanker and barge traffic from Canada off Washington state's coast. According to reports, Canada is poised to increase oil tanker traffic through the waters around the San Juan Islands and the Strait of Juan de Fuca by up to 300 percent.

The tar sands study and risk analysis would need to be completed within 180 days of the bill becoming law.

"A supertanker oil spill near our shores would threaten Washington state's thriving coastal economy and thousands of jobs," said Cantwell. **"This bill will provide crucial information for Washington coastal communities by requiring a detailed risk analysis within 180 days."**

The Coast Guard study would include:

A risk assessment for transporting tar sands oil via supertanker, tanker and barge through the Salish Sea waterways;
An assessment of whether transportation of tar sands would require navigation through American waters, and which rules and regulations apply to supertankers in U.S. waters compared to Canadian waters;

An analysis of the properties of tar sands oil, which are likely different than other types of oil and therefore could require special cleanup technology;
The spill response capability throughout the shared waters of the United states and Canada; and,
The potential costs and benefits to the American public of maritime transportation of Canadian tar sands oil
An analysis of how much vessel traffic will increase in the region due to tar sands development;

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Statement for the Record
The Honorable Mead Treadwell
Lieutenant Governor
State of Alaska
Before the
United States House of Representatives
Committee Transportation on Transportation and Infrastructure
Subcommittee on Coast Guard and Maritime Transportation

"America is Missing the Boat"
December 1, 2011
Washington, D.C.

Introduction

Mr. Chairman, members of the Committee, Congressman Young, for the record, I am Mead Treadwell, the lieutenant governor of the State of Alaska. Thank you for inviting me to offer some views from Alaska about the future of Arctic shipping and maritime activities, and the need to ensure we are prepared to embrace those challenges and opportunities safely.

We've said it before – in my appearance before this Subcommittee in 2006 and in Governor Sean Parnell's Senate testimony in 2009,[1] and we'll say it again, because not much has changed: it is time for the nation to act – and act now – to add new polar class icebreakers to the United States Coast Guard's fleet. With so much happening in the North today, the need is more urgent and apparent than ever. We would like to ask this Committee, and by extension Congress and the Executive Branch, to look with us at the bigger picture – the historic changes happening in the Arctic and what they portend for world commerce and Alaska's shores – and recognize three imminent needs:

First, the United States must commission new heavy icebreakers to operate in the Arctic.

Second, we need legal measures in addition to icebreakers to protect our shores from the dangers of unregulated itinerant vessels carrying hazardous cargoes near our coasts.

And third, Congress and the Administration must fulfill the legal mandates that are already in place regarding icebreakers. These mandates reflect needs in commerce, science, and protection of Americans' sovereignty, safety, and security. The State of Alaska is responding to opportunities and risks associated with the historic changes in global shipping patterns resulting from changes in the Arctic Ocean. We are eager to continue in cooperation with the nation.

I. Congress needs to act now on icebreakers.
A. Other nations have already seen the big picture.

[1] Governor Sean Parnell made the case for icebreakers in the Arctic in his 2009 testimony before the Senate Subcommittee on Homeland Security Appropriations, stating, "The Coast Guard needs to move north and improve its capability – our heavy class icebreakers are on their last legs."

The purchase of Alaska in 1867 made America an Arctic nation, yet after 150 years, the myth of Seward's Folly still lingers. It's time to quit arguing whether investment in the North is worth it and recognize the valuable people, resources and location we gained as a nation.

Arctic resources include globally significant quantities of commercial fisheries, minerals, renewable energy sources, and world-class amounts of oil and gas. A 2008 U.S. Geological Survey estimates 13% of the world's undiscovered oil, and 23% of undiscovered gas lies in the Arctic. Six of the Arctic nations are already pursuing oil and gas development offshore, and energy may soon be the primary cargo transiting the Bering Strait.

America is one of only eight Arctic nations, and one of two with territory adjoining the Bering Strait – really a "Bering Gate," the only route from the Pacific to the Arctic.

Changes in the Arctic are creating opportunities in a once remote and harsh region. Ice cover is at historic minimums, and multi-year ice is decreasing. Icebreaking technology has advanced, bringing significant new efficiencies. Northern sea routes, sought by explorers for hundreds of years, are opening up.

Several sources report that international shipping of crude oil, refined products, and other potentially hazardous cargoes through the Bering Strait is growing rapidly as European and Asian shippers see the advantages of the Arctic route. Other Arctic – and even non-Arctic – nations have seen the potential, but America is missing the boat.

Most traffic occurs under arrangements for icebreaker escort by vessels working with Russia's Northern Sea Route Administration. We understand that last year, for the first time, Norway's Tschudi Shipping Company worked a partnership with Russian maritime authorities to bring 41,000 tons of iron ore from Kirkenes, Norway to China.

Again this year, Russian ships, and ships of other nations escorted by Russia's Northern Sea Route Administration, are coming in force. Hazardous cargoes are making the backhaul as well – at least one tanker bringing gas condensate to Asia this year is reported to have returned to Europe with aviation fuel.

In August of this year, Norway's *MV Nordic Barents* was the first non-Russian bulk cargo ship to transit the Northern Sea Route in Russian waters.

Other records are being set along the Northern Sea Route, from the *STI Heritage's* fastest-ever voyage from Murmansk to Thailand, transiting in just eight days, to the *Perseverance's* latest-ever northern voyage, which ended just two weeks ago on November 18. Altogether, the Northern Sea Route saw nine tankers carrying 600,000 tons of gas condensate pass by this year.

I joined an Arctic conference in Arkhangelsk, Russia in September, where Russia's Prime Minister Vladimir Putin told the Russian Geographical Society that his country sees the opportunities in the Arctic, and they are ready to pounce. Speaking of the Northern Sea Route at the Russian Geographical Society conference, Putin told us, "We are planning to turn it into a

key commercial route of global importance. … We see its future as an international transport artery capable of competing with traditional sea routes in cost of services, safety, and quality."[2] President Medvedev, dedicating a new northern rail project in Yakutsk – headed for the Bering Strait – indicated as much last month.

Russia intends to make the Northern Sea Route as important to global shipping and commerce as the Suez Canal.

And Russia is putting its money where its mouth is, building nine new icebreakers in the next decade, and discounting tariffs on icebreaker escorts to make sure that shippers find the Northern Sea Route for distance savings of up to 40 percent. Russia's claim to new extended continental shelf resources in the Arctic Ocean under the United Nations Convention on the Law of the Sea could give Russia greater control of Arctic shipping. Cargo moving through the Bering Strait this year – from Russian and American sources – is worth well over $1 billion. Add to that a Bering Sea fishery owned by both nations worth billions each year and the situation is clear: in monetary terms, there's billions to be made and billions to protect.

At the same Arkhangelsk conference, Russia's Academy of Sciences Vice President Nikolai Laverov showed a slide of Alaska's declining throughput in the Trans-Alaska Pipeline System (or TAPS) and Russia's competitive success in attracting Arctic investment. All Arctic energy production depends on access, and Russia has it. Russia is now in the lead in Arctic oil production – and they're keen to stay there.

Meanwhile, other Arctic and circumpolar nations are investing in fleets of icebreakers. The report of exactly how many ships are being operated by other countries varies (some count polar, medium and light icebreakers, as well as ice 'strengthened' or 'capable' vessels), but all the tallies make one thing clear: other nations have seen the writing on the wall and are investing in infrastructure. Sweden has at least four vessels; Finland, at least six; and Russia over two dozen (and counting). Canada has about eight, and even the European Union is constructing an icebreaker – a heavy, polar class icebreaker.[3]

Our Arctic neighbors are leaps and bounds ahead of our position, and non-Arctic nations are in hot pursuit.

A Chinese researcher, Mr. Li Zhenfu of Dalian Maritime University, writes that, "Whoever has control of the Arctic route will control the new passage of world economics and international strategies."[4] The prospect of commercial and strategic opportunities presented by receding sea ice cover and accessibility of Arctic resources has moved the Chinese government to allocate more resources for Arctic research, and they have asked to join the Arctic Council as an observer. China's Rear Admiral Yin Zhuo has asserted that no nation has sovereignty over the

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[2] Putin, Vladimir (2011, September). Remarks presented at the second International Arctic Forum, "The Arctic – Territory of Dialogue", Arkhangelsk, Russia. Available online: http://premier.gov.ru/eng/events/news/16536/.

[3] "The World Icebreaker, Ice Breaking Supply and Research Vessel Fleet." A report commissioned by the Finnish Maritime Administration on behalf of the Baltic Icebreaker Management. Released by the Finnish Transport Agency, Helsinki, February 2011.
"Polar Icebreakers of the World." A list developed and maintained by Mobility and Ice Operations. July 25, 2011.

[4] Li, Zhenfu. *Zhonggua Hanghai*, vol. 32, no. 2 (June 2009).

Arctic, and said that China must plan to have an indispensable role in Arctic exploration as they have one-fifth of the world's population.[5]

Japan has stepped up its research in global environment, climate and marine science in the Arctic. And with China and Korea, Japan has applied for permanent observer status on the Arctic Council.

Polar air routes have characterized the jet age since the late 1950s, and Arctic air transport is now key to air cargo bound between North America or Europe and Asia. Governments and industries in Russia, Europe and Asia see the same potential for shipping. Why don't we?

B. Our national mandates are not being met.

The irony of America's present situation is painful: a staggering national debt weighs on the future of our children, while the contributions of a promising and abundant region go largely unnoticed. When we ask you for icebreakers, it's for safety, security, and American jobs. It's to serve American shipping, American exports. It's to help lower costs for Americans in regions like Western Alaska, which has a higher cost of living than anyplace in the nation. Americans lack jobs, our industries struggle with the cost of doing business, and rural Alaskans suffer the staggering cost of energy, while huge amounts of foreign energy are beginning to pass by our front door in tankers, taking advantage of game-changing shipping opportunities.

The United States is falling behind in maintaining an Arctic presence and in helping to set best practices as this region sees increasing international resource development and shipping. But more importantly, we are failing in our own national mandates, goals and policy.

In 1936, President Franklin Roosevelt issued Executive Order 7521, directing the Coast Guard, under the direction of the Secretary of the Treasury and with the cooperation of the Secretaries of War (Army), the Navy, and Commerce, to keep channels and harbors open to navigation by means of icebreaking operations. That order has never been implemented in the Arctic.

The Arctic Research and Policy Act of 1984 recognized that the United States was lagging behind other circumpolar nations even then, and it directs the Office of Management and Budget to "seek to facilitate planning for the design, procurement, maintenance, deployment and operations of icebreakers needed to provide a platform for Arctic research by allocating all funds necessary to support icebreaking operations, except for recurring incremental costs associated with specific projects, to the Coast Guard."

Last year's Coast Guard Authorization Act of 2010, section 307, implements the Arctic Marine Shipping Assessment (AMSA), mandating that the Coast Guard "shall promote safe maritime navigation by means of icebreaking where necessary, feasible, and effective..." That makes

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[5] Qtd. in Wright, David Curtis. *The Dragon Eyes the Top of the World: Arctic Policy Debate and Discussion in China*. China Maritime Study No. 8. Newport, RI: U.S. Naval War College (Aug. 2011). Page 2. Available online: http://www.usnwc.edu/Research---Gaming/China-Maritime-Studies-Institute/Publications/documents/China-Maritime-Study-8_The-Dragon-Eyes-the-Top-of-.pdf.

President Roosevelt's order the law of the land for the entire nation. We welcome this mandate as Alaska has half the nation's coastline, and likely over half of America's ice.

That act also required that a report on the comparative cost-benefit analyses of icebreaker renovation or construction be delivered no later than October 15 of this year to the Senate Committee on Commerce, Science and Transportation, and the House Committee on Transportation and Infrastructure. It moreover required a report from the Commandant of the Coast Guard on the High-Latitude Study assessing the polar icebreaking requirements for Coast Guard missions, including search and rescue, marine pollution response and prevention, fisheries enforcement, and maritime commerce. We understand that full report is embargoed still by President Obama's administration.

This past spring, the President updated the United States military's Unified Command Plan to give U.S. Northern Command advocacy responsibility for Arctic capabilities. Accompanying shifts of UCP geographic boundaries mark the military's awareness of the vital and ever-growing importance of the Arctic. Then Commander of the Northern Command, U.S. Navy Admiral James Winnefeld, Jr., recognized the implications of the changing Arctic, and noted the gaps faced by the military, including infrastructure and mobility, and search and rescue capabilities.[6] General Charles Jacoby, his successor, formerly ran the U.S. Army in Alaska. He, too, knows our challenges.

Around the same time as this spring's announcement, a report by the National Research Council on the implications of climate change on national security cited major gaps in U.S. naval forces' ability to perform their missions in the Arctic.[7] That report advised that the U.S. Navy, Marine Corps and Coast Guard take action to ready themselves for Arctic conditions. The protection of our domestic security is the fundamental mandate of the U.S. Armed Forces, and it is threatened if we remain unprepared.

This year, in response to the recommendations of AMSA, the eight Arctic Council nations signed a binding Search and Rescue Agreement. Alaska supported this, and sent experts to the first multinational exercise conducted under this agreement in October in Whitehorse, Yukon Territory. Without icebreakers and other Arctic USCG assets, major deficiencies in the region's life safety response capabilities exist – and our promise to provide search and rescue in our sector of the Arctic is compromised.

Finally, the United States Congress, in the 2010 Coast Guard Authorization Act, charged the Committee on Marine Transportation Services (CMTS) to develop an integrated Arctic shipping regime, and to coordinate the establishment of domestic transportation policy to realize the goal set by President George W. Bush of safe, secure and reliable shipping in the Arctic. The AMSA Implementation Act, additionally, encourages the Coast Guard to negotiate agreements with

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[6] Winnefeld, Jr., Admiral James A., U.S. Navy Commander, United States Northern Command and North American Aerospace Defense Command. Statement before the House Armed Services Committee, 30 Mar. 2011. Available online:
http://www.northcom.mil/Docs/2011%20NORAD%20and%20USNORTHCOM%20Posture%20Statement%20(HASC%20Final).pdf.

[7] *National Security Implications of Climate Change for U.S. Naval Forces*. Committee on National Security Implications of Climate Change for U.S. Naval Forces. Washington, D.C.: The National Academies Press, 2011.

other Arctic nations through the International Maritime Organization. Those agreements would focus on aids to navigation; marine safety, tug, and salvage capabilities; oil spill prevention and response capability; maritime domain awareness (including long-range vessel tracking); and search and rescue.

The United States has been protecting our sovereign airspace along Alaska's shores for over 50 years. The United States Coast Guard has been protecting America's coast for over 200 years. Why don't we protect our sovereign waters along Alaska's Arctic coast with the same vigor?

America has a duty to protect its citizens in coastal communities and to safeguard their way of life. Coastal Alaskans have spent thousands of years relying on the sea for their food and clothing, for the heat they create from whale oil and the shelter they derive from driftwood. The majority of Alaska Natives in the North get more than half of their meat and fish from wild, local harvests. Sixty percent of those wild harvests are from marine mammals. It is imperative we ensure that the increasing foreign ship traffic off our shores does not jeopardize the freedom of Americans to maintain a subsistence lifestyle.

Mr. Chairman, the United States has a long history of national mandates and policy that require our action. And yet we fail to act on them. Moreover, the recent decision of the U.S. House of Representatives to retire the nation's only heavy icebreaking ships without replacements is a disappointment. But to the extent that the all-or-nothing approach forces a legitimate conversation about the need for icebreakers and an opportunity to spotlight the conversation – I applaud the decision.

We should, however, be cautious about the risky "game of chicken." If it fails, it fails Americans – and Alaskans most of all.

C. The savings and benefits outweigh the costs.

We understand that the action we are asking Congress to take will require significant funds. We understand the costs, but we cannot ignore our obligations or the major opportunities we face.

In a conference recently in Juneau, University of Alaska Professor Dr. Lawson Brigham, a former USCG icebreaker captain, noted that the U.S. Navy is building 47 Littoral Combat Ships at a price of $400-500 million each. He asked, why not consider building 45 of these ships, and allocating that other $800 million to $1 billion in the budget for the Coast Guard to build one major polar icebreaker?

Some have argued we should charge for icebreaker escort services as other nations do. Ship owners pay for services in the Panama and Suez Canals. U.S. vessels pay for oil spill preparedness and insurance. A bill pending in this Congress would have the U.S. lease, rather than own, icebreakers it needs in the Arctic. Long term charter agreements are in place in the Antarctic, and it has been argued that private contractors are able to build icebreakers more quickly and less expensively, operate them more efficiently in terms of cost and maintenance, and would bear the expense of decommissioning. This is worthy of consideration if it moves us forward faster in the Arctic.

However we work out our finances, America and its trading partners could reap huge economic benefits from accessing northern sea routes. Former U.S. Coast Guard Lieutenant Commander Scott Borgerson wrote nearly four years ago about the financial advantages available to world commerce through Arctic shipping.[8] He told us how plying the Northern Sea Route from Rotterdam to Yokohama instead of traveling via the Suez Canal would yield distance savings of more than 40 percent. He told us that one container ship voyage from Seattle to Rotterdam via the Northwest Passage instead of the Panama Canal could save about 20 percent of its costs – then about $3.5 million dollars.

Borgerson envisioned a future of global Arctic shipping where "a marine highway directly over the North Pole will materialize. Such a route," he wrote, "which would most likely run between Iceland and Alaska's Dutch Harbor, would connect shipping megaports in the North Atlantic with those in the North Pacific and radiate outward to other ports in a hub-and-spoke system."

As the Arctic Marine Shipping Assessment predicted, most Arctic shipping traffic today is destinational, carrying resources out from or products in to Arctic regions. But we need to envision a time, coming soon, when products travelling to and from non-Arctic ports traverse our Arctic Ocean and Bering Sea – and we need to be ready.

II. Our lack of legal protection.

I want to make sure Congress understands there are now two classes of ships operating in the Bering Strait region – those that are under contingency planning requirements for oil spills, and those that are not. U.S. vessels are highly regulated: by NOAA, by EPA air quality controls, by the Interior Department's BOEM and BSEE oversight of exploration – in fact, over 120 federal laws regulate the use of the coastal zone and offshore areas. But ships originating outside the U.S. – such as those traveling between Russia or Europe and Asia, are not even required to have a spill contingency plan, even though they pass by hundreds of miles of U.S. coastline. We face the prospect of increasing international ship traffic through the Bering Strait – carrying anything from crude oil to aviation fuel – with minimal requirements to prepare for oil spills, maintain air quality, or care for wildlife and subsistence needs.[9]

Icebreakers can help us reduce the risks brought about by that disparity. If we are to achieve our policy of advancing safe, secure and reliable shipping as the Arctic Ocean becomes more accessible, the U.S. must operate new polar class icebreakers. Without them, little or no appropriate government capability exists to enforce prevention measures or to respond to a spill in this region. It is folly to rely on aircraft and submarines alone to protect U.S. interests. We learned that tragic lesson when we lost six lives as a helicopter crashed trying to evacuate crew from the shipwrecked *Selendang Ayu* in 2004.

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[8] Borgerson, Scott G. "Arctic Meltdown: the Economic and Security Implications of Global Warming." *Foreign Affairs*, vol. 87, no. 2.

[9] The State of Alaska has sought remedies to this situation in its comments on the USCG Port Access Route Study for the Bering Strait.

There are a range of legal ways and international agreements we might pursue to require safety measures from itinerant vessels transiting the Bering Strait. (None are quick or easy solutions, but measures that protect our national security rarely are.)

- Working on a vessel routing system to prevent collisions and groundings from increased shipping, following protocols of the International Maritime Organization, and coordinating with the Russian Federation. The State of Alaska provided comments to the USCG's Port Access Route Study for the Bering Strait regarding this approach.

- Having all Arctic nations seek ship owners' participation in an Oil Spill Response Organization with a contingency plan, perhaps as part of the upcoming Arctic Council Oil Spill Preparedness and Response Agreement. Alaska has joined U.S. delegations negotiating this agreement.

- Resolving the debate on Law of the Sea, and ratifying the Law of the Sea Treaty, which with Article 234 authorizes the extension of environmental law in traditionally ice-covered areas. As the debate on ratification continues, the State has asked for clarification of U.S. intent in implementing Article 234.

- Using existing authority in the Oil Pollution Act of 1990 to cover nontank vessels and working a reciprocal deal with Russia and Canada. The Final Rule on Nontank Vessel Response Plans and Other Vessel Response Plan Requirements Regulations is still under development within the Coast Guard and the Department of Homeland Security. Section 701 of the Coast Guard Authorization Act of 2010 directs that this final rule be issued no later than April 15, 2012.

- Forming an agreement with Canada and/or Russia similar to the 1817 Rush-Bagot Agreement, creating a mechanism like that of the St. Lawrence Seaway Development Corporation, whereby Arctic nations establish a shipping authority that administers the route, provides compliance, icebreaking, and other aids to navigation, including spill preparedness and response. (Borgerson also suggested this in his 2008 article, "Arctic Meltdown".)

III. How Alaska is helping America live up to the promise of the Arctic.

Mr. Chairman, Congress spoke last year in the Coast Guard Authorization Act of 2010 and AMSA Implementation, and charged the Committee on Marine Transportation System with this mission: to coordinate the establishment of domestic transportation policy to ensure safe and secure maritime shipping in the Arctic. I would like to say for the record now that as these processes get underway, we need to be ambitious, creative, and determined. The United States must acknowledge its responsibilities and embrace new possibilities. The Arctic needs resources, not just rules. What's happening in the Arctic Ocean and along northern sea routes has global, historic and exciting significance, and we need to take an active role. We must plan for an Arctic shipping future that could be like a new Suez Canal.

In a visit to D.C. last month, I briefed the leaders of CMTS in some activities the State of Alaska is conducting to help America move toward the new world of Arctic shipping, and how we are bringing resources to the table to help to achieve safety, create jobs, and spur exports of goods and services. We are hopeful the CMTS will mesh with the outcome of our current work with the Arctic Council, the International Maritime Organization, and the U.S. Coast Guard and Army Corps of Engineers, and Alaska's Northern Waters Task Force.

Below is a non-comprehensive list of these activities:

- **Arctic Council:** The State of Alaska actively supports the United States' work within the Arctic Council, and I serve as our state's liaison on Council issues. As we support the Council's work to implement recommendations of the 2009 AMSA, the State is active in implementing the Arctic Council's aforementioned Search and Rescue Agreement, signed at the Ministerial in Greenland this past May. We are likewise a participant in the Council's oil spill response instrument negotiations. In addition, through the Pacific Northwest Economic Region (PNWER), Alaska is bringing resources and support for the Arctic Council Sustainable Development Working Group's proposed aviation and maritime infrastructure project, which will survey the region's infrastructure needs.

- **USARC/Research programs:** Alaska is also deeply involved in Arctic research. I work closely with the U.S. Arctic Research Commission (USARC), which I chaired under Presidents Bush and Obama from 2006-2010, and served on from 2001-2010 as a Commissioner, and which is currently chaired by Ms. Fran Ulmer, former lieutenant governor of Alaska and former chancellor of the University of Alaska Anchorage. Our University is currently working hard to launch the newest ice-strengthened research vessel, the Sikuliaq (see KOO lee auk), in the nation's NSF-sponsored UNOLS fleet. Moreover, with the University vice president, I co-chair a State Committee on Research which is writing a research and development plan that assesses Alaska's research and development needs for our economy, health, safety, environment, and culture. Alaska researchers play a major role in our understanding of Arctic change and Arctic resources, Arctic engineering and methods of spill response in ice-covered waters.

- **USCG forward basing:** In Alaska we are supporting the U.S. Coast Guard's efforts to bring forward basing to Alaska's North Coast, and we're examining ways we can help provide hangars for fixed and rotary wing aircraft in Barrow and Nome. The Alaska National Guard air-refuelable helicopters and aircraft, as well as helicopters of the North Slope Borough, are America's front-line for search and rescue in the Arctic Ocean today – Coast Guard response is based much further away.

- **New and improved ports:** The State of Alaska has also joined with the U.S. Army Corps of Engineers to conduct a port study for western and northern Alaska. Our intent after the study is to foster investment to establish a deep water port in Western Alaska to serve as a port of refuge for Coast Guard vessels and itinerant traffic. The port would also meet the needs of large vessels, including fishing fleets, and resource export vessels. At the same time, we see a need to upgrade the minimal port facilities which now exist for cargo import and export in a range of Western Alaska communities.

- **Shuttle container shipping:** In 2006, the State of Alaska committed $50,000 for the first pre-feasibility study on transarctic container shipping, looking at the economics and logistics of trans-shipping containers from North America and Asia between Aleutian and Icelandic ports, thus tying North Atlantic and North Pacific shipping together through the Arctic. The results of the study are promising.[10] Recently, we have heard interest to look at this again from Aleutian, Asian and European ports that would send and receive cargo in such a system. One option to consider as we proceed would be to include this work under the Arctic Council's proposed Arctic Maritime and Aviation Transportation Infrastructure Initiative.

- **Early warning system:** The State is a major financial sponsor of the Automatic Identification System receiver network established by the Marine Exchange of Alaska, which now covers all traffic operating in the Arctic region, approaching or leaving the Bering Strait and the Aleutian Archipelago. The network provides location data and advanced warning to the U.S. Coast Guard and state emergency responders of all ships approaching state waters, and gives us – and communities – a heads-up on traffic, including stalled itinerant vessels that might be headed for a shipwreck.

- **Review of new regimes for shipping administration:** Last year, Alaska's State Legislature created the Northern Waters Task Force (NWTF).[11] This task force is charged with examining the effects of changes in the Arctic on shipping, energy and local industry and making recommendations on infrastructure and regulatory needs, mitigation strategies, and ways for the State to be involved in governance of Arctic shipping. NWTF will present their report to the Legislature in January of 2012. Early discussions indicate that international cooperation and investment in oil spill response capabilities will be among the measures recommended.

Conclusion

Mr. Chairman, members of the Committee, Alaska has and will continue to work hard on Arctic policy because we are America's Arctic – it's our home, our history, our heritage and our future. And we work hard with high hopes for outcomes.

But we ask for the U.S. to work hard with us. To reiterate, Mr. Chairman, we ask for three things.

First, we need icebreakers. Without action on this, America is putting its national security on the line, and we are going to miss the opportunities of the Arctic while watching other nations advance. Good policy only goes so far without the infrastructure to act upon it. We have mandated icebreakers more than once. We're missing the boat. Let's build them.

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[10] Niini, M., M. Arpiainen, and R. Kiili. *Arctic shuttle container link from Alaska, US to Europe.* Report AARC K-63. Aker Arctic Technology Inc., Mar. 2006.

[11] Alaska State Legislature, HCR 22, Legislative Resolve No. 54 (2010), Establishing and relating to the Alaska Northern Waters Task Force. Available online: http://housemajority.org/coms/anw/pdfs/26/Scan001.pdf.

Second, while we wait for new icebreakers, we need to take legal action to protect our coasts and prevent spills in the Arctic and Aleutians. We made this clear in our comments to the U.S. Coast Guard's Port Access Route study, and we urge the U.S. to step up the pace.

And third, the federal and state governments need to continue working together through the CMTS and Arctic Council processes to ensure that America does not miss out on the historic, game-changing opportunities in Arctic shipping. Arctic shipping presents safety challenges for sure. But for America, it is an opportunity, and one that could pass us by.

Alaska encourages America's new shipping policy to be ambitious. It should keep us safe, create jobs, help improve the quality of life in Western Alaska, and generate goods and service exports, as polar aviation does today. We need to grasp the historic opportunities of the changing Arctic. America has been an Arctic nation for 150 years. It's time we started acting like it.

Thank you.

Arctic Council SAR Agreement

AGREEMENT

ON COOPERATION ON AERONAUTICAL

AND MARITIME SEARCH AND RESCUE

IN THE ARCTIC

The Government of Canada, the Government of the Kingdom of Denmark, the Government of the Republic of Finland, the Government of Iceland, the Government of the Kingdom of Norway, the Government of the Russian Federation, the Government of the Kingdom of Sweden, and the Government of the United States of America, hereinafter referred to as "the Parties",

Taking into account the relevant provisions of the 1982 United Nations Convention on the Law of the Sea,

Being Parties to the 1979 International Convention on Maritime Search and Rescue, hereinafter referred to as "the SAR Convention", and the 1944 Convention on International Civil Aviation, hereinafter referred to as "the Chicago Convention",

Noting the International Aeronautical and Maritime Search and Rescue Manual, hereinafter referred to as "the IAMSAR Manual",

Recalling the 1996 Ottawa Declaration on the Establishment of the Arctic Council,

Highlighting the 2009 Tromsø Declaration on the occasion of the Sixth Ministerial Meeting of the Arctic Council, which approved the establishment of a task force to develop and complete negotiation of an international instrument on cooperation on search and rescue operations in the Arctic,

Conscious of the challenges posed by harsh Arctic conditions on search and rescue operations and the vital importance of providing rapid assistance to persons in distress in such conditions,

Mindful of the increase in aeronautical and maritime traffic and other human activity in the Arctic, including activity of Arctic residents and of people coming to the Arctic,

Recognizing the great importance of cooperation among the Parties in conducting search and rescue operations,

Emphasizing the usefulness of exchanging information and experience in the field of search and rescue and of conducting joint training and exercises,

Have agreed as follows:

Article 1

Terms and Definitions

1. For purposes of this Agreement, the terms and definitions contained in Chapter 1 of the Annex to the SAR Convention and in Chapter 1 of Annex 12 to the Chicago Convention shall apply.

2. For purposes of this Agreement, "territory of a Party" shall mean the land area of a State, its internal waters and its territorial sea, including the airspace above those areas.

Article 2

Objective of this Agreement

The objective of this Agreement is to strengthen aeronautical and maritime search and rescue cooperation and coordination in the Arctic.

Article 3

Scope of Application of this Agreement

1. The delimitations of the aeronautical and maritime search and rescue regions relevant to this Agreement are specified in paragraph 1 of the Annex to this Agreement. The area in which each Party shall apply this Agreement is set forth in paragraph 2 of the Annex to this Agreement.

2. The delimitation of search and rescue regions is not related to and shall not prejudice the delimitation of any boundary between States or their sovereignty, sovereign rights or jurisdiction.

3. Each Party shall promote the establishment, operation and maintenance of an adequate and effective search and rescue capability within its area as set forth in paragraph 2 of the Annex to this Agreement.

Article 4

Competent Authorities of the Parties

1. The Competent Authorities of the Parties are specified in Appendix I to this Agreement.

2. Each Party shall promptly inform the other Parties in writing through diplomatic channels of any changes regarding its Competent Authorities.

Article 5

Agencies Responsible for Aeronautical and Maritime Search and Rescue

1. The agencies responsible for aeronautical and maritime search and rescue, hereinafter referred to as "search and rescue agencies", are specified in Appendix II to this Agreement.

2. Each Party, through its Competent Authorities, shall promptly inform the other Parties of any changes regarding its search and rescue agency or agencies.

Article 6

Rescue Coordination Centers

1. The list of aeronautical and/or maritime rescue coordination centers, hereinafter referred to as "RCCs", of the Parties for the purposes of this Agreement is contained in Appendix III to this Agreement.

2. Each Party, through its Competent Authorities, shall promptly inform the other Parties of any changes regarding its RCCs.

Article 7

Conduct of Aeronautical and Maritime Search and Rescue Operations

1. The SAR Convention and the Chicago Convention shall be used as the basis for conducting search and rescue operations under this Agreement.

2. The IAMSAR Manual provides additional guidelines for implementing this Agreement.

3. Without prejudice to paragraph 1 of this Article, the Parties shall conduct aeronautical and maritime search and rescue operations pursuant to this Agreement consistent with the following:

(a) search and rescue operations conducted pursuant to this Agreement in the territory of a Party shall be carried out consistent with the laws and regulations of that Party;

(b) if a search and rescue agency and/or RCC of a Party receives information that any person is, or appears to be, in distress, that Party shall take urgent steps to ensure that the necessary assistance is provided;

(c) any Party having reason to believe that a person, a vessel or other craft or aircraft is in a state of emergency in the area of another Party as set forth in paragraph 2 of the Annex shall forward as soon as possible all available information to the Party or Parties concerned;

(d) the search and rescue agency and/or RCC of a Party that has received information concerning a situation provided for in subparagraph (b) of this paragraph may request assistance from the other Parties;

(e) the Party to whom a request for assistance is submitted shall promptly decide on and inform the requesting Party whether or not it is in a position to render the assistance requested and shall promptly indicate the scope and the terms of the assistance that can be rendered;

(f) the Parties shall ensure that assistance be provided to any person in distress. They shall do so regardless of the nationality or status of such a person or the circumstances in which that person is found; and

(g) a Party shall promptly provide all relevant information regarding the search and rescue of any person to the consular or diplomatic authorities concerned.

Article 8

Request to Enter the Territory of a Party for Purposes of Search and Rescue Operations

1. A Party requesting permission to enter the territory of a Party or Parties for search and rescue purposes, including for refueling, shall send its request to a search and rescue agency and/or RCC of the relevant Party or Parties.

2. The Party receiving such a request shall immediately confirm such receipt. The receiving Party, through its RCCs, shall advise as soon as possible as to whether entry into its territory has been permitted and the conditions, if any, under which the mission may be undertaken.

3. The Party receiving such a request, as well as any Party through whose territory permission to transit is needed, shall apply, in accordance with its law and international obligations, the most expeditious border crossing procedure possible.

Article 9

Cooperation Among the Parties

1. The Parties shall enhance cooperation among themselves in matters relevant to this Agreement.

2. The Parties shall exchange information that may serve to improve the effectiveness of search and rescue operations. This may include, but is not limited to:

(a) communication details;

(b) information about search and rescue facilities;

(c) lists of available airfields and ports and their refueling and resupply capabilities;

(d) knowledge of fueling, supply and medical facilities; and

(e) information useful for training search and rescue personnel.

3. The Parties shall promote mutual search and rescue cooperation by giving due consideration to collaborative efforts including, but not limited to:

(a) exchange of experience;

(b) sharing of real-time meteorological and oceanographic observations, analyses, forecasts, and warnings;

(c) arranging exchanges of visits between search and rescue personnel;

(d) carrying out joint search and rescue exercises and training;

(e) using ship reporting systems for search and rescue purposes;

(f) sharing information systems, search and rescue procedures, techniques, equipment, and facilities;

(g) providing services in support of search and rescue operations;

(h) sharing national positions on search and rescue issues of mutual interest within the scope of this Agreement;

(i) supporting and implementing joint research and development initiatives aimed, *inter alia*, at reducing search time, improving rescue effectiveness, and minimizing risk to search and rescue personnel; and

(j) conducting regular communications checks and exercises, including the use of alternative means of communications for handling communication overloads during major search and rescue operations.

4. When conducting joint exercises, the Parties should apply the principles of this Agreement to the extent possible.

Article 10

Meetings of the Parties

The Parties shall meet on a regular basis in order to consider and resolve issues regarding practical cooperation. At these meetings they should consider issues including but not limited to:

(a) reciprocal visits by search and rescue experts;

(b) conducting joint search and rescue exercises and training;

(c) possible participation of search and rescue experts as observers at national search and rescue exercises of any other Party;

(d) preparation of proposals for the development of cooperation under this Agreement;

(e) planning, development, and use of communication systems;

(f) mechanisms to review and, where necessary, improve the application of international guidelines to issues concerning search and rescue in the Arctic; and

(g) review of relevant guidance on Arctic meteorological services.

Article 11

Joint Review of Search and Rescue Operations

After a major joint search and rescue operation, the search and rescue agencies of the Parties may conduct a joint review of the operation led by the Party that coordinated the operation.

Article 12

Funding

1. Unless otherwise agreed, each Party shall bear its own costs deriving from its implementation of this Agreement.

2. Implementation of this Agreement shall be subject to the availability of relevant resources.

Article 13

Annex

The Annex to this Agreement forms an integral part of this Agreement. All references to this Agreement are understood to include the Annex.

Article 14

Amendments

1. This Agreement may be amended by written agreement of all the Parties.

2. An amendment shall enter into force 120 days after the date on which the depositary has received the last written notification through diplomatic channels that the Parties have completed the internal procedures required for its entry into force.

Article 15

Amendment Procedure for the Annex

1. Notwithstanding Article 14 of this Agreement, any two Parties with adjacent search and rescue regions may by mutual agreement amend information contained in paragraph 1 of the Annex to this Agreement setting forth the delimitation between those regions. Such amendment shall enter into force 120 days after the date on which the depositary has received confirmation through diplomatic channels from both Parties that such mutual agreement has entered into force.

2. Notwithstanding Article 14 of this Agreement, any Party may amend that portion of paragraph 2 of the Annex to this Agreement that does not affect the area of any other Party and shall notify the depositary of any such amendment through diplomatic channels. Such amendment shall enter into force 120 days after the date of such notification.

Article 16

Relationship with Other Agreements

With the exception of paragraph 1 of the Annex to this Agreement, the provisions of this Agreement shall not affect the rights and obligations of Parties under agreements between them which are in force on the date of the entry into force of this Agreement.

Article 17

Settlement of Disputes

The Parties shall resolve any disputes concerning the application or interpretation of this Agreement through direct negotiations.

Article 18

Non-Parties

Any Party to this Agreement may, where appropriate, seek cooperation with States not party to this Agreement that may be able to contribute to the conduct of search and rescue operations, consistent with existing international agreements.

Article 19

Provisional Application, Entry into Force and Withdrawal

1. This Agreement may be applied provisionally by any signatory that provides a written statement to the depositary of its intention to do so. Any such signatory shall apply this Agreement provisionally from the date of its statement or from such other date as indicated in its statement.

2. This Agreement shall enter into force 30 days after the date of receipt by the depositary of the last written notification through diplomatic channels that the Parties have completed the internal procedures required for its entry into force.

3. Any Party may at any time withdraw from this Agreement by sending written notification thereof to the depositary through diplomatic channels at least six months in advance, specifying the effective date of its withdrawal. Withdrawal from this Agreement shall not affect its application among the remaining Parties.

Article 20

Depositary

The Government of Canada shall be the depositary for this Agreement.

DONE at this day of 2011, in the English, French and Russian languages, all texts being equally authentic. The working language of this Agreement shall be English, the language in which this Agreement was negotiated.

ANNEX

Scope of Application of this Agreement

1. The search and rescue regions relevant to this Agreement are delimited as follows: [1]

Canada – Denmark

The aeronautical and maritime search and rescue regions of Canada and Denmark shall be delimited by a continuous line connecting the following coordinates:

- 58°30'00"N, 043°00'00"W;
- 58°30'00"N, 050°00'00"W;
- 63°00'00"N, 055°40'00"W;
- 65°00'00"N, 057°45'00"W;
- 76°00'00"N, 076°00'00"W;
- 78°00'00"N, 075°00'00"W;
- 82°00'00"N, 060°00'00"W; and
- Thence north to the North Pole.

Canada – United States of America

The aeronautical and maritime search and rescue regions of Canada and the United States of America shall be delimited by a continuous line connecting the following coordinates:

- 48°20'00"N, 145°00'00"W;
- 54°40'00"N, 140°00'00"W;
- 54°40'00"N, 136°00'00"W;
- 54°00'00"N, 136°00'00"W;
- 54°13'00"N, 134°57'00"W;
- 54°39'27"N, 132°41'00"W;
- 54°42'30"N, 130°36'30"W; and
- North along the land border to the Beaufort Sea and thence to the North Pole.

[1] The coordinates in this Annex use the World Geodetic System 1984 ("WGS 84"). All coordinates are connected by geodetic lines. The North Pole refers to the Geographic North Pole, located at 90 degrees North latitude, and the Arctic Circle refers to 66°33'44"N latitude.

Denmark – Iceland

The aeronautical and maritime search and rescue regions of Denmark and Iceland shall be delimited by a continuous line connecting the following coordinates:

- 58°30'00"N, 043°00'00"W;
- 63°30'00"N, 039°00'00"W;
- 70°00'00"N, 020°00'00"W;
- 73°00'00"N, 020°00'00"W; and
- 73°00'00"N, 000°00'00"E/W.

Denmark – Norway

The aeronautical and maritime search and rescue regions of Denmark and Norway shall be delimited by a continuous line connecting the following coordinates:

- 73°00'00"N, 000°00'00"E/W; and
- Thence north to the North Pole.

Finland – Norway

The land border between Finland and Norway shall be the limit of their respective search and rescue regions.

Finland – Sweden

The land border between Finland and Sweden shall be the limit of their respective search and rescue regions.

Finland – Russian Federation

The land border between Finland and the Russian Federation shall be the limit of their respective search and rescue regions.

Iceland – Norway

The aeronautical and maritime search and rescue regions of Iceland and Norway shall be delimited by a continuous line connecting the following coordinates:

- 66°33'44"N, 000°00'00"E/W; and
- 73°00'00"N, 000°00'00"E/W.

Norway – Sweden

The land border between Norway and Sweden shall be the limit of their respective search and rescue regions.

Norway – Russian Federation

The aeronautical and maritime search and rescue regions of Norway and the Russian Federation shall be delimited by the land border between Norway and the Russian Federation and then by a continuous line connecting the following coordinates:

- 69°47'41.42"N, 030°49'03.55"E;
- 69°58'45.49"N, 031°06'15.58"E;
- 70°05'58.84"N, 031°26'41.28"E;
- 70°07'15.20"N, 031°30'19.43"E;
- 70°11'51.68"N, 031°46'33.57"E;
- 70°16'28.95"N, 032°04'23.00"E;
- 72°27'51.00"N, 035°00'00.00"E; and
- Thence to the North Pole.

Russian Federation – United States of America

The aeronautical and maritime search and rescue regions of the Russian Federation and the United States of America shall be delimited by a continuous line connecting the following coordinates:

- 50°05'00"N, 159°00'00"E;
- 54°00'00"N, 169°00'00"E;
- 54°49'00"N, 170°12'00"E;
- 60°00'00"N, 180°00'00"E/W;
- 64°03'00"N, 172°12'00"W;
- 65°00'00"N, 168°58'24"W; and
- Thence north to the North Pole.

2. Each Party shall apply this Agreement in the following areas as encompassed by a continuous line, respectively:

Canada

- From the North Pole south to 82°00'00"N, 060°00'00"W;
- 78°00'00"N, 075°00'00"W;
- 76°00'00"N, 076°00'00"W;
- 65°00'00"N, 057°45'00"W;
- 63°00'00"N, 055°40'00"W;
- To the point where it intersects 60°00'00"N latitude;
- West along 60°00'00"N latitude until it intersects with land border between Canada and the United States of America;
- North along the land border to the Beaufort Sea; and
- Thence north to the North Pole.

Denmark

- From the North Pole south to 82°00'00"N, 060°00'00"W;
- 78°00'00"N, 075°00'00"W;
- 76°00'00"N, 076°00'00"W;
- 65°00'00"N, 057°45'00"W;
- 63°00'00"N, 055°40'00"W;
- 58°30'00"N, 050°00'00"W;
- 58°30'00"N, 043°00'00"W;
- 63°30'00"N, 039°00'00"W;
- 70°00'00"N, 020°00'00"W;
- 73°00'00"N, 020°00'00"W;
- 73°00'00"N, 000°00'00"E/W; and
- Thence north to the North Pole.

Finland

- From the tripoint at which the land borders of Finland, Norway and Sweden meet, south along the land border between Finland and Sweden to the point at which that border intersects the Arctic Circle;
- East along the Arctic Circle to the point at which the Arctic Circle intersects the land border between Finland and the Russian Federation;
- North along the land border between Finland and the Russian Federation to the tripoint at which the land borders of Finland, Norway and the Russian Federation meet; and
- Thence to the tripoint at which the land borders of Finland, Norway and Sweden meet.

Iceland

- From 73°00'00"N, 000°00'00"E/W west to 73°00'00"N, 020°00'00"W;
- 70°00'00"N, 020°00'00"W;
- 63°30'00"N, 039°00'00"W;
- 58°30'00"N, 043°00'00"W;
- 58°30'00"N, 030°00'00"W;
- 61°00'00"N, 030°00'00"W;
- 61°00'00"N, 000°00'00"E/W; and
- Thence north to 73°00'00"N, 000°00'00"E/W.

Norway

- From the North Pole south to 66°33'44"N, 000°00'00"E/W;
- East along the Arctic Circle to the point at which the Arctic Circle intersects the land border between Sweden and Norway;
- North along the land border between Sweden and Norway to the tripoint at which the land borders of Sweden, Norway and Finland meet;
- East along the land border between Finland and Norway to the tripoint at which the land borders of Finland, Norway and the Russian Federation meet;
- North along the land border to the Barents Sea;
- 69°47'41.42"N, 030°49'03.55"E;
- 69°58'45.49"N, 031°06'15.58"E;
- 70°05'58.84"N, 031°26'41.28"E;
- 70°07'15.20"N, 031°30'19.43"E;
- 70°11'51.68"N, 031°46'33.57"E;
- 70°16'28.95"N, 032°04'23.00"E;
- 72°27'51.00"N, 035°00'00.00"E; and
- Thence north to the North Pole.

Russian Federation

- From the North Pole south to 72°27'51.00"N, 035°00'00.00"E;
- 70°16'28.95"N, 032°04'23.00"E;
- 70°11'51.68"N, 031°46'33.57"E;
- 70°07'15.20"N, 031°30'19.43"E;
- 70°05'58.84"N, 031°26'41.28"E;
- 69°58'45.49"N, 031°06'15.58"E;
- 69°47'41.42"N, 030°49'03.55"E south to the point at which that meridian meets the land border between the Russian Federation and Norway;
- South along the land border between the Russian Federation and Norway to the tripoint at which the land borders of the Russian Federation, Finland and Norway meet;
- South along the land border between the Russian Federation and Finland to the point at which that border intersects the Arctic Circle;
- East along the Arctic Circle until the Arctic Circle intersects the 180°00'00" E/W meridian;
- 50°05'00"N, 159°00'00"E;
- 54°00'00"N, 169°00'00"E;
- 54°49'00"N, 170°12'00"E;
- 60°00'00"N, 180°00'00"E/W;
- 64°03'00"N, 172°12'00"W;
- 65°00'00"N, 168°58'24"W; and
- Thence north to the North Pole.

Sweden

- From the tripoint at which the land borders of Sweden, Norway and Finland meet;
- South along the land border between Sweden and Norway to the point at which that border intersects the Arctic Circle;
- East along the Arctic Circle to the point at which the Arctic Circle intersects the land border between Sweden and Finland; and
- Thence North along the land border between Sweden and Finland to the tripoint at which the land borders of Sweden, Norway and Finland meet.

United States of America

- From the North Pole south to 65°00'00"N, 168°58'24"W;
- 64°03'00"N, 172°12'00"W;
- 60°00'00"N, 180°00'00"E/W;
- 54°49'00"N, 170°12'00"E;
- 54°00'00"N, 169°00'00"E;
- 50°05'00"N, 159°00'00"E;
- 50°05'00"N, 143°40'00"W;
- 54°40'00"N, 140°00'00"W;
- 54°40'00"N, 136°00'00"W;
- 54°00'00"N, 136°00'00"W;
- 54°13'00"N, 134°57'00"W;
- 54°39'27"N, 132°41'00"W;
- 54°42'30"N, 130°36'30"W;
- North along the land border to the Beaufort Sea; and
- Thence north to the North Pole.

APPENDIX I

Competent Authorities

The Competent Authorities of the Parties are:

Canada – Minister of National Defence;

Denmark – Danish Maritime Authority;

Finland –Ministry of the Interior; Finnish Transport Safety Agency;

Iceland –Ministry of the Interior;

Norway –Ministry of Justice and the Police;

Russian Federation – Ministry of Transport of the Russian Federation; Ministry of the Russian Federation for Civil Defense, Emergency and Elimination of Consequences of Natural Disasters;

Sweden – Swedish Maritime Administration; and

United States of America – United States Coast Guard.

APPENDIX II

Search and Rescue Agencies

The search and rescue agencies of the Parties are:

Canada – Canadian Forces; Canadian Coast Guard;

Denmark – Danish Maritime Authority, Danish Transport Authority, Ministry of Fisheries – Faroe Islands;

Finland – Finnish Border Guard;

Iceland – Icelandic Coast Guard;

Norway – Joint Rescue Coordination Centre, Northern Norway (JRCC NN Bodø);

Russian Federation – Federal Air Transport Agency; Federal Agency for Marine and River Transport;

Sweden – Swedish Maritime Administration; and

United States of America – United States Coast Guard; United States Department of Defense.

APPENDIX III

Rescue Coordination Centers

The rescue coordination centers of the Parties are:

Canada – Joint Rescue Coordination Centre, Trenton;

Denmark – Maritime Rescue Coordination Center Grønnedal (MRCC Grønnedal); Rescue Coordination Center Søndrestrøm/Kangerlussuaq (RCC Søndrestrøm); Maritime Rescue and Coordination Center Torshavn (MRCC Torshavn);

Finland – Maritime Rescue Coordination Centre Turku (MRCC Turku); Aeronautical Rescue Coordination Centre Finland (ARCC Finland);

Iceland – Joint Rescue Coordination Center Iceland (JRCC Iceland);

Norway – Joint Rescue Coordination Centre, Northern Norway (JRCC NN Bodø);

Russian Federation – State Maritime Rescue Coordination Center (SMRCC); Main Aviation Coordination Center for Search and Rescue (MACC);

Sweden – Joint Rescue Coordination Center Gothenburg (JRCC Gothenburg); and

United States of America – Joint Rescue Coordination Center Juneau (JRCC Juneau); Aviation Rescue Coordination Center Elmendorf (ARCC Elmendorf).

SAR = Search + Rescue

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MIA WASIKOWSKA

May 12, 2011

Cooperation Is Pledged by Nations of the Arctic

By STEVEN LEE MYERS

NUUK, Greenland — The eight Arctic nations pledged Thursday to create international protocols to prevent and clean up offshore oil spills in areas of the region that are becoming increasingly accessible to exploration because of a changing climate.

The Arctic Council — the United States, Russia, Canada, Iceland, Denmark, Norway, Finland and Sweden — said the protocols would be modeled on a separate agreement signed here in Nuuk on Thursday to coordinate search-and-rescue operations over 13 million square miles of ocean.

The search-and-rescue pact is the first legally binding agreement adopted by the council, which was created in 1996 to address challenges and opportunities in the Arctic spurred by the retreat of sea ice — like growing oil and gas exploration or increasing traffic of cargo and cruise ships, which have doubled the number of tourists in the Arctic in recent years.

The council's actions, officials said, reflected a maturation of a regional group that has been criticized for not acting more aggressively to address the myriad issues of a drastically changing Arctic. The pursuit of natural resources has sharpened regional competition and raised the possibilities of pollution and environmental catastrophes.

A senior diplomat from one of the member nations, speaking on the condition of anonymity, acknowledged that the council's governments were "running behind events" like increasing shipping and new exploration licenses across the Arctic.

Hillary Rodham Clinton became the first United States secretary of state to attend the council's biennial meeting of ministers, held this year in the capital of Greenland, the largely autonomous region of Denmark, where warming trends have been felt acutely. She was accompanied by the secretary of the interior, Ken Salazar, and Senator Lisa Murkowski, Republican of Alaska. "We are going to raise the visibility of Arctic issues back in the United States so that we can begin to take the steps that are necessary for us," Mrs. Clinton said in a news conference aboard a boat in Godthab Fjord, north of Nuuk. She reiterated the administration's call to ratify the Law of the Sea Treaty.

The treaty, stalled in the Senate for decades, provides the international basis for settling territorial claims in the Arctic, and the failure to ratify it has left the United States at a disadvantage as the other Arctic nations stake out vast regions as exclusive economic zones. Ratification, she said, was "way overdue."

Domestic politics in the United States have often undercut American diplomacy, especially when it comes to reducing emissions blamed for climate change, something Mrs. Clinton herself acknowledged later in remarks with Denmark's foreign minister. "It's been challenging in our political system to take the kinds of actions that we know are dictated by the science and by what we see in front of our eyes," she said.

Having failed to win approval for legislation to reduce emissions, she said, the Obama administration would continue to pursue executive and regulatory steps to address climate change.

The agreement governing search-and-rescue efforts — though a treaty — was signed by the United States under executive authority and thus does not require Senate ratification. It divides the vast Arctic region into eight zones and puts each nation in charge of coordinating any rescue efforts that might be required in some of the planet's most remote and formidable conditions.

"None of the Arctic nations today have adequate resources for search and rescue in the Arctic in light of the increasing activity that is already" happening, David A. Balton, a deputy assistant secretary who negotiated the agreement for the American side, said before Thursday's meeting.

The same is true for the prospect of a catastrophic oil spill. United States officials said that the push for negotiated protocols for oil exploration in the Arctic stemmed from the searing experience of the Deepwater Horizon disaster last year. The administration is considering requests for exploration off Alaska.

How expansive and binding the protocols for preventing a similar disaster in the Arctic are remains to be seen as the Arctic Council begins negotiations. "At a minimum," Mr. Salazar said, "what I think we can probably do is aim at getting to a set of best practices that can be used in oil and gas exploration and production in the Arctic region."

AC SAR agree divides Arctic into 8 zones which ea nat. is designated to coordinate SAR efforts

AC Rescue + search (SAR) is first legally binding agreement adopted by the council (2011)

"The Arctic Council
is a high-level intergovernmental forum to promote cooperation, coordination and interaction among the Arctic States." Read more>>

Frequently Asked Questions

Category: Press Room Published Date

1 What is the Arctic Council?

The Arctic Council is a high-level forum for political discussions on common issues to the governments of the Arctic States and its inhabitants. The Arctic Council is the only circumpolar forum for political discussions on Arctic issues, involving all the Arctic states, and with the active participation of its Indigenous Peoples.

2 How and when was the Arctic Council established?

In September 1989, on the initiative of the government of Finland, officials from the eight Arctic countries met in Rovaniemi, Finland, to discuss cooperative measures to protect the Arctic environment. The initiative resulted in numerous technical and scientific reports being prepared, culminating in the Arctic Environmental Protection Strategy (June 1991) - a declaration on the protection of Arctic environment. Through this cooperation the Arctic Council formed with the signing of the Ottawa Declaration on 19 September 1996 in Ottawa, Canada.

3 Who are the partners of the Arctic Council?

The Governments of the eight member states (see question 5), the Permanent Participants (PPs), the Working Groups and the Observers.

Which countries are members of the Arctic Council?

The Arctic council member states are

- Canada
- Denmark (including Greenland and the Faroe Islands)
- Finland
- Iceland
- Norway
- Sweden
- Russian Federation
- United States of America

5 What is a SAO?

The SAO, or Senior Arctic Official, is appointed by an Arctic state to manage its interests in the Arctic Council. The SAO is thus a government representative, usually from a member states' Ministry of Foreign Affairs. The SAO guides and monitors Arctic Council activities in accordance with the decisions and instructions of the Arctic Council Foreign Ministers.

6 Who are the Permanent Participants (PPs)?

Permanent Participants is a common term for organizations that represent indigenous peoples in the Arctic Council; either by representing a) a single Indigenous People resident in more than one Arctic State; or, b) more than one Arctic Indigenous People resident in a single Arctic State. The PPs participate actively and are fully consulted in all deliberations and activities of the Arctic Council. The Indigenous Peoples Secretariat (IPS) in Copenhagen, Denmark, serves the six Permanent Participant organizations:

- Aleut International Association (AIA)
- Arctic Athabaskan Council (AAC)
- Gwich'in Council International (GCI)
- Inuit Circumpolar Council (ICC)
- Russian Association of Indigenous Peoples of the North, Siberia and Far East (RAIPON)
- Saami Council (SC)

7 What is a Chairmanship?

A Chairmanship of the Arctic Council is the term used for any of the eight Arctic States leading the Arctic Council during a specified time. The chairmanship rotates every two years among the eight Arctic States. Denmark chairs from 2009-2011, Sweden from May 2011-2013. The Chairmanship, assisted by AC Secretariat staff, is responsible for arranging and hosting the Arctic Council meetings during its period.

8 Who are the AC working groups, and what do they do?

The six Arctic Council working groups engage in scientific-oriented studies on issues concerning the Arctic environment and its inhabitants. These include: monitoring, assessing and preventing pollution in the Arctic, climate change, biodiversity conservation and sustainable use, emergency preparedness and prevention; as well as, living conditions of Arctic residents, studies on oil and gas and on Arctic shipping. The reports provide advice and recommendations to the Arctic Council. Click to read more about each working group, its work and publications:

- Arctic Contaminants Action Program (ACAP)
- Arctic Monitoring and Assessment Programme (AMAP)
- Conservation of Arctic Flora and Fauna (CAFF)
- Emergency Prevention, Preparedness and Response (EPPR)
- Protection of the Arctic Marine Environment (PAME)
- Sustainable Development Working Group (SDWG)

9 What does the Arctic Council do?

The Arctic Council is the only circumpolar forum for political discussions on Arctic issues, involving all the Arctic states and with the participation of its Indigenous Peoples. The Arctic Council Working Groups engage in issues such as monitoring, assessing and preventing pollution in the Arctic, climate change, biodiversity conservation and sustainable use, emergency preparedness and prevention, as well as living conditions of Arctic residents etc. The scientific reports provide knowledge, advice and recommendations to the Arctic Council. Senior Arctic Officials and PPs meet at least twice a year, while all partners meet at Ministerial Meetings held every two years in the country holding the Chairmanship. With the increasing international focus on climate change and Arctic issues, the political importance of the Arctic Council has also increased. All Arctic Council decisions require consensus.

10 Who are the Observers?

Under certain conditions, Observer status in the Arctic Council is open to:

a) Non-arctic states (currently 6); (there you will also find contact details of the national representatives)
b) inter-governmental and inter-parliamentary organizations, global and regional (currently 9);
c) non-governmental organizations (currently 11).

Does the Arctic Council sponsor projects?

All contributions to the work of the Arctic Council is on a voluntary, project by project basis and is largely provided in the form of people, expertise, scientific data and/or financial resources to implement specific projects in the Working Groups. Thus, the Arctic Council does not sponsor private/university/research projects.

12 How is the Arctic Council connected to the Indigenous Peoples Secretariat?

The Indigenous Peoples Secretariat (IPS) supports the Indigenous Peoples' organizations that are Permanent Participants of the Arctic Council.

13 What is the role of the Arctic Council Secretariat (ASC)

The Arctic Council Secretariat is an administrative office that works under the direction of the Arctic Council Chairmanship. The Secretariat manages logistics related to the biennial member states' meetings and the more frequent SAO meetings. The Secretariat, temporarily located at the Fram Centre in Tromsø, Norway, is also responsible for maintaining the Arctic Council website.

14 Are there employment opportunities at the Arctic Council Secretariat?

When relevant, the Secretariat posts available vacancies on the Arctic Council website.

15 Can I get an internship within the Arctic Council Secretariat?

It is possible to get an internship lasting from two to six months. The ASC gives priority to students from the Arctic states enrolled in a Master's Arctic-related program or other relevant programs. High proficiency in English is a must. Open positions for interns will be announced on the AC website.

16 Where can I find a specific document? Ex. The Tromsø Declaration.

Using the search field titled "Search all of arctic-council.org" in the upper, right corner of the homepage, you can search for any document, report, declaration either by title, place, date, SAO or other suitable search criteria.

17 Where can I find more information about a specific country or region?

Under each member state you can find information and additional links to the country in question. Find out more about the member states.

18 Ministerial meetings

The Arctic Council Ministerial meetings take place biennially and mark the transition from one chairmanship to the next. In addition, Deputy Ministers' meetings have been held biennially by the Danish and Swedish chairmanships in 2010 and 2012.

The next Ministerial Meeting will be held 15 May 2013 in Kiruna, Sweden.

List of past Ministerial Meetings:

- 15 May 2012
  Deputy Ministers' Meeting, Stockholm, Sweden.
- 12 May 2011
  Ministerial Meeting, Nuuk, Greenland.
- 27 May 2010
  Deputy Ministers' Meeting, Copenhagen, Denmark.
- 29 April 2009
  Ministerial Meeting, Tromsø, Norway.
- 26 October 2006
  Ministerial Meeting, Salekhard, Russian Federation.
- 24 November 2004
  Ministerial Meeting, Reykjavik, Iceland.
- 10 October 2002
  Ministerial Meeting, Inari, Finland.
- 13 October 2000
  Ministerial Meeting, Barrow, Alaska, USA.
- 17-18 September 1998
  Ministerial Meeting, Iqaluit, Canada.

Tags:

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Arctic Council Chairmanship Secretariat 2007-2013
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U.S. DEPARTMENT OF STATE
DIPLOMACY IN ACTION

Arctic Council

Establishment of the Arctic Council

From Am. Journal of Int'l Law 1999

Evan Bloom, Office of the Legal Adviser
Attorney/Adviser to the Bureau of Oceans and International Environmental and Scientific Affairs

A new "high level forum" for cooperation in the Arctic has been established by the eight states with sovereignty over territory in that region: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States. This new entity, called the Arctic Council, ended its organizational phase and took up its new responsibilities in September of 1998 at its first ministerial-level meeting held at Iqaluit,[1] Northwest Territories, Canada. At that meeting, the chairmanship of the Council passed from Canada to the United States, which will hold that position for the next two years.

Arctic Council:
CAN NOR
DEN RUS
FIN SWE
ICE USA

The Arctic Council is the only major intergovernmental initiative for the Arctic involving all eight Arctic states. It has two primary objectives. The first is to promote environmental protection and follows from the work of the Arctic Environmental Protection Strategy, an effort begun by the same Arctic states in 1991 to address environmental issues affecting the entire region and, in particular, to develop multilateral responses to pollution in the Russian Arctic. The second objective of the Arctic Council concerns sustainable development. This relates to the economic circumstances of the indigenous people and other residents of the Arctic in the context of preserving the environment. To these ends, the Council has endorsed a number of cooperative activities to be carried out primarily through a series of subsidiary bodies.

2 Primary objectives:
1. promote env protect
2. promote sus. econ dev.

Of particular significance is the role played by indigenous communities in the work of the Council. Four organizations representing indigenous people have been recognized as "Permanent Participants" who participate in all aspects of the Council's work. Although they do not vote, the organizations participate in the same manner as states in most other respects. Integration of non-governmental organizations to this degree into the work of a body comprised of states is unusual and reflects the critical role that Arctic indigenous people play in regional matters.

Another special aspect of the Council is its establishment as a "forum" and not an international organization. This choice of structure is consistent with recent examples of informal cooperation among states, and has an important impact on how the Council carries out its work.

organized as a forum; informal cooperation among states

This Current Development discusses these salient features of the Arctic Council, as well as elements of its history and structure.

I. History of the Council

The Arctic Council is an outgrowth of the Arctic Environmental Protection Strategy (AEPS), announced by the eight Arctic states in 1991 and based on a proposal by the Finnish Government to initiate a process to address Arctic-wide environmental issues. The AEPS, along with a Declaration on the Protection of the Arctic Environment, was approved by Arctic ministers at Rovaniemi, Finland, in June 1991 as a political--but not a legal--commitment to establish a more comprehensive structure for cooperation. The AEPS identified five key objectives:

- To protect the Arctic ecosystem including humans;
  - To provide for the protection, enhancement and restoration of environmental quality and the sustainable utilization of natural resources, including their use by local populations and indigenous peoples[2] in the Arctic;
- To recognize and, to the extent possible, seek to accommodate the traditional and cultural needs, values and practices of the indigenous peoples as determined by themselves, related to the protection of the Arctic environment;
- To review regularly the state of the Arctic environment;
- To identify, reduce, and, as a final goal, eliminate pollution.[3]

Although "sustainable economic development" is mentioned in the AEPS, the primary emphasis was on environmental issues. The Arctic states, taking advantage of the opportunity for cooperation presented by the end of the Cold War,

were particularly interested in giving an international scope to efforts to clean-up toxins in the Russian Arctic.

As part of the AEPS, the Arctic states established four working groups. States, observers and indigenous groups would send appropriate experts to assist in the work of those described below:[4]

- The Arctic Monitoring and Assessment Program (AMAP) monitors levels and assesses the effects of anthropogenic pollutants in the Arctic. AMAP produces assessment reports on the status and trends in the condition of Arctic ecosystems, detects emerging problems, their possible causes and the potential risk to Arctic ecosystems, and recommends responses.
- The Conservation of Arctic Flora and Fauna (CAFF) working group facilitates the exchange of information and coordination of research on species and habitats of flora and fauna in the Arctic. In particular, CAFF looks at the practices of Arctic states with respect to conservation and management of Arctic species and the relationship to and use of such species by indigenous groups.
- The Emergency Prevention, Preparedness and Response (EPPR) working group provides a framework for cooperation in responding to the threat of environmental emergencies. EPPR gathers experts to consider cooperation with regard to actions in response to significant accidental pollution from any source, coordination and harmonization of preventive policies, and establishment of a system of early notification in the event of significant accidental pollution or the threat of such pollution.
- The Protection of the Arctic Marine Environment (PAME) working group takes preventive and other measures directly or through competent international organizations regarding marine pollution in the Arctic irrespective of origin.

The working groups have produced extremely valuable results. A good example is AMAP's extensive analysis of Arctic pollution issues which was released in conjunction with the fourth and final AEPS Ministerial in Alta, Norway, in June, 1997.[5]

Some states, however, felt that the AEPS comprised only part of what the states in the region should discuss with respect to the Arctic. Since the late eighties, the Canadian Government urged the establishment of an Arctic Council to handle a wide range of environmental, economic development and maritime policy issues. In 1995, Canada began to advocate the transformation of the AEPS into a new international organization which would not only subsume the existing AEPS programs but would also address the broader issue of sustainable development.

CAN urged est. of Arctic Council. est w/ 1996 Ottawa declaration

The United States, in particular, had difficulty with the notion of creating a new international organization. However, it ultimately agreed to the formation of a council without legal personality. The result was the Declaration on the Establishment of the Arctic Council, signed at Ottawa on September 19, 1996 (the "Ottawa Declaration").

II. The Main Themes of the New Council

The Ottawa Declaration marked a shift in focus for the Arctic states from environmental protection alone to the broader concept of sustainable development. The Declaration provides that the Council is a high level forum designed to: "provide a means for promoting cooperation, coordination and interaction among the Arctic states, with the involvement of the Arctic indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic."[6] The Council also oversees and coordinates programs established under the AEPS, namely those supervised by the four original working groups discussed above.

In the two-year period following adoption of the Ottawa Declaration, the Arctic states and Permanent Participants worked on rules of procedure and terms of reference for a sustainable development program, as well as new mandates for the Council's programs. Those rules, terms of reference and mandates were approved by the Arctic Ministers in their Declaration at Iqaluit (the "Iqaluit Declaration").[7]

Environmental Protection

The Declaration renewed the mandates of the four existing working groups, all of which were heavily involved in environmental protection issues. It also specified work to be undertaken by those groups for the following two years. The Arctic Council's contribution to environmental protection, as with sustainable development, is essentially an amalgam of the working groups' efforts. Thus, for example, the Arctic Monitoring and Assessment Program continues with its primary task of preparing an assessment of the Arctic environment with respect to persistent organic pollutants, radionuclides, heavy metals and acidifying substances. In the future, the AMAP will focus on filling gaps in data identified in its assessment reports and on establishing appropriate systems for observing trends in Arctic pollution.[8] The working group on Conservation of Arctic Flora and Fauna, which focuses on protecting plants and animals, as well as native habitats, will continue its present studies, as well as begin new studies of particular Arctic species. The CAFF will undertake further work in the field of biological diversity, including the development of a monitoring program.[9]

The working group on Protection of the Arctic Marine Environment, whose mandate is to address policy and non-emergency response measures related to protection of the marine environment from land and sea-based activities, will

Arctic Council promotes environmental protect

undertake a Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-Based Activities. It will focus initially on persistent organic pollutants and heavy metals. This will be followed by studies on other contaminants and activities which degrade marine and coastal environments.[10] In addition, and of particular importance for the Council's future work, the Council agreed to continue development of an Arctic Council Action Plan to Eliminate Pollution of the Arctic. This was an initiative proposed by Norway to review information obtained from studies undertaken by the AMAP and others, and to develop responses, including pollution prevention and remediation plans.

The Sustainable Development Program

In the Ottawa Declaration, the Arctic states agreed to "oversee and coordinate a sustainable development program."[11] There was considerable disagreement, however, about the program's content. This lack of accord mirrors the current confusion over the meaning of this important and tremendously popular phrase. Despite the central place this topic has at the United Nations and in international environmental diplomacy,[12] there is no generally agreed upon definition of sustainable development. At its most basic level, sustainable development links the notions of economic development and environmental protection; it suggests that economic growth should be promoted in a manner that preserves and protects the environment. Such a broad definition, however, does not provide an easy basis for developing or choosing among potential programs. As a result, the Ottawa Declaration called on the parties to negotiate terms of reference for the Council's sustainable development program.[13]

It was not possible for the Arctic states to agree to a comprehensive sustainable development program, or even a list of priorities. Instead, at Iqaluit the Council decided that the Sustainable Development Program would consist of a series of specific projects to be managed by the Senior Arctic Officials (SAOs), each Arctic state's designated point of contact for Arctic issues. As a focal point for discussions on the issue, the Council established a Sustainable Development Working Group consisting of the SAOs and representatives of Permanent Participants, to facilitate completion of work on these projects and to propose possible priority areas for the future.

The Ministers authorized work to proceed in a series of areas which correspond to specific projects submitted to the SAOs by various Arctic states and Permanent Participants. Among these was a Canadian project proposal, "The Future of Children and Youth of the Arctic," which would involve efforts to promote the health and education of children and youth. The United States proposed a project for improving systems that provide telemedicine services to remote areas in the Arctic. Another United States proposal concerned providing technology to improve local Arctic sanitation systems. Several proposals were also advanced by Permanent Participants. The Saami Council, for example, put forward two project proposals designed to study and resolve problems related to fisheries management systems.

The Senior Arctic Officials, both working among themselves and through the Sustainable Development Working Group, will now attempt to develop these projects and implement them, to the extent that an agreement can be reached among the Arctic states in each instance. At this early stage of the Council's existence, the Sustainable Development Program primarily consists of a series of unrelated projects proposed by different parties. It will be up to the SAOs to integrate the projects and to link them to the activities of the working groups.[14]

Participation by Indigenous Groups

The Ottawa Declaration recognized three indigenous groups as Permanent Participants: the Inuit Circumpolar Conference, the Saami Council, and the Association of the Indigenous Peoples of the North, Siberia and the Far East of the Russian Federation.[15] At Iqaluit, the Council added the Aleut International Association.[16] Creating the category of Permanent Participation is a unifying theme of the Council, and one that sets it apart from other bodies. These Permanent Participants are more than observers; they have the right to participate in all meetings and activities of the Council,[17] and their representatives sit alongside Ministers and SAOs. Like states, they also have the right to present proposals for cooperative activities.[18] Two such proposals from the Saami Council were singled out by Ministers at Iqaluit for completion and implementation under the guidance of SAOs.[19] As a result of the role given to the Permanent Participants, the Council is vitally focused on the needs and views of the indigenous Arctic residents, particularly issues related to sustainable development.[20] By virtue of the input of the Permanent Participants, the Council is significantly more effective than it would be if only states were present.

It is interesting to note that the Council not only presents an opportunity for the indigenous groups to express their views to and seek support from the Council, but it facilitates a dialogue between indigenous populations of particular states and the governments of those states. In some cases, that dialogue has historically proven difficult for domestic reasons. That indigenous groups can participate prominently and "at the table" with states at this forum fosters particularly positive international and domestic interactions.

The Biennial Chairmanship

After the establishment of the Council in Ottawa, the Canadian Government enthusiastically took up its responsibilities and oversaw two years of work on the formation of the Council. The Council now has its first ministerial mandate to undertake new work, including projects under the Sustainable Development Program. As chair, the United States is in

charge of facilitating the first active phase of the Council's existence. To that end, the United States Government has established a secretariat located within the Department of State,[21] and will host a series of Senior Arctic Officials meetings with the active support and involvement of the State of Alaska. During its chairmanship, the United States plans to emphasize the central themes of environmental protection and sustainable development, as well as public awareness of Arctic conditions through dissemination of information and public outreach programs. The first U.S.-hosted meeting of the Senior Arctic Officials took place in May, 1999, in Anchorage, Alaska. The U.S. chairmanship will culminate in a ministerial meeting in Alaska in the fall of 2000.

III. Elements for Cooperation Under the New Council

The 1996 Ottawa Declaration set forth key understandings on the purpose and structure of the Arctic Council, and required that further work be done to flesh out the details of how the Council would operate. In particular, the Arctic states agreed to negotiate rules of procedure for the Council (the "Rules of Procedure"), and terms of reference for a sustainable development program (the "Terms of Reference").[22] Those negotiations took up much of the subsequent two years, but eventually resulted in the two documents which establish the necessary procedures under which the Arctic Council will operate.[23]

Structure and Governance

The highest level of interaction within the Council occurs at "ministerial meetings" held in the usual course every two years. Between those occasions, the work of the Council is directed by the SAOs in consultation with representatives of the Permanent Participants. The SAOs meet at least twice a year, and may opt to meet more often; they met nine times between 1996 and 1998. The SAOs oversee the work of the Council's subsidiary bodies, which include the four main AEPS working groups. The SAOs are also in touch by phone and fax, often through the coordinative efforts of the Host Country, which maintains the Council's secretariat. Decisions are made by consensus of all eight Arctic states. This rule of decision-making, which was memorialized in the Ottawa Declaration, applies equally to all Council subsidiary bodies.[24]

The Rules of Procedure, which apply to all bodies of the Council, specify how meetings are run and how decisions are taken. They are relatively lengthy and detailed for an informal body which has no legal authority to bind its members. Nevertheless, the Rules serve the purpose of establishing an agreed framework for cooperation. Negotiation of the Rules clarified points of difference among the Arctic states on issues such as how the Council's activities would be approved, and how and under what circumstances Observers could participate in the Council's work. The Rules also tie disparate parts of the Council together. Under AEPS, the working groups had their own rules of procedure and manner of doing business; their failure to coordinate programs and policies was a matter of some criticism and concern. Under the Council regime, the Council's Rules apply to all the subsidiary bodies, including these working groups.[25]

The Rules determine the manner in which proposals for new activities are considered and are ultimately placed before the Ministers for decision. The underlying rationale is that all cooperative activities must be pursuant to a ministerial mandate created at the biennial ministerial meetings.[26] Activities with such mandates can be worked on and implemented by the SAOs.[27] In the absence of a mandate, a new proposal can be worked on by SAOs ultimately for submission to the Ministers, but the SAOs cannot implement a plan on their own. The United States supported this approach to underscore that the Council is a forum for exchanging views; it is not an operational body which should be expected, for example, to respond to emergencies. As the United States delegation pointed out on many occasions, the Arctic states are in no way restricted from taking actions, including emergency actions, as necessary. But such actions do not have to be of the Arctic Council per se--states or groups of states are always free to act individually or collectively independent of the Council. The Council has no general role in coordinating Arctic policies, other than in spheres specifically agreed upon in advance.

Funding

The programs of the Arctic Council are funded voluntarily by individual Arctic states. Under current practice, states propose projects or identify working groups they wish to support, and those governments that are interested take the lead in implementing and paying for them. Thus, for example, Norway pays for a secretariat for AMAP, Iceland for PAME, the United States and Iceland for CAFF, and Denmark provides most of the funding for an Indigenous Peoples' Secretariat located in Copenhagen. There are no assessed contributions and not all states give money to all projects. This funding approach is not satisfactory to a number of governments. Many would like to see financial burdens shared more broadly and, in their view, more "equitably." The United States, which provides support to various bodies on a voluntary basis and to which these entreaties for money are often directed, replies that it never agreed to fund programs other than on a non-assessed basis. Nor does the Ottawa Declaration require states to fund any particular programs.

Terms of Reference for Sustainable Development

As noted above, it was agreed in the Ottawa Declaration that terms of reference for the Council's sustainable development program had to be adopted by the Council. It was suggested that the Terms of Reference should set forth

an overall substantive direction for the program in order to provide an outline for the types of projects that might be pursued under this rubric. The competing view, ultimately accepted, was that the Terms of Reference should primarily set forth elements for what should be included in proposals for sustainable development-related projects. Thus, the Terms of Reference serve as a kind of gloss on the Rules of Procedure, providing a list of items for inclusion in proposals, in addition to those specified in the Rules of Procedure.[28]

The Terms of Reference are thus procedural in nature. They require, for example, that proposals to the SAOs and Ministers for cooperative activities clearly describe issues to be addressed, provide for participation by more than one Arctic state and identify the benefits to be realized by the cooperative activity.[29] An important element of any proposal is the inclusion of anticipated financial needs and implications, and suggestions for the ways those needs and implications are to be handled. Proposals which fail to contain the requisite elements would not be ready for approval by the SAOs, and thus could not be forwarded to Ministers for acceptance.

Marine Mammal Issues

Since the Council has not reached consensus on a list of agreed sustainable development themes, some potentially controversial issues remain below the surface of the debate. For example, a number of the Arctic states view restrictions on trade in marine mammal products as a barrier to sustainable development. In their view, it would be desirable to remove legal restrictions, such as those contained in the U.S. Marine Mammal Protection Act.[30] The United States delegation to the Arctic Council firmly maintains that these types of issues should be discussed in fora with appropriate jurisdiction, such as the International Whaling Commission (IWC) and the World Trade Organization, and not in the Arctic Council. Marine mammal issues are quite contentious among the Arctic states and political disagreements outside the Council have already had an impact within it. Thus, for example, in the aftermath of Canada's allowing several bowhead whales to be taken in 1996 contrary to IWC policies, the U.S. Secretary of Commerce certified that this action diminished the effectiveness of the IWC's conservation program,[31] and President Clinton ordered the State Department to oppose Canadian efforts to address takings of marine mammals and trade in marine mammal products within the Arctic Council.[32]

That marine mammal issues have prompted such consequences as the above Presidential order indicates that a concerted attempt to debate these policies within the Council may jeopardize the delicate process of building this new institution and engendering a mood and practice of cooperation. Although, at this stage, the avoidance of certain issues that could result in discord may imply certain limitations in what the Council can accomplish, the restraint shown by the members may also indicate their resolve to make the Council a success.

Participation of Observers

The Arctic states decided to continue the tradition under AEPS of extending invitations to outside organizations and non-Arctic states with significant expertise and experience in the Arctic who could contribute to the work of the Council and its subsidiary bodies by participating as Observers.[33] Negotiation of terms for admission and participation of Observers proved particularly controversial in light of some states' concerns about the role that might be played by organizations involved in animal rights issues. Some states felt that actions by such organizations could, in some instances, warrant exclusion from Council activities, and that any Arctic state should be able to insist on such an exclusion at any time. Others felt that once given the status as an Observer, the organization should not be barred from participation in Council activities absent a decision to that effect taken by consensus of the eight states.

The result was a compromise under which Observers are designated by the Council for the two year period between ministerial meetings. However, the rules provide that "[a]ny Observer that engages in activities which are at odds with the Council's Declaration shall have its status as an Observer suspended."[34] In practice this means that, since all decisions are taken by consensus, suspension of such an Observer during the period between ministerials would require the concurrence of all the Arctic states that the Observer was engaging in activities "at odds with the Council's Declaration." Certain states and organizations which had been active under AEPS were grandfathered in under the Rules and, thus, retain their Observer status absent a decision to remove them.[35] Others may apply to the Council, and, if accepted, retain the status for the period between ministerial meetings.[36] All Observers are invited to all the meetings of the Council and those of its subsidiary bodies.

IV. The Council as a "High Level Forum"

The establishment of the Arctic Council as a forum without legal personality, and thus not as an "international organization" as that term is understood under international law, was an objective of the United States and is consistent with a tendency in recent American diplomatic practice to seek an informal cooperative structure when that structure is adequate for the purposes of the issues involved. The best known example is probably the Organization for Security and Cooperation in Europe (OSCE), which, despite its high profile, very significant responsibilities and title, is not an international organization. Other well-known examples are Asia-Pacific Economic Cooperation (APEC), a forum among states in that region which meets annually to address economic and trade issues, and the Group of Seven Major Industrialized Countries.[37] The United States has preferred an informal structure in many bilateral contexts outside of

the Arctic context such as the United States-Russia Joint Commission on Economic and Technological Cooperation, formerly known as the Gore-Chernomyrdin Commission, and a series of similar bi-national commissions.[38]

In each of these cases, there had to be some agreed structure to facilitate the group's purposes--an understanding of what topics would be relevant, when meetings would take place, and how decisions (if any) would be reached. These bodies often have the benefit of secretariat services, provided on the basis of voluntary contributions by one or more member states, and the contribution of in-kind resources, such as experts, resources and facilities to advance the group's purposes. The advantage of informal cooperation, which is relevant to varying degrees among these organizations, includes each state having an unfettered ability to determine whether and to what extent it will pay for the activities of the organization. Even though a traditional international organization can create internal procedures which require consensus decision making or otherwise limit the ability of the organization to require payments over the objection of a state, a powerful presumption exists with respect to informal organizations that payments will not be required of recalcitrant states. In these situations, the mechanisms to enforce contributions do not exist and there is no purpose to use, for example, voting procedures to attempt to require payment. Of course, there is nothing to prevent states from making a political, as opposed to a legal, commitment to provide resources; the United States has done so on a significant scale with respect to the Arctic Council. However, if a state loses support within its government for a particular effort, or if funds are not made available by legislative authorities, funding is easily terminated without legal consequence.

As a political matter, informal organizations, while allowing states to raise and address important and sometimes controversial issues, tend to make decisions on the basis of consensus of all members. Meetings tend to be result-oriented, with strong pressure to announce programs or issue statements or communiques at their conclusion. A body that requires consensus will, by definition, only make announcements in its name which are acceptable to each state, assuring that no state will be out-voted or embarrassed.

Cooperation through informal organizations can simplify governmental efforts to comply with domestic laws, such as those related to participation in international organizations, and there may be no need to go through the sometimes lengthy process of seeking new legislation in order to fund the organization, as could be required with respect to assessed contributions to an international organization. On the whole, for the United States, cooperation with informal groups falls rather easily into existing presidential constitutional authorities to manage the foreign policy of the United States.[39]

All this suggests that the Arctic Council's status as a forum, and not as an international organization, has an important impact on how it operates and how states interact within it. Because the Council acts solely through consensus, individual Arctic states can have confidence that the Council will not be used either to impose policies with which they disagree or to require participation (and thus payment) for programs which are not matters of priority for them. States are also assured that there is no limitation on their ability to act in their national interest, as there is no requirement that any particular issue or type of cooperation be handled through the Council.

* * * *

Through years of effort, the Arctic Council has taken its first steps from conception to reality. The basic elements and structure of the Council have been established, and can now facilitate meaningful cooperation. At the very least, the negotiations over the Council's key constituent documents served to highlight differences and similarities in expectations with respect to the Council's operation, and will provide a common baseline for further work. The Council's working groups already have years of experience in their areas of expertise. What remains is for the states, indigenous groups and their representatives to build on the environmental protection and sustainable development themes that are the focus of the Council--to develop programs and strategies that have coherence, and are consistent with the policy objectives of all the Arctic states. As the new chair of the Council, the United States has before it the challenge and opportunity to provide an impetus to pan-Arctic cooperation at this formative stage of the Council's existence.

1. As of April 1, 1999, Iqaluit became the capital of the new Canadian territory of Nunavut. It is a town of approximately 4,000 inhabitants, mostly Inuit, located on Baffin Island in Northern Canada. By holding the Council's Ministerial Meeting in Iqaluit, the Canadian Government emphasized the essential linkage between the Council and the indigenous communities of the Arctic.

2. On use of the phrase "indigenous peoples," see infra note 20.

3. Arctic Environmental Protection Strategy, 2 Yb. Int'l Env. L. 585 (1991).

4. See id. at 619, 623, 627; See also Declaration on the Protection of the Arctic Environment, 2 Yb. Int'l Env. L. 581 (1991). These working groups operated semi-autonomously, with groups of specialists meeting regularly under the leadership of a chairman proposed by countries taking the lead in the particular working group's activities. The working groups were, nevertheless, subject to mandates established for them at AEPS ministerial meetings and contained in the declarations released at those meetings, and coordinated through the efforts of designated senior officials.

Small secretariats were established by interested states on a voluntary basis to support the groups' work. Denmark

also established an "Indigenous Peoples' Secretariat" to assist indigenous groups in their participation in the AEPS.

5. Arctic Pollution Issues: A State of the Arctic Environment Report (Arctic Monitoring and Assessment Programme, 1997) (on file at the U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, Office of Oceans Affairs [hereinafter Office of Oceans Affairs]).

6. Declaration on the Establishment of the Arctic Council, para. 1(a), 35 ILM 1387 (1996) [hereinafter Ottawa Declaration]. The Declaration also provides that the Council "should not deal with matters related to military security." Id. at 1388 n. 1.

7. The Iqaluit Declaration (Sept. 18, 1998) (on file at the Office of Oceans Affairs) [hereinafter Iqaluit Declaration].

8. Report of Senior Arctic Officials to the Arctic Council 6-7 (Sept. 17, 1998) (on file at the Office of Oceans Affairs) [hereinafter Report of Senior Officials].

9. See id. at 10.

10. See id. at 12-14.

11. Ottawa Declaration, supra note 6, para. 1(c).

12. Sustainable development has been a major international topic since the first "Earth Summit" in Rio in June 1992--the United Nations Conference on Environment and Development (UNCED). The key documents negotiated by UNCED, the Rio Declaration on Environment and Development, and Agenda 21: Programme of Action for Sustainable Development, do not provide a true definition of the term. See Agenda 21: The United Nations Programme of Action From Rio, UN Doc. DPI/1344, UN Sales No. E.93.I.11 (1993). Discussions on sustainable development are now carried out within the UN system under the auspices of the Commission on Sustainable Development, which was established by the UN General Assembly in Resolution 47/191, UN GAOR, 47th Sess., Supp. No. 49, Vol. 1, at 141, UN Doc. A/47/49 (1992) and by the Economic and Social Council in Decision 1993/207, ESCOR, Supp. No. 1, at 94, UN Doc. E/1993/93 (1993), and which monitors implementation of Agenda 21. The tension between developing states, which emphasize sustained economic growth as a means to reduce poverty, and developed states, which emphasize the need to ensure that economic growth is environmentally sustainable, makes arriving at a satisfactory definition and approach a difficult task.

13. See discussion *infra*, Part III.

14. The Council also welcomed a new plan to establish a University of the Arctic, a cooperative effort among universities with an interest in Arctic studies. The University of the Arctic was proposed by a working group of the Circumpolar Universities Association, which sought the Council's support for its endeavor. This is an example of a program or project not under the auspices of the Council but deemed worthy of endorsement. Those outside the Council may find it difficult to appreciate the distinction between the projects of the Council and those simply endorsed by it. Indeed, the press at Iqaluit seemed as interested in the University of the Arctic as in any of the Council-developed programs, however, the legal difference is significant. Unlike the Council's programs, programs administered by other organizations which are only endorsed by the Council are not subject to direction by the Ministers and SAOs. These programs do not need to follow the Council's basic procedures, which include careful development and vetting of proposals and acceptance by a consensus of the Arctic states.

15. Ottawa Declaration, *supra* note 6, para. 2.

16. The Ottawa Declaration provides for admission of new Permanent Participants, but requires that at any time the number of Permanent Participants must be less than the number of Arctic states. Id. Capping the number at seven prevents the number of overall participants--states and indigenous groups--from becoming unmanageable. However, it also raises difficult issues of how the Council can and should choose among groups to fill the remaining three slots.

In the period between the Ottawa and Iqaluit meetings, the Russian Permanent Participant changed its name to the Russian Association of Indigenous Peoples of the North, and that name is reflected in the Iqaluit Declaration.

17. See Arctic Council Rules of Procedure Rule 4 (Sept. 18, 1998) (on file at the Office of Oceans Affairs) [hereinafter Rules of Procedure]. See also Rules of Procedure, id. Rule 5, and the Ottawa Declaration, para. 2, supra note 6, 35 ILM at 1388-89, which both provide that the "category of Permanent Participation is created to provide for active participation and full consultation with the Arctic indigenous representatives within the Arctic Council." In essence, the Permanent Participants have the same rights as states members, with the exception of decision-making (which is by a consensus of the states) and the right established in the Rules of Procedure for the "Heads of Delegation of the Arctic States [to] meet privately at their discretion." Rules of the Procedure, supra Rule 6. The latter rules reflect the potential need for states to discuss matters, such as funding or sensitive political issues, or admission of new Permanent Participants, alone. In practice, Heads of Delegation meetings have not excluded Permanent Participants.

18. See Rules of Procedure, *supra* note 17, Rule 26.

19. See Iqaluit Declaration, *supra* note 7, paras. 7-9.

20. An issue of significant disagreement within the Council has been whether Council documents can use the word "peoples" to describe the indigenous groups. In the international context the United States has viewed the "s" as inappropriate because it may imply sovereign rights under international law. Thus, the United States has opposed inclusion of the word "peoples." A dispute over this issue was resolved for the Ottawa Declaration by use of the term once, with a footnote stating that "[t]he use of the term 'peoples' in this Declaration shall not be construed as having any implications as regard the rights which may attach to the term under international law." Ottawa Declaration, *supra* note 6, para. 2 n. 2, 35 ILM at 1388. This footnote compromise follows a precedent from the International Labour Organisation Convention No. 169, Convention Concerning Indigenous and Tribal Peoples in Independent Countries, June 27, 1989, Art. 1(3), 28 ILM 1382 (1989), and has been employed in a number of other AEPS and Council documents. However, the Iqaluit Declaration, *supra* note 7, and the related Report of Senior Officials, *supra* note 8, used neither the footnote nor the "s" (other than in proper names and quotations).

21. The Arctic Council Secretariat is located in the U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, Office of Oceans Affairs, Washington, D.C. 20520. Further information on the Council is available at the Council's web site, http://arctic-council.usgs.gov.

22. Rules of Procedure, *supra* note 17, and Arctic Council Terms of Reference for a Sustainable Development Program (Sept. 18, 1998) (on file at the Office of Oceans Affairs) [hereinafter Terms of Reference].

23. The United States originally presented draft rules modeled on those used by the Antarctic Treaty System for Antarctic Treaty Consultative Meetings. See Revised Rules of Procedure (1997), Antarctic Treaty Consultative Meeting XXI, Decision 1, Final Report of the Twenty-first Antarctic Treaty Consultative Meeting 121 (May 19-30, 1997). Other delegations held that a short list of essential rules was all that was needed. The final rules number some forty-seven paragraphs and two annexes.

24. Ottawa Declaration, *supra* note 6, para. 7, 35 ILM at 1389. See also Rules of Procedure, *supra* note 17, Rule 7.

25. *See id.*, *supra* note 17, Rule 28. Subsidiary bodies of the Council may establish operating guidelines which are consistent with the Rules of Procedure. Id. Rule 31. Such guidelines must be approved by the SAOs, and are intended to be supplementary in nature. They should facilitate the work of the groups, but may not conflict with the rules being followed by the Council as a whole.

26. *See id.*, *supra* note 17, Rule 26.

27. *See id.*, *supra* note 17, Rule 23. SAOs can guide the Council's work through "written communications, including telefax communications" as well as at meetings. Id., Rule 14.

28. Annex I to the Rules of Procedure, *supra* note 17, lists elements for inclusion of proposals for cooperative activities "as a guide." Elements listed in the Terms of Reference, however, must be included in proposals which fall within the Sustainable Development Program. Thus, a major distinction between sustainable development and other proposals is that the former must address a mandatory list of elements. The rationale for the distinction is that the Council has no experience with sustainable development projects as such. It is important to have information available in some key areas so that SAOs and Ministers can make appropriate determinations.

29. Terms of Reference, *supra* note 22, para. 2.

30. U.S. Government marine mammal policies are required to be consistent with the Marine Mammal Protection Act of 1972, 16 U.S.C. §§1361-1407 (1994 & Supp. 1997). The Act establishes a moratorium on taking and importation into the United States of marine mammals and marine mammal products, with certain exceptions. Marine mammals and marine mammal products can be imported if certain conditions are met, for example, the affected animal was not pregnant, nursing or less than eight months old at the time of the taking, and the affected population has not been designated as depleted. In addition, Alaska natives are exempted from the moratorium on taking provided the taking is for subsistence purposes or is done for handicraft purposes and is not accomplished in a wasteful manner.

31. See letter from Michael Kantor, Secretary of Commerce, to the President (Dec. 12, 1996) (on file at the Office of Oceans Affairs).

32. The President acted in connection with a report to the Congress under the Pelly Amendment to the Fisherman's Protective Act of 1967, as amended, §8(a), 22 U.S.C. §1978 (1994). President's Message to Congress on Canadian Whaling Activities, in I Pub. Papers 143 (Feb. 10, 1997). The President's message noted the certification by the Secretary of Commerce to the effect that Canada had "conducted whaling activities that diminish the effectiveness of a conservation program of the [IWC]." Id. The President concluded that "Canadian whaling on endangered whales warrants action at this time. Accordingly, I have instructed the Department of State to oppose Canadian efforts to address takings of marine mammals within the newly formed Arctic Council. I have further instructed the Department of State to oppose Canadian efforts to address trade in marine mammal products within the Arctic Council." *Id.* at 144.

33. "Observer status . . . is open to [such states and organizations] that the Council determines can contribute to its work." Ottawa Declaration, *supra* note 6, para. 3, 35 ILM at 1389.

34. Rules of Procedure, *supra* note 17, Rule 37.

35. Rules of Procedure, *supra* note 17, Annex 2. Germany, the Netherlands, Poland, the United Kingdom, the Nordic Council, the Northern Forum, the United Nations Economic Commission for Europe, the United Nations Environmental Program and the International Arctic Science Committee obtained Observer status.

36. At Iqaluit, the Arctic states accorded Observer status to three such organizations: the Standing Committee of Parliamentarians of the Arctic Region, the World Wide Fund for Nature, and the International Union for Circumpolar Health.

37. The "G7" becomes the "G8" when the Russian Federation participates.

38. The United States has bilateral commissions with Mexico, South Africa, and Ukraine, among others. With the resignation of Victor Chernomyrdin as Russian Prime Minister, the informal name of the U.S.-Russian body has changed to the Gore-Stepashin Commission.

39. To the extent that cooperation by the United States involves participation in particular programs or activities, there must be a proper legal basis for that participation. Thus, if the Department of Energy wishes to provide personnel or other in-kind resources to advance an Arctic Council EPPR project in the Arctic, its activities and provision of resources must be consistent with relevant legislation.

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SAO Meeting 28-29 April 2010 Ilulissat - Official Delegation Registration									
Title:	Last Name:	First Name:	Affiliation to the Arctic Council:	Delegation	HOD	Job Title:	Organization:	Country:	Email Address:
	Møller	Lars	SAO Chair	Denmark, Faroe Islands and Greenland		SAO Chair			
Ms.	Riordon	Sheila	Senior Arctic Official	Canada	Yes	Director General, Environment and Energy	Foreign Affairs and International Trade Canada	Canada	Sheila.Riordon@international.gc.ca
Mr.	Borbey	Patrick	Member State Delegation	Canada	No	Assistant Deputy Minister, Northern Affairs Program	Indian & Northern Affairs Canada	Canada	Patrick.Borbey@ainc-inac.gc.ca
Ms.	Menzies	Jeannette	Member State Delegation	Canada	No	Deputy Director, Circumpoiar and Aboriginal Affairs Division	Foreign Affairs and International Trade Canada	Canada	Jeannette.Menzies@international.gc.ca
Mr.	Norman	Giles	Member State Delegation	Canada	No	Director, Canadian International Centre for the Arctic Region	Foreign Affairs and International Trade Canada	Canada	Giles.norman@international.gc.ca
Mr.	Finkler	Harald	Member State Delegation	Canada	No	Director, Circumpolar Liaison Directorate	Indian & Northern Affairs Canada	Canada	Harald.finklerh@ainc-inac.gc.ca
Ms.	Fortin	Claudette	Member State Delegation	Canada	No	Senior Advisor, Circumpoiar Liaison Directorate	Indian & Northern Affairs Canada	Canada	Claudette.fortin@ainc-inac.gc.ca
Mr.	Wrona	Fred	Member State Delegation	Canada	No	Director, Aquatic Ecosystem Impacts Research Division	Environment Canada	Canada	Fred.Wrona@ec.gc.ca
Ms.	Cooper	Jane	Member State Delegation	Canada	No	Assistant Deputy Minister, Intergovernmental Affairs	Government of Nunavut	Canada	jcooperEIA@gov.nu.ca
Mr.	Trudeau	Harley	Member State Delegation	Canada	No	Senior Government Representative, Intergovernmental Relations	Government of Yukon	Canada	harley.trudeau@on.aibn.com
Ms.	Engell	Mikaela	Senior Arctic Official	Denmark, Faroe Islands and Greenland	Yes	Chief advisor	Danish Ministry of Foreign Affairs	Denmark	mikeng@um.dk
Deputy Minister	Holm Olsen	Inuuteq	Member State Delegation	Denmark, Faroe Islands and Greenland	No	Deputy Minister	Department of Foreign Affairs, Naalakkersuisut, Government of Greenlan.	Greenland	inol@gh.gl

Title:	Last Name:	First Name:	Affiliation to the Arctic Council:	Delegation	HOD	Job Title:	Organization:	Country:	Email Address:
	Samsing	Ole	Member State Delegation	Denmark, Faroe Islands and Greenland	No				
	Jensen	Casper Stenger	Member State Delegation	Denmark, Faroe Islands and Greenland	No				
Ms.	Møller	Pernille	Member State Delegation	Denmark, Faroe Islands and Greenland	No	Head of Section	Department of Foreign Affairs, Naalakkersuisut, Government of Greenlan.	Greenland	pmoe@gh.gl
Mrs.	Thaulow	Inge	Member State Delegation	Denmark, Faroe Islands and Greenland	No	Special Advisor	The Government of Greenland	Greenland	inth@ghsdk.dk
Mr	Rohmann Hard	Jakob	Member State Delegation	Denmark, Faroe Islands and Greenland	No	Protocol Advisor	Department of Foreign Affairs, Naalakkersuisut, Government of Greenlan.	Greenland	jaha@gh.gl
Mr	Skovgaard Olsen	Morten	Member State Delegation	Denmark, Faroe Islands and Greenland	No		Danish Ministry of Climate and Energy	Denmark	mso@ens.dk
ms	Klint	Mikala	Member State Delegation	Denmark, Faroe Islands and Greenland	No	Project Coordinator	Danish EPA	DK	mkl@mst.dk
Mr	Sonne	Frank Martin	Member State Delegation	Denmark, Faroe Islands and Greenland	No	Special advisor	Danish EPA	DK	fms@mst.dk
Ms	Mortensen	Elin	Member State Delegation	Denmark, Faroe Islands and Greenland	No	Adviser	Ministry of Foreign Affairs	Faroe Islands	elinm@mfa.fo
Mr	Halinen	Hannu	Member State Delegation	Finland	Yes	Ambassador	Ministry for Foreign Affairs	Finland	hannu.halinen@formin.fi
Mr	Jaakkola	Esko	Member State Delegation	Finland	No	Environmental Counsellor	Ministry of the Environment	Finland	esko.jaakkola@ymparisto.fi
Ambassador	Gunnarsdóttir	Gréta	Senior Arctic Official	Iceland	Yes	Director General for International and Security	Ministry for Foreign Affairs, Iceland	Iceland	greta@mfa.is
	Allansson	Jónas	Member State Delegation	Iceland	No	Desk Officer Arctic Affairs	Ministry for Foreign Affairs, Iceland	Iceland	jga@mfa.is
	Rosenberg	Stein	Member State Delegation	Norway	Yes	Senior Advisor	Ministry of Foreign Affairs	Norway	stro@mfa.no
	Braanaas	Asbjørn	Member State Delegation	Norway	No	Senior Advisor	Ministry of Foreign Affairs	Norway	abb@mfa.no
	Toresen	Håvard	Member State Delegation	Norway	No	Deputy Director General	Ministry of Environment	Norway	hto@md.dep.no
	Bauer	Irene	Member State Delegation	Norway	No	Senior Advisor	Ministry of Environment	Norway	iba@md.dep.no
	Mortensen	Øystein	Member State Delegation	Norway	No	Senior Advisor	Ministry of Justice	Norway	
	Berthinussen	Ingrid	Permanent Participant Delegation	Norway	No	Senior Advisor	Climate and Pollution Agency	Norway	
	Holmen	Kim	Member State Delegation	Norway	No	Research Director	Norwegian Polar Institute	Norway	

Title:	Last Name:	First Name:	Affiliation to the Arctic Council:	Delegation	HOD	Job Title:	Organization:	Country:	Email Address:
	Moi	Knut	Member State Delegation	Norway	No	Deputy Director General	Ministry of Justice	Norway	knut.moi@jd.dep.no
	Bjerkemo	Ole Kristian	Member State Delegation	Norway	No	Senior Advisor	Norwegian Coastal Administration	Norway	Ole.bjerkemo@kystverket.no
	Bjøklund	Kristoffer	Member State Delegation	Norway	No	Adviser	Ministry of Fisheries and Coastal Affairs		kkb@fkd.dep.no
Ambassador at Large	Vasiliev	Anton	Senior Arctic Official	Russia	Yes	Ambassador	MFA of Russia	RUSSIA	antonvasiliev@front.ru
Third Secretary	Yafarov	Eldar	Member State Delegation	Russia	No	Third Secretary	MFA of Russia	RUSSIA	ac@mid.ru
Expert	Tsaturov	Yuri	AMAP	Russia	No	Expert	Russian Hydrometeorologic Agency	RUSSIA	tsaturov@mecom.ru
Parliamentarian	Oleynik	Gennady	Member State Delegation	Russia	No	Member of Russian Parliament	Russian Parliament	RUSSIA	GDOleynik@council.gov.ru
Expert	Smirnova	Maria	Member State Delegation	Russia	No	Expert	Ministry of finance	RUSSIA	smirnova@minfin.ru
Expert	Veselov	Igor	EPPR	Russia	No	Vice-director of Department	Emercom of Russia	RUSSIA	emercom@yandex.ru
Ambassador	Ödmark	Helena	Member State Delegation	Sweden	Yes	Ambassador	Ministry for Foreign Affairs	Sweden	helena-odmark@foreign.ministry.se
Ms	Krantz	Jeanette	Member State Delegation	Sweden	No	Senior Administrative Officer	Ministry of Environment	Sweden	jeanette.krantz@environment.ministry.se
Ms	Israelson	Ann-Sofi	Member State Delegation	Sweden	No	Senior Advisor	National Environment Protection Agency	Sweden	ann-sofi.israelson@naturvårdsverket.se
Mr	Thyberg	Tobias	Member State Delegation	Sweden	No	Deputy Director	Ministry for Foreign Affairs	Sweden	tobias.thyberg@foreign.ministry.se
Ms.	Gourley	Julia	Senior Arctic Official	United States	Yes	Senior Arctic Official	U.S. Department of State	USA	GourleyJL@state.gov
Mr.	Cunningham	Paul	Member State Delegation	United States	No	Arctic Affairs Officer	U.S. Department of State	USA	CunninghamPM2@state.gov
Mr.	Hall	Erik	Member State Delegation	United States	No	Regional Environment, Science, Technology and	Embassy of the United States of America (Copenhagen), U.S.	USA	HallE@state.gov
Ms.	McLanahan	Elizabeth	Member State Delegation	United States	No	U.S. Representative to PAME; Acting Director, Office of	U.S. National Oceanic and Atmospheric Administration, U.S.	USA	Elizabeth.McLanahan@noaa.gov
Ms.	Finman	Hodayah	Member State Delegation	United States	No	Senior Advisor for International Organizations	U.S. Environmental Protection Agency	USA	Finman.Hodayah@epa.gov
Mr.	Close	Ryan	Member State Delegation	United States	No	International Policy Analyst	U.S. Department of the Interior	USA	ryan_close@ios.doi.gov
Mr.	DeAngelo	Ben	Member State Delegation	United States	No	SLCF TF co-chair	U.S. Environmental Protection Agency	USA	DeAngelo.Ben@epa.gov
Chief	Erasmus	Bill	Permanent Participant Delegation	Arctic Athabaskan Council	Yes	International Chair	Arctic Athabaskan Council	Canada	berasmus@afn.ca
Chief	Stickman	Michael	Permanent Participant Delegation	Arctic Athabaskan Council	No	Interational Vice-Chair	Arctic Athabaskan Council	United States	mjistickman@hotmail.com
Chief	Harrison	Gary	Permanent Participant Delegation	Arctic Athabaskan Council	No	Alaskan Chair	Arctic Athabaskan Council	United States	garyharrison@chickaloon.org
Dr	Fenge	Terry	Permanent Participant Delegation	Arctic Athabaskan Council	No	Senior Policy Advisor	Arctic Athabaskan Council	Canada	tfenge7006@rogers.com

Title:	Last Name:	First Name:	Affiliation to the Arctic Council:	Delegation	HOD	Job Title:	Organization:	Country:	Email Address:
Ms	Dickson	Cindy	Permanent Participant Delegation	Arctic Athabaskan Council	No	Executive Director	Arctic Athabaskan Council	Canada	cindy.dickson@cyfn.net
Mr	Lynge	Aqqaluk	Permanent Participant Delegation	Inuit Circumpolar Council	Yes	ICC Greenland President	Inuit Circumpolar Council	Greenland	aqqaluk@inuit.org
Ms	Holm	Lene Kielsen	Permanent Participant Delegation	Inuit Circumpolar Council	No	ICC Executive Countil Member	Inuit Circumpolar Council	Greenland	
Mr	Smith	Duane	Permanent Participant Delegation	Inuit Circumpolar Council	No	ICC Canada President	Inuit Circumpolar Council	Canada	inuvialuk@northwestel.net
Mr	Reimer	Chester	Permanent Participant Delegation	Inuit Circumpolar Council	No	Senior Policy Advisor	Inuit Circumpolar Council	Canada	reimer@crcionline.com
Mr.	Sulyandziga	Rodion	Permanent Participant Delegation	RAIPON	Yes	Arctic Coordinator	RAIPON	Russia	ritc@mail.ru
Mr.	Berezhkov	Dmitry	Permanent Participant Delegation	RAIPON	No	Chair of Executive Council	RAIPON	Russia	raipon@raipon.org
Ms	Abrutina	Larisa	Permanent Participant Delegation	RAIPON	No	Member of Executive Council	RAIPON	Russia	raipon@raipon.org
Mr	Pedersen	Geir Tommy	Permanent Participant Delegation	Saami Council	Yes	Council Member/IPS Chair	Saami Council	Norway	gtpedersen@gmail.com
Ms	Retter	Gunn-Britt	Permanent Participant Delegation	Saami Council	No	Head of Arctic and Environmental Unit	Saami Council	norway	gbr@saamicouncil.net
Chief	Linklater	Joe	Permanent Participant Delegation	Gwich'in Council International	Yes	Head of Delegation	Gwich'in Council International	Canada	blarocque_gci@northwestel.net
Ms.	Larocque	Bridget	Permanent Participant Delegation	Gwich'in Council International	No	Executive Director	Gwich'in Council International	Canada	blarocque_gci@northwestel.net
Mr.	Gant	Erik	Indigenous Peoples Secretariat		Yes	Exec. Secr.	Arctic Council Indigenous Peoples Secretariat	Denmark	erik.gant@arcticpeoples.org
Mr.	Shearer	Russel	AMAP	AMAP	Yes	AMAP Chair	Northern Science and Contaminants Research Directorate, Indian and	Canada	Russel.Shearer@ainc-inac.gc.ca
Mr.	Lars-Otto	Reiersen	AMAP	AMAP	No	Executive Secretary	Arctic Monitoring and Assessment Programme (AMAP)	Norway	lars-otto.reiersen@amap.no
	Petersen	Aevar	CAFF	CAFF					
	Barry	Thomas	CAFF	CAFF		Exceutive Secretary	CAFF International Secretariat		tom@caff.is
	Fretheim	Atle	PAME	PAME		Chair	PAME		Atle.Fretheim@md.dep.no
Mrs.	Heinrich	Ann	EPPR	EPPR		EPPR Chair	U.S. Department of Energy	USA	ann.heinrich@nnsa.doe.gov
Ms.	Saunders	Allison	EPPR	EPPR		EPPR Secretariat	Oak Ridge Institute of Science and Education	USA	allison.saunders@orise.orau.gov
MS	Thomsen	Marianne Lykke	SDWG	SDWG	Yes	Senior Policy Advisor	Dept. of Foreign Affairs, Government of Greenland	Denmark	mlt@gh.gl
	Observers:								
Dr	Trommer	Johannes	Observer State	Germany	Yes	Minister	Embassy of the Federal Republic of	Germany	v@kope.auswaertiges-amt.de

Title:	Last Name:	First Name:	Affiliation to the Arctic Council:	Delegation	HOD	Job Title:	Organization:	Country:	Email Address:
Mr.	Bordallo	Nuño	Observer State	Spain		Counsellor	Embassy of Spain in Copenhagen	Spain	nuno.bordallo@maec.es
Mr	Stuart	Doubleday	Observer State	United Kingdom	Yes	Arctic and Antarctic Officer	Foreign and Commonwealth Office	UK	stuart.doubleday@fco.gov.uk
Managing Director	Stapleton	mary	Observer Organization				Artic Circumpolar Gateway	Canada	mary@stapleton.ca
Ms.	Pearson	Pam	Observer Organization	CCU	Yes	Consultant	Circumpolar Conservation Union	USA	pampearson44@yahoo.com
	Molenaar	Erik Jaap	Observer Organization	IUCN	Yes	Senior Research Associate	Netherlands Institute for the Law of the Sea (NILOS)	Netherlands	E.J.Molenaar@uu.nl
Mrs	Gran	Anna	Observer Organization	NCM	Yes	Adviser	Nordic Council of Ministers	Denmark	ang@norden.org
Dr.	Ahmadzai	Husamuddin	Observer Organization	NEFCO	Yes	Special Advsier	NEFCO	IFI	husamuddin.ahmadzai@nefco.fi
Mr	Robstad	Bjørn Willy	Observer Organization	SCPAR	Yes	Secretary General	SCPAR	Norway	bwr@stortinget.no
Mr	Keskitalo	Jan Henry	Observer Organization UArctic	UArctic	Yes	Board Member	Sami University College	Norway	jhkeskitalo@gmail.com
Mr	Hislop	Lawrence	Observer Organization	UNEP	Yes	Head, Polar Programme	UNEP/GRID-Arendal	Norway	lawrence@grida.no
MR	Clive	Tesar	Observer Organization	WWF	Yes	Head of communication	wwf	Canada	ctesar@wwf.no
	Ad-hoc Observer								
	Gou	Haibo	Ad-Hoc Observer State	China					
Mr.	Verga	Daniele	Ad-Hoc Observer State	Italy	Yes	Special Envoy for the Arctic	Ministry of Foreign Affairs	Italy	daniele.verga@esteri.it
	Hidaka	Marie	Ad-Hoc Observer State	Japan	Yes	Deputy Director	Ocean Division, International Legal Affairs Bureau, Ministry of Foreign	Japan	marie.hidaka@mofa.go.jp
Mr.	LEE	Eun Yong	Ad-Hoc Observer State	Republic of Korea	Yes	Counsellor	Embassy of the Republic of Korea to the Kingdom of Denmark	Republic of Korea	korembdk@mofat.go.kr
Mr	HARTOG	Eddy	Ad-Hoc Observer Organization	Invited Guest	Yes	Head of Unit-Maritime Policy in the Atlantic Ocean, the	European Commission	E U	eddy.hartog@ec.europa.eu
	ACS								

Title:	Last Name:	First Name:	Affiliation to the Arctic Council:	Delegation	HOD	Job Title:	Organization:	Country:	Email Address:
	Vaaja	Nina Buvang							
	Stratton	Tana							
	Hansen	Jesper							
	Interpretors								
Mr	Larsen	Stein							
Mr	Repin	Aleksei							

Sen. Murkowski
Lt. Gov Treadwell both U.S. delegation

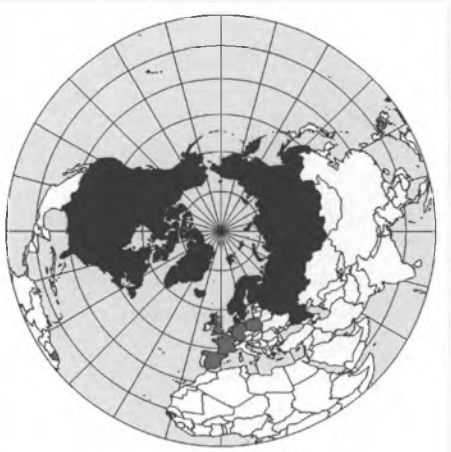
Arctic Council 7th Ministerial Meeting
Nuuk, Greenland
12 May 2011

List of Participants

	Arctic Council Member State Delegations		
1	*Gerald Cossette*	*Gerald*	*Canada*
2	*Riordon*	*Sheila*	*Canada*
3	Bacile	Robert	Canada
4	Corutti	Rita	Canada
5	Finkler	Harald	Canada
6	Girtel	Kim	Canada
7	Kadau	Robert	Canada
8	Laborte	Danielle	Canada
9	Morton	Shawn	Canada
10	Norman	Giles	Canada
11	Rojas	Aluki	Canada
12	Reland	Floyd	Canada
13	Sauve	Renee	Canada
14	McLachlan	Corey	Canada
15	Trudeau	Harley	Canada
16	Vanderloo	Caroline	Canada
17	Aariak	Eva	Canada
18	Lundy	Peter	Canada
19	Nelson	Mai Valentin	Canada
20	*Holm Olsen*	*Jonatag*	*Denmark, Faroe Islands, and Greenland*
21	Engell	Mikaela	Denmark, Faroe Islands, and Greenland
22	Egelund	Rikke	Denmark, Faroe Islands, and Greenland
23	Effersmann-Kingombe	Jean	Denmark, Faroe Islands, and Greenland
24	Grosbech-Jensen	Christian	Denmark, Faroe Islands, and Greenland
25	Hansen	Martin	Denmark, Faroe Islands, and Greenland
26	Hansen	Jóannes Vitalis	Denmark, Faroe Islands, and Greenland
27	Johannessen	Kaj Leo	Denmark Faroe Island Greenland
28	Kleist	Kupik	Denmark, Faroe Islands, and Greenland
29	Klint	Mikala	Denmark, Faroe Islands, and Greenland
30	Lau	Pui Ling	Denmark, Faroe Islands, and Greenland
31	Lynge Petrussen	Vivi	Denmark, Faroe Islands, and Greenland
32	Sonne	Frank Martin	Denmark, Faroe Islands, and Greenland
33	Thaulow	Inge	Denmark, Faroe Islands, and Greenland
34	*Laajava*	*Jaakko*	*Finland*
35	*Hallinen*	*Hannu*	*Finland*
36	Kankaanpaa	Paula	Finland
37	Mäkönen	Outi	Finland
38	Tolvanen	Tapio	Finland
39	Vidanan	Timo	Finland
40	Ylinen	Ann-Britt	Finland
41	*Skarphéðinsson*	*Óssur*	*Iceland*
42	*Gunnarsson*	*Gunnar*	*Iceland*
43	Allansson	Jonas Gunnar	Iceland
44	Burgess	Kristjan Guy	Iceland
45	Olafsson	Hugi	Iceland
46	Johannsson	Halldór	Iceland
47	Skarphedinsdottir	Dorfridur	Iceland
48	*Store*	*Jonas Gahr*	*Norway*
49	*Klepsvik*	*Karsten*	*Norway*
50	Andersen	Kjersti	Norway
51	Bauer	Irene	Norway
52	Bjorkland	Kristoffer	Norway
53	Bronebakk	Jorg Willy	Norway
54	Braanaas	Athiern	Norway
55	Dowie	Per Sander	Norway
56	Egge	Kjell Kristian	Norway
57	Eriksen	Odd	Norway
58	Henriksen	Per Rune	Norway
59	Johansen	Bjorn Fussli	Norway
60	Kognstad	Marte	Norway
61	Madsen	Nina Kristine	Norway
62	Michaelsen	Beate Lund	Norway
63	Olli	Egil	Norway
64	Ovand	Anne Kari	Norway
65	Rosenberg	Stein	Norway
66	Schanche	Audhild	Norway
67	Teresen	Håvard	Norway
68	*Lavrov*	*Sergey*	*Russia*
69	*Vasiliev*	*Anton*	*Russia*
70	Erualova	Irina	Russia
71	Gogolashvili	Teimaraz	Russia
72	Ivanov	Evgeniy	Russia
73	Lapshina	Ekaterina	Russia
76	Nefedov	Nikolay	Russia
77	Pesov	Eduard	Russia
78	Ramishvili	Teymaraz	Russia
79	Russetskiy	Gleb	Russia
80	Salnikov	Alexander	Russia
81	Titov	Vladimir	Russia
82	Tokovinin	Alexander	Russia
83	Yakushev	Andrey	Russia
84	Zaharova	Maria	Russia
85	*Bildt*	*Carl*	*Sweden*
86	*Lind*	*Gustaf*	*Sweden*
87	Albornoz	Paola	Sweden
88	Hartvig	Britt Marie	Sweden
89	Israelson	Ann-Sofi	Sweden
90	Johansson	Anna-Charlotta	Sweden
91	Krantz	Jeanette	Sweden
92	Larsson	Joakim	Sweden
93	Malmgren	Sara	Sweden
94	Marteenk	Marcus	Sweden
95	Olausson	Jessica	Sweden
96	Omma	Helene	Sweden
97	Robin	Torbjörn	Sweden
98	von Uexkull	Andreas	Sweden
99	Ahlen	Ursula	Sweden
100	*Clinton*	*Hillary Rodham*	*United States of America*
101	*Gourley*	*Julia*	*United States of America*
102	Salazar	Ken	United States of America
103	Abedin	Huma	United States of America
104	Balton	David	United States of America
105	Bennett	Virginia	United States of America
106	Biniaz	SUnited States of American	United States of America
107	Canuel	Edward	United States of America
108	Clement	Joel	United States of America
109	Cordell	Jenny	United States of America
110	Culton	John	United States of America
111	Cunningham	Paul	United States of America
112	Edwards	Elise	United States of America
113	Faith	Lori	United States of America
114	Fulton	Laurie	United States of America
115	Hayes	David	United States of America
116	Jones	Kerri-Ann	United States of America
117	Knutson	Karen	United States of America
118	Messmer	Edward	United States of America
119	Miron	Edward	United States of America
120	Montgomery	Molly	United States of America
121	Murkowski	Lisa	United States of America
122	Reinos	Philippe	United States of America
123	Sullivan	Jake	United States of America
124	Treadwell	Mead	United States of America
	Permanent Participants		
125	Stickman	Michael	Arctic Athabaskan Council (AAC)
126	Dickson	Cindy	Arctic Athabaskan Council (AAC)
127	Johnston	Wilfred	Arctic Athabaskan Council (AAC)
128	Harrison	Chief Gary	Arctic Athabaskan Council (AAC)
129	Gundersen	Arlene	Aleut International Association (AIA)
130	Gefman	Victoria	Aleut International Association (AIA)
131	Henshaw	Anne	Aleut International Association (AIA)
132	Linklater	Joseph	Gwich'in Council International (GCI)
133	Larocque	Bridget	Gwich'in Council International (GCI)
134	Thompson	Amy	Gwich'in Council International (GCI)
135	Nerysoo	Richard	Gwich'in Council International (GCI)
136	Lynge	Aqqaluk	Inuit Circumpolar Council (ICC)
137	Olsen	Carl Christian (Paju)	Inuit Circumpolar Council (ICC)
138	Smith	Duane	Inuit Circumpolar Council (ICC)
139	Stotts	Jimmy	Inuit Circumpolar Council (ICC)
140	Kharyuchi	Sergey	Russian Association of Indigenous Peoplers of the North (RAIPON)

Arctic Council

The **Arctic Council** is a high-level intergovernmental forum that addresses issues faced by the Arctic governments and the indigenous people of the Arctic. It has eight member countries: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States.



The Arctic Council members observers

History of the Arctic Council

The first step towards the formation of the Council occurred in 1991 when the eight Arctic countries signed the Arctic Environmental Protection Strategy (AEPS). The 1996 Ottawa Declaration established the Arctic Council as forum for promoting cooperation, coordination, and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on issues such as sustainable development and environmental protection. The Arctic Council has conducted studies on climate change, oil and gas, and Arctic shipping.[1]

In 2011, the Council member states concluded the Arctic Search and Rescue Agreement, the first binding treaty concluded under the Council's auspices.[2]

Membership

Member states

Only states with territory in the Arctic can be members of the Council. As all eight countries are members, the Arctic Council is a truly circumpolar forum. The Council also has permanent and ad-hoc observer countries and "permanent participants".

- Canada;
- Denmark; representing also the dependencies of
  - Greenland
  - Faeroes
- Finland
- Iceland
- Norway
- Russia
- Sweden
- United States

Chairmanship

Chairmanship of the Council rotates every two years. The current chair is Sweden, which serves until the Ministerial meeting in May 2013. Canada (1996–1998) served as first Chair, followed by the United States (1998–2000), Finland (2000–2002), Iceland (2002–2004), Russia (2004–2006), Norway (2006–2009), and Denmark (2009-2011).[3] Norway, Denmark, and Sweden agreed on a set of common priorities for the three chairmanships.

Canada will Chair the Council from 2013-2015. The United States will Chair from 2015-2017.

Observer states

Permanent Observer States

Observer status is open to non-Arctic states approved by the Council at the Ministerial Meetings that occur once every two years. Currently, six non-Arctic states have Permanent Observer status: France, Germany, the Netherlands, Poland, Spain and the United Kingdom. Observer states receive invitations for most Council meetings. Their participation in projects and task forces within the Working Groups is not always possible, but this poses few problems as few Observer States want to participate at such a detailed level.

- France
- Germany
- Netherlands
- Poland
- Spain
- United Kingdom

Ad-hoc observer states

Ad-hoc observer states need to request permission for their presence at each individual meeting; such requests are routine and most of them are granted. There are four ad hoc members, not including the European Union. At the 2009 Ministerial Meeting in Tromsø, Norway, China, the EU, Italy, and South Korea requested Full Observer status. They were not granted, mostly because the members do not agree on the role of Observer States. Since then Japan has joined as an Ad-hoc Observer State. Norway has opposed an application by China for a permanent status as an observer, according to *Aftenposten* in 2012.[4]

The indigenous Permanent Participants (PPs) have mixed views about the increasing group of non-Arctic observers. Some fear that their roles will be marginalized if large players such as China and the EU receive more attention.

- China
- European Union [5]
- Italy
- Japan [5]
- South Korea

Nongovernmental observers

Approved intergovernmental and interparliamentary organizations (both global and regional) and non-governmental organizations can also obtain Observer Status. They include the Arctic Parliamentarians,[6] International Union for Conservation of Nature, the International Red Cross Federation, the Nordic Council, the Northern Forum,[7] United Nations Development Programme, United Nations Environment Programme; and a handful of non-governmental organizations such as the Association of World Reindeer Herders,[8] the University of the Arctic, and the World Wide Fund for Nature-Arctic Programme.

Indigenous Peoples

Seven of the eight member states have sizeable indigenous communities living in their Arctic areas (only Iceland does not). Organizations of Arctic indigenous peoples can obtain the status of Permanent Participant to the Arctic Council, but only if they represent a single indigenous people resident in more than one Arctic State or more than one Arctic indigenous people resident in a single Arctic State. The number of Permanent Participants should at any time be less than the number of members. The category of Permanent Participants has been created to provide for active participation and full consultation with the Arctic indigenous representatives within the Arctic Council. This principle applies to all meetings and activities of the Arctic Council.

Permanent Participants may address the meetings. They may raise points of order that require immediate decision by the Chairman. Agendas of Ministerial Meetings need to be consulted beforehand with them; they may propose supplementary agenda items. When calling the biannual meetings of Senior Arctic Officials, the Permanent Perticipants must have been consulted beforehand. Finally, Permanent Participants may propose cooperative activities, such as projects. All this makes the position of Arctic indigenous peoples within the Arctic Council quite unique compared to the (often marginal) role of such peoples in other international governmental fora. However, decision making in the Arctic Council remains in the hands of the eight member states, on the basis of consensus.

As of 2010, six Arctic indigenous communities have Permanent Participant status. These groups are represented by the Aleut International Association,[9] Arctic Athabaskan Council,[10] Gwich'in Council International,[11] Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North (RAIPON),[12] and the Saami Council.[13] These indigenous organisations vary widely in their organisational capacities and the size of the population they represent. To illustrate, RAIPON represents some 250,000 indigenous people of various (mostly Siberian) tribes; the ICC some 150,000 Inuit. On the other hand, the Gwich'in Council and the Aleut Association each represent only a few thousand people.

It is costly for these groups to be represented at every Council meeting, especially since they take place across the entire circumpolar realm. To enhance the capacity of the PPs to pursue the objectives of the Arctic Council and to assist them develop their internal capacity to participate and intervene in Council meetings, the Council has established—and provides financial support to—the Indigenous Peoples' Secretariat (IPS).[14] The IPS is located in Copenhagen, Denmark and its board decides on the allocation of the funds.

However prominent the role of indigenous peoples, the Permanent Participant status does not confer any legal recognition as peoples. The Ottawa Declaration, the Arctic Council's founding document, explicitly states (in a footnote): "The use of the term 'peoples' in this declaration shall not be construed as having any implications as regard the rights which may attach to the term under international law." Incidentally, the United Nations Declaration on the Rights of Indigenous Peoples, adopted by the United Nations General Assembly on 13 September 2007 after 22 years of negotiations, was rejected by Canada and the United States, while Russia abstained.[15] Both the United States and Canada have their origins as colonies of the United Kingdom and have large non-indigenous immigrant majorities and small remnant indigenous populations. This means that most Arctic indigenous people were not covered by the rights laid out in the declaration. In November 2010, Canada officially endorsed the declaration and in December of that year President Obama declared the United States would sign the declaration.

Administrative aspects

Meetings

The Arctic Council convenes every six months somewhere in the Chair's country for a Senior Arctic Officials (SAO) meeting. SAOs are high-level representatives from the eight member nations. Sometimes they are ambassadors, but often they are senior foreign ministry officials entrusted with staff-level coordination. Representatives of the six Permanent Participants and the official Observers also are in attendance.

At the end of the two-year cycle, the Chair hosts a Ministerial-level meeting, which is the culmination of the Council's work for that period. Most of the eight member nations are represented by a Minister from their Foreign Affairs, Northern Affairs, or Environment Ministry.

A formal, though non-binding, "Declaration", named for the town in which the meeting is held, sums up the past accomplishments and the future work of the Council. These Declarations cover climate change, sustainable development, Arctic monitoring and assessment, persistent organic pollutants and other contaminants, and the work of the Council's five Working Groups. The 2006 Ministerial meeting took place in Salekhard, Russia; the 2009 Ministerial meeting took place in Tromsø, Norway; and the 2011 meeting was held in Nuuk, Greenland on May 12, 2011. The 2011 Nuuk meeting was the very first time the United States sent a representative, Secretary of State Hillary Rodham Clinton.

Arctic Council working groups document Arctic problems and challenges such as sea ice loss, glacier melting, tundra thawing, increase of mercury in food chains, and ocean acidification affecting the entire marine ecosystem. Arctic Council members agreed to action points on protecting the Arctic but most have never materialized.[16]

The secretariat

Each rotating Chair nation accepts responsibility for maintaining the secretariat, which handles the administrative aspects of the Council, including organizing semiannual meetings, hosting the website, and distributing reports and documents. The Norwegian Polar Institute hosts the Arctic Council Secretariat for the six-year period from 2007-2013; this is based on an agreement between the three successive Scandinavian Chairs, Norway, Denmark, and Sweden. This temporary Secretariat has a staff of three.

In 2012 the Council moved towards creating a permanent secretariat in Tromsø, Norway.[17] It is currently searching for a director for the Secretariat. The selection will by made by the Council in autumn of 2012 with an expected start date of 1 February 2013.[18]

In addition, the Arctic Council works through six Working Groups and four Programs and Action Plans:

Working Groups

- Arctic Monitoring & Assessment Programme[19] (AMAP)
- Conservation of Arctic Flora & Fauna[20]
- Emergency Prevention, Preparedness & Response[21](EPPR)
- Protection of the Arctic Marine Environment (PAME)[22][23]
- Sustainable Development Working Group[24](SDWG)
- Arctic Contaminants Action Program (ACAP) (since 2006)[25]

Programs and Action Plans

- Arctic Biodiversity Assessment[26]
- Circumpolar Biodiversity Monitoring Program (CBMP)
- Arctic Climate Impact Assessment
- Arctic Human Development Report

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External links

- www.arctic-council.org – Arctic Council (http://www.arctic-council.org)

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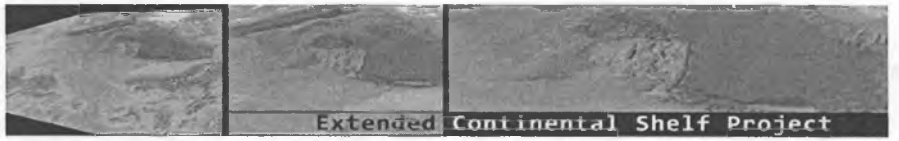

Arctic Seafloor Mapping Project Web Site - arcticseafloormapping.gov

About the Extended Continental Shelf Project

The U.S. Extended Continental Shelf Task Force directs and coordinates the Extended Continental Shelf Project, an effort to delineate the U.S. continental shelf beyond 200 nautical miles.

The U.S. Extended Continental Shelf Task Force is an interagency body, chaired by the Department of State with co-vice chairs from the National Oceanic and Atmospheric Administration and the Department of the Interior. Ten additional agencies participate in the Task Force: the U.S. Geological Survey, the Executive Office of the President, the Joint Chiefs of Staff, the U.S. Navy, the U.S. Coast Guard, the Department of Energy, the National Science Foundation, the Environmental Protection Agency, BOEMRE, and the Arctic Research Commission.

BOEMRE

Six areas where the U.S. likely has an extended continental shelf and nine areas in which the U.S. may have an extended continental shelf. *Click image for larger view.* **Credit:** UNH/NOAA

Where does the U.S. have an ECS?

There are six areas where the U.S. likely has an extended continental shelf (ECS): the Atlantic Margin, Arctic Ocean, Bering Sea, off the west side of Guam/Northern Mariana Islands, and in two areas in the Gulf of Mexico. There are nine areas in which the U.S. may have an extended continental shelf: the Gulf of Alaska, the western end of the Aleutian Islands, the Northern Mariana Islands, Hawaii's Necker Island, Johnston Atoll, Kingman Reef and Palmyra Atoll, and three areas off the U.S. west coast.

Preliminary studies have indicated that the U.S. ECS likely totals at least one million square kilometers -- an area about twice the size of California or nearly half the Louisiana Purchase. As additional data are collected and existing data analyzed, we will begin to come to a more definitive conclusion as to the extent of the U.S. ECS.

Why do it and what's there?

The U.S., like other countries, has an inherent interest in knowing, and declaring to others, the exact extent of our sovereign rights in the ocean. Specifically, a nation has sovereign rights over the resources on and under the seabed, including petroleum resources (oil, gas, gas hydrates), "sedentary" creatures such as clams, crabs, and corals, and mineral resources, such as manganese nodules, ferromanganese crusts, and polymetallic sulfides.

Defining those rights in concrete geographical terms provides the specificity and certainty necessary to protect, manage, and/or use those resources. And international recognition is important in establishing the necessary stability for development, conservation and protection of these areas.

Because most of the ocean -- especially the deep ocean -- is unexplored, we are unsure exactly what the sea floor looks like. Given the size of the U.S. continental shelf, the resources we might find there may be worth many billions if not trillions of dollars.

How is an ECS determined?

A country may use the sediment thickness formula or the bathymetric formula to define the outer limits of its continental shelf. *Click image for larger view.* **Credit:** continentalshelf.gov

A country may use either constraint line to define the outer limits of its continental shelf: either 350 nautical miles seaward of the baseline, or 100 nautical miles seaward of the 2,500-meter depth contour (isobath). *Click image for larger view.* **Credit:** continentalshelf.gov

Determining the extent of the continental shelf is a bit different than other maritime zones, such as the territorial sea or the exclusive economic zone, because it is not simply a matter of distance from the shoreline.

Under customary international law, as reflected in the Convention on the Law of the Sea, every country automatically has a continental shelf out to 200 nautical miles from its shore (or out to a maritime boundary with another country). In some cases, a country can have a continental shelf beyond 200 nautical miles if it meets certain criteria. Typically, the portion of continental shelf beyond 200 nautical miles is called the "extended continental shelf" or simply the ECS. Keep in mind this legal definition of the continental shelf is not the same as what a geologist would call a continental shelf.

The rules for defining the ECS are based in international law, specifically the 617 words of Article 76 in the Convention on the Law of the Sea. A country can use one of two formulas in any combination to determine the edge of its ECS. The Convention also says there are two constraint lines that those two formulas cannot extend past. Here, too, a country can use any combination of those constraint lines to maximize its shelf.

There are two primary datasets that a country needs to collect to determine the two formula lines and the constraint lines. The first is bathymetric data that provides a three-dimensional map of the ocean floor. The second is seismic reflection data that provides a cross-section view of what's beneath the ocean floor. From that cross-section view, scientists can derive information on the thickness of the sediments and the characteristics of the geologic layers that are stacked on top of one another.

Backgrounder

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U.N. Convention on the Law of the Sea Erodes U.S. Sovereignty over U.S. Extended Continental Shelf

Steven Groves

Abstract: *If the U.S. becomes a member of the United Nations Convention on the Law of the Sea, it will be required to transfer a large portion of the royalties generated on the U.S. extended continental shelf to the International Seabed Authority. These royalties could likely total tens or even hundreds of billions of dollars. The Authority may then distribute those funds to developing and landlocked nations, including some that are corrupt, undemocratic, or even state sponsors of terrorism. Instead of diverting U.S. revenues to such dubious purposes, the U.S. government should retain any wealth derived from the U.S. extended continental shelf for the benefit of the American people.*

U.S. law decrees that the mineral resources on and below the surface of the continental shelf are held by the federal government for the benefit of the American people. The U.S. Department of the Treasury and some U.S. states benefit from royalties paid by energy companies for the oil and natural gas that they extract from the continental shelf off the coast of Alaska and in the Gulf of Mexico.

Membership in the United Nations Convention on the Law of the Sea (UNCLOS) would alter U.S. law and current practice for the worse. If the United States joined the convention, it would be required to transfer a portion of the royalty revenue generated on the U.S. extended continental shelf (the shelf beyond 200 nautical miles from shore) to the International Seabed Authority in Kingston, Jamaica. The Authority is empowered to distribute those funds—considered "international royalties"—to developing and landlocked nations, including some that are corrupt, undemocratic, or even state sponsors of terrorism.

Talking Points

- The U.S. currently enjoys full sovereignty over its entire continental shelf. It can claim clear title to all mineral resources (e.g., oil and gas) lying under the shelf and can collect royalty revenue for the exploitation of such resources.
- The resources located on the U.S. extended continental shelf (submerged lands 200 nautical miles or more from shore) may be worth trillions of dollars and would generate substantial royalty revenue.
- If the U.S. joined the U.N. Convention on the Law of the Sea, it would be required to transfer a portion of these royalties to the International Seabed Authority in Kingston, Jamaica.
- The ultimate beneficiaries could easily include corrupt and despotic regimes and state sponsors of terrorism.
- Transferring royalties to an unaccountable international organization is not in the best interests of the United States or the American people, who should remain the sole beneficiary of such royalties.

This paper, in its entirety, can be found at:
http://report.heritage.org/bg2561

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Article 82 requirements contrast starkly with U.S. law and policy on resources on the U.S. continental shelf and the disposition of royalties.

Given the potentially massive mineral wealth on the U.S. extended continental shelf, U.S. accession to UNCLOS would likely have significant financial implications. Congress, particularly the Senate, needs to fully consider the potential wealth transfer that would result from joining UNCLOS. To this end, the U.S. Task Force on the Extended Continental Shelf needs to complete its work so that the Senate and the rest of the U.S. government will have a better estimate of the royalty revenue at stake.

The U.N. Convention on the Law of the Sea

The U.N. Convention on the Law of the Sea was adopted at the Third U.N. Conference on the Law of the Sea on December 10, 1982.[1] UNCLOS is considered by some to be a "constitution for the ocean," defining the rights and responsibilities of all nations on matters ranging from the breadth of a nation's territorial waters to the conduct of ships on the high seas.

President Ronald Reagan, whose Administration participated in the final stages of the UNCLOS negotiations, refused to sign the convention and stated several objections to it, most of which dealt with the convention's provisions on deep seabed mining. In subsequent years, an effort was made to address these objections, which were also raised by other nations. Negotiations over revisions in the deep seabed mining provisions of UNCLOS concluded in 1994 during the Clinton Administration. This addendum to UNCLOS, which sought to revise the objectionable provisions, was adopted by the U.N. General Assembly on July 28, 1994, and signed by the United States on July 29, 1994.[2]

President Bill Clinton transmitted UNCLOS and the 1994 agreement to the U.S. Senate for its advice and consent on October 7, 1994.[3] Although the Senate Committee on Foreign Relations has conducted several hearings on UNCLOS, the full Senate has not consented to the convention or the 1994 addendum, and the United States remains a non-party to both instruments.

There are several reasons why the United States should be skeptical of acceding to UNCLOS,[4] but this paper focuses on just one: Article 82 of UNCLOS would require the United States, if it became a member, to transfer a portion of the royalties from exploiting resources on its extended continental shelf to the International Seabed Authority, an international organization established

1. United Nations Convention on the Law of the Sea (UNCLOS), December 10, 1982, at *http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm* (April 29, 2011).
2. Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, July 28, 1994, at *http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindxAgree.htm* (April 29, 2011). Although the 1994 agreement revised the UNCLOS provisions on the deep seabed, it did not modify the treatment of mineral resources located on the continental shelf within national jurisdiction, which is the focus of this paper.
3. *United Nations Convention on the Law of the Sea, with Annexes, and Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea, with Annex*, Treaty Doc. 103–39, 103d Cong., 2d Sess., October 7, 1994, p. iii.
4. For example, see Steven Groves, "Why Reagan Would Still Reject the Law of the Sea Treaty," Heritage Foundation *WebMemo* No. 1676, October 24, 2007, at *http://www.heritage.org/Research/Reports/2007/10/Why-Reagan-Would-Still-Reject-the-Law-of-the-Sea-Treaty*; Baker Spring, Steven Groves, and Brett D. Schaefer, "The Top Five Reasons Why Conservatives Should Oppose the U.N. Convention on the Law of the Sea," Heritage Foundation *WebMemo* No. 1638, September 25, 2007, at *http://www.heritage.org/Research/Reports/2007/09/The-Top-Five-Reasons-Why-Conservatives-Should-Oppose-the-UN-Convention-on-the-Law-of-the-Sea*; and Edwin Meese III, Baker Spring, and Brett D. Schaefer, "The United Nations Convention on the Law of the Sea: The Risks Outweigh the Benefits," Heritage Foundation *WebMemo* No. 1459, May 16, 2007, at *http://www.heritage.org/Research/Reports/2007/05/The-United-Nations-Convention-on-the-Law-of-the-Sea-The-Risks-Outweigh-the-Benefits*.

by UNCLOS and seated in Kingston, Jamaica. In turn, the Authority would distribute the royalty revenue to various developing nations in a manner that might not advance U.S. national interests. These Article 82 requirements contrast starkly with U.S. law and policy on resources on the U.S. continental shelf and the disposition of royalties.

U.S. Law and Policy on the Continental Shelf's Resources

Before the end of World War II, national sovereignty and jurisdiction were understood to end at the outer edge of a nation's territorial sea, generally considered to be three nautical miles (nm) from a nation's shoreline.[5] However, there was no consensus on the limit of national claims to resources of the sea or seabed beyond a nation's narrow territorial sea.

This situation began to change on September 28, 1945, when President Harry S. Truman issued Proclamation 2667, "Policy of the United States With Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf." The proclamation states in part:

> Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control.[6]

The purpose and intent of the Truman Proclamation are clear from the opening paragraph, which references "the long range world-wide need for new sources of petroleum and other minerals" and encourages their discovery and extraction.[7] Indeed, the accompanying White House press release explains further:

> The advance of technology prior to the present war had already made possible the exploitation of a limited amount of minerals from submerged lands within the 3-mile limit. The rapid development of technical knowledge and equipment occasioned by the war now makes possible the determination of the resources of the submerged lands outside of the 3-mile limit. With the need for the discovery of additional resources of petroleum and other minerals, it became advisable for the United States to make possible orderly development of these resources. The proclamation of the President is designed to serve this purpose.[8]

President Truman's proclamation was modified by U.S. law in 1953 in the Outer Continental Shelf Lands Act (OCSLA), which defined the outer continental shelf (OCS) as "*all submerged lands* lying seaward and outside of the area of lands beneath navigable waters…and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control."[9] The OCSLA definition places no limit on the seaward extent of the U.S. continental shelf, the end of which is determined only by where the deep seabed begins.

5. Barry E. Carter, Phillip R. Trimble, and Allen S. Weiner, *International Law*, 5th ed. (New York: Aspen Publishers, 2007), pp. 870–871 and 882.
6. Harry S. Truman, "Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf," Presidential Proclamation No. 2667, September 28, 1945, at *http://www.presidency.ucsb.edu/ws/index.php?pid=12332* (April 29, 2011). On the same day, President Truman issued a second proclamation concerning the establishment of conservation zones for the protection of coastal fisheries. Harry S. Truman, "Policy of the United States with Respect to Coastal Fisheries in Certain Areas of the High Seas," Presidential Proclamation No. 2668, September 28, 1945, at *http://www.presidency.ucsb.edu/ws/index.php?pid=58816* (April 29, 2011).
7. Truman, "Policy of the United States with Respect to the Natural Resources."
8. While the proclamation itself prescribed no limiting criteria for the breadth of the continental shelf, the press release stated: "Generally, submerged land which is contiguous to the continent and which is covered by no more than 100 fathoms (600 feet) of water is considered as the continental shelf." Press release, The White House, September 28, 1945, at *http://www.presidency.ucsb.edu/ws/index.php?pid=12332* (April 29, 2011).
9. 43 U.S. Code § 1331(a) (emphasis added).

OCSLA declared that it is U.S. policy that "the subsoil and seabed of the outer Continental Shelf appertain to the United States and are subject to its jurisdiction, control, and power of disposition."[10] The OCSLA further stated that the resources of the continental shelf belong to the American people:

> [T]he outer Continental Shelf is a vital national resource reserve *held by the Federal Government for the public*, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs.[11]

After Truman's proclamation, at least 20 nations followed suit by making similar claims regarding their respective continental shelves.[12] This emerging practice, as well as disputes over the breadth of territorial waters and other maritime issues, led the U.N. General Assembly to convene the first U.N. Conference on the Law of the Sea in 1958.[13] Four separate conventions were adopted at that conference, including the Convention on the Continental Shelf.[14] The United States ratified that convention in 1961, and it remains in effect.[15]

The Convention on the Continental Shelf affirmed the principle, set forth by the Truman Proclamation and the OCSLA, regarding a nation's sovereignty over its continental shelf: "The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources."[16] The convention defined the continental shelf as "the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres [about 650 feet] or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas."[17]

In making his proclamation in 1945, President Truman clearly intended to secure "new sources of petroleum and other minerals" for the United States.

In 1980, Congress adopted, almost verbatim, the convention's definition of the continental shelf in the Deep Seabed Hard Mineral Resources Act (DSHMRA), which regulates the exploitation of mineral resources such as manganese, nickel, cobalt, and copper on the deep seabed beyond the limit of the U.S. continental shelf.[18]

Since these definitions were articulated in 1958 and 1980, advances in deep-sea mining have made it possible to exploit the resources on the continental shelf well beyond the depth of 650

10. 43 U.S. Code § 1332(1).
11. *Ibid.*, § 1332(3) (emphasis added).
12. The notion of the Truman Proclamation that a nation has an exclusive right to its continental shelf was affirmed by the International Court of Justice in 1969. *North Sea Continental Shelf Cases*, 1969 I.C.J. 3 (February 20), pp. 32–23, para. 47. See also Carter *et al.*, *International Law*, p. 885. ("[I]n the North Sea Continental Shelf Cases…the ICJ recognized that certain articles of the Convention [on the Continental Shelf] had become customary international law. This case basically recognized that the coastal state could claim jurisdiction over resources throughout the natural prolongation of the continental landmass.")
13. U.N. Codification Division, Office of Legal Affairs, "United Nations Conference on the Law of the Sea, 1958," 2009, at *http://untreaty.un.org/cod/diplomaticconferences/lawofthesea-1958/lawofthesea-1958.html* (April 29, 2011).
14. Convention on the Continental Shelf, Geneva, April 29, 1958, at *http://untreaty.un.org/ilc/texts/instruments/english/conventions/8_1_1958_continental_shelf.pdf* (April 29, 2011).
15. U.S. Department of State, *Treaties in Force: A List of Treaties and Other International Agreements of the United States in Force on January 1, 2010*, p. 401, at *http://www.state.gov/documents/organization/143863.pdf* (April 29, 2011).
16. Convention on the Continental Shelf, Art. 2(1).
17. Convention on the Continental Shelf, Art. 1. Article 1 also contains a secondary definition of the continental shelf as "the seabed and subsoil of similar submarine areas adjacent to the coasts of islands."
18. Deep Seabed Hard Mineral Resources Act, 30 U.S. Code § 1401 *et seq.*, §§ 1401(b), 1403(2).

feet.[19] The definition of "continental shelf," derived both from the Convention on the Continental Shelf and from the DSHMRA, therefore essentially encompasses the entire U.S. continental shelf out to the margin where it meets the deep seabed floor.

The Truman Proclamation, the OCSLA, the Convention on the Continental Shelf, and the DSHMRA collectively represent the *status quo* on the definition of the U.S. continental shelf and the disposition of its resources. In making his proclamation in 1945, President Truman clearly intended to secure "new sources of petroleum and other minerals" for the United States. The OCSLA confirmed President Truman's assertion of U.S. jurisdiction over and control of its continental shelf and mandated that the resources of the continental shelf are "held by the Federal Government for the public."

Finally, the provisions of the Convention on the Continental Shelf are entirely consistent with U.S. laws that define and delimit the continental shelf, such as the DSHMRA, and the convention places no restrictions on U.S. access to all resources of the shelf or its right to all benefits derived from those resources.

The Continental Shelf and the Exclusive Economic Zone

The 1945 Truman Proclamation claimed the entire U.S. continental shelf in a holistic and indivisible state, with no demarcation line for an "outer" continental shelf. In 1953, the OCSLA clarified the Truman Proclamation's description by dividing the continental shelf between a narrow portion of the continental shelf abutting the coastline—the "lands beneath navigable waters"—and the vast area of the shelf beyond those lands, which was designated the "outer" continental shelf.[20]

Under UNCLOS, the sovereign rights of a nation to its continental shelf lying beyond the 200 nm EEZ are not absolute.

The concept of an undivided continental shelf became complicated in 1982 when the Third U.N. Conference on the Law of the Sea adopted the U.N. Convention on the Law of the Sea. UNCLOS provisions draw a distinction between the submerged lands of the continental shelf that extend from a nation's shoreline out to 200 nautical miles and any submerged lands beyond 200 nm.[21] Under UNCLOS, the submerged lands within the 200 nm limit fall within a nation's exclusive economic zone (EEZ), within which a nation has "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources…of the seabed and its subsoil."[22] However, under UNCLOS, the sovereign rights of a nation to its continental shelf lying beyond the 200 nm EEZ are not absolute.

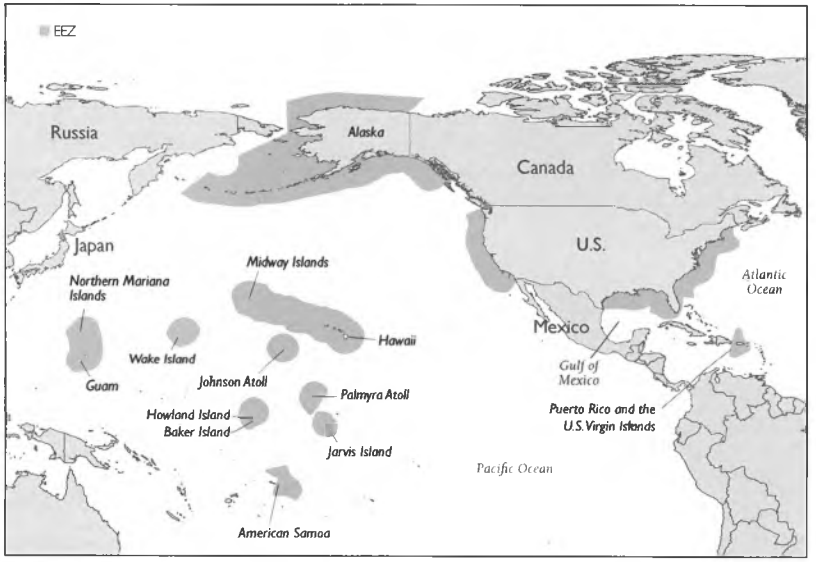
President Ronald Reagan decided not to become a party to UNCLOS for several reasons, many of which were related to its provisions on deep seabed mining beyond the continental shelf. However, in 1983, he issued Proclamation 5030, which declared the existence of a U.S. EEZ and defined the U.S. zone in a manner consistent with the UNCLOS definition.[23] The proclamation stated that the U.S. EEZ extended 200 nm from the U.S. coastline and that the United States had sovereignty over the living and nonliving resources of the seabed and subsoil of the continental shelf laying within the EEZ.

While Proclamation 5030 is silent on U.S. sovereignty beyond the EEZ, it does state that the proclamation "does not change existing United States policies concerning the continental shelf."[24] A distinction between the status of submerged lands within and outside the 200 nm line likely seemed unnecessary at the time because the technology to exploit mineral resources on the continental shelf beyond that line was at best in a nascent stage. However, the technology for deep-sea exploration has continued to advance, and in recent years, the potential to exploit mineral resources beyond the 200 nm EEZ has grown.

Since 2003, in an effort to define the outer limit of the U.S. continental shelf, the United States has collected bathymetric mapping data (to ascertain water depth) on the outer margins of the continental shelf in the Arctic Ocean, the Gulf of Alaska, the

19. For example, Transocean, the world's largest offshore drilling contractor, has rigs that can operate in waters more than 10,000 feet deep. See Transocean, "Our Rigs: Listing by Water Depth," at *http://www.deepwater.com/fw/main/List-by-Water-Depth-77.html* (April 29, 2011).
20. 43 U.S. Code § 1331(a). For the definition of "lands beneath navigable waters," see 43 U.S. Code § 1301(a). The distinction between the "outer continental shelf" and "extended continental shelf" is further complicated by the practice of the U.S. Department of the Interior, which regularly uses the term "outer continental shelf" as shorthand to describe planning areas that it has designated for oil and gas leasing off the continental United States.
21. Article 76 of UNCLOS dictates the manner for measuring the outer limit of the continental shelf beyond 200 nautical miles for UNCLOS members. UNCLOS members are required to submit any claims to continental shelf lands beyond 200 nm to the Commission on the Limits of the Continental Shelf for review and approval. See UNCLOS, Annex II, and Commission on the Limits of the Continental Shelf, at *http://www.un.org/Depts/los/clcs_new/clcs_home.htm* (April 29, 2011).
22. UNCLOS, Arts. 56–57.
23. Ronald Reagan, "Exclusive Economic Zone of the United States of America," Proclamation 5030, March 10, 1983, at *http://www.presidency.ucsb.edu/ws/index.php?pid=41037* (April 29, 2011).

U.S. Exclusive Economic Zones (EEZ)



Source: National Oceanic and Atmospheric Administration, Alaska Fisheries Science Center, U.S. Exclusive Economic Zones, at *http://www.afsc.noaa.gov/Generalinfo/eez.htm* (May 25, 2011).

Map 1 • B 2561 heritage.org

24. *Ibid.*

Gulf of Mexico, the Atlantic Coast, and the Bering Sea and off the Northern Mariana Islands, Kingman Reef, Palmyra Atoll, Guam, Hawaii, and the West Coast. The U.S. Extended Continental Shelf Task Force, an interagency project, is conducting this data collection.[25] To differentiate these areas from the "outer" continental shelf, as a term of convenience, the task force designates the continental shelf extending beyond the 200 nm EEZ as the "extended continental shelf" (ECS).

To date, the ECS Task Force has identified six areas that "likely" contain submerged lands that qualify as ECS and nine areas that "possibly" contain such lands. The six likely areas are off the Atlantic Coast, in the Arctic, in the Bering Sea, west of the Marianas Islands, and two small areas in the Gulf of Mexico.[26] The nine "possible" ECS areas include the Gulf of Alaska, the western end of the Aleutian Islands, east of the Mariana Islands, Hawaii's Necker Island, the Johnston Atoll, the Kingman Reef and Palmyra Atoll, and three areas off the West Coast. Over the next several years, the task force will collect additional information, particularly seismic-reflection/refraction data, to identify the outer boundaries of the U.S. ECS more definitively.

As Map 2 indicates, there is a great deal of potential for the existence of U.S. ECS in more than a dozen locations across the globe.

The value of the potential oil and natural gas deposits and other minerals lying beneath the U.S. ECS is difficult to estimate at present, but it is likely substantial. According to the ECS Task Force, "Given the size of the U.S. continental shelf, the resources we might find there may be worth many billions if not trillions of dollars."[27]

Royalties and Revenue

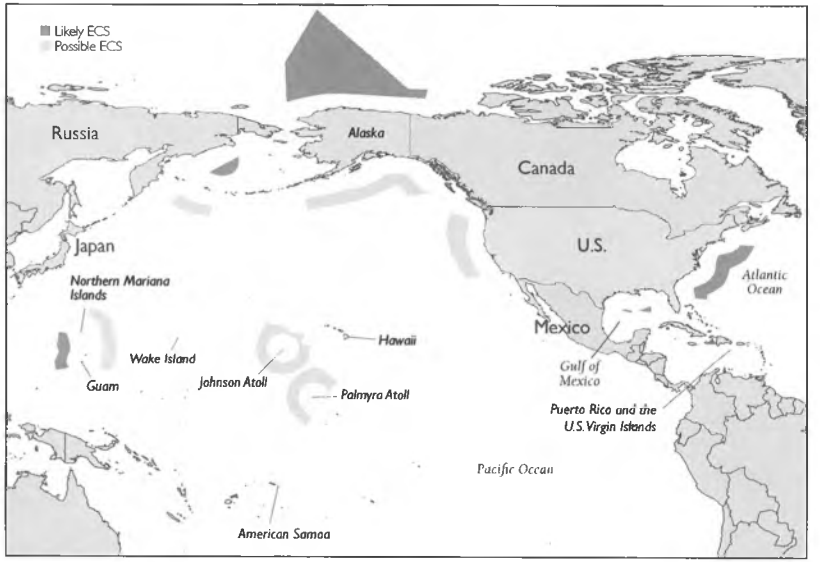
Exploitation of resources from the U.S. ECS is expected to generate royalties in the near future, and the United States will forgo some of those royalties if it joins UNCLOS. The potential financial impact of joining UNCLOS is evident from a brief review of how revenue is generated from activities currently taking place on the U.S. outer continental shelf within the 200 nm line.

A wealth of mineral resources (e.g., oil and natural gas) lies below the surface of the U.S. OCS.[28] Alaska's OCS alone may contain almost 10 billion barrels of oil and 15 trillion cubic feet of natural gas.[29] Massive known reserves of oil and natural gas also lie beneath the OCS in the Gulf of Mexico.

The Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE)[30] in the U.S. Department of the Interior manages the nation's oil, natural gas, and other mineral resources on the OCS.[31] One of BOEMRE's primary activities is managing sales of offshore oil and gas leases. Through BOEMRE, the United States leases OCS tracts to companies for exploration and exploitation. The companies bid competitively for leases, and the

25. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, "Extended Continental Shelf Project," Web site, at *http://continentalshelf.gov* (April 29, 2011).
26. The "greatest potential" for an ECS is the area of the Chukchi Borderland of the Arctic Ocean. Larry A. Mayer, A. Armstrong, B. Calder, and J. Gardner, "Sea Floor Mapping in the Arctic: Support for a Potential US Extended Continental Shelf," *International Hydrographic Review*, May 2010, p. 15, at *http://ccom.unh.edu/publications/Mayer_2010_IHR_Sea_Floor_Mapping_In_The_Arctic.pdf* (May 13, 2011).
27. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, "About the Extended Continental Shelf Project," September 22, 2010, at *http://continentalshelf.gov/about.html* (April 29, 2011).
28. "Minerals" include "oil, gas, sulphur, geopressured-geothermal and associated resources, and all other minerals which are authorized by an Act of Congress to be produced from 'public lands.'" 43 U.S. Code § 1331(q).
29. Northern Economics and University of Alaska Anchorage, Institute of Social and Economic Research, "Potential National-Level Benefits of Alaska OCS Development," February 2011, at *http://www.northerneconomics.com/pdfs/ShellOCS/National%20Effects%20Report%20FINAL.pdf* (April 29, 2011).
30. The Minerals Management Service (MMS) was renamed the Bureau of Ocean Energy Management, Regulation and Enforcement on June 18, 2010. For purposes of consistency, this paper will refer to it as the BOEMRE regardless of date.
31. U.S. Department of the Interior, Bureau of Ocean Energy Management, Regulation and Enforcement, "Frequently Asked Questions," at *http://www.boemre.gov/ooc/newweb/frequentlyashedquestions/frequentlyashedquestions.htm* (April 29, 2011).

U.S. Extended Continental Shelf (ECS)



Source: U.S. Extended Continental Shelf Project, "Establishing the Full Extent of the Continental Shelf of the United States," at *http://continentalshelf.gov/media/ECSposterDec2010.pdf* (May 26, 2011).

Map 2 • B 2561 heritage.org

winning company is required to make certain payments to the Secretary of the Interior for deposit into the U.S. Treasury.

First, the company that makes the highest bid pays a "bonus bid," an up-front payment to secure the lease. Second, until production begins at the site, the company makes annual "rent" payments of $5 to $11 per acre, depending on the water depth at the site. Finally, once production begins, the company pays an annual royalty on the value of production at the site. The OCSLA sets a minimum annual royalty rate of 12.5 percent, but that rate has increased over the years and often fluctuates between 12.5 percent and 16 percent, depending on the depth of the water at the site of production.

The typical royalty rate on the Alaskan OCS is 12.5 percent.[32] However, new leases have a royalty rate of 18.75 percent, which will likely be the rate for future leases.[33] All royalties, rents, and bonus bids generated from lease sales and production on

32. Northern Economics and University of Alaska Anchorage, "Potential National-Level Benefits of Alaska OCS Development," p. 8.

the Alaskan OCS are transferred to the U.S. Treasury general fund.

Bonus bids, rent payments, and royalty payments are distributed differently in the Gulf region. The Gulf of Mexico Energy Security Act of 2006 (GOMESA) governs the distribution of revenue from mineral exploitation in the Gulf of Mexico.[34] GOMESA splits the revenue between the U.S. Treasury and certain U.S. states that border the Gulf.[35] The U.S. Treasury general fund receives 50 percent of the revenue from Gulf OCS leases, and the remaining 50 percent is divided between the Gulf States (37.5 percent) and the Land and Water Conservation Fund (12.5 percent).[36]

Exploitation of resources from the U.S. extended continental shelf is expected to generate royalties in the near future, and the United States will forgo some of those royalties if it joins UNCLOS.

Both the Alaskan OCS and Gulf OCS will continue to generate revenue for the United States for many years to come. According to Interior Department estimates, the U.S. OCS contains 8.5 billion barrels of oil and 29.3 trillion cubic feet of natural gas in proved and unproved reserves and another 86 billion barrels of oil and 420 trillion cubic feet of natural gas in as yet undiscovered resources.[37]

Such vast resources will continue to generate billions of dollars in royalty revenue for the United States. A recent report by the Institute for Social and Economic Research at the University of Alaska evaluated further development of the Alaskan OCS,[38] focusing on the Beaufort Sea OCS and the Chukchi Sea OCS, the two OCS areas off the northern shore of Alaska. Assuming a minimum royalty rate of 12.5 percent, mineral exploitation in these two areas would generate almost $92 billion in royalty revenue over the next 50 years.[39]

"Sharing" U.S. Royalties

As noted, the Truman Proclamation, the OCSLA, the Convention on the Continental Shelf, and the DSHMRA represent the *status quo* regarding the definition of the U.S. continental shelf and the disposition of its resources. That is to say that the entire continental shelf, from the shoreline to the end of the ECS where the deep seabed begins, is sovereign territory of the United States, subject to its complete jurisdiction and control. U.S. accession to UNCLOS would significantly alter the *status quo*.

If the United States became an UNCLOS member, it would be required to transfer a substantial

33. Marc Humphries, Robert Pirog, and Gene Whitney, "U.S. Offshore Oil and Gas Resources: Prospects and Processes," Congressional Research Service *Report for Congress*, June 1, 2010, p. 18, at *http://www.cnie.org/NLE/crsreports/10May/R40645.pdf* (May 2, 2011), and 43 U.S. Code § 1337(a).
34. Gulf of Mexico Energy Security Act of 2006, Public Law 109–432.
35. For the purpose of mineral exploration and exploitation, the Gulf of Mexico has been divided into several areas: the 181 Area, 181 South Area, Central Planning Area, Eastern Planning Area, and 2002–2007 planning area. GOMESA defines "Gulf producing state" as the states of Alabama, Louisiana, Mississippi, and Texas. Public Law 109–432, § 102(7).
36. Public Law 109–432, § 105(a). The Land and Water Conservation Fund helps states to develop and purchase federal parks and recreation land. GOMESA further mandates that 20 percent of the royalty revenue appertaining to the Gulf states must be distributed to certain municipalities defined as "coastal political subdivisions" (CPS). Public Law 109–432, §§ 102(10) and 105(b)(3). However, under the current laws, there may be no revenue distributions to CPS from royalties generated on the ECS because CPS, as defined, are necessarily more than 200 nautical miles from the geographic center of any tract that could be leased on the ECS. GOMESA, § 102(10)(B). Finally, some OCS revenue is distributed to the National Historic Preservation Fund, which provides grants for historic sites. U.S. Energy Information Administration, Office of Oil and Gas, "Overview of U.S. Legislation and Regulations Affecting Offshore Gas and Oil Activity," September 2005, p. 15, at *http://www.eia.doe.gov/pub/oil_gas/natural_gas/feature_articles/2005/offshore/offshore.pdf* (May 3, 2011).
37. U.S. Department of the Interior, *Survey of Available Data of OCS Resources and Identification of Data Gaps*, 2009, pp. 5 and II-11, at *http://www.boemre.gov/5-year/PDFs/45-DayReportAvailableDataOnOffshoreResources.pdf* (May 3, 2011).
38. *Ibid.*
39. *Ibid.*, p. 9.

portion of the royalties generated on the U.S. ECS to the International Seabed Authority.[40] UNCLOS requires member states to "share" a portion of their royalty revenue for all oil, gas, or other mineral resources extracted from the continental shelf beyond 200 nm.[41] This would include, if the U.S. were a member, the extended continental shelf.[42] Article 82 of UNCLOS states:

> The coastal State shall make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.[43]

These payments are to be made to the Authority on an annual basis. Like the royalties paid by companies that enter leases under the OCSLA, the amount of the royalty is based on the value of production at the particular site—in most cases, an offshore drilling platform extracting oil or natural gas from the seabed. According to a recent study conducted for the Authority, such payments are considered "international royalties."[44]

Member states begin to pay these "international royalties" during the sixth year of production at the site, apparently to allow the company a grace period of five years to recoup the costs of exploration. Starting with the sixth year of production, UNCLOS members must pay 1 percent of the total production at that site to the Authority. Thereafter, the royalty rate increases in increments of 1 percentage point per year until the twelfth year of production, when it reaches 7 percent. The annual royalty rate remains at 7 percent until production ceases at the site.[45]

The entire continental shelf, from the shoreline to the end of the ECS where the deep seabed begins, is sovereign territory of the United States. U.S. accession to UNCLOS would significantly alter the status quo.

If the United States became an UNCLOS member, it would effectively be agreeing to transfer to the International Seabed Authority a considerable portion of the royalties generated on the U.S. ECS that would otherwise be deposited in the U.S. Treasury for the benefit of the American people.[46] Assuming that the royalty rate on the U.S. ECS is set at 12.5 percent, the U.S. would be required to transfer more than half of its royalty revenue to the Authority beginning in the twelfth year of production until production ends.[47] Given that ECS resources "may be worth many billions if not trillions of dollars,"[48] the U.S. would be obligated to pay substantial international royalties to the Authority.

40. UNCLOS, Art. 156.
41. According to a report commissioned by the Authority, it was representatives from the U.S. delegation that, during negotiations regarding UNCLOS, first proposed the revenue-sharing scheme that ultimately became Article 82. International Seabed Authority, *Issues Associated with the Implementation of Article 82, Technical Study* No. 4, 2009, p. 15, at *http://www.isa.org.jm/files/documents/EN/Pubs/Article82.pdf* (May 12, 2011).
42. UNCLOS refers to the area of the continental shelf beyond 200 nm as "the continental shelf beyond 200 nautical miles." See UNCLOS, Arts. 76 and 82(1). Other sources refer to this area as the "outer continental shelf." For the sake of simplicity and clarity, this paper refers to the area beyond 200 nm as the "extended continental shelf."
43. UNCLOS, Art. 82(1).
44. International Seabed Authority, *Issues Associated with the Implementation of Article 82*, p. 25.
45. UNCLOS, Art. 82(2).
46. The Clinton Administration did not oppose the revenue-sharing provision: "On balance, the package contained in the Convention, including revenue sharing at the modest rate set forth in Article 82, clearly serves United States interests." Treaty Doc. 103–39, p. 58.
47. The United States would not be permitted to enter a reservation regarding Article 82 that would exempt it from complying with the royalty-sharing scheme. Article 309 states, "No reservations or exceptions may be made to this Convention unless expressly permitted by other articles of this Convention." Article 82 does not expressly permit a reservation.
48. U.S. Department of Commerce, "About the Extended Continental Shelf Project."

The United States will likely soon begin to exploit the oil and natural gas resources on its ECS. The BOEMRE has already issued exploration leases for areas located, at least in part, on the U.S. ECS. Indeed, during the bidding process, the BOEMRE has given notice to companies bidding on offshore leases about UNCLOS Article 82. Since at least 2001 and as recently as 2008, BOEMRE has advised companies that the Article 82 royalty payment provisions would apply if the United States joins the convention.[49]

The BOEMRE is not alone in its opinion that activities on the ECS will commence sooner rather than later. The report commissioned by the Authority predicts that, while Article 82 "has been dormant since the adoption of the Convention," it "will soon awaken," and royalties from that provision may come due to the Authority as early as 2015.[50]

If the United States accedes to UNCLOS, potentially billions of dollars in royalties would be transferred to the International Seabed Authority. How the Authority would dispense those "internationalized" royalties is less clear.

In sum, under current U.S. law and policy, all royalties and other revenue generated from exploitation of the U.S. ECS and owed to the United States would be deposited in the U.S. Treasury to be dispensed in the best interest of the United States and the American people. However, if the United States accedes to UNCLOS, potentially billions of dollars in royalties would instead be transferred to the Authority pursuant to Article 82. How the Authority would dispense those "internationalized" royalties is less clear.

The Authority's Distribution of ECS Royalties

UNCLOS authorizes the Authority to distribute royalty funds to despotic regimes, corrupt nations, and even state sponsors of terrorism, arguably without the final consent of the United States or any other country that might pay international royalties pursuant to Article 82.

UNCLOS provisions direct that international royalties generated by resource exploitation of the ECS be distributed to certain recipients to the exclusion of others. The Authority is required to distribute the revenue only to UNCLOS members and to preference developing countries, particularly those that are landlocked or the "least developed," and to "peoples who have not attained full independence or other self-governing status."[51]

If the United States joined UNCLOS, it would be one of more than 160 nations that are party to the convention and would have limited control over the disposition of Article 82 revenue. All final decisions on the "equitable sharing of…payments and contributions made pursuant to article 82" are made by the Assembly, the "supreme organ" of the Authority. The Assembly consists of all nations that are party to UNCLOS.[52] The United States would have only one vote in any Assembly decision, whether it dealt with Article 82 revenue or some other matter.[53]

Some UNCLOS proponents maintain that the United States, if it joined the convention, would have a "veto" over such decisions because the U.S. would hold a permanent seat on the 36-member Council, which is the executive organ of the Authority.[54] In fact, UNCLOS empowers the Council only to make recommendations to the Assembly on the

49. International Seabed Authority, *Issues Associated with the Implementation of Article 82*, pp. 3–8.

50. *Ibid.*, p. xi.

51. UNCLOS, Arts. 82(4) and 162(2)(o)(i). At the time of the UNCLOS negotiations, the phrase "peoples who have not attained full independence or other self-governing status" was widely understood as a euphemism for the Palestinian Liberation Organization.

52. UNCLOS, Art. 160(1), (2)(f)(i).

53. *Ibid.*, Art. 159(6).

54. *Ibid.*, Art. 162. The United States secured for itself a permanent seat on the Council in the 1994 agreement, which assigns a permanent Council seat to the nation with the largest economy in terms of gross domestic product on the date of entry into force. Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, Annex, § 3(15)(a).

disposition of Article 82 revenue, which the Assembly may approve or disapprove.[55] Any Council recommendation that is disapproved by the Assembly is returned to the Council "for reconsideration in the light of the views expressed by the Assembly."[56] Therefore, in function and form, the Assembly makes final determinations regarding the disposition of Article 82 revenue.

UNCLOS does not require that Article 82 revenue be spent in a transparent or accountable manner.

Thus, it is unlikely that the United States would be able to prevent the Authority from distributing Article 82 revenue to Cuba and Sudan, UNCLOS members that the U.S. State Department has designated as state sponsors of terrorism.[57] It would also be difficult for the United States to block the Authority from sending funds to the undemocratic, despotic, and/or brutal regimes in Belarus, Burma, China, Somalia, and Zimbabwe.[58] Finally, the United States would have limited ability to stop the transfer of Article 82 revenue to corrupt regimes, especially given that 13 of the 20 most corrupt nations in the world are UNCLOS members.[59]

By virtue of its seat on the Council, the United States might be able to hinder decisions to distribute Article 82 revenue for purposes to which it objects. Whether the United States would be steadfast in its objections to such distributions and whether the Assembly would make any such distributions without the consent of the Council are open questions.[60]

UNCLOS is silent on how UNCLOS nations that receive Article 82 royalty revenue should spend it. UNCLOS does not require recipient nations to spend the revenue on anything related to the oceans or the maritime environment. Nor does it require them to spend the revenue on humanitarian or development projects, even though most, if not all, of the eligible recipients are supposed to be poor, developing countries. Recipients are apparently free to spend the funds on military expenditures or simply deposit them into the personal bank accounts of national leaders.

Finally, UNCLOS does not require that Article 82 revenue be spent in a transparent or accountable manner. Apparently, the Authority simply hands over substantial amounts of money to the recipient nation to be spent however that nation sees fit, no matter how corrupt or inept that nation's leadership is.

What the United States Should Do

The U.S. government needs a better understanding of the magnitude of the mineral wealth on and beneath the U.S. extended continental shelf before it begins to contemplate UNCLOS membership. Without a well-informed estimate of the potentially vast resources of the ECS, the U.S. Senate is in no position to make an intelligent decision on UNCLOS accession. To that end:

55. If the U.S. were an UNCLOS member, it would have a greater ability to affect decisions by the Council regarding Article 82 revenue because such decisions by the Council require consensus. UNCLOS, Arts. 161(8)(d), 162(2)(o)(i).

56. UNCLOS, Arts. 160(2)(f)(i) and 162(2)(o)(i), and Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea, Annex, § 3(4).

57. U.S. State Department, Office of the Coordinator for Counterterrorism, *Country Reports on Terrorism 2009*, August 5, 2010, chap. 3, at *http://www.state.gov/s/ct/rls/crt/2009/140889.htm* (May 3, 2011). Neither Iran nor Syria, the two other designated state sponsors of terrorism, are parties to UNCLOS.

58. "Table of Independent Countries," in Freedom House, *Freedom in the World 2011*, at *http://www.freedomhouse.org/images/File/fiw/Tables%2C%20Graphs%2C%20etc%2C%20FIW%202011_Revised%201_11_11.pdf* (May 3, 2011).

59. Transparency International, "Corruption Perceptions Index 2010 Results," at *http://www.transparency.org/policy_research/surveys_indices/cpi/2010/results* (May 3, 2011). Thirteen of the 20 most corrupt nations on the 2010 index are UNCLOS members: Angola, Burma, Chad, Democratic Republic of Congo, Equatorial Guinea, Guinea, Iraq, Kenya, Laos, Papua New Guinea, Russia, Somalia, and Sudan.

60. While UNCLOS establishes a conciliation process for situations in which the Council is unable to reach a consensus (i.e., Art. 161(8)(e)), no such process is established for situations in which the Council and the Assembly are at an impasse.

- The U.S. Extended Continental Shelf Task Force needs to complete its work. This will require continued support from the Obama Administration and Congress. The task force is a relatively new project and requires much more data to measure and demarcate the full extent of the U.S. ECS properly in locations scattered across the globe. With seabed mining technology continuing to advance, the ECS Task Force should be given the resources necessary to complete its mission.
- Congress should direct the U.S. Geological Survey to estimate the potential mineral wealth associated with the U.S. ECS. The Senate needs to be fully cognizant of the potential wealth of the ECS before making any decision that would transfer a portion of that wealth to the International Seabed Authority for distribution to the "developing world."
- Once the full extent of the U.S. ECS has been determined, the President should issue a proclamation confirming U.S. jurisdiction over and control of the ECS and all of its resources, similar to the proclamations issued by Presidents Truman and Reagan on the continental shelf and the exclusive economic zone. Congress should amend the Outer Continental Shelf Lands Act to codify the ECS proclamation. While neither step is necessary to establish the U.S.'s rights to its own continental shelf, such a proclamation and legislation would clarify to the international community that the United States is asserting full and complete sovereignty over its ECS regardless of any provision of UNCLOS to the contrary.
- The relevant House and Senate committees should hold oversight hearings on the potential wealth of the U.S. ECS. Under current U.S. law, the resources of the continental shelf are "held by the Federal Government for the public." Congress should openly debate whether transferring royalties to the International Seabed Authority would be in the best interests of the United States and the American people.

At a minimum, these steps will ensure that Congress, especially the Senate, is fully aware of the financial implications of U.S. membership in UNCLOS before making any decision on accession to the convention.

Caveat Emptor

UNCLOS proponents are prepared to transfer a great deal of wealth—perhaps tens or even hundreds of billions of dollars of royalty revenue over time—to an international organization over which the United States has only limited authority. The ultimate beneficiaries of that wealth could easily include corrupt and despotic regimes and state sponsors of terrorism.

Instead of diverting U.S. revenues to such dubious purposes, the U.S. government should retain any wealth derived from the U.S. extended continental shelf for the benefit of the American people.

—Steven Groves is Bernard and Barbara Lomas Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation and a contributor to ConUNdrum: The Limits of the United Nations and the Search for Alternatives *(Rowman & Littlefield Publishers, 2009).*

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Commentary-

The Law of the Sea

By Steven Groves
October 10, 2011

The United Nations Convention on the Law of the Sea, also known as the Law of the Sea Treaty (or LOST), presents a dilemma for some national security conservatives.

On one hand, LOST "codifies" key navigational rights and freedoms that are important to the U.S. Navy—and the Navy brass actively supports ratification of the treaty on those grounds. On the other hand, one could be forgiven for thinking the U.S. Navy's 11 supercarriers, 75 nuclear submarines, and 200 other vessels, along with nearly 4,000 aircraft and 340,000 active duty personnel, obviate the need for a document that would merely allow us to do what we already do, and what we are entitled to do, with or without codification by the international community, such as it is. Still, when the U.S. Navy and the Joint Chiefs of Staff repeatedly and forcefully argue that something is crucial to the success of U.S. military operations—as they have in the case of LOST—conservatives usually salute.

So why has U.S. membership in the treaty proven so elusive to the Navy? Why have national security hawks in the Senate refused to fall in line? One reason may be that the Navy has been warning for nearly two decades of imminent and dire consequences that would stem from a failure to ratify the treaty (which took effect for signatories in 1994), and those fears have yet to be realized.

Over the years a procession of admirals has warned that the United States cannot guarantee its navigational rights unless it ratifies the treaty. "This may be our last opportunity to 'lock in' those critical navigational and overflight rights," wrote one admiral—in 1995. More than a dozen years later, in 2007, the vice chief of naval operations repeated the same warning to the Senate Foreign Relations Committee: "We need to lock in the navigation and overflight rights and high seas freedoms contained in the Convention while we can." With a possible Republican majority returning to the Senate in 2013, LOST is back on the front burner. Senator John Kerry is quietly working to recruit the necessary Republican votes to ratify the treaty and seize the "last chance to lock in" our rights under the authority of the United Nations.

The fact of the matter is that the Navy has not only survived but thrived without the supposed benefits of LOST membership. The Continental Congress established the Navy in 1775, and over the ensuing 236 years it has become the greatest maritime force in history. LOST was first adopted at the United Nations in 1982, yet

somehow the Navy has managed to protect U.S. maritime interests down to the present day.

On the high seas, the U.S. Navy "locks in" its rights and freedoms—and the rights and freedoms of every other peace-loving, seafaring nation—not by membership in LOST, but by its capacity to sink any ship that would try to deny those rights. When a foreign country makes an excessive jurisdictional claim that interferes with navigation of the seas by military or commercial ships, the United States disputes it through the Freedom of Navigation Program—a combination of diplomatic protest by the State Department and operational assertiveness by the Navy. For example, in 1993 Iran passed a law prohibiting warships from passing through waters it claimed in the Strait of Hormuz without prior authorization. The United States diplomatically protested the law, and our warships transit through Hormuz several times a year without permission from Tehran.

Other nations—including many that are party to the treaty—regularly violate customary international maritime law (and the provisions of LOST) by making excessive claims about the extent of their territorial waters. The Navy just as regularly counters those claims. It operates in the South China Sea, steams through the Straits of Hormuz and Malacca, and transits key archipelagic waters, all contrary to excessive claims made by China, Oman, Indonesia, and the Philippines (all of which, by the way, are signatories of LOST). From 1993 to 2010, the Navy conducted hundreds of Freedom of Navigation operations to challenge excessive maritime claims made by 47 different nations.

When push comes to shove, literally and figuratively, reliance on the good faith of other maritime nations to live up to their commitments under LOST is not the optimal way to secure the Navy's navigational rights. This was best illustrated in 2009 when China confronted and harassed the USNS *Impeccable* and *Victorious*, two Navy support ships with civilian crews operating in international waters, but within China's exclusive economic zone.

In March 2009 the *Impeccable* was engaging in lawful surveillance activities in the South China Sea fully 75 miles from Chinese territory when it was confronted repeatedly by the Chinese Navy and various "fishing vessels." The vessels threatened to collide with the unarmed *Impeccable* on several occasions and attempted to destroy its towed sonar array. In response, the Obama administration protested to Beijing and sent the USS *Chung-Hoon*, a destroyer, to escort the *Impeccable* on its next mission. That is how maritime rights are "locked in."

What would have happened differently if the United States had been a party to the Law of the Sea Treaty in March 2009? Is it possible that the *Impeccable*'s skipper could have shooed off the Chinese assault by running to the ship's gunwale waving a copy of the treaty over his head? If the Senate finally ratifies the treaty, will China actually live up to its LOST commitments and respect the right of our surveillance ships to track Chinese submarines out of their new base on Hainan Island? These questions answer themselves.

Instead of debating a flawed treaty that was rejected by President Reagan almost 30 years ago, the Senate should endeavor to provide the Navy with the resources it needs to preserve its preeminent position on the world's oceans. That is the only way to ensure that the Navy can successfully prosecute its mission of protecting navigational rights and freedoms on a global basis.

What is ultimately required to secure customary rights on the high seas are the ships, aircraft, missiles, and sailors of the U.S. Navy. Unfortunately, they face ever more cuts by the Obama administration and its allies in Congress.

Ratifying the Law of the Sea Treaty would force the United States to submit to U.N.-administered international

tribunals that are as capricious as the U.N. itself. Meanwhile, the real law of the sea is going to be administered as it always has been, by hundreds of thousands of tons of hardened steel. Congress needs to make sure it is U.S.-flagged steel that's doing the administering.

Michael Goldfarb is a contributing editor to The Weekly Standard. *Steven Groves is a fellow at the Heritage Foundation.*

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About the Author

Steven Groves Bernard and Barbara Lomas Senior Research Fellow

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LOST in the Arctic: The U.S. Need Not Ratify the Law of the Sea Treaty to Get a Seat at the Table

Steven Groves

Last month at the Arctic Ocean Conference (AOC) in Ilulissat, Greenland, high-level diplomats from the United States and the other four nations that border the Arctic region—Canada, Denmark, Norway, and Russia—met to discuss territorial claims regarding the Arctic Circle. At the conclusion of the meeting, the five countries issued a joint statement declaring that, "[b]y virtue of their sovereignty, sovereign rights and jurisdiction in large areas of the Arctic Ocean," each nation was in a unique position to address the exploitation of natural resources in the Arctic.[1]

The AOC was conceived in response to controversial actions undertaken by the Russian Federation. In August 2007, one of Russia's deep-water submersibles planted a flag on the sea floor beneath the North Pole.[2] Several U.S. politicians and media outlets seized on the Russian stunt as an opportunity to push for Senate ratification of the contentious United Nations Convention on the Law of the Sea (LOST). They adopted the mantra that the United States, if it fails to ratify LOST, "will not have a seat at the table" to resolve territorial claims such as those in dispute in the Arctic. For example:

- Senator Richard Lugar (R–IN), at a September 27, 2007, Senate Foreign Relations Committee hearing regarding LOST, lamented that "Russia is already making excessive claims in the Arctic. Until we become a party to the Convention, we will be in a weakened position to protect our national interests in these discussions."[3]
- Deputy Secretary of State John Negroponte, at that same hearing, echoed Senator Lugar's sentiment: "Setting aside its recent flag planting…Russia's continuing data collection in the Arctic reflects its commitment to maximizing its sovereign rights under the Convention over energy resources in that region. Currently, as a non-party, the United States is not in a position to maximize its sovereign rights in the Arctic or elsewhere. We do not have access to the [U.N.] Commission [on the Limits of the Continental Shelf]'s procedures for according international recognition and legal certainty to our extended shelf."[4]
- In October 2007, *The New York Times*, after dismissing opponents of LOST as "cranky right-wingers," editorialized that "[t]he steady retreat of the sea ice in the Arctic Ocean…has touched off a scramble among nations to determine who owns what on the ocean floor. Unless the United States ratifies the treaty, it will not have a seat at the table when it comes time to sort out competing claims."[5]
- A March 2008 *New York Times* editorial repeated the "seat at the table" theme: "[President Bush] must keep the pressure on Congress to approve, finally, the Law of the Sea. Without that approval, the United States will have no voice when decisions are made about rights of passage, exploring the ocean floor and fishing."[6]
- An August 2007 editorial in *The Christian Science Monitor* opined that the United States "may not have a good seat at the table to decide [the Arctic's] future" because it is not a party to LOST.[7]

Senator Lugar, Ambassador Negroponte, and *The New York Times* are merely repeating an argument previously asserted by the White House. For example, in May 2007, President Bush issued a statement on "advancing U.S. interests in the world's oceans" that declared: "I urge the Senate to act favorably on U.S. accession to the United Nations Convention on the Law of the Sea during this session of Congress.... [I]t will give the United States a seat at the table when the rights that are vital to our interests are debated and interpreted."[8]

However, the United States was still invited to and attended the AOC despite the fact that it is not a party to LOST. Such active participation in the debate over Arctic territorial claims disproves any contentions that the United States' "seat at the table" is contingent upon its ratification of LOST.

A Valid Assertion of Rights. By attending the Ilulissat conference, the United States acted as an independent, sovereign nation should act. The U.S. has interests in the Arctic that are worthy of protection,[9] and meeting with other interested nations in a multilateral setting was the proper protocol for securing such interests.

Yet even if the government of Denmark had decided not to invite the United States to the Ilulissat meeting—thereby depriving it of a "seat at the table"—U.S. interests would not have been negated. Denmark, Russia, Canada, Norway, or any other nations are unable to assert credible claims on U.S. territory in the Arctic or anywhere else in the world. Indeed, the United States secured its rights to the resources on its continental shelf when, in Presidential Proclamation No. 2667, President Harry S. Truman declared:

> I, HARRY S. TRUMAN, President of the United States of America, do hereby proclaim the following policy of the United States of America with respect to the natural resources of the subsoil and sea bed of the continental shelf.
>
> Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United

This paper, in its entirety, can be found at:
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1. "The Ilulissat Declaration," Arctic Ocean Conference, May 27–29, 2008, at *http://www.cop15.dk/NR/rdonlyres/BE00B850-D278-4489-A6BE-6AE230415546/0/ArcticOceanConference.pdf* (June 13, 2008).
2. Doug Struck, "Russia's Deep-Sea Flag-Planting at North Pole Strikes a Chill in Canada," *The Washington Post*, August 7, 2007, at *http://www.washingtonpost.com/wp-dyn/content/article/2007/08/06/AR2007080601369.html* (June 13, 2008).
3. Senator Richard Lugar, "Opening Statement for Hearing on the UN Law of the Sea Convention," Committee on Foreign Relations, U.S. Senate, September 27, 2007, at *http://lugar.senate.gov/press/record.cfm?id=284357&&* (June 13, 2008).
4. John D. Negroponte, "The UN Convention on the Law of the Sea," written testimony before Committee on Foreign Relations, U.S. Senate, September 27, 2007, at *http://www.state.gov/s/d/2007/92921.htm* (June 13, 2008).
5. Editorial, "Twenty-Five Years and Counting," *The New York Times*, October 31, 2007, at *http://www.nytimes.com/2007/10/31/opinion/31wed3.html?_r=1&oref=slogin* (June 13, 2008). A previous *New York Times* editorial described opponents of LOST as "a tiny but noisy group of xenophobic activists." Editorial, "Rescuing the Law of the Sea," *The New York Times*, August 22, 2004, at *http://query.nytimes.com/gst/fullpage.html?res=9C07E1D6163EF931A1575BC0A9629C8B63* (June 13, 2008).
6. Editorial, "Oceans at Risk," *The New York Times*, March 9, 2008, at *http://www.nytimes.com/2008/03/09/opinion/09sun2.html* (June 13, 2008).
7. Editorial, "Scramble for the Arctic," *The Christian Science Monitor*, August 21, 2007, at *http://www.csmonitor.com/2007/0821/p08s01-comv.html* (June 13, 2008).
8. Press release, "President's Statement on Advancing U.S. Interests in the World's Oceans," The White House, May 15, 2007, at *http://www.whitehouse.gov/news/releases/2007/05/20070515-2.html* (June 13, 2008).
9. See the forthcoming Heritage Foundation *Backgrounder* by Ariel Cohen, Ph.D., regarding U.S. Arctic policy.

> States as appertaining to the United States, subject to its jurisdiction and control.[10]

In making this declaration, President Truman ensured that any crude oil, natural gas, minerals, and any other resources discovered beneath the U.S. continental shelf were the property of the United States. Such resources belong to the United States because fate or Providence placed them beneath the U.S. continental shelf; the matter was no longer open to debate.

A Sovereign and Independent Nation. President Truman, acting as the leader of a sovereign and independent nation—and without the permission of the United Nations or the "international community"—did not believe that the U.S. needed to be party to an international treaty such as LOST before he declared U.S. rights over its own resources. Rather, the only "seat at the table" President Truman required when he made Presidential Proclamation No. 2667 was the chair behind his desk in the Oval Office.

The "seat at the table" argument has been thoroughly debunked by U.S. participation in the Arctic Ocean Conference. Membership in an international treaty is clearly not required to secure and protect sovereign rights to a nation's own territory, whether such land is located in the Arctic or anywhere else in the world.

The United States should continue to behave in the international arena as a sovereign and independent nation and not as a country that looks to the United Nations or the "international community" to determine its own rights.

—Steven Groves is Bernard and Barbara Lomas Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation.

10. Presidential Proclamation No. 2667, "Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf," September 28, 1945, at *http://www.presidency.ucsb.edu/ws/index.php?pid=12332* (June 13, 2008). Subsequent legislation further defined the U.S. continental shelf; see, for example, the Outer Continental Shelf Lands Act of 1953, 43 U.S.C. § 1331.

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FEULNER: Sink the Law of the Sea Treaty

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By Ed Feulner - The Washington Times Monday, May 21, 2012

Want the United States to gain legal access to the vast amount of oil and natural gas in the underwater extended continental shelf? Get LOST - specifically, the U.N. Convention on the Law of the Sea Treaty (LOST).

The Obama administration wants the Senate to act on the treaty, which has been around since 1982. Sen. John Kerry, Massachusetts Democrat, will be holding a series of hearings, beginning Wednesday, to make the case for LOST.

According to its advocates, we need LOST for a variety of reasons. One of them concerns the oil and gas resources located in the outer limits of our continental shelf. The treaty's proponents say we can obtain legal title to it only by signing on to the treaty.

"If the United States does not ratify this treaty, our ability to claim the vast extended continental shelf off Alaska will be seriously impeded," said Sen. Richard G. Lugar, Indiana Republican.

Without LOST, we are told, we will not be able to develop the hydrocarbon resources beneath the extended continental shelf in areas such as the Gulf of Mexico and the Arctic Ocean.

Sounds pretty dire and, at a time of fluctuating prices for gasoline and other forms of energy, alarming. Fortunately, it's not true.

Under international law and long-standing U.S. policy, we already have access to these areas. Presidents dating back to Harry Truman have issued proclamations - and Congress has passed laws - establishing America's maritime laws and boundaries. And no one has challenged them.

Perhaps LOST's proponents would like this to change. They tend to be fans of superfluous international agreements and frequently back policies that would tie the hands of the U.S. and prevent us from acting in our own interests. But the fact remains that their claim about LOST being necessary to obtain legal title to the oil and gas under the extended continental shelf is pure fiction.

A big part of the reason this matters is that a lot of money is at stake. It is hard to say exactly how much hydrocarbon deposits there are beneath the extended continental shelf, but according to the ECS Task Force, "Given the size of the U.S. continental shelf, the resources we find there may be worth many billions, if not trillions, of dollars."

Forgoing such a treasure is not the only way that the United States could lose out financially under LOST. Environmental activists are high on the treaty, too. That is because they anticipate suing the U.S., if it joins LOST, to force America to adopt the radical climate-change agenda they have been unsuccessful at imposing. So far, at least.

Climate-change alarmists have tried again and again in recent years to secure an international agreement. In Denmark, Mexico and South Africa, they have tried to come up with a legally binding climate-change pact. Considering what an economic wrecking ball such an agreement would represent to the U.S. and its allies, we can be glad they failed. But now they think they have found a solution: LOST.

Groups such as Greenpeace would love a chance to make the U.S. pay in international court. And that is just what we would do under the U.S. Convention on the Law of the Sea - pay.

"In addition to needlessly exposing itself to baseless environmental lawsuits," writes The Heritage Foundation's Steve Groves, an expert on LOST, "the United States would be required to transfer

billions of dollars in oil and gas royalties ... to the International Seabed Authority for redistribution to the developing world."

What does this mean? In short, it means that the United Nations will have an independent source of income, courtesy of the United States.

So who has Sen. Kerry invited to testify at his hearings? Secretary of State Hillary Rodham Clinton, Secretary of Defense Leon E. Panetta and Gen. Martin Dempsey, chairman of the Joint Chiefs of Staff. All of them are proponents of the treaty. So do not expect to hear a word about any of its many drawbacks.

LOST amounts to little more than an expensive power grab by America's detractors worldwide. President Reagan was right to reject it 30 years ago. The U.S. Senate should do the same thing today.

Ed Feulner is president of the Heritage Foundation (www.heritage.org).

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BACKGROUNDER

No. 2688 | MAY 14, 2012

U.S. Accession to U.N. Convention on the Law of the Sea Unnecessary to Develop Oil and Gas Resources

Steven Groves

Abstract

Proponents of U.S. accession to the United Nations Convention on the Law of the Sea (UNCLOS) insist that the U.S. must join the convention in order to secure title to oil and gas resources located on the U.S. extended continental shelf (ECS). However, that argument has no basis in fact or law. Under international law and long-standing U.S. policy and practice, the U.S. has already established jurisdiction and control over its ECS and is in the process of delimiting the boundaries of its ECS. The United States as a sovereign nation can accomplish its objectives regarding the ECS and its resources without acceding to a deeply flawed treaty or seeking the approval of an international commission of experts housed at the United Nations.

This paper, in its entirety, can be found at **http://report.heritage.org/bg2688**

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Proponents of U.S. accession to the United Nations Convention on the Law of the Sea (UNCLOS) claim that unless the United States joins the convention, it will be unable to gain "international recognition" of the outer limits of the U.S. continental shelf beyond 200 nautical miles (nm), an area known as the "extended continental shelf" (ECS). For example, Senator Richard Lugar (R–IN), a long-time supporter of U.S. membership in the convention, maintains that accession is essential to establishing a valid claim to the U.S. ECS in the Arctic: "If the United States does not ratify this treaty, our ability to claim the vast extended Continental Shelf off Alaska will be seriously impeded."[1]

Other supporters of the convention argue that international recognition of the U.S. ECS is absolutely conditional upon U.S. accession: "Countries must ratify the treaty for their claims to be internationally recognized."[2] They argue that without such recognition, the United States will be unable to develop hydrocarbon resources that lie beneath the ECS, including in such resource-rich areas as the Gulf of Mexico and the Arctic Ocean.

However, these arguments lack basis in fact or law. The United States regularly demarcates the limits of its continental shelf and declares the extent of its maritime boundaries with presidential proclamations, acts of Congress, and bilateral treaties with neighboring countries. As a result of bilateral treaties between the United States and Mexico, the Department of the Interior's Bureau of Ocean Energy Management currently leases areas of the U.S. ECS in the Gulf of Mexico to American and foreign oil and gas companies for exploration and development.

The United States may maintain jurisdiction and control over its ECS on a global basis, regardless of whether it ever accedes to UNCLOS, and it should take every action necessary to secure oil and gas resources located on its ECS in the Arctic Ocean, in the Gulf of Mexico, and throughout the world. The United States can accomplish this end while acting as a sovereign nation rather than by joining UNCLOS and seeking the approval of the Commission on the Limits of the Continental Shelf (CLCS), an international committee of geologists and hydrographers located at U.N. headquarters in New York City.

Talking Points

- The United States has jurisdiction and control over its extended continental shelf (ECS) on a global basis, regardless of the fact that it is not party to the U.N. Convention on the Law of the Sea.
- Through presidential proclamations, acts of Congress, and bilateral treaties with neighboring countries, the United States can and does demarcate the limits of its maritime boundaries and its ECS.
- The United States has successfully secured its hydrocarbon resources on an area of its ECS in the Gulf of Mexico known as the western gap and has leased that area to U.S. and foreign companies for development since 2001.
- Building on the western gap model, the United States should negotiate bilateral ECS delimitation treaties with nations with which it shares ECS boundaries and issue an "ECS Proclamation" reaffirming U.S. jurisdiction and control over the resources of the U.S. ECS.

The U.S. Extended Continental Shelf

Since 2003, in an effort to define the outer limit of the U.S. continental shelf, the United States has collected bathymetric and seismic mapping data on the outer margins of its continental shelf in the Arctic Ocean, Gulf of Alaska, Gulf of Mexico, and Bering Sea; along the Atlantic and Pacific Coasts; and off the Northern Mariana Islands, Kingman Reef, Palmyra Atoll, Guam, and Hawaii. The U.S. Extended Continental Shelf Task Force, an interagency project, is conducting this data collection.[3] To date, the ECS Task Force has identified six areas that "likely" contain submerged continental shelf and qualify as ECS and nine areas that "possibly" qualify.

The value of the hydrocarbon deposits lying beneath the U.S. ECS is difficult to estimate, but it is likely substantial. According to the ECS Task Force, "Given the size of the U.S. continental shelf, the resources we might find there may be worth many billions if not trillions of dollars."[4]

"International Recognition" of the U.S. ECS

Historical experience has repeatedly debunked the notion that achieving "international recognition" of U.S. maritime boundary and continental shelf claims requires UNCLOS membership. The United States has had no difficulty whatsoever in achieving recognition of such claims in the past. Since 1945, U.S. Presidents have issued proclamations and Congress has enacted laws on U.S. maritime claims and boundaries. None of these has been challenged by any nation, any group of nations, or the "international community" as a whole.

- **1945: Truman claims jurisdiction and control over the U.S. continental shelf and its resources and establishes a conservation zone for coastal fisheries.** On September 28, 1945, President Harry S. Truman issued two proclamations, including the "Policy of the United States With Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf," which states in part:

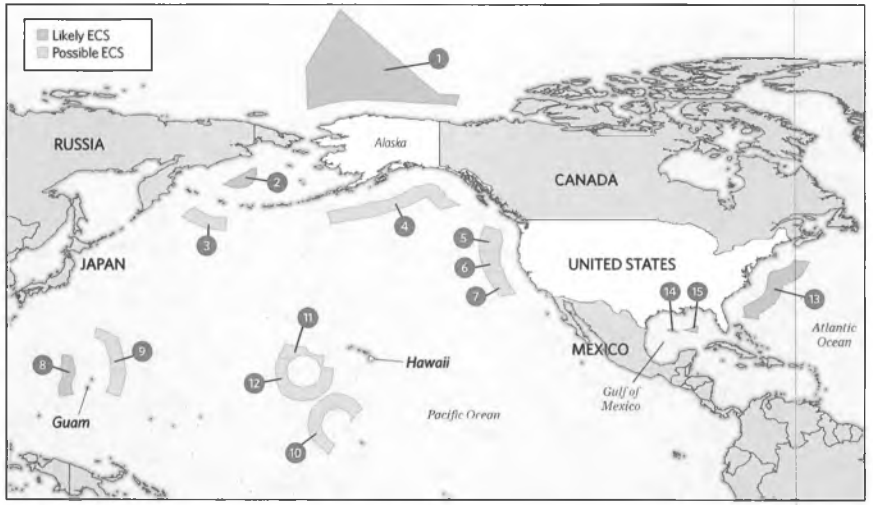
  Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control.[5]

  Truman's second proclamation established a conservation zone

1. Richard G. Lugar, opening statement, October 4, 2007, in hearings, *The United Nation's* [sic] *Convention on the Law of the Sea (Treaty Doc. 103-39)*, S. Hrg. 110-592, Committee on Foreign Relations, U.S. Senate, 110th Cong., 1st Sess., September 27 and October 4, 2007, p. 69, http://www.gpo.gov/fdsys/pkg/CHRG-110shrg45282/pdf/CHRG-110shrg45282.pdf (accessed April 17, 2012).
2. Don Kraus, prepared statement, in hearings, *The United Nation's Convention on the Law of the Sea*, p. 155.
3. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, "Extended Continental Shelf Project," revised August 25, 2011, http://continentalshelf.gov (accessed April 17, 2012).
4. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, "About the Extended Continental Shelf Project," http://continentalshelf.gov/about.html (accessed April 17, 2012).
5. Harry S. Truman, "Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf," Presidential Proclamation No. 2667, September 28, 1945, http://www.presidency.ucsb.edu/ws/index.php?pid=12332 (accessed April 17, 2012).

MAP 1

U.S. Extended Continental Shelf (ECS)



Source: U.S. Extended Continental Shelf Project, "Establishing the Full Extent of the Continental Shelf of the United States," http://continentalshelf.gov/media/ECSposterDec2010.pdf (accessed May 8, 2012).

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for U.S. fishery resources contiguous to the U.S. coast.[6]

- **1953: Congress defines the U.S. continental shelf and reaffirms jurisdiction and control over its resources.** Congress refined Truman's continental shelf proclamation in 1953 when it enacted the Outer Continental Shelf Lands Act, which declared "the policy of the United States that ... the subsoil and seabed of the outer Continental Shelf appertain to the United States and are subject to its jurisdiction, control, and power of disposition" and defined the outer continental shelf as "all submerged lands lying seaward and outside of the area of lands beneath navigable waters."[7]

6. Harry S. Truman, "Policy of the United States with Respect to Coastal Fisheries in Certain Areas of the High Seas," Presidential Proclamation No. 2668, September 28, 1945, http://www.presidency.ucsb.edu/ws/index.php?pid=58816#axzz1qQy5Dc8e (accessed April 17, 2012).

- **1983: Reagan declares a 200 nm exclusive economic zone (EEZ).** After deciding in July 1982 not to sign UNCLOS, President Ronald Reagan announced his official oceans policy in March 1983. The announcement proclaimed "an Exclusive Economic Zone in which the United States will exercise sovereign rights in living and nonliving resources within 200 nautical miles of its coast."[8] The pronouncement of the 200 nm EEZ was part of Reagan's broader policy commitment to "accept and act in accordance with the balance of interests relating to traditional uses of the oceans," which are reflected in the convention. The 200 nm EEZ conforms to the limit set forth in Article 57 of UNCLOS.

- **1988: Reagan declares a 12 nm territorial sea.** In December 1988, Reagan followed up his 1983 EEZ proclamation by extending the breadth of the U.S. territorial sea from 3 nm to 12 nm in conformity with Article 3 of UNCLOS.[9]

- **1999: Clinton declares a 24 nm contiguous zone.** Building on Reagan's maritime proclamations, in September 1999, President Bill Clinton proclaimed an extension of the U.S. contiguous zone from 9 nm to 24 nm in conformity with Article 33(2) of UNCLOS.[10]

BOTH INTERNATIONAL LAW AND LONG-STANDING U.S. POLICY AND PRACTICE ESTABLISH THAT THE UNITED STATES IS WITHIN ITS RIGHTS TO DEMARCATE THE VARIOUS AREAS OF ITS ECS AND EXPECT OTHER NATIONS TO RECOGNIZE THOSE BOUNDARIES.

Proponents of UNCLOS offer no evidence that any foreign nation has not recognized or will not recognize the unilateral proclamations made by the United States. Yet the same proponents contend that the United States cannot hope to gain recognition of its ECS or assert jurisdiction and control over it unless and until it joins the convention. Law of the sea experts such as Ted McDorman at the University of Victoria disagree with that position:

> It can be asked whether a non-party to the LOS Convention can legally exercise jurisdiction over its adjacent continental margin beyond 200 nautical miles or whether this entitlement is only available to parties to the LOS Convention. The answer is that there appears to exist sufficient state practice ... to support the view that, as a matter of customary international law, states can legally exercise jurisdiction over the continental margin beyond 200 nautical miles *irrespective of the State's status as a LOS Convention ratifier.*[11]

No evidence suggests that membership in UNCLOS is necessary, much less essential, either to gain international recognition of the U.S.'s ECS boundaries or to claim, legally and legitimately, jurisdiction and control over its ECS resources. It is telling that proponents of U.S. accession to UNCLOS do *not* claim that international recognition of the U.S. territorial sea, contiguous zone, or EEZ is contingent upon U.S. accession to the convention, yet they assert that accession is the *sine qua non* for international recognition of the U.S. ECS.[12]

7. 43 U.S. Code §§ 1331(a) and 1332(1).
8. Ronald Reagan, "Statement on United States Oceans Policy," March 10, 1983, http://www.reagan.utexas.edu/archives/speeches/1983/31083c.htm (accessed April 17, 2012).
9. Ronald Reagan, "Territorial Sea of the United States," Presidential Proclamation No. 5928, December 27, 1988, http://www.presidency.ucsb.edu/ws/index.php?pid=35297#axzz1TQdtXNj9 (accessed April 17, 2012).
10. William J. Clinton, "Contiguous Zone of the United States," Presidential Proclamation 7219, September 2, 1999, http://www.presidency.ucsb.edu/ws/?pid=56452#axzz1nE3OOjEq (accessed April 17, 2012). See also U.S. Department of State, "U.S. Territorial Sea and Contiguous Zone," Public Notice 358, June 1, 1972, in *Federal Register*, Vol. 37, No. 116 (June 15, 1972), p. 11906, http://www.gc.noaa.gov/documents/060172-gcil_zones_12_nm.pdf (accessed April 17, 2012). This notice established a 9 nm contiguous zone in conformity with the 1958 Convention on the Territorial Sea and the Contiguous Zone.
11. Ted L. McDorman, "The Entry into Force of the 1982 LOS Convention and the Article 76 Outer Continental Shelf Regime," *The International Journal of Marine and Coastal Law*, Vol. 10, No. 2 (1995), p. 167 (emphasis added). McDorman cites evidence of actual state practice under the 1958 Convention on the Continental Shelf and UNCLOS Article 76 to support his conclusion.
12. Besides the United States, other UNCLOS non-parties, including Cambodia, Colombia, El Salvador, Syria, Turkey, the United Arab Emirates, and Venezuela, delimit their maritime boundaries (e.g., 12 nm territorial sea, 24 nm contiguous zone, and/or 200 nm EEZ) in conformity with the convention without objection from other nations. See U.S. Department of Defense, Under Secretary of Defense for Policy, *Maritime Claims Reference Manual*, June 23, 2005, http://www.jag.navy.mil/organization/code_10_mcrm.htm (accessed April 17, 2012).

Both international law and long-standing U.S. policy and practice establish that the United States is within its rights to demarcate the various areas of its ECS and expect other nations to recognize those boundaries. Although it is unnecessary to do so, once the United States completes the mapping and delineation of its ECS, it should confirm its jurisdiction and control over those areas by presidential proclamation in the manner of the Truman proclamation on the continental shelf, the Reagan proclamations on the EEZ and the territorial sea, and the Clinton proclamation on the contiguous zone.

There is no magic ritual for achieving international recognition of maritime and continental shelf boundaries. Foreign nations recognize and respect U.S. maritime claims and boundaries, and vice versa, as long as those claims and boundaries conform to widely accepted international law, including the various provisions of customary international law that are reflected in UNCLOS.

Like its other maritime claims, the United States will demarcate the limits of its ECS in a manner that conforms to international law. In November 1987, a U.S. government interagency group issued a policy statement declaring its intent to delimit the U.S. ECS in conformity with Article 76 of UNCLOS, which provides a formula for measuring the extent of a coastal state's ECS. The pertinent part of the policy statement reads:

> [T]he Interagency Group on Ocean Policy and Law of the Sea has determined that the proper definition and means of delimitation in international law are reflected in Article 76 of [UNCLOS]. *The United States has exercised and shall continue to exercise jurisdiction over its continental shelf in accordance with and to the full extent permitted by international law as reflected in Article 76*, paragraphs (1), (2) and (3). At such time in the future that it is determined desirable to delimit the outer limit of the continental shelf of the United States beyond two hundred nautical miles ... such delimitation shall be carried out in accordance with paragraphs (4), (5), (6) and (7).[13]

The 1987 policy statement sets out a process for obtaining domestic approval and providing international notification of the delimited U.S. ECS:

> After delimitation [of the ECS] is completed, the results of any such delimitation shall be ... transmitted to the President for review. If approved, the Department of State shall transmit charts depicting the delimitation and other relevant information to the Secretary-General of the United Nations and any other organizations as the Interagency Group shall determine to be desirable.[14]

To provide international notice of its ECS boundaries, the United States should also deposit charts and geographical coordinates describing the outer limits of its ECS with the U.N. Secretary-General for inclusion in the *Law of the Sea Bulletin*.[15]

Despite the claims of UNCLOS proponents, the United States can successfully pursue its national interests regarding its ECS—particularly oil and gas exploitation—without first gaining universal international recognition of its outer limits. While such recognition may be a worthy achievement, it is of no consequence to U.S. national interests whether the 195 nations of the world affirmatively recognize America's jurisdiction over its ECS in the Gulf of Mexico, the Arctic Ocean, and elsewhere.

While achieving unanimous international recognition for the borders of the U.S. ECS is unnecessary, it is important for the U.S. to negotiate on a bilateral basis with nations with which it shares maritime borders to delimit and mutually recognize each other's maritime and ECS boundaries. This process is already underway in regions where the United States has presumptive areas of ECS, including resource-rich areas in the Gulf of Mexico and the Arctic Ocean.

U.S. ECS in the Gulf of Mexico

International cooperation on the delimitation of maritime boundaries is necessary in resource-rich areas such as the Gulf of Mexico. Proponents of U.S. accession to UNCLOS assert that unless the United States joins the convention, it will be unable to definitively delimit the boundaries of its ECS, gain

13. "United States Policy Governing the Continental Shelf of the United States of America," November 17, 1987, reprinted in J. Ashley Roach and Robert W. Smith, *U.S. Responses to Excessive Maritime Claims*, 2nd ed. (The Hague: Martinus Nijhoff Publishers, 1996), pp. 201–202 (emphasis added).
14. Ibid.
15. U.N. Office of Legal Affairs, Division for Ocean Affairs and the Law of the Sea, "The Law of the Sea Bulletins," http://www.un.org/depts/los/doalos_publications/los_bult.htm (accessed April 23, 2012).

BACKGROUNDER | NO. 2688
MAY 14, 2012

international recognition for those boundaries, or develop the hydrocarbon resources of its ECS. However, the U.S. experience in the Gulf refutes each of those assertions.

Since the 1970s, the United States and Mexico have negotiated a series of bilateral treaties to delimit their maritime and continental shelf boundaries, including areas abutting ECS:

- **In November 1970,** the U.S. and Mexico signed a treaty to maintain the Rio Grande and Colorado River as the agreed international boundary between the two nations. As part of the treaty, the two nations demarcated their maritime boundaries in the Gulf of Mexico and the Pacific Ocean out to 12 nm.[16] The treaty entered into force on April 18, 1972.
- **In May 1978,** building on the 1970 treaty, the two nations signed a treaty delimiting their maritime boundaries in the Gulf and in the Pacific out to 200 nm.[17] The treaty demarcated boundary lines in the Gulf where their respective 200 nm EEZs abutted, leaving a "doughnut hole" of approximately 5,092 square nm (now known as the "western gap") where their 200 nm boundary lines did not meet. A second doughnut hole was created in the eastern Gulf where the EEZs of the U.S., Mexico, and Cuba fail to intersect (the "eastern gap"). The treaty entered into force on November 13, 1997.
- **In June 2000,** the U.S. and Mexico signed a treaty dividing the area of ECS within the western gap. Of the 5,092 square nm of ECS in the western gap, 1,913 (38 percent) went to the United States and 3,179 (62 percent) went to Mexico.[18] The treaty established a drilling moratorium over a narrow strip along the boundary within the western gap due to the possibility that transboundary hydrocarbon reservoirs are located along the boundary. The treaty entered into force on January 17, 2001.
- **In February 2012,** the U.S. and Mexico signed a treaty regarding the exploitation of transboundary reservoirs located along the continental shelf boundary shared by the two nations in the Gulf, including along the ECS boundary within the western gap.[19] The treaty has not yet been transmitted to the U.S. Senate for its advice and consent.

Collectively, these treaties between the United States and Mexico, particularly the June 2000 ECS delimitation treaty, demarcated an area of U.S. ECS—the 1,913 square nm of submerged continental shelf in the northern portion of the western gap. There is no evidence that any nation, any group of nations, or the international community as a whole does not or will not recognize the ECS in the northern portion of the western gap as subject to the jurisdiction and control of the United States.

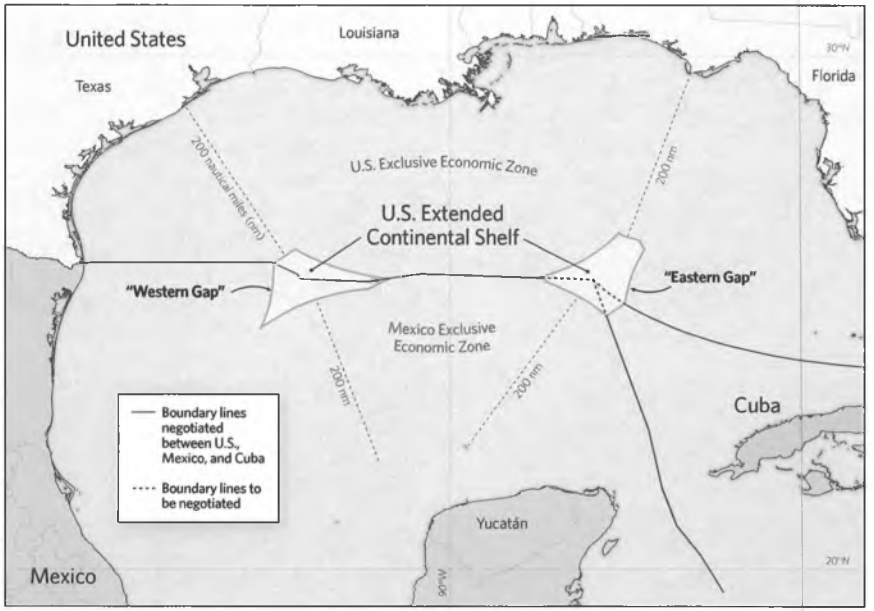
Yet UNCLOS proponents commonly claim that U.S. companies will lack the "certainty" they require to develop the hydrocarbon resources located on the ECS unless the United States accedes to the convention and receives the approval of the Commission on the Limits of the Continental Shelf (CLCS). For example, in 2007, former Deputy Secretary of State John Negroponte stated, "In the absence of such international recognition and legal certainty, U.S. companies are unlikely to secure the necessary financing and insurance to exploit energy resources on the extended shelf."[20] Another prominent advocate of U.S. accession has argued that U.S. failure to join the convention "could result in a loss

16. "Treaty to Resolve Pending Boundary Differences and Maintain the Rio Grande and Colorado River as the International Boundary," November 23, 1970, http://faolex.fao.org/docs/pdf/bi-51757.pdf (accessed April 17, 2012).
17. "Treaty on Maritime Boundaries Between the United Mexican States and the United States of America," May 4, 1978, http://www.boem.gov/uploadedFiles/BOEM/Regulations/Treaties/1978_0504-Treaty-MaritimeBoundariesMexicoandUS.pdf (accessed April 17, 2012).
18. "Treaty Between the Government of the United States of America and the Government of the United Mexican States on the Delimitation of the Continental Shelf in the Western Gulf of Mexico Beyond 200 Nautical Miles," June 9, 2000, http://www.boem.gov/uploadedFiles/BOEM/Regulations/Treaties/2000_0609-Treaty-OCSinWGOMbeyond200nm.pdf (accessed April 17, 2012), and news release, "MMS Lauds U.S. and Mexico Continental Shelf Boundary Treaty Agreement," U.S. Department of the Interior, Minerals Management Service, June 13, 2000, http://www.gomr.boemre.gov/homepg/whatsnew/newsreal/2000/000713.html (accessed April 17, 2012).
19. U.S. Department of the Interior, Bureau of Ocean Energy Management, "Agreement Between the United States of America and the United Mexican States Concerning Transboundary Hydrocarbon Reservoirs in the Gulf of Mexico," February 20, 2012, http://www.boem.gov/BOEM-Newsroom/Library/Library.aspx (accessed April 17, 2012).
20. John D. Negroponte, statement, in hearings, *The United Nation's Convention on the Law of the Sea*, p. 8.

MAP 2

U.S. Extended Continental Shelf in Gulf of Mexico

The Gulf of Mexico contains two areas of submerged continental shelf that extend beyond the 200-nautical-mile exclusive economic zones (EEZ) of Mexico and the United States—the "western gap" and the "eastern gap." The U.S. and Mexico signed a treaty in June 2000 that divides the area of extended continental shelf within the "western gap" between the two nations.



Sources: U.S. Department of the Interior, Bureau of Ocean Energy Management, "Treaty on Maritime Boundaries Between the United Mexican States and the United States of America," May 4, 1978, http://www.boem.gov/uploadedFiles/BOEM/Regulations/Treaties/1978_0504-Treaty-MaritimeBoundariesMexicoandUS.pdf (accessed April 17, 2012); U.S. State Department, "Maritime Boundary Agreement Between the United States of America and the Republic of Cuba," December 16, 1977, http://www.state.gov/documents/organization/125389.pdf (accessed May 8, 2012); and United Nations, "Executive Summary: A Partial Submission of Data and Information on the Outer Limits of the Continental Shelf of the United Mexican States Pursuant to Part VI of and Annex II to the United Nations Convention on the Law of the Sea," December 2007, http://www.un.org/depts/los/clcs_new/submissions_files/mex07/part_i_executive_summary.pdf (accessed May 8, 2012).

of thousands of square kilometers of resource-rich ... continental shelf."[21]

Reality tells a different story. The ECS area on the U.S. portion of the western gap has been available for development since August 2001. Specifically, the Bureau of Ocean Energy Management (BOEM)[22] offered the northern portion of the western gap for lease almost immediately after the 2000 U.S.–Mexico ECS delimitation treaty was ratified. That treaty entered into force on January 17, 2001. Seven months later, on August 22, BOEM offered the area of U.S. ECS in the western gap in Lease Sale 180. In that lease sale, three U.S. companies (Texaco, Hess, and Burlington Resources Offshore) and one foreign company (Brazil's Petrobras) submitted successful bids totaling more than $2 million for seven lease blocks in the western gap.[23]

BOEM has offered the ECS blocks in the western gap in 19 lease sales between August 2001 (Lease Sale 180) and March 2010 (Lease Sale 213). In connection with those sales, seven U.S. companies (Burlington, Chevron, Devon Energy, Hess, Mariner Energy, NARCA Corporation, and Texaco) submitted bids to lease blocks in the western gap. Five foreign companies—British Petroleum, Eni Petroleum (Italy), Maersk Oil (Denmark), Petrobras, and Total (France)—also bid on western gap ECS blocks during those sales. BOEM collected more than $47 million in bids in connection with lease sales on those blocks.

Of the approximate 320 blocks located in whole or in part on the western gap ECS, 65 (approximately 20 percent) are currently held under active leases by nine U.S. and foreign oil exploration companies.[24]

The successful delimitation and subsequent leasing of areas in the Gulf of Mexico demonstrate that the United States does not need to achieve universal international recognition of its ECS. The United States identified and demarcated areas of ECS in the western gap in cooperation with the only other relevant nation, Mexico, and that area was subsequently offered for development to U.S. and foreign oil and gas companies.[25] All of this was achieved without U.S. accession to UNCLOS or CLCS approval.

Even though approximately 20 percent of the U.S. ECS that has been made available for lease by BOEM is currently under an active lease, the U.S. oil and gas industry has supported and will likely continue to support U.S. accession to UNCLOS in order to achieve even greater "certainty."[26] That is their prerogative, of course, and achieving a maximum amount of certainty is a legitimate and desirable goal for a capital-intensive commercial enterprise. However, the successful delimitation of the ECS in the western gap would appear to have provided the certainty necessary for several major U.S. and foreign oil exploration companies to begin developing hydrocarbon resources on the Gulf ECS.

The U.S. experience in the Gulf should serve as a model for future bilateral negotiations and treaties with other nations that share ECS boundaries with the United States. For example, the U.S. should negotiate a treaty with Mexico and Cuba to delimit their respective areas of ECS in the eastern gap in the Gulf of Mexico.[27]

U.S. ECS in the Arctic Ocean

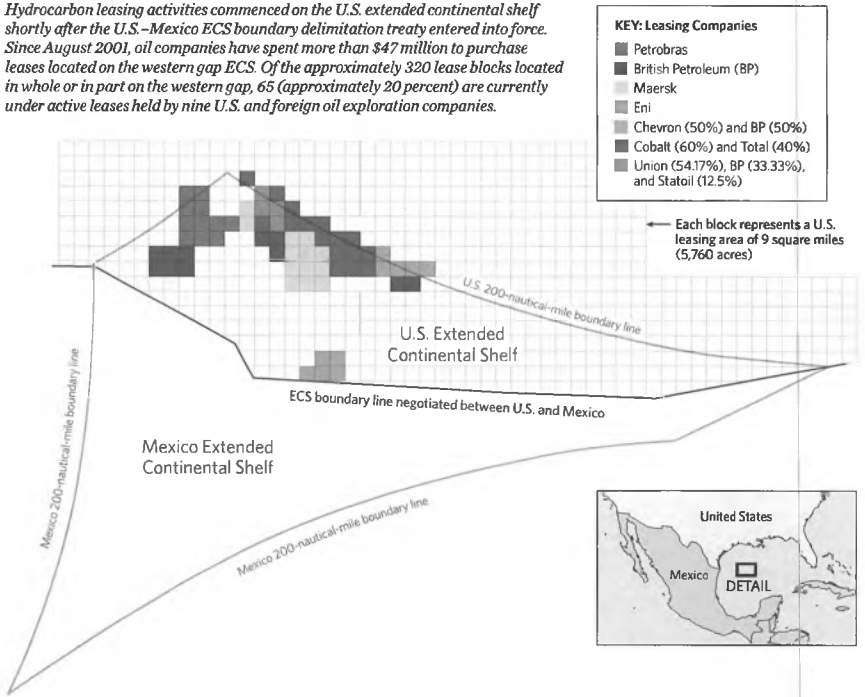
Another area of the ECS that is of particular importance to the

21. John Norton Moore, written testimony, in hearings, *The U.N. Convention on the Law of the Sea (Treaty Doc. 103–39)*, Committee on Foreign Relations, U.S. Senate, 108th Cong., 2nd Sess., October 14, 2003, p. 56, http://www.foreign.senate.gov/download/?id=564DC8D7-F536-4CCB-B0CE-3FD8A1C7CC6C (accessed April 17, 2012).
22. BOEM is one of two divisions of the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE), formerly known as the Minerals Management Service. The other division is the Bureau of Safety and Environmental Enforcement (BSEE).
23. U.S. Department of the Interior, Bureau of Ocean Energy Management, Regulation and Enforcement, "Western Gulf of Mexico Lease Sale 180 Information," updated August 30, 2010, http://www.gomr.boemre.gov/homepg/lsesale/180/wgom180.html (accessed April 17, 2012).
24. U.S. Department of the Interior, Bureau of Ocean Energy Management, "Lease Sale Information," http://www.boem.gov/Oil-and-Gas-Energy-Program/Leasing/Regional-Leasing/Gulf-of-Mexico-Region/GOMR-Historical-Lease-Sale-Information.aspx (accessed April 17, 2012).
25. The fact that state-owned or state-controlled oil companies such as Eni Petroleum and Petrobras purchased leases from the United States for ECS areas in the western gap may amount to de facto recognition of U.S. jurisdiction over those areas by Italy and Brazil.
26. Paul Kelly, statement, in hearings, *The U.N. Convention on the Law of the Sea (Treaty Doc. 103–39)*, pp. 113–116.
27. Cuba and Mexico made submissions to the CLCS claiming areas of ECS in the eastern gap in June 2009 and December 2011, respectively. The Cuban submission appears to conform with a general understanding regarding the apportionment of the ECS within the eastern gap. However, the Mexican submission appears to be excessive, claiming areas of ECS in the eastern gap that likely appertain to the United States and Cuba. See U.N. Office of Legal Affairs, "Submissions, Through the Secretary-General of the United Nations, to the Commission on the Limits of the Continental Shelf, Pursuant to Article 76, Paragraph 8, of the United Nations Convention on the Law of the Sea of 10 December 1982," at http://www.un.org/depts/los/clcs_new/commission_submissions.htm (accessed April 17, 2012).

MAP 3

Active Hydrocarbon Leases on U.S. Extended Continental Shelf in the "Western Gap"

Hydrocarbon leasing activities commenced on the U.S. extended continental shelf shortly after the U.S.–Mexico ECS boundary delimitation treaty entered into force. Since August 2001, oil companies have spent more than $47 million to purchase leases located on the western gap ECS. Of the approximately 320 lease blocks located in whole or in part on the western gap, 65 (approximately 20 percent) are currently under active leases held by nine U.S. and foreign oil exploration companies.



Sources: U.S. Department of the Interior, Bureau of Ocean Energy Management, "Lease Sale Information," http://www.boem.gov/Oil-and-Gas-Energy-Program/Leasing/Regional-Leasing/Gulf-of-Mexico-Region/GOMR-Historical-Lease-Sale-Information.aspx (accessed April 17, 2012), and "Treaty Between the Government of the United States of America and the Government of the United Mexican States on the Delimitation of the Continental Shelf in the Western Gulf of Mexico Beyond 200 Nautical Miles," June 9, 2000, http://www.boem.gov/uploadedFiles/BOEM/Regulations/Treaties/2000_0609-Treaty-OCSinWGOMbeyond200nm.pdf (accessed April 17, 2012).

BACKGROUNDER | NO. 2688
MAY 14, 2012

United States is in the Arctic Ocean. There has been much hand-wringing among proponents of U.S. accession to UNCLOS over access to Arctic resources. In general, proponents contend that the U.S. ability to exploit ECS resources in the Arctic is contractual in nature vis-à-vis UNCLOS: In other words, the right to exploit the ECS in the Arctic depends on U.S. accession to UNCLOS. For example, in September 2007, Michael Chertoff, former Secretary of the Department of Homeland Security, characterized the necessity of U.S. accession as follows:

> Moreover, our extended continental shelf has enormous potential oil and gas reserves, particularly in the Bering Sea and Arctic Ocean. Only by becoming a party to the Law of the Sea Convention and participating in its processes can the United States obtain secure title to these vast resources.[28]

John Bellinger, former Legal Adviser to the U.S. State Department, has also implied that failure to accede to the convention will impede the U.S.'s ability to exploit its Arctic ECS: "While [Russia, Canada, Norway, and Denmark] laugh all the way to the oil and gas bank, the U.S. sits on the sidelines unable to claim the resources on its extended continental shelf in the Arctic because it is not a party to the Law of the Sea treaty."[29]

Much of the supposed distress voiced by UNCLOS proponents stems from Russia's 2001 submission to the CLCS, in which Russia laid claim to a vast area of Arctic ECS. The proponents incorrectly imply that Russia's claim will result in the loss of Arctic resources that rightfully belong to the United States. According to Senator Lisa Murkowski (R–AK), for example:

> [I]f we do not become a party to the treaty, our opportunity to make [a claim to the CLCS] and have the international community respect it diminishes considerably, as does our ability to prevent claims like Russia's from coming into fruition. Not only is this a negligent forfeiture of valuable oil, gas and mineral deposits, but also the ability to perform critical scientific research.[30]

However, Russia's 2001 submission to the CLCS in no way overlaps or infringes on potential areas of U.S. ECS in the Arctic. To the contrary, Russia's claim adheres to a boundary line that the United States and the USSR agreed upon in a 1990 treaty.[31] Specifically, Russia's submission to the CLCS divides its claimed continental shelf and ECS from the U.S. shelf along an agreed boundary line that extends from the Bering Strait northward into the Arctic Ocean.

In a letter submitting the 1990 U.S.–USSR treaty to President George H. W. Bush, former Secretary of State James Baker specifically noted that the treaty demarcated an ECS boundary line with the USSR: "[The treaty] also delimits, as between the Parties, such continental shelf jurisdiction beyond 200 nautical miles from their coasts as they may exercise in accordance with international law in the Arctic Ocean, Bering and Chukchi Seas and a portion of the North Pacific Ocean."[32] To the present day, the U.S. Department of the Interior has used the 1990 boundary line to demarcate the U.S.–Russia continental shelf boundary for the purpose of mapping and leasing areas for oil and gas exploration in the Chukchi and Bering Seas.[33]

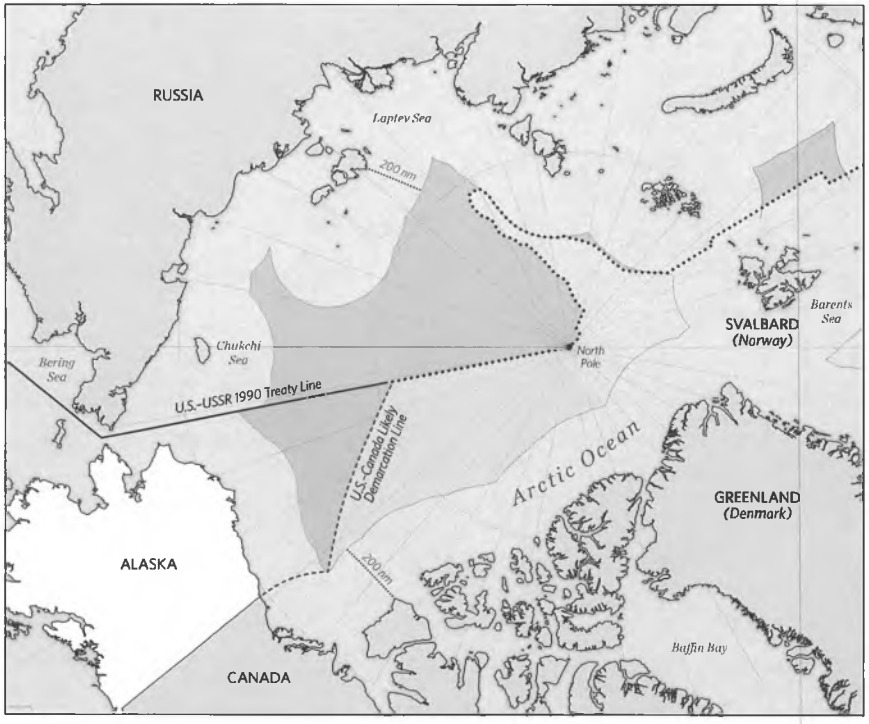
That said, Russia's 2001 CLCS submission extends the U.S.–USSR boundary line from the Bering Strait all the way to the North Pole, likely resulting in an excessive ECS claim in the central Arctic. However, Russia's potentially excessive claim is located to the north of the presumptive U.S. ECS area, and while the claim may infringe on Canada's potential ECS area, it does not

28. Michael Chertoff, letter to Senator Joseph Biden, Chairman, Committee on Foreign Relations, September 26, 2007, in hearings, *The United Nation's Convention on the Law of the Sea*, p. 48.
29. John B. Bellinger III, "Arctic Treasure," *Foreign Policy*, May 19, 2011, http://shadow.foreignpolicy.com/posts/2011/05/19/arctic_treasure (accessed April 17, 2012).
30. Lisa Murkowski, statement before the Committee on Environment and Public Works, U.S. Senate, March 24, 2004, http://epw.senate.gov/hearing_statements.cfm?id=219594 (accessed April 17, 2012).
31. *Agreement with the Union of Soviet Socialist Republics on the Maritime Boundary*, Treaty Doc. 101-22, U.S. Senate, 101st Cong., 2nd Sess., September 26, 1990, http://www.state.gov/documents/organization/125431.pdf (accessed April 17, 2012).
32. James A. Baker III, "Letter of Submittal," September 6, 1990, in ibid., p. v.
33. U.S. Department of the Interior, "Outer Continental Shelf Official Protraction Diagrams: Alaskan Coast," January 2004, http://www.boemre.gov/ld/Offshore_Cadastre/Alaska/pdf/akindex.pdf (accessed April 17, 2012).

MAP 4

U.S. Extended Continental Shelf in the Arctic

A major U.S.–Canada ECS boundary in the Arctic remains to be negotiated. Russia's 2001 submission to the Commission on the Limits of the Continental Shelf respects the 1990 U.S.–USSR treaty boundary and extends it up to the North Pole. While the Russian submission likely results in an excessive ECS claim and infringes on Canada's potential ECS, it does not conflict with any U.S. claim.



Sources: U.S. State Department, "Agreement with the Union of Soviet Socialist Republics on the Maritime Boundary," September 26, 1990, http://www.state.gov/documents/organization/125431.pdf (accessed April 17, 2012); United Nations, submission by the Russian Federation to the Commission on the Limits of the Continental Shelf, Map 2, December 20, 2001, http://www.un.org/depts/los/clcs_new/submissions_files/rus01/RUS_CLCS_01_2001_LOS_2.jpg (accessed May 8, 2012); and Durham University, "Maritime jurisdiction and boundaries in the Arctic Region," International Boundaries Research Unit, December 20, 2011, http://www.dur.ac.uk/resources/ibru/arctic.pdf (accessed May 8, 2012).

conflict with any U.S. claim.[34] Even if it did, Russia's claim would not be approved by the CLCS or recognized by the United States or Canada. UNCLOS provisions and CLCS procedural rules prevent the commission from approving an ECS boundary claim if there is a dispute: "In cases where a land or maritime dispute exists, the Commission shall not consider and qualify a submission made by any of the States concerned in the dispute."[35]

Indeed, after Russia made its 2001 claim, five nations (Canada, Denmark, Japan, Norway, and the United States) submitted objections to the CLCS. The U.S. objection identified "major flaws" in the Russian claim, including an objection concerning whether the Alpha-Mendeleev and Lomonosov mid-ocean ridges in the central Arctic are a natural component of Russia's continental shelf. However, the U.S. comments also noted that "the Russian submission utilizes the boundary embodied" in the 1990 U.S.–USSR treaty and that the "use of that boundary is consistent with the mutual interests of Russia and the United States in stability of expectations."[36]

The CLCS agreed with the U.S. comments, stating that the U.S.–USSR boundary demarcated in 1990 reflects the boundary of the U.S.–Russia continental shelf in the Bering Sea. The CLCS recommended that Russia "transmit to the Commission the charts and coordinates of the delimitation lines as they would represent the outer limits of the continental shelf of the Russian Federation extended beyond 200 nautical miles in ... the Bering Sea."[37]

In June 2002, in light of the objections to Russia's ECS claim, the CLCS recommended to the Russians that they provide a "revised submission" on Russia's claims in the central Arctic.[38] Russia reportedly will make an amended submission to the CLCS at some point in the future. In addition, Canada and Russia recently signaled that they will cooperate with each other to demarcate their respective ECS boundaries in the Arctic.[39]

The U.S. objections to the Russian ECS submission and the CLCS's subsequent rejection of the Russian claim call into question the repeated assertions by UNCLOS proponents that, absent U.S. accession to the convention, the United States is a helpless bystander in demarcation of Arctic ECS boundaries.[40] In fact, the United States has raised objections to the CLCS on other ECS submissions, such as those made by Australia and Brazil.[41]

In sum, the three areas of continental shelf boundary shared by the United States and Russia—in the Arctic Ocean, the Bering Sea, and the North Pacific—have been demarcated and mutually recognized by both nations, both in fact and in practice. Russia has not attempted at any time to infringe on potential areas of U.S. ECS in those regions. To the contrary, in its 2001 submission to the CLCS, Russia defined its continental shelf in a manner consistent with the 1990 treaty with the United States.

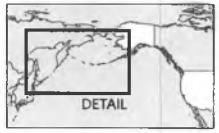
Similar to its experience with the western gap in the Gulf of Mexico, the United States has secured jurisdiction and control over areas of its ECS through bilateral negotiations with Russia. Specifically, the 1990 U.S.–USSR maritime boundary

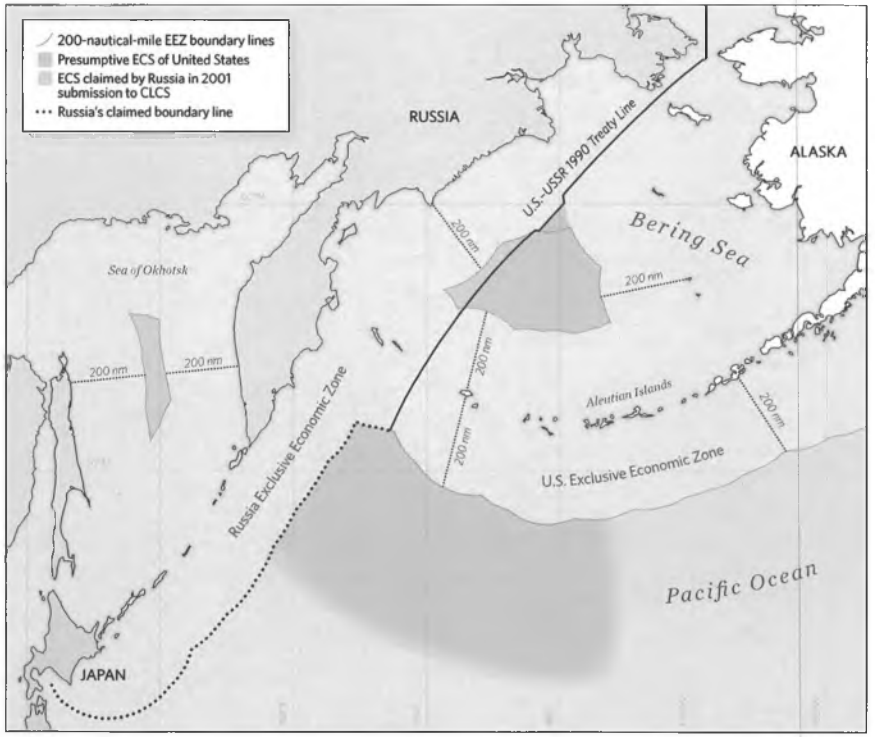
34. "As regards the central Arctic Ocean, the proposed outer limit to the east is a straight line projection of the maritime boundary agreed upon in the 1990 U.S.–Russia Agreement, ending at the North Pole.... [T]he Russian meridian line extends well beyond where Russia and the United States appear to have potential overlapping continental margin claims and to an area that might possibly be claimed by Canada and/or is part of the deep ocean floor." Ted L. McDorman, "The Continental Shelf Beyond 200 nm: Law and Politics in the Arctic Ocean," *Journal of Transnational Law & Policy*, Vol. 18, No. 2 (Spring 2009), p. 176.
35. United Nations Convention on the Law of the Sea, Art. 76(1), and Annex II, Art. 9, and "Rules of Procedure of the Commission on the Limits of the Continental Shelf," April 17, 2008, Annex I, para. 5.
36. John D. Negroponte, letter to U.N. Under-Secretary-General Hans Corell, February 28, 2002, reprinted in "United States of America: Notification Regarding the Submission Made by the Russian Federation to the Commission on the Limits of the Continental Shelf," March 18, 2002, http://www.un.org/depts/los/clcs_new/submissions_files/rus01/CLCS_01_2001_LOS__USAtext.pdf (accessed April 17, 2012).
37. U.N. General Assembly, "Oceans and the Law of the Sea: Report of the Secretary-General, Addendum," A/57/57/Add.1, October 8, 2002, para. 39.
38. Ibid., para. 41.
39. Gloria Galloway, "Canada Open to Working with Russia on Arctic Sovereignty," *The Globe and Mail* (Toronto), March 2, 2012.
40. For example, the chairman of the U.S. Arctic Research Commission has stated that the United States is "unable to comment on Russia's (or any other nation's) claim" because the United States does not hold a seat on the CLCS. George B. Newton, Jr., prepared statement, in hearings, *The U.N. Convention on the Law of the Sea*, p. 162.
41. U.S. Mission to the United Nations, diplomatic note, December 3, 2004, http://www.un.org/depts/los/clcs_new/submissions_files/aus04/clcs_03_2004_los_usatext.pdf (accessed April 17, 2012), and U.N. Secretariat, "United States of America: Notification Regarding the Submission Made by Brazil to the Commission on the Limits of the Continental Shelf," September 9, 2004, http://www.un.org/depts/los/clcs_new/submissions_files/bra04/clcs_02_2004_los_usatext.pdf (accessed April 17, 2012).

MAP 5

U.S. Extended Continental Shelf in the Bering Sea and North Pacific

The 1990 U.S.–USSR maritime boundary treaty demarcates the western edge of a large, wedge-shaped area of presumptive U.S. ECS in the Bering Sea to the north of the Aleutian Islands. To the south of the Aleutians lies another large area of presumptive U.S. ECS in the North Pacific Ocean.





Note: Southern and eastern boundaries of U.S. ECS area south of Aleutian Islands ECS are approximate.

Sources: U.S. State Department, "Agreement with the Union of Soviet Socialist Republics on the Maritime Boundary," September 26, 1990, http://www.state.gov/documents/organization/125431.pdf (accessed April 17, 2012); United Nations, submission by the Russian Federation to the Commission on the Limits of the Continental Shelf, Map 3, December 20, 2001, http://www.un.org/depts/los/clcs_new/submissions_files/rus01/RUS_CLCS_01_2001_LOS_3.jpg (accessed May 10, 2012); and U.S. Extended Continental Shelf Project, "Establishing the Full Extent of the Continental Shelf of the United States," http://continentalshelf.gov/media/ECSposterDec2010.pdf (accessed May 8, 2012).

B 2688 ☎ heritage.org

BACKGROUNDER | NO. 2688
MAY 14, 2012

treaty demarcates a large, wedge-shaped area of presumptive U.S. ECS in the Bering Sea, north of the Aleutian Islands. The 1990 treaty also marks the western boundary of presumptive U.S. ECS in the Arctic Ocean.

However, an area in the North Pacific Ocean, where the U.S. may have a significant area of ECS, still requires demarcation. Russia's 2001 submission to the CLCS identifies this boundary line, which extends from the southernmost point of the 1990 treaty line to the southwest as far as Hokkaido Island, Japan. The U.S. and Russia should negotiate a bilateral treaty to establish the coordinates of that line in conjunction with Russia's forthcoming revised submission to the CLCS.

The major U.S. ECS boundary that remains to be determined in the Arctic is shared by the United States and Canada. As is the case with Russia, the U.S. and Canada have approached the demarcation of this boundary in cooperation with one another. The two nations have a mutual interest in determining the extent of their respective continental shelves and identifying their respective areas of ECS.

To that end, every year since 2008, the U.S. and Canada have conducted joint operations in the Arctic to collect bathymetric and seismic data to map the ECS. The data collected from those missions will supplement information collected in the Arctic by U.S. research vessels in 2003, 2004, and 2007.[42] These data will enable the United States and Canada to negotiate a bilateral treaty delimiting their respective continental shelves and areas of ECS in the Arctic in the same manner as the U.S. and Mexico did in the Gulf. The data will also likely help to settle a long-standing maritime boundary dispute in the Beaufort Sea.

The U.S. ECS Task Force is actively collecting data in other areas around the globe where the United States has presumptive areas of ECS. In addition to the Arctic Ocean and the Bering Sea, the task force has surveyed potential ECS areas off the U.S. Atlantic and Pacific Coasts, in the Gulf of Alaska, around the Kingman Reef and Palmyra Atoll, at the Necker Ridge near Hawaii, in the Northern Mariana Islands, and near Guam.[43]

Once the mapping is complete, the United States will be in a position to negotiate ECS boundary treaties with nations that have maritime or continental shelf boundaries appurtenant to U.S. territories, including Japan and Micronesia (in regard to potential ECS associated with the Northern Marianas); Kiribati (in regard to the Palmyra Atoll); and the Bahamas (in regard to the southern end of the U.S. Atlantic Coast). The United States and Canada will need to negotiate one or more treaties to delimit potential areas of ECS located in the Gulf of Alaska and areas associated with their Atlantic and Pacific maritime borders.

To summarize, despite dire warnings from the proponents of U.S. accession to UNCLOS, actual events demonstrate that the United States need not join the convention to delimit areas of its ECS, secure jurisdiction and control over those areas, and commence development of the hydrocarbon resources beneath the ECS. The United States is actively doing so in several crucial, resource-rich regions, including the Gulf of Mexico, the Arctic Ocean, and the Bering Sea. Such delimitation has been and will continue to be conducted in cooperation with neighboring countries, including Mexico, Russia, and Canada, regardless of whether the U.S. is a member of UNCLOS.

A Note on U.S. Rights to Deep Seabed Resources

Similar to the U.S. ECS, no legal barriers block U.S. access, exploration, and exploitation of the resources of the deep seabed—the ocean floor lying beyond the ECS and designated as "the Area" in UNCLOS. The United States has long held the position that U.S. corporations and citizens have the right to explore and exploit the resources of the deep seabed and may do so whether or not the United States is an UNCLOS member.

The United States made its position very clear in March 1983 during the final days of the Third U.N. Conference on the Law of the Sea. Specifically, in response to statements from other U.N. member states that non-parties would not have the right to engage in deep seabed mining, the U.S. stated the following:

> Some speakers asserted that existing principles of international law, or the Convention, prohibit any State, including a non-party, from exploring for and exploiting the mineral resources of the deep sea-bed except in accordance with the Convention. The United States does not believe that such

42. U.S. Extended Continental Shelf Project, "Extended Continental Shelf Summary of Missions," http://continentalshelf.gov/missions.html (accessed April 17, 2012).
43. Ibid.

assertions have any merit. The deep sea-bed mining regime of the Convention adopted by the Conference is purely contractual in character. The United States and other non-parties do not incur the obligations provided for therein to which they object.

Article 137 of the Convention [forbidding claims of sovereignty over the deep seabed or its resources] may not as a matter of law prohibit sea-bed mining activities by non-parties to the Convention; nor may it relieve a party from the duty to respect the exercise of high seas freedoms, including the exploration for and exploitation of deep sea-bed minerals, by non-parties. Mining of the sea-bed is a lawful use of the high seas open to all States... . The practice of the United States and the other States principally interested in sea-bed mining makes it clear that sea-bed mining continues to be a lawful use of the high seas within the traditional meaning of the freedom of the high seas.[44]

The U.S. legal position set forth in 1983 on deep seabed mining remains the same today. According to the *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, the United States may engage in deep seabed mining activities even if it does not accede to UNCLOS, provided that such activities are conducted without claiming sovereignty over any part of the deep seabed and as long as the mining activities are conducted with due regard to the rights of other nations to engage in mining.[45] As related by the *Restatement*, "like the fish of the high seas the minerals of the deep sea-bed are open to anyone to take."[46]

U.S. CITIZENS AND CORPORATIONS HAVE THE RIGHT TO EXPLORE AND EXPLOIT THE DEEP SEABED REGARDLESS OF WHETHER OR NOT THE UNITED STATES IS A PARTY TO UNCLOS.

The U.S. position is also reflected in the Deep Seabed Hard Mineral Resources Act of 1980, which Congress enacted two years before the adoption of UNCLOS to provide a framework for U.S. corporations to conduct deep seabed mining until such time as the United States joins an acceptable convention on the law of the sea.[47] The DSHMRA states the U.S. position on the legality of deep seabed mining as follows:

> [I]t is the legal opinion of the United States that exploration for and commercial recovery of hard mineral resources of the deep seabed are freedoms of the high seas subject to a duty of reasonable regard to the interests of other states in their exercise of those and other freedoms recognized by general principles of international law.[48]

In sum, the long-held position of the United States, both domestically and internationally, is that U.S. citizens and corporations have the right to explore and exploit the deep seabed regardless of whether or not the United States is a party to UNCLOS.

What the U.S. Should Do

The United States has successfully secured its hydrocarbon resources in the western gap ECS area in the Gulf of Mexico and has leased that area to U.S. and foreign companies for development since 2001. The United States should build on the western gap model by negotiating a series of bilateral boundary delimitation treaties with nations with which it shares maritime and ECS boundaries and by taking whatever other steps are necessary to secure its ECS resources.

- **Mexico and Cuba (the eastern gap).** The United States should negotiate with Mexico and Cuba to delimit their ECS boundaries in the eastern gap in the Gulf of Mexico. Once the ECS areas in the eastern gap are divided among the three nations, the Bureau of Ocean Energy Management will be in a position to offer those areas for lease in the same manner that ECS areas in the western gap have been leased since 2001.

- **Russia (the North Pacific).** No additional bilateral treaties with Russia are necessary to delimit the areas of potential U.S. ECS located in the Bering Sea and the Arctic Ocean. The 1990 U.S.–USSR treaty delimits the boundary from the Bering Strait north into the Arctic Circle. To the south, it establishes the western edge of a "wedge" of U.S. ECS located in the Bering Sea.

  In the North Pacific Ocean, the U.S. and Russia should negotiate a bilateral treaty to establish the coordinates of the boundary line that extends from the southernmost point of the 1990 treaty line to the southwest as far as Hokkaido Island, Japan. Russia's 2001 submission to the CLCS identifies this line, and the treaty could be negotiated in conjunction with Russia's expected revised CLCS submission.

- **Canada (the Arctic and elsewhere).** Significant maritime boundaries remain to be negotiated between the United States and Canada in the Arctic Ocean and elsewhere. The United States has a large, triangle-shaped area of presumptive ECS in the Arctic that borders Canada's presumptive ECS.

  The United States and Canada have cooperated closely to gather the data necessary to identify areas of ECS in the Arctic and should extend that cooperation to the negotiation of a mutually acceptable bilateral treaty delimiting their ECS boundary. Additional treaties between the U.S. and Canada will be required to delimit potential ECS areas in the Gulf of Alaska and in areas appurtenant to the Atlantic and Pacific maritime borders of the two nations. The U.S.–Canada treaties could be negotiated in conjunction with Canada's expected submission to the CLCS, which is due by the end of 2013.[49]

- **The Pacific islands.** In addition to the Arctic and the Gulf, the United States has presumptive areas of ECS scattered throughout the Pacific Ocean appurtenant to U.S. territories, including Guam, Johnson Atoll, the Northern Mariana Islands, and Palmyra Atoll. The potential areas of U.S. ECS associated with these territories abut the maritime boundaries of several nations, including Japan, Kiribati, and Micronesia. Bilateral treaties with those nations would reaffirm U.S. jurisdiction and control over vast areas of ECS in the Pacific.

- **Presidential ECS proclamation.** Once the full extent of the U.S. ECS has been mapped and demarcated by the United States in cooperation with its neighbors, the President should issue a proclamation confirming U.S. jurisdiction over and control of the ECS and all of its resources, similar to the series of proclamations issued by Presidents Truman, Reagan, and Clinton on the continental shelf, the exclusive economic zone, the territorial sea, and the contiguous zone. While such a proclamation is legally unnecessary and redundant to the Truman Proclamation, the Outer Continental Shelf Lands Act, and other U.S. policy statements, it would clarify to the international community that the United States is asserting jurisdiction over its ECS in conformity with customary international law and Article 76 of UNCLOS.

Through these actions, the United States can continue to secure its hydrocarbon resources on a global basis, regardless of whether it ever accedes to UNCLOS.

The United States is unlikely to accede to UNCLOS in the near term, or perhaps ever. However, this does not mean that the United States should not take every action necessary to secure oil and gas resources on its extended continental shelf in the Arctic Ocean, the Gulf of Mexico, and throughout the world. The United States can accomplish this end while acting as a sovereign nation, continuing the tradition of American Presidents in proclaiming the nation's maritime and resource rights, and without acceding to a deeply flawed treaty or seeking the approval of an international commission of experts housed at the United Nations.

***—Steven Groves** is Bernard and Barbara Lomas Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation and a contributor to* ConUNdrum: The Limits of the United Nations and the Search for Alternatives *(Rowman & Littlefield Publishers, 2009).*

44. Statement by the United States of America, March 8, 1983, in "Note by the Secretariat," extract from *Official Records of the Third United Nations Conference on the Law of the Sea*, Vol. 17, A/CONF.62/WS/37, p. 243, http://untreaty.un.org/cod/diplomaticconferences/lawofthesea-1982/docs/vol_XVII/a_conf-62_ws_37%20and%20add-1%20and%202.pdf (accessed April 17, 2012).
45. American Law Institute, *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, Vol. 2 (St. Paul, MN: American Law Institute Publishers, 1987), § 523(1).
46. Ibid., § 523, reporter's note 2.
47. Deep Seabed Hard Mineral Resources Act, 30 U.S. Code § 1401 et seq.
48. Ibid., § 1401(12).
49. Fisheries and Oceans Canada, "Canada's Submission to the Commission on the Limits of the Continental Shelf Under the United Nations Convention on the Law of the Sea," http://www.dfo-mpo.gc.ca/ae-ve/evaluations/09-10/6b060-eng.htm (accessed April 17, 2012).

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The U.S. Can Mine the Deep Seabed Without Joining the U.N. Convention on the Law of the Sea

Steven Groves

Abstract
The United States can mine the deep seabed without acceding to the United Nations Convention on the Law of the Sea (UNCLOS). For more than 30 years, through domestic law and bilateral agreements, the U.S. has established a legal framework for deep seabed mining. In fact, U.S. accession would penalize U.S. companies by subjecting them to the whims of an unelected and unaccountable international bureaucracy. U.S. companies would be forced to pay excessive fees, costs, and royalties to the International Seabed Authority for redistribution to developing countries. U.S. interests are better served by not acceding to UNCLOS.

This paper, in its entirety, can be found at **http://report.heritage.org/bg2746**

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The Heritage Foundation
214 Massachusetts Avenue, NE
Washington, DC 20002
(202) 546-4400 | heritage.org

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Proponents of U.S. accession to the United Nations Convention on the Law of the Sea (UNCLOS) maintain that the United States may not engage in deep seabed mining unless and until it joins the convention. That is not the case. The United States has a sovereign and inherent right to mine the deep seabed and has successfully secured that right in the past through bilateral and multilateral agreements with other nations that also engaged in seabed exploration.

Accession to UNCLOS is simply not a viable option. The philosophical basis of the convention, in the words of the preamble, is to "contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries."[1] The convention declares that the deep seabed and its resources are the "common heritage of mankind" and may be mined only "for the benefit of mankind as a whole, irrespective of the geographical location of States."[2]

The resulting UNCLOS deep seabed mining regime, designed on that philosophical basis and negotiated during the 1970s at the Third U.N. Conference on the Law of the Sea (UNCLOS III), is, unsurprisingly, anachronistic—an international Rube Goldberg contraption conceived in another time and place when the United States and the Soviet Union were engaged in a global military and ideological contest.[3] The revisions to the seabed mining provisions negotiated by the Clinton Administration in 1994 did not and could not correct the convention's fundamental flaws.[4]

KEY POINTS

- The United States has a sovereign and inherent right to mine the deep seabed. This right is not dependent on membership in the United Nations Convention on the Law of the Sea.
- In the past, the U.S. has successfully secured its rights to mine the deep seabed through bilateral and multilateral agreements with other deep seabed mining nations.
- The UNCLOS mining regime is based on the philosophy that the deep seabed is the "common heritage of mankind" and that the profits generated from mining must be shared with developing and landlocked countries.
- By acceding to UNCLOS, the United States would place itself and its mining companies under the regulatory power and control of the International Seabed Authority, an international organization created by the convention, and U.S. companies would be forced to pay excessive fees, costs, and royalties to the Authority for redistribution to developing countries.

By acceding to UNCLOS, the United States would place itself and its seabed mining companies under the regulatory power and control of the International Seabed Authority, an international organization created by the convention. U.S. companies would be forced to pay excessive fees, costs, and an as yet undetermined percentage of royalties to the Authority to fund its operations and to be redistributed to developing countries. In short, U.S. accession would represent a radical sea change because it would create an unprecedented layer of international bureaucratic authority, oversight, and regulatory burden on American companies.

However, the United States may advance its national interests without acceding to the archaic and needlessly complex regime established by UNCLOS. Mining the deep seabed is and always has been a high seas freedom that every nation may exercise regardless of membership in any treaty.

Deep Seabed Mining: A High Seas Freedom Available to All Nations

> It is a basic principle of law that parties may not, by agreement among themselves, impair the rights of third parties or their obligations to third parties. Neither the [Law of the Sea] Conference nor the States indicating an intention to become parties to the Convention have been granted global legislative power.
>
> —U.S. Delegation at UNCLOS III (1983)[5]

No legal barriers prohibit U.S. access, exploration, or exploitation of the resources of the deep seabed. Deep seabed mining is a "high seas freedom" that all nations may engage in regardless of their membership or non-membership in UNCLOS or any other treaty. Like other high seas freedoms, the right to engage in deep seabed mining is inherent to all sovereign nations under customary international law. Rather, it is the convention that attempts to restrict access to the deep seabed and infringe on the intrinsic rights of the United States and other nations that have chosen to remain non-parties.

NO LEGAL BARRIERS PROHIBIT U.S. ACCESS, EXPLORATION, OR EXPLOITATION OF THE RESOURCES OF THE DEEP SEABED.

High seas freedoms are not conditional on membership in a treaty. Neither the United States nor any other nation need be party to UNCLOS to exercise them. While the convention addressed and "codified" various high seas freedoms, enjoyment of those freedoms is not conditional on membership. Rather, high seas freedoms—including freedom of navigation and overflight, freedom of fishing, freedom to lay submarine cables, and freedom to engage in marine scientific research—are enjoyed and exercised regularly by the United States and other UNCLOS non-parties based on their status as sovereign and independent nations.

More than 160 nations have chosen to ratify UNCLOS for their own reasons and ostensibly for the purpose of advancing their particular national interests. The United States and more than 30 other nations—including Colombia, Israel, Peru, and Turkey—have chosen not to ratify the convention. The nations that have joined UNCLOS cannot prevent the United States or any other nation

1. United Nations Convention on the Law of the Sea (UNCLOS), Preamble, December 10, 1982, http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm. UNCLOS is also commonly referred to as the Law of the Sea Treaty (LOST).
2. UNCLOS, Preamble and Arts. 136 and 140.
3. Doug Bandow, "Developing the Mineral Resources of the Seabed," *Cato Journal*, Vol. 2, No. 3 (Winter 1982), http://www.cato.org/pubs/journal/cj2n3/cj2n3-7.pdf (accessed November 9, 2012).
4. Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (1994 Agreement), July 28, 1994, http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindxAgree.htm (accessed November 15, 2012), and Peter M. Leitner, *Reforming the Law of the Sea Treaty* (Lanham, MD: University Press of America, 1996).
5. Statement by the United States of America, March 8, 1983, in "Note by the Secretariat," extract from *Official Records of the Third United Nations Conference on the Law of the Sea*, Vol. 17, A/CONF.62/WS/37, p. 243, http://untreaty.un.org/cod/diplomaticconferences/lawofthesea-1982/docs/vol_XVII/a_conf-62_ws_37%20and%20add-1%20and%202.pdf (accessed November 9, 2012).

from mining the seabed any more than they can prevent the U.S. from exercising the freedom of navigation and overflight, the freedom of fishing, or any other high seas freedom.

The fact that a substantial majority of nations are parties to UNCLOS does not, as some have suggested, mean that the deep seabed provisions of the convention have attained the status of customary international law. Even if those provisions had attained such status, the regime "would not apply to a state, such as the United States, that had rejected it and had insisted on its right to mine the deep sea-bed under present rules of customary international law."[6] The long-held U.S. legal position regarding deep seabed mining and UNCLOS is unequivocal.

The U.S. Legal Position on Deep Seabed Mining

Simply because most nations have ratified UNCLOS does not mean that those nations or any international organization, such as the Authority, may deny a right to the United States that it enjoys under international law. One set of nations cannot annul the rights of another set of nations by drafting a treaty that the second set of nations chooses not to join. For example, 75 nations are party to the Convention on Cluster Munitions and 160 nations are party to the Anti-Personnel Landmines Convention, but these facts do not obligate the United States or any other non-party to ban cluster munitions or anti-personnel landmines.[7]

The United States made its position on the unconditional legality of deep seabed mining very clear at UNCLOS III, the negotiating conference that resulted in the adoption of UNCLOS. In March 1983, during the final days of the conference, a member of the U.S. delegation rejected statements made by other delegations that only parties to UNCLOS could exercise the rights within the convention:

> Some speakers discussed the legal question of the rights and duties of States which do not become party to the Convention adopted by the Conference. Some of these speakers alleged that such States must either accept the provisions of the Convention as a "package deal" or forgo all of the rights referred to in the Convention. This supposed election is without foundation or precedent in international law. It is a basic principle of law that parties may not, by agreement among themselves, impair the rights of third parties or their obligations to third parties. Neither the Conference nor the States indicating an intention to become parties to the Convention have been granted global legislative power.[8]

The United States went on to state its official position that U.S. citizens and corporations specifically have the right to mine the deep seabed and may do so whether or not the United States is an UNCLOS member. The U.S. statement affirmed that deep seabed mining is a high seas freedom open to all nations regardless of whether they are party to the convention:

> Some speakers asserted that existing principles of international law, or the Convention, prohibit any State, including a non-party, from exploring for and exploiting the mineral resources of the deep sea-bed except in accordance with the Convention. The United States does not believe that such assertions have any merit. The deep sea-bed mining regime of the Convention adopted by the Conference is purely contractual in character. The United States and other non-parties do not incur the obligations provided for therein to which they object.
>
> Article 137 of the Convention [forbidding claims of sovereignty over the deep seabed or its resources] may not as a matter of law prohibit sea-bed mining activities by non-parties to the Convention; nor may it relieve a party from the duty to respect the exercise of high seas freedoms, including the exploration for and exploitation of deep sea-bed minerals, by non-parties. Mining of the sea-bed is a lawful use of the high seas open to all States....
>
> The practice of the United States and the other States principally interested in sea-bed mining makes it clear that sea-bed mining continues to be a lawful use of the high seas within the traditional meaning of the freedom of the high seas.[9]

Indeed, this was the U.S. position prior to UNCLOS III. Years earlier, Congress made clear the U.S. position on the legality of deep seabed mining in the Deep Seabed Hard Mineral Resources Act of 1980 (DSHMRA):

> [I]t is the legal opinion of the United States that exploration for and commercial recovery of hard mineral resources of the deep seabed are freedoms of the high seas subject to a duty of reasonable regard to the interests of other states in their exercise of those and other freedoms recognized by general principles of international law.[10]

The U.S. position set forth in 1980 in DSHMRA and again in 1983 at UNCLOS III remains the same today. According to the *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, U.S. citizens and corporations may engage in seabed mining regardless of whether the U.S. accedes to UNCLOS, provided that they conduct such mining without claiming sovereignty over any part of the seabed and as long as the mining activities are exercised with due regard to the rights of other nations engaged in mining.[11] As related by the *Restatement*, "like the fish of the high seas the minerals of the deep sea-bed are open to anyone to take."[12]

Exercising U.S. Rights to Mine the Deep Seabed

Even though the U.S. is not a party to UNCLOS and may never be, it has an interest in securing the ability for itself and its corporations to engage in deep seabed mining. It may secure that interest in the traditional manner by making claims to seabed areas pursuant to domestic law (DSHMRA); giving notice to the international community regarding U.S. claims; and, when necessary, signing bilateral or multilateral agreements with other nations to ensure mutual respect for each other's seabed claims.

Deep Seabed Hard Mineral Resources Act. Under customary international law, the United States may authorize U.S. citizens to explore and exploit the seabed as long as (1) the U.S. does not claim sovereign rights to the seabed and (2) exploration and mining is conducted with reasonable regard for the rights of other nations to engage in the same activities.[13]

More than 30 years ago, the United States established a domestic statutory and regulatory framework to govern U.S. claims to the deep seabed. Specifically, in June 1980, Congress enacted DSHMRA to provide a legal regime under which U.S. citizens may explore for and mine deep seabed minerals. Under DSHMRA, U.S. citizens and corporations may apply to the Administrator of the National Oceanic and Atmospheric Administration (NOAA) for 10-year licenses to explore and 20-year permits to mine the deep seabed for hard mineral resources—specifically, for polymetallic nodules containing minerals such as manganese, nickel, cobalt, or copper.[14]

To be certified by the NOAA administrator, applicants must be financially capable of exploring and recovering the resources.[15] DSHMRA requires that exploration and mining activities must be carried out under strict environmental controls, and environmental impact assessments must be conducted in connection with each license and permit.[16] To provide additional legal guidance to U.S. citizens, NOAA issued detailed regulations regarding the granting of exploration licenses and permits for commercial recovery.[17]

In 1984, NOAA issued 10-year exploration licenses to four multinational private-sector mining

6. American Law Institute, *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, Vol. 2 (St. Paul, MN: American Law Institute Publishers, 1987), § 523, cmt. e.
7. Steven Groves and Theodore R. Bromund, "The United States Should Not Join the Convention on Cluster Munitions," Heritage Foundation *Backgrounder* No. 2550, April 28, 2011, http://www.heritage.org/research/reports/2011/04/the-united-states-should-not-join-the-convention-on-cluster-munitions, and Steven Groves and Theodore R. Bromund, "The Ottawa Mine Ban Convention: Unacceptable on Substance and Process," Heritage Foundation *Backgrounder* No. 2496, December 13, 2010, http://www.heritage.org/research/reports/2010/12/the-ottawa-mine-ban-convention-unacceptable-on-substance-and-process.
8. Statement by the United States of America, p. 243.
9. Ibid.
10. Deep Seabed Hard Mineral Resources Act (DSHMRA), 30 U.S. Code § 1401(12).
11. American Law Institute, *Restatement of the Law, Third*, § 523(1).
12. Ibid., § 523, reporter's note 2.
13. Ibid., § 523(1).
14. DSHMRA, §§ 1403, 1412, and 1417.
15. Ibid., § 1413(c).
16. Ibid., § 1419.
17. 15 Code of Federal Regulations § 970.100 *et seq.* (regarding exploration licenses), and 15 Code of Federal Regulations, § 971.100 *et seq.* (regarding commercial recovery).

consortia: Ocean Minerals Company (OMCO); Ocean Management, Inc. (OMI); Ocean Mining Associates (OMA); and Kennecott Consortium (KCON). The licenses authorized these consortia to explore the seabed in the Clarion–Clipperton Zone (CCZ), a region of the eastern Pacific Ocean midway between Hawaii and Mexico. Each of the four consortia had U.S. and foreign ownership interests. For example, OMA interests were divided between two American companies—U.S. Steel (25 percent) and Sun Company (25 percent)—and their Belgian and Italian partners (25 percent each). OMCO members included major U.S. companies, including Standard Oil Company and Lockheed Corporation, and the Netherlands' Royal Dutch Shell. The OMI and KCON consortia included British, Canadian, Japanese, and German interests.[18]

Although under no obligation to do so, after NOAA issued the four exploration licenses, the United States provided formal notice to the international community. Specifically, in January 1986, the U.S. Mission to the United Nations delivered a note to the U.N. Secretary-General that, pursuant to DSHMRA, the U.S. government had issued "four licenses authorizing deep sea-bed hard mineral resource exploration" in the CCZ. The note provided the longitudinal and latitudinal coordinates for the areas of seabed that had been licensed to the U.S. consortia. The United Nations published the U.S. note in the April 1986 issue of its *Law of the Sea Bulletin*.[19]

U.S. Seabed Mining Agreements with Other Nations. Critically, DSHMRA contemplated that negotiations would occur between the United States and other nations to establish mutual recognition for exploration licenses and mining permits, and it authorized the NOAA administrator to designate such nations as "reciprocating states."[20] In this way various nations could issue licenses and permits to their citizens in a manner compatible with DSHMRA, and vice versa. Several nations, including France, Italy, Japan, the United Kingdom, and West Germany, enacted domestic seabed mining legislation during 1981–1983 and were subsequently designated by NOAA as reciprocating states.[21]

During 1982–1991, the United States and the four U.S. consortia negotiated a series of multilateral agreements and bilateral exchanges of notes with reciprocating states to further secure U.S. claims in the CCZ. This series of agreements established mutual recognition of mining claims, committed the respective nations and consortia not to interfere with one another's exploration and mining activities, set minimum standards that mining companies must meet, and provided procedures for resolving any overlapping claims.

- In September 1982, the United States, France, West Germany, and the United Kingdom adopted an agreement "to facilitate the identification and resolution of conflicts" that may arise between the four nations in regard to overlapping claims to the seabed.[22] The agreement required the exchange of information between the nations on claims to the seabed, including the coordinates of those claims, for the purpose of identifying conflicts. In the event of overlapping claims, the agreement provided detailed procedures for resolving conflicts through binding arbitration.
- In May 1983, the four U.S. consortia and Association Française d'Etude et de Recherche des Nodules océaniques (AFERNOD), a French consortium of government and industry, acting in conformity with a private arbitration agreement, reached a settlement that successfully resolved conflicts from their overlapping claims in the CCZ.[23]
- In September 1983, the four U.S. consortia, AFERNOD, and Deep Ocean Resources Development Company (DORD), a Japanese consortium of government and industry, signed an arbitration agreement on resolving overlapping claims.[24]
- In August 1984, the four parties to the September 1982 agreement and Belgium, Italy, Japan, and the Netherlands adopted an agreement that further elaborated on mutual cooperation regarding the deep seabed.[25] Similar to the 1982 agreement, the 1984 agreement required the eight nations to notify one another when exploration applications had been approved at the national level, to exchange coordinates to avoid overlapping claims, and to resolve any disputes that arose from conflicting claims. A memorandum attached to the agreement outlined minimum requirements that mining companies must meet to receive approval to explore the seabed, including financial and technological capability. The memorandum also set basic standards that companies must meet during mining operations.
- In August 1987, the United States, Belgium, Canada, Italy, the United Kingdom, the Soviet Union, and West Germany adopted a final settlement agreement that officially recognized the coordinates of each other's claims to seabed areas in the CCZ.[26] The agreement listed sets of coordinates for each nation's claims in the CCZ, including the coordinates for the areas claimed by the four U.S. consortia.
- In February 1991, the United States, Belgium, Canada, Germany, Italy, the Netherlands, and the United Kingdom entered into a memorandum of understanding with China "on the avoidance of overlaps and conflicts relating to the deep sea-bed areas." The parties to the memorandum made mutual commitments to respect the claims made by all other parties in the CCZ.[27]
- In August 1991, the United States and the other nations party to the February 1991 agreement entered into an identical memorandum of understanding with the Soviet Union, which was the certifying state of an Eastern European consortium called Interoceanmetal Joint Organization.[28]

In sum, the United States has agreements with almost every nation that the Authority has licensed to explore the CCZ (Belgium, China, France, Germany, Japan, Russia, and the United Kingdom), all of which remain in force and effect at the present day.[29] Those nations have made a commitment to the United States that they will not interfere with or infringe on the claims by the United States or its companies in the CCZ. None of the nations has denounced or withdrawn from the agreements or has otherwise indicated that it does not respect its international commitments to recognize U.S. claims in the CCZ.

Among the nations that have sponsored claimants in the CCZ, only four—Nauru, Kiribati, South Korea, and Tonga—are not party to a seabed agreement with the United States. The U.S. should remedy this by negotiating memoranda of understanding with those nations along the same lines as the 1991 agreements with China and the Soviet Union. Although

18. National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1983, p. 6, http://www.gc.noaa.gov/documents/gcil_dsm_1983_2011-06-13-113448.pdf (accessed November 9, 2012).
19. U.S. Mission to the United Nations, note to the Secretary-General of the United Nations, January 13, 1986, in Office of the Special Representative of the Secretary-General for the Law of the Sea, *Law of the Sea Bulletin*, No. 7, April 1986, pp. 74–86, http://www.un.org/Depts/los/doalos_publications/LOSBulletins/bulletinpdf/bulE7.pdf (accessed November 9, 2012).
20. DSHMRA, § 1428. The designation is made in consultation with the Secretary of State.
21. National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1989, pp. 11–12, http://www.gc.noaa.gov/documents/gcil_dsm_89_20110607085546.pdf (accessed November 9, 2012).
22. 1982 Agreement Concerning Interim Arrangements Relating to Polymetallic Nodules on the Deep Sea Bed Between France, the Federal Republic of Germany, the United Kingdom, and the United States, September 2, 1982.
23. National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1983, p. 11.
24. Ibid.
25. Provisional Understanding Regarding Deep Seabed Matters (with appendices and memorandum of application), August 3, 1984.
26. Agreement on the Resolution of Practical Problems with Respect to Deep Seabed Mining Areas (with annexes), August 14, 1987. The 1987 agreement was adopted by Belgium, Canada, Italy, and the Soviet Union, all of which were signatories to UNCLOS. The United States and two other non-UNCLOS-signatories (West Germany and the U.K.) adopted the 1987 agreement by exchanging a series of diplomatic notes with the four UNCLOS signatories. See Lee A. Kimball, "Belgium–Canada–Italy–Netherlands–Union of Soviet Socialist Republics: Agreement on the Resolution of Practical Problems with Respect to Deep Seabed Mining Areas, and Exchange of Notes Between the United States and the Parties to the Agreement," *International Legal Materials*, Vol. 26, No. 6 (November 1987), pp. 1502–1515.
27. Memorandum of Understanding on the Avoidance of Overlaps and Conflicts Relating to Deep Seabed Areas, February 22, 1991, and National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1991, p. 14, http://www.gc.noaa.gov/documents/gcil_dsm_1991_20110607090801.pdf (accessed November 13, 2012).
28. Memorandum of Understanding on the Avoidance of Overlaps and Conflicts Relating to Deep Sea-Bed Areas, August 20, 1991. Other parties to the memorandum of understanding included Bulgaria, Czechoslovakia, and Poland. The nations that currently hold an interest in Interoceanmetal are Bulgaria, Cuba, the Czech Republic, Poland, Russia, and Slovakia. Interoceanmetal Joint Organization, website, http://www.iom.gov.pl/welcome.htm (accessed November 13, 2012).
29. U.S. Department of State, *Treaties in Force: A List of Treaties and Other International Agreements of the United States in Force on January 1, 2011*, pp. 22, 45, 143, 200, 285, and 457, http://www.state.gov/s/l/treaty/tif/index.htm (accessed November 15, 2012).

the claims of Nauru, Kiribati, South Korea, and Tonga do not overlap the areas currently claimed by the United States, the agreements would establish a bilateral commitment from each of those nations not to infringe on U.S. claims in the CCZ and to cooperate in the event of a dispute.

In addition, U.S. mining companies may pursue private arbitration agreements with the companies sponsored by those nations—Nauru Ocean Resources Inc. (NORI); Tonga Offshore Mining Limited (TOML); and Marawa Research and Exploration Ltd. (Kiribati)—in the same manner that U.S. consortia adopted such agreements with AFERNOD and DORD in 1983.

Current Status of U.S. Deep Seabed Claims. Over the past decades, the status of exploration licenses in the CCZ issued pursuant to DSHMRA has evolved significantly.

In 1992, the KCON consortium evaluated the long-term viability of deep seabed mining and "concluded that there is no justification for continuing investment in manganese nodule development."[30] KCON subsequently notified NOAA of its intent to surrender its license to explore the USA-4 area of the CCZ. About the same time, OMCO applied for and received a license from NOAA to explore USA-4.

OMI relinquished its license to explore the USA-2 area in 1999, and OMA surrendered its license to explore USA-3 in 1997.[31] One reason that OMI and OMA surrendered their licenses was their disappointment over the 1994 amendments to UNCLOS. In their annual reports to NOAA, the two consortia stated "that the changes made [in the 1994 Agreement] are not sufficient in terms of being able to attract private sector investment in deep seabed mining." The reports further stated that the mining regime adopted in the 1994 Agreement presented "economic and political risks that they do not face under [DSHMRA]."[32]

The remaining U.S. claims on the USA-1 and USA-4 areas are currently licensed to OMCO.[33] In May 2012, G-TEC Sea Minerals Resources NV, a Belgian company, applied for and was granted a license by the Authority to explore the USA-3 area relinquished by OMA.[34] The USA-2 area remains intact and is not currently licensed to any claimant.

As Map 1 illustrates, no foreign nation has made any claim in the CCZ that overlaps the areas currently claimed by the United States (USA-1 and USA-4). Nor has the Authority issued any exploration license that would overlap with those areas. Indeed, the Authority has not issued any license that overlaps with the two CCZ areas that were relinquished by the United States (i.e., USA-2 and USA-3). In addition, none of the areas in the CCZ reserved by the Authority for exploration by developing countries overlaps with USA-1, USA-2, USA-3, or USA-4.

The forbearance displayed by all foreign nations, their sponsored companies, and the Authority itself indicates a tacit, if not explicit, concession that the U.S.-sponsored claims in the CCZ are valid and may continue to be held by OMCO to the exclusion of all other parties. Although the Belgian-sponsored G-TEC was recently granted a license to explore the area formerly known as USA-3, the USA-2 area remains intact and available for the United States to reclaim.

In sum, acting under the authority of DSHMRA, customary international law, and multilateral agreements with foreign countries and companies, the United States has successfully claimed and maintained security of tenure over vast tracts of the deep seabed. The U.S. has done so as an independent sovereign nation exercising its inherent rights.

The UNCLOS Regime: International Regulation and Control

The United States and U.S. mining companies may lawfully engage in deep seabed mining pursuant to DSHMRA and customary international law. The alternative route—U.S. accession to UNCLOS—would place the United States, its citizens, and its mining interests under the

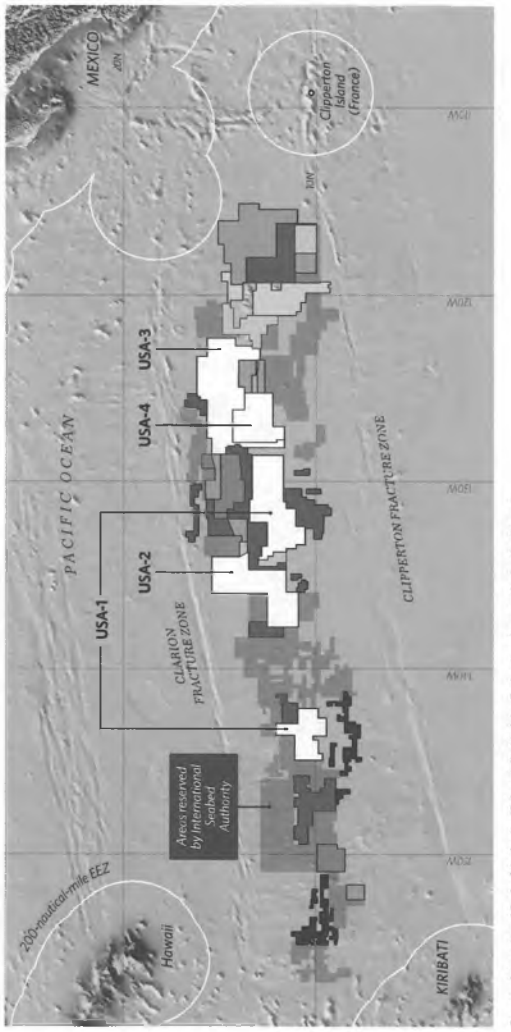
30. National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1993, p. 11, http://www.gc.noaa.gov/documents/gcil_dsm_1993_20110607091635.pdf (accessed November 13, 2012).
31. "Deep Seabed Mining: Lapse of Exploration License," *Federal Register*, Vol. 64, No. 126 (July 1, 1999).
32. National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1995, p. 5, http://www.gc.noaa.gov/documents/gcil_dsm_1995_report.pdf (accessed November 13, 2012).
33. OMCO Seabed Exploration LLC, a wholly owned subsidiary of Lockheed Martin Corporation, is the successor in interest to OMCO and holds the licenses to USA-1 and USA-4. National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1995, p. 1; Lockheed Martin Corporation, letter to National Oceanic and Atmospheric Administration, August 2, 2011 (on file with author).
34. International Seabed Authority, Legal and Technical Commission, "Application for Approval of a Plan of Work for Exploration for Polymetallic Nodules," ISBA/18/LTC/L.4, June 6, 2012, http://www.isa.org.jm/en/sessions/2012/documents (accessed November 13, 2012).

BACKGROUNDER | NO. 2746
DECEMBER 4, 2012

MAP 1

U.S. Claims in the Clarion-Clipperton Zone (CCZ)

Regardless of not having acceded to UNCLOS, the United States has retained rights to mine vast areas of the deep seabed in the CCZ. The areas known as "USA-1" and "USA-4" are currently licensed to OMCO Seabed Exploration LLC, a wholly-owned subsidiary of Lockheed Martin Corporation. The "USA-2" area remains unclaimed, while the "USA-3" area was recently leased by the Authority to G-TEC Sea Minerals Resources NV, a Belgian company.



Sources: International Seabed Authority, "Polymetallic Nodules Exploration Areas in the Pacific Ocean," http://www.isa.org.jm/en/scientific/exploration/maps (accessed October 31, 2012), and National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1995, p. 6, http://www.gc.noaa.gov/documents/gcil_dsm_1995_report.pdf (accessed October 31, 2012).

regulatory power of the institutions created by the convention, particularly the Authority and the Council. Joining the convention would radically change the traditional high seas freedoms currently enjoyed by the United States and would create an unprecedented new layer of international authority, oversight, and regulatory burden on U.S. mining interests.

The Regulatory Authority. If the United States accedes to UNCLOS, American companies will be required to adhere to all the Authority's rules, regulations, and dictates. In matters concerning deep seabed mining, UNCLOS leaves no doubt where the power lies. The convention states that all activities in the seabed "shall be organized, carried out and controlled by the Authority on behalf of mankind as a whole" and that the Authority "shall have the right to take at any time any measures...to ensure compliance with its provisions and the exercise of the functions of control and regulation assigned to it thereunder or under any contract."[35]

The Authority has exercised these general grants of power in a number of specific ways, notably by creating the "Mining Code," a "comprehensive set of rules, regulations and procedures issued by the International Seabed Authority to regulate prospecting, exploration and exploitation of marine minerals in the international seabed Area."[36]

IF THE UNITED STATES ACCEDES TO UNCLOS, AMERICAN COMPANIES WILL BE REQUIRED TO ADHERE TO THE AUTHORITY'S RULES, REGULATIONS, AND DICTATES.

Among the regulations thus far enacted by the Authority are the procedures regarding exploration for polymetallic nodules.[37] These regulations, when read in conjunction with the Authority's standard clauses for exploration contracts[38] and the Legal and Technical Commission's environmental regulations,[39] create a regulatory regime without precedent in international law. If the United States accedes to UNCLOS, U.S. seabed mining companies will be subject to that regime.

Total Control. UNCLOS leaves no doubt that all seabed mining activities are subject to the Authority's control. Any U.S. company applying to explore the seabed "without exception, shall as part of his application undertake...to accept control by the Authority of the activities in the Area."[40] To drive home the point, the subordination undertaking is repeated in the exploration regulations as well as the standard contract clauses.[41]

Once mining activities commence, the Authority may send international inspectors to board the vessels and installations of American companies to monitor their compliance with its regulations and the convention.[42] These inspectors have the right to examine a company's "log, equipment, records, facilities, [and] all other recorded data and any relevant documents which are necessary to monitor the Contractor's compliance."[43]

U.S. companies would be required to submit annual reports to the Secretary-General of the Authority detailing their progress, expenditures, and other aspects of their operations.[44] Every five years, companies are required to undertake a joint review of their progress with the Secretary-General, who will in turn report to the Council.[45]

Burdensome Environmental Regulations. If the United States joins UNCLOS, U.S. companies engaging in seabed exploration will be subject to a rigorous environmental regime administered by the Authority. The Authority has the power to adopt "rules, regulations and procedures" for the protection of the marine environment, with "particular attention being paid" to harm caused by drilling, dredging, and excavation.[46] One regulation requires companies to apply a "precautionary approach" in regard to the marine environment "as reflected in principle 15 of the Rio Declaration."[47] This is notable, given that neither UNCLOS nor the 1994 Agreement even mentions the controversial "precautionary approach"—a principle that requires absolute scientific certainty that an action will not cause environmental harm.

U.S. companies would be required to establish an environmental "baseline" at the outset of their contracts and continually monitor and report the impact of their activities on the marine environment.[48] To establish a baseline, U.S. companies would be required to collect data "on the seafloor communities specifically relating to megafauna, macrofauna, meiofauna, microfauna, nodule fauna and demersal scavengers" (bottom feeders) and "record sightings of marine mammals, identifying the relevant species and behavior."[49] Before engaging even in preliminary testing activities, companies would have to submit a site-specific environmental impact statement to the Authority, as well as a contingency plan to respond to environmental incidents.[50]

Control over U.S. Exploration Areas. Under an UNCLOS regime, a U.S. company would have limited control over the area licensed to it for exploration. Once a U.S. company identifies an area of the seabed that it wants to explore, it must divide the area into two halves of equal estimated commercial value and share its data on the area with the Authority.[51] Thereafter, the Council reserves one half of the area for exploration by developing countries or the Enterprise, the Authority's mining arm.[52] The remaining half would be licensed to the U.S. company for exploration. The size of the U.S. company's half is effectively limited to only 75,000 square kilometers.[53] (By comparison, the USA-1 exploration area is almost 169,000 square kilometers.)[54] Finally, a U.S. company would not have exclusive access to its half because the Authority has the right to enter into contracts with third parties to explore and mine the U.S. half for resources other than polymetallic nodules.[55]

U.S. Mining Companies Forced to Train Their Competition. In addition to requiring a U.S. company to give the Authority access to its logs, equipment, records, facilities, data, and documents, UNCLOS would require the company to provide training in seabed mining to personnel who are not employees of the U.S. company—specifically, nationals from developing countries and personnel employed by the Authority

35. UNCLOS, Art. 153(1) and (5).
36. International Seabed Authority, "Mining Code," http://www.isa.org.jm/en/mcode (accessed November 13, 2012).
37. International Seabed Authority, "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area," July 13, 2000, http://www.isa.org.jm/files/documents/EN/Regs/PN-en.pdf (accessed November 13, 2012). The Authority has also enacted similar regulations on polymetallic sulfides and is drafting regulations on cobalt-rich crusts.
38. International Seabed Authority, "Standard Clauses for Exploration Contract," http://www.isa.org.jm/files/documents/EN/Regs/Code-Annex4.pdf (accessed November 13, 2012).
39. International Seabed Authority, Legal and Technical Commission, "Recommendations for the Guidance of the Contractors for the Assessment of the Possible Environmental Impacts Arising from Exploration for Polymetallic Nodules in the Area," February 13, 2002, http://www.isa.org.jm/files/documents/EN/75sss/LTC/isba_7ltc_1Rev1.pdf (accessed November 13, 2012).
40. UNCLOS, Annex III, Art. 4(6)(b).
41. International Seabed Authority, "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area," 14(b), and International Seabed Authority, "Standard Clauses for Exploration Contract," § 13.2(c).
42. UNCLOS, Art. 153(5).
43. International Seabed Authority, "Standard Clauses for Exploration Contract," § 14.3.
44. Ibid., § 10.
45. International Seabed Authority, "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area," § 28, and International Seabed Authority, "Standard Clauses for Exploration Contract," § 4.4.
46. UNCLOS, Art. 145(a).
47. International Seabed Authority, "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area," § 31(2). Principle 15 of the 1992 Rio Declaration states: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." Rio Declaration on Environment and Development, http://www.unep.org/Documents.Multilingual/Default.asp?documentid=78&articleid=1163 (accessed November 13, 2012).
48. International Seabed Authority, "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area," § 31(4), and International Seabed Authority, "Standard Clauses for Exploration Contract," §§ 5.2 and 5.3.
49. International Seabed Authority, "Recommendations for the Guidance of the Contractors for the Assessment of the Possible Environmental Impacts Arising from Exploration for Polymetallic Nodules in the Area," ¶¶ 8(d)(ii) and (v).
50. International Seabed Authority, "Standard Clauses for Exploration Contract," §§ 5.5 and 6.
51. UNCLOS, Annex III, Art. 8, Reg. 15.
52. International Seabed Authority, "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area," § 16.2.
53. The exploration regulations permit contracts for an area up to 150,000 square kilometers, but half of that area is rapidly relinquished—20 percent at the end of the third year of the contract, an additional 10 percent after the fifth year, and a final 20 percent after the eighth year. International Seabed Authority, "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area," § 25.
54. National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1989, p. 12.
55. International Seabed Authority, "Standard Clauses for Exploration Contract," § 2.4.

and the Enterprise.[56] The stated purpose for the training mandate is to facilitate the "transfer of technology and scientific knowledge" to the trainees.[57]

The U.S. company must draw up the training programs in cooperation with the Authority, and it "shall focus on training in the conduct of exploration, and shall provide for full participation by such personnel in all activities covered by the contract."[58] The company must submit the training program to the Authority for approval before the commencement of exploration.[59] Given the presence of proprietary information, equipment, trade secrets, and business know-how involved in a seabed mining operation and the competitive nature of any capital-intensive industry, forcing a U.S. company to train personnel who will likely work for a competitor one day is particularly onerous.

Never in its history has the United States consensually placed its own interests or the operations of its private sector under the complete control of an international regulatory regime such as that established by UNCLOS. At the center of this regime is the Council, which serves as the executive body of the Authority and gatekeeper to the deep seabed.

The Gatekeeper Council. The Council is the key decision-making body that would decide the fate of U.S. mining companies. It is composed of 37 member states representing five geographic regions: Africa (10 member states); Asia (9); Western Europe and "Others" (8); Latin America and the Caribbean (7); and Eastern Europe (3).[60]

NEVER IN ITS HISTORY HAS THE UNITED STATES CONSENSUALLY PLACED ITS OWN INTERESTS OR THE OPERATIONS OF ITS PRIVATE SECTOR UNDER THE COMPLETE CONTROL OF AN INTERNATIONAL REGULATORY REGIME SUCH AS THAT ESTABLISHED BY UNCLOS.

The Council's membership must reflect "equitable geographic distribution," resulting in a body that is controlled by developing nations. Of the Council's current members, 23 (62 percent) are also members of the Group of 77 organization of developing countries. This disparity is of crucial importance because developed and developing countries often have divergent interests within the international system.

If the U.S. accedes to UNCLOS, the Council's control over U.S. access to the deep seabed will be absolute. Among its other powers, the Council could:

- Disapprove any U.S. application to explore and mine the deep seabed.[61]
- Disapprove mining activities by U.S. companies that, in the Council's opinion, would cause harm to the marine environment.[62]
- Suspend or terminate a contract with any U.S. company if the Council believes that the company has violated the terms of UNCLOS or the Authority's rules, regulations, or procedures.[63]
- Impose on a U.S. company, in lieu of suspension or termination of a contract, "monetary penalties proportionate to the seriousness of the violation" of UNCLOS or the Authority's rules and regulations.[64]
- Suspend or modify a U.S. company's exploration or mining operations if the Council judges that there is a threat of harm to the marine environment.[65]
- Suspend or terminate a U.S. company's contract if the company "has failed to comply with a final binding decision of the dispute settlement body," such as the Seabed Disputes Chamber.[66]

56. UNCLOS, Annex III, Art. 15.
57. Article 15 of Annex III specifically cites paragraph 2 of Article 144 of UNCLOS, "Transfer of technology."
58. International Seabed Authority, "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area," § 27(1).
59. International Seabed Authority, "Standard Clauses for Exploration Contract," § 8.1.
60. International Seabed Authority, "Composition of the Council," http://www.isa.org.jm/en/about/members/council/composition (accessed November 14, 2012). Although UNCLOS set the size of the Council at 36 member states, it was later determined that 37 seats were necessary to achieve equitable geographic representation. However, only 36 members of the Council are permitted to vote.
61. UNCLOS, Art. 153(3).
62. Ibid., Art. 162(2)(x).
63. International Seabed Authority, "Standard Clauses for Exploration Contract," § 21.1(a).
64. Ibid., § 21.5.
65. International Seabed Authority, "Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area," 32(5).

BACKGROUNDER | NO. 2746
DECEMBER 4, 2012

Proponents of U.S. membership in UNCLOS claim that, if the United States joins the convention, it will have the power to prevent adverse decisions against U.S. companies because the U.S. will hold a permanent seat on the Council.[67] Yet a permanent seat is of questionable utility because the United States would have only one vote on the Council, and none of the aforementioned decisions requires consensus.[68] For example, the Council may deny an application for an exploration license submitted by a U.S. company, even over the recommendation of the Legal and Technical Commission, if two-thirds of the Council objects to the application.[69]

Granting an international organization the power to restrict and regulate U.S. access to polymetallic nodules and sulfides, cobalt-rich crusts, and rare earths will not advance U.S. national interests. Joining UNCLOS, however, would do just that by placing the interests and operations of U.S. mining companies at the discretion and control of the Authority and the Council.

Unfair Fees and Unknown Royalties on U.S. Companies

In addition to being under the Authority's regulatory thumb and the Council's control, if the U.S. joins UNCLOS, its seabed mining companies will be forced to pay unreasonable costs, fees, and an as yet unknown percentage of profits and royalties to the Authority.

Royalty Rate "To Be Determined." Neither the convention nor the 1994 Agreement establishes the mining royalties that U.S. companies would be required to pay to the Authority. As originally drafted, the convention required mining companies to pay a "production charge" royalty ranging from 5 percent to 12 percent of the value of the processed metals. In the alternative, companies could pay a combination of a production charge and a share of the net proceeds from the sale of the processed metals.[70] In any event, each company must pay the Authority a minimum of $1 million per year once commercial production has commenced.[71]

The 1994 Agreement revised the convention's specific royalty range and minimum payment scheme,[72] but the 1994 revisions left more questions than answers. Essentially, the 1994 Agreement left the seabed mining compensation scheme "to be determined" with the notion that the details would be negotiated within the Authority at some future date when commercial production is imminent. That date has not yet arrived, even though UNCLOS was adopted 30 years ago, and the Authority has yet to begin drafting regulations to establish the financial obligations of mining companies to the Authority.

Thus, if the U.S. accedes to the convention, it will be making an uninformed decision based on incomplete information. The 1994 Agreement refers only to a vague "system of payments" that U.S. mining companies would be required to pay to the Authority, stating that "Consideration should be given to the adoption of a royalty system or a combination of a royalty and profit-sharing system."[73]

Instead of a range of set royalty rates, the agreement states only that payments to the Authority "shall be within the range of those prevailing in respect of land-based mining of the same or similar minerals."[74] The agreement retains the requirement that mining companies must pay an annual fixed fee to the Authority upon the commencement of production but states that the amount of that fee "shall be established by the Council,"[75] which may revise this

66. International Seabed Authority, "Standard Clauses for Exploration Contract," § 21.1(b).
67. 1994 Agreement, Annex, § 3(15)(a).
68. UNCLOS, Art. 161(8)(d).
69. "The Council shall approve a recommendation by the Legal and Technical Commission for approval of a plan of work unless by a two-thirds majority of its members present and voting, including a majority of members present and voting in each of the chambers of the Council, the Council decides to disapprove a plan of work." 1994 Agreement, Annex, § 3(11)(a).
70. UNCLOS, Annex III, Art. 13(4)–(5).
71. Ibid., Art. 13(3).
72. 1994 Agreement, Annex, § 8(2).
73. Ibid., § 8(1)(c).
74. Ibid., § 8(1)(b).
75. Ibid., § 8(1)(d).

vague system of payments periodically "in the light of changing circumstances."[76]

In short, the 1994 Agreement merely transformed UNCLOS's exorbitant fee and royalty rate scheme into a vague and as yet undetermined payment system regime that mining companies should apparently accept on blind faith. The convention clearly defines the Authority's role in future negotiations regarding those fees and royalty rates: "In adopting rules, regulations and procedures concerning the financial terms of a contract... the Authority shall be guided by the following objectives: to ensure optimum revenues for the Authority from the proceeds of commercial production."[77]

Application "Processing Fee" Doubled to $500,000. Under the 1994 revisions to the convention, the processing fee for a contract to explore the seabed was reduced from $500,000 to $250,000.[78] However, the agreement failed to close a loophole in the convention that allows the Authority to raise that fee as it sees fit from time to time.[79] Accordingly, in July 2012, the Authority doubled the fee back to $500,000.[80] The Authority's stated justification was that the administrative cost of processing an application was greater than $250,000 and that the fee must therefore be doubled. The Authority cited its supposed costs for processing the NORI and TOML applications at $447,690 and $425,710, respectively.[81]

Although the Authority did not provide a breakdown of these costs, on the surface, it seems excessive to charge a mining company almost half a million dollars merely to "process" its application. Nothing in the convention or the 1994 Agreement prevents the Authority from raising the processing fee in the future to $750,000, $1,000,000, or even higher as it sees fit.

Moreover, mining companies will be required to pay a second "application processing fee" at the completion of the exploration phase when they apply for a separate contract to commence commercial production. In line with the Authority's recent actions, the application fee for the "exploitation phase" contract will likely be $500,000 as well, at least for now.[82]

Authority in Process of Shifting Major Costs to Companies. Under Article 160 of UNCLOS, member states bear the administrative costs of the Authority, including the costs of monitoring approved exploration contracts, until the Authority has sufficient income (e.g., from mining royalties) to satisfy those costs.[83] The convention places those costs on the member states through the Authority's administrative budget, for which all states are responsible through their annually assessed dues. However, the Authority plans to shift those costs onto the mining companies in clear violation of the convention.

In an April 2012 report, the Secretary-General of the Authority griped that the Authority was incurring significant administrative costs for monitoring the existing exploration contracts, reviewing the annual reports, analyzing the environmental data submitted by companies, and providing meeting services for the Legal and Technical Commission.[84] The report lamented that, as a result of the 1994 Agreement, mining companies are not required to pay a minimum annual fee of $1,000,000 to the Authority.[85] The Secretary-General urged the Council to develop a "user pays" system of cost recovery that would require the mining companies to pay for the Authority's administrative costs rather than spreading the costs among all member states as

76. Ibid., § 8(1)(e).
77. UNCLOS, Annex III, Art. 13(1)(a).
78. Ibid., Art. 13(2), and 1994 Agreement, Annex, § 8(3).
79. "The amount of the fee shall be reviewed from time to time by the Council in order to ensure that it covers the administrative cost incurred." UNCLOS, Annex III, Art. 13(2).
80. International Seabed Authority, Assembly, "Decision of the Assembly of the International Seabed Authority relating to the budget of the Authority for the financial period 2013-2014," ISBA/18/A/7, July 27, 2012, http://www.isa.org.jm/files/documents/EN/18Sess/Assembly/ISBA-18A-7.pdf (accessed November 14, 2012).
81. International Seabed Authority, Council, "Status of Fees Paid for Processing Applications for Approval of Plans of Work for Exploration and Related Matters," ISBA/18/C/3, April 19, 2012, ¶ 7, http://www.isa.org.jm/files/documents/EN/18Sess/Council/ISBA-18C-3.pdf (accessed November 14, 2012).
82. For example, see 1994 Agreement, Annex, § 8(3).
83. UNCLOS, Art. 160(2)(e).
84. International Seabed Authority, Council, "Status of Fees Paid for Processing Applications," ¶ 11.
85. Ibid., ¶ 12. Article 13(3) of Annex III to UNCLOS mandated the $1,000,000 annual fixed fee, which was negated by Section 8(2) of the Annex to the 1994 Agreement.

BACKGROUNDER | NO. 2746
DECEMBER 4, 2012

contemplated by the convention.[86]

The Finance Committee—yet another arm of the UNCLOS bureaucracy—agreed with the Secretary-General and directed the latter to report "on possible measures to ensure that the cost of administration and supervision of contracts between the Authority and the contractors is not borne by member states." The Council, in turn, tasked the Finance Committee to report in July 2013 at the Authority's next session on establishing "a system of cost recovery" based on the Secretary-General's report.[87]

Unlike the loophole that the Authority recently exploited to double the application fee for exploration contracts to $500,000, no loophole in either UNCLOS or the 1994 Agreement permits the Authority to impose the costs of monitoring contracts on the mining companies. The Authority's willingness to disregard the plain terms and intent of the convention and the 1994 Agreement, which was adopted specifically to enhance the economic feasibility of deep seabed mining, is telling and should give pause to any U.S. mining company that believes the rules of the UNCLOS regime are immutable.

Free-Rider Developing Countries. The Authority may be keen to shift administrative costs onto the mining companies instead of satisfying them through the Authority's regular budget because a significant percentage of UNCLOS members regularly fail to pay their annual assessed contributions. At present, 42 of the Authority's 164 member states (more than 25 percent) have been in arrears on their annual dues for two years or more.[88] All but two of the nations in arrears are members of the G-77 group of developing countries.

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Developing countries that are party to the convention will receive royalties and profits derived from seabed mining.[89] The substantial financial investment, technological expertise, economic risks, and sheer effort expended in mining the deep seabed will be borne entirely by mining companies and the states that sponsor them, including the United States if it joins UNCLOS. The free-rider countries, which take no risk and will reap rewards, have nothing to lose and much to gain from their UNCLOS membership. Yet they consistently fail to pay their relatively small dues as required under the convention.

U.S. Companies May Operate Through Foreign Subsidiaries

If a U.S. company insists on engaging in mining only under the convention's auspices despite the inequities associated with the UNCLOS regime, it may do so. Specifically, if the United States continues to remain a non-member of UNCLOS, a U.S. seabed mining company may incorporate a subsidiary entity in a country that is party to the convention. In this manner, the U.S. entity's subsidiary may apply for an exploration contract under the sponsorship of the foreign country and engage in seabed mining through the convention's regime.

The practice of U.S. companies partnering with foreign entities in seabed mining ventures has precedent. As previously noted, all four U.S. private-sector mining consortia originally included foreign partners or ownership interests: KCON had Canadian, Japanese, and British interests; OMA had Belgian and Italian interests; OMI had Canadian, Japanese, and German interests; and OMCO had Dutch interests.[90]

Under UNCLOS, a U.S. company's foreign subsidiary may apply for a license through the host nation. Indeed, there are already precedents for such an arrangement.

- In January 2012, the Authority signed a 15-year exploration contract with Tonga Offshore Mining Limited, a company incorporated

86. International Seabed Authority, Council, "Status of Fees Paid for Processing Applications," ¶ 13.
87. International Seabed Authority, Council, "Decision of the Council of the International Seabed Authority Relating to the Status of Fees Paid for Processing of Applications for Approval of Plans of Work for Exploration and Related Matters," ISBA/18/C/29, July 26, 2012, http://www.isa.org.jm/files/documents/EN/18Sess/Council/ISBA-18C-29.pdf (accessed November 14, 2012).
88. International Seabed Authority, Assembly, "Report of the Secretary-General of the International Seabed Authority," June 8, 2012, ¶ 40, http://www.isa.org.jm/files/documents/EN/18Sess/Assembly/ISBA-18A-2.pdf (accessed November 14, 2012).
89. See UNCLOS, Arts. 160(2)(f)(i) and 162(2)(o)(i).
90. National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1981, p. 10, http://www.gc.noaa.gov/documents/gcil_dsm_1981_report.pdf (accessed November 14, 2012).

within the jurisdiction of Tonga, under the sponsorship of Tonga. TOML is a wholly owned subsidiary of Nautilus Minerals Incorporated, a Canadian seabed mining company headquartered in Toronto. The TOML license authorizes it to explore more than 74,000 square kilometers in six separate areas of the CCZ reserved by the Authority for developing countries.[91] It is unclear why Nautilus, which could have attained Canadian sponsorship, chose to pursue this arrangement with Tonga. One possible explanation is that by applying under Tongan sponsorship, Nautilus could gain access to reserved areas of the CCZ available only to developing nations.

- In July 2012, the Council approved a license to explore an area of the CCZ to UK Seabed Resources Ltd (UKSRL) under the sponsorship of the United Kingdom.[92] UKSRL is a wholly owned subsidiary of Lockheed Martin UK Holdings Ltd, a corporation formed in 1999 under the laws of England. According to its application, UKSRL "holds rights granting it access to certain data, resources and subject matter expertise of Lockheed Martin Corporation...related to polymetallic nodule resource surveying, analysis and recovery methods."[93] In this manner, Lockheed Martin Corporation, a U.S. company, has essentially been granted a license to explore the deep seabed through its British subsidiary.

If a U.S. company maintains that the only practical way to engage in seabed mining is under the UNCLOS regime, the practices of companies like Nautilus and Lockheed Martin, acting through their foreign subsidiaries, are instructive. However, to best advance U.S. national interests and promote seabed mining in the years ahead, the U.S. government must provide U.S. mining companies with the maximum possible certainty and security of tenure over claims in the CCZ and any other area of the deep seabed.

Providing Certainty to U.S. Mining Interests

The United States is well within its rights to engage in deep seabed mining and sponsor U.S. companies' efforts to do so. The challenge lies in fostering mining by American companies in the current international environment, given the widespread acceptance of UNCLOS by other nations, and to counter any potential reluctance among these nations to recognize U.S. claims.

The United States should take steps to provide additional certainty and security of tenure to U.S. mining companies. To this end, the United States should:

- "Unsign" the 1994 Agreement,
- Claim the USA-2 area in the CCZ,
- Strengthen its bilateral and multilateral agreements regarding the deep seabed,
- Establish a task force on deep seabed mining, and
- Modernize DSHMRA for the 21st century.

"Unsigning" the 1994 Agreement. When the Clinton Administration signed the 1994 Agreement in July 1994, it arguably obliged the United States to refrain from committing any act that would defeat the agreement's "object and purpose," even though the United States has ratified neither the agreement nor UNCLOS.[94] The United States should therefore "unsign" the 1994 Agreement to resolve any legal ambiguity regarding U.S. intentions to explore and mine the deep seabed.

In May 2002, the Administration of President George W. Bush delivered a letter to the U.N. Secretary-General regarding the Rome Statute of the International Criminal Court (ICC), which the Clinton Administration had signed in December 2000. The letter stated that the United States "does not intend to become a party" to the Rome Statute and accordingly "has no legal obligations arising from its signature on December 31, 2000."[95]

This "unsigning" of the Rome Statute made clear to the international community that the United States has no intention of joining the ICC, and it enabled the Bush Administration to secure pledges from other nations that they would not surrender U.S. military personnel to the ICC for prosecution.[96] Since securing such pledges would arguably defeat the object and purpose of the Rome Statute, the unsigning letter was necessary to clarify that the U.S. no longer had an obligation to adhere to the terms of the Rome Statute.

The United States should unsign the 1994 Agreement to resolve any legal ambiguity regarding U.S. actions that may be seen as violating the agreement's object and purpose. Since the United States never signed UNCLOS, it is unnecessary to unsign the convention.

Claiming USA-2. The USA-2 area, comprising 112,500 square kilometers in the CCZ, has lain dormant and undisturbed since the OMI consortium relinquished its DSHMRA exploration license in 1999. The United States is well within its rights to lay claim to this area. Other nations have made claims to the deep seabed on behalf of their national governments rather than through private entities. Among the nations that currently claim areas of the deep seabed in their own right are South Korea (in the CCZ) and India (in the Indian Ocean).[97]

Other licenses to explore the CCZ are held by entities that are wholly owned and controlled by national governments, such as Yuzmorgeologiya (Russia); China Ocean Mineral Resources Research and Development Association; the Federal Institute for Geosciences and Natural Resources (Germany); and Marawa Research and Exploration Ltd. (Kiribati).

Although no other nation has attempted to claim the USA-2 area under the UNCLOS regime, states party to the convention may do so at any time. As previously noted, in May 2012, the Authority granted a license to Belgium's G-TEC Sea Minerals Resources to explore the USA-3 area (the OMA consortium relinquished its U.S. license for this area in 1997). The United States should act quickly before the Authority attempts to license the USA-2 area under the convention's regime.

The United States should claim the USA-2 area by informing the U.N. Secretary-General via diplomatic note, which should be published in the *Law of the Sea Bulletin*. The United States should give specific notice to other nations and companies that hold licenses in the CCZ, including Germany, Nauru, South Korea, and Russia, all four of which have sponsored claims bordering on the USA-2 area. The U.S. should also notify the Authority because the USA-2 area abuts areas reserved by the Authority for exploration by developing countries.

Strengthening Bilateral and Multilateral Agreements. The United States should notify every nation with which it has an agreement regarding the deep seabed that the U.S. considers all such agreements to be in force and effect. Although such notification is not legally necessary, it will provide additional clarification that the United States will hold its treaty partners accountable for their international commitments. The United States has such agreements with Belgium, China, France, Germany, Japan, Russia, and the United Kingdom.

The United States should also negotiate new bilateral agreements with the governments of Kiribati, Nauru, South Korea, and Tonga to establish mutual recognition and respect for one another's claims in the CCZ. Although the claims of those four nations do not overlap the areas currently claimed by the United States, the agreements will establish a bilateral commitment from each of those nations not to infringe on U.S. claims in the CCZ and to cooperate in the event of a dispute.

Convening a Task Force on Deep Seabed Mining. The political conditions and economic assumptions that existed when UNCLOS was adopted in 1982 are antiquated, to say the least. The U.S. should convene a public–private task force to conduct a new study on the current and future viability of deep seabed mining.

The issues surrounding the determination of U.S. interests in the deep seabed and the economics of seabed mining are highly complex and require a *de novo* review. Since the 1970s, mining technology has

91. International Seabed Authority, Council, "Report and Recommendations to the Council of the International Seabed Authority Relating to an Application for the Approval of a Plan of Work for Exploration for Polymetallic Nodules by Tonga Offshore Mining Limited," July 8, 2011, ISBA/17/C/10, ¶ 20, http://www.isa.org.jm/files/documents/EN/17Sess/Council/ISBA-17C-10.pdf (accessed November 14, 2012).
92. International Seabed Authority, Council, "Decision of the Council Relating to a Request for Approval of a Plan of Work for Exploration for Polymetallic Nodules Submitted by UK Seabed Resources Ltd.," July 26, 2012, ISBA/18/C/27, http://www.isa.org.jm/files/documents/EN/18Sess/Council/ISBA-18C-27.pdf (accessed November 14, 2012).
93. International Seabed Authority, Legal and Technical Commission, "Application for Approval of a Plan of Work for Exploration for Polymetallic Nodules," June 6, 2012, http://www.isa.org.jm/files/documents/EN/18Sess/LTC/ISBA-18LTC-L4.pdf (accessed November 14, 2012).
94. See, generally, Vienna Convention on the Law of Treaties, May 22, 1969.
95. John R. Bolton, letter to U.N. Secretary-General Kofi Annan, May 5, 2002.
96. See Brett D. Schaefer, "The Bush Administration's Policy on the International Criminal Court Is Correct," Heritage Foundation *Backgrounder* No. 1830, March 8, 2005, http://www.heritage.org/research/reports/2005/03/the-bush-administrations-policy-on-the-international-criminal-court-is-correct.
97. Article 153(2)(b) of UNCLOS expressly permits states parties to carry out exploration and mining activities in the deep seabed.
98. National Oceanic and Atmospheric Administration, "Deep Seabed Mining," December 1981, p. 1.

improved, the availability of seabed minerals from land-based sources has changed, and globalization has altered U.S. economic practices and trading partners. In addition, the assumptions prevailing at the time the convention was negotiated are very different from today's reality. For example, a 1981 report by NOAA on deep seabed mining stated: "By the end of the century, the Soviet Union and South Africa are expected to control virtually all the world's manganese resources."[98] The specter of the Soviet Union controlling a strategic metal was certainly alarming during the Cold War. However, that projection and many others have failed the test of time: The top national producers of manganese ore currently include Australia, Brazil, China, Gabon, and India.[99]

The task force should perform several key analyses, including analyses of how the seabed mining industry has evolved since 1980; whether seabed mining technology has advanced significantly; whether the U.S. government should provide financial incentives to engage in seabed mining; and, if so, what kind of incentives it should provide. All of these analyses should be directed toward answering the central question of whether deep seabed mining is economically viable at present and, if not, whether it ever will be.

The task force should assess whether these changes have altered U.S. assumptions regarding deep seabed mining and provide its findings to the Senate to permit that body to make a more informed decision.

Modernizing DSHMRA. One focus of the task force study should be whether DSHMRA should be updated to reflect current conditions and to promote U.S. seabed mining activities. Like UNCLOS, DSHMRA reflects the technological, economic, environmental, and political realities of the 1970s and early 1980s. If it is to continue to serve as the domestic legal and regulatory framework for U.S. seabed mining interests, its provisions should reflect the world as it exists today.

The central objective of modernizing DSHMRA would be to provide U.S. seabed mining companies with the necessary security of tenure and legal certainty to engage in deep seabed exploration and mining. To that end, Congress should amend the law to:

- **Set reasonable administration fees.** The administrative fee for processing an application for exploration under DSHMRA is currently set at $100,000.[100] That fee should be eliminated, made subject to waiver, or at a minimum kept at its current level to promote seabed mining by American companies.
- **Reduce litigation exposure for U.S. companies.** American companies lawfully engaged in seabed mining under U.S. law must be shielded from any legal actions brought by foreign nations and companies. U.S. companies have voiced concerns that they may face some type of unspecified litigation in foreign courts if they engage in seabed mining without the United States being a party to UNCLOS. Whether or not such concerns are warranted, Congress should amend DSHMRA to jurisdictionally bar the recognition or enforcement of any judgment entered by a foreign court against a U.S. mining company on the grounds that the United States is not a party to the convention.

  The United States may prevent the recognition of foreign judgments in U.S. courts when "the cause of action on which the judgment was based, or the judgment itself, is repugnant to the public policy of the United States."[101] For instance, in 2010, Congress enacted the Securing the Protection of Our Enduring and Established Constitutional Heritage (SPEECH) Act to prevent the domestic enforcement of foreign libel judgments that contravene the First Amendment to the U.S. Constitution.[102] While U.S. courts already have the discretion not to recognize such judgments, amending DSHMRA so that it explicitly bars judgments based on U.S. non-membership in UNCLOS will provide additional assurances to U.S. mining companies that fear such litigation.
- **Enhance legal remedies for U.S. companies.** U.S. mining companies should be provided an avenue of legal recourse in the event that a foreign company infringes on an area claimed by the company in the CCZ or anywhere else in the deep seabed. DSHMRA should be amended to grant jurisdiction to U.S. district courts to provide injunctive relief and monetary damages in the event of trespassing on or interference with a U.S.-sponsored claim.
- **Expand the scope of minerals that may be mined.** At present, U.S. companies may apply to NOAA to explore and mine only polymetallic nodules.[103] The definition of "hard mineral resource" under DSHMRA should be expanded to include polymetallic sulphides, cobalt-rich crusts, and any other mineral resource found on the deep seabed.

99. International Manganese Institute, "Production," http://www.manganese.org/about_mn/production (accessed November 14, 2012).
100. DSHMRA, § 970.208(b).
101. American Law Institute, *Restatement of the Law, Third*, § 482(2)(d).
102. Securing the Protection of Our Enduring and Established Constitutional Heritage (SPEECH) Act, Public Law 111-223, August 10, 2010.

BACKGROUNDER | NO. 2746
DECEMBER 4, 2012

Conclusion

The United States should not cede regulatory authority and bureaucratic control over the attainment of any national interest to an international organization. International organizations should not have the power to deny American companies access to the deep seabed or the authority to regulate exploration and mining activities.

If the United States chooses to engage in deep seabed mining, it should do so on its own terms. Rather than submitting itself and its private mining companies to the whims of an unelected and unaccountable international bureaucracy, the United States should provide the private sector with the legal certainty and financial incentives necessary to pursue deep seabed mining activities.

*—**Steven Groves** is Bernard and Barbara Lomas Senior Research Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation.*

103. DSHMRA, § 1403(6).

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LOST in the Arctic: The U.S. Need Not Ratify the Law of the Sea Treaty to Get a Seat at the Table

Steven Groves

Last month at the Arctic Ocean Conference (AOC) in Ilulissat, Greenland, high-level diplomats from the United States and the other four nations that border the Arctic region—Canada, Denmark, Norway, and Russia—met to discuss territorial claims regarding the Arctic Circle. At the conclusion of the meeting, the five countries issued a joint statement declaring that, "[b]y virtue of their sovereignty, sovereign rights and jurisdiction in large areas of the Arctic Ocean," each nation was in a unique position to address the exploitation of natural resources in the Arctic.[1]

The AOC was conceived in response to controversial actions undertaken by the Russian Federation. In August 2007, one of Russia's deep-water submersibles planted a flag on the sea floor beneath the North Pole.[2] Several U.S. politicians and media outlets seized on the Russian stunt as an opportunity to push for Senate ratification of the contentious United Nations Convention on the Law of the Sea (LOST). They adopted the mantra that the United States, if it fails to ratify LOST, "will not have a seat at the table" to resolve territorial claims such as those in dispute in the Arctic. For example:

- Senator Richard Lugar (R–IN), at a September 27, 2007, Senate Foreign Relations Committee hearing regarding LOST, lamented that "Russia is already making excessive claims in the Arctic. Until we become a party to the Convention, we will be in a weakened position to protect our national interests in these discussions."[3]
- Deputy Secretary of State John Negroponte, at that same hearing, echoed Senator Lugar's sentiment: "Setting aside its recent flag planting…Russia's continuing data collection in the Arctic reflects its commitment to maximizing its sovereign rights under the Convention over energy resources in that region. Currently, as a non-party, the United States is not in a position to maximize its sovereign rights in the Arctic or elsewhere. We do not have access to the [U.N.] Commission [on the Limits of the Continental Shelf]'s procedures for according international recognition and legal certainty to our extended shelf."[4]
- In October 2007, *The New York Times*, after dismissing opponents of LOST as "cranky right-wingers," editorialized that "[t]he steady retreat of the sea ice in the Arctic Ocean…has touched off a scramble among nations to determine who owns what on the ocean floor. Unless the United States ratifies the treaty, it will not have a seat at the table when it comes time to sort out competing claims."[5]
- A March 2008 *New York Times* editorial repeated the "seat at the table" theme: "[President Bush] must keep the pressure on Congress to approve, finally, the Law of the Sea. Without that approval, the United States will have no voice when decisions are made about rights of passage, exploring the ocean floor and fishing."[6]
- An August 2007 editorial in *The Christian Science Monitor* opined that the United States "may not have a good seat at the table to decide [the Arctic's] future" because it is not a party to LOST.[7]

Senator Lugar, Ambassador Negroponte, and *The New York Times* are merely repeating an argument previously asserted by the White House. For example, in May 2007, President Bush issued a statement on "advancing U.S. interests in the world's oceans" that declared: "I urge the Senate to act favorably on U.S. accession to the United Nations Convention on the Law of the Sea during this session of Congress.… [I]t will give the United States a seat at the table when the rights that are vital to our interests are debated and interpreted."[8]

However, the United States was still invited to and attended the AOC despite the fact that it is not a party to LOST. Such active participation in the debate over Arctic territorial claims disproves any contentions that the United States' "seat at the table" is contingent upon its ratification of LOST.

A Valid Assertion of Rights. By attending the Ilulissat conference, the United States acted as an independent, sovereign nation should act. The U.S. has interests in the Arctic that are worthy of protection,[9] and meeting with other interested nations in a multilateral setting was the proper protocol for securing such interests.

Yet even if the government of Denmark had decided not to invite the United States to the Ilulissat meeting—thereby depriving it of a "seat at the table"—U.S. interests would not have been negated. Denmark, Russia, Canada, Norway, or any other nations are unable to assert credible claims on U.S. territory in the Arctic or anywhere else in the world. Indeed, the United States secured its rights to the resources on its continental shelf when, in Presidential Proclamation No. 2667, President Harry S. Truman declared:

> I, HARRY S. TRUMAN, President of the United States of America, do hereby proclaim the following policy of the United States of America with respect to the natural resources of the subsoil and sea bed of the continental shelf.
>
> Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United

This paper, in its entirety, can be found at:
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1. "The Ilulissat Declaration," Arctic Ocean Conference, May 27–29, 2008, at *http://www.cop15.dk/NR/rdonlyres/BE00B850-D278-4489-A6BE-6AE230415546/0/ArcticOceanConference.pdf* (June 13, 2008).
2. Doug Struck, "Russia's Deep-Sea Flag-Planting at North Pole Strikes a Chill in Canada," *The Washington Post*, August 7, 2007, at *http://www.washingtonpost.com/wp-dyn/content/article/2007/08/06/AR2007080601369.html* (June 13, 2008).
3. Senator Richard Lugar, "Opening Statement for Hearing on the UN Law of the Sea Convention," Committee on Foreign Relations, U.S. Senate, September 27, 2007, at *http://lugar.senate.gov/press/record.cfm?id=284357&&* (June 13, 2008).
4. John D. Negroponte, "The UN Convention on the Law of the Sea," written testimony before Committee on Foreign Relations, U.S. Senate, September 27, 2007, at *http://www.state.gov/s/d/2007/92921.htm* (June 13, 2008).
5. Editorial, "Twenty-Five Years and Counting," *The New York Times*, October 31, 2007, at *http://www.nytimes.com/2007/10/31/opinion/31wed3.html?_r=1&oref=slogin* (June 13, 2008). A previous *New York Times* editorial described opponents of LOST as "a tiny but noisy group of xenophobic activists." Editorial, "Rescuing the Law of the Sea," *The New York Times*, August 22, 2004, at *http://query.nytimes.com/gst/fullpage.html?res=9C07E1D6163EF931A1575BC0A9629C8B63* (June 13, 2008).
6. Editorial, "Oceans at Risk," *The New York Times*, March 9, 2008, at *http://www.nytimes.com/2008/03/09/opinion/09sun2.html* (June 13, 2008).
7. Editorial, "Scramble for the Arctic," *The Christian Science Monitor*, August 21, 2007, at *http://www.csmonitor.com/2007/0821/p08s01-comv.html* (June 13, 2008).
8. Press release, "President's Statement on Advancing U.S. Interests in the World's Oceans," The White House, May 15, 2007, at *http://www.whitehouse.gov/news/releases/2007/05/20070515-2.html* (June 13, 2008).
9. See the forthcoming Heritage Foundation *Backgrounder* by Ariel Cohen, Ph.D., regarding U.S. Arctic policy.

States as appertaining to the United States, subject to its jurisdiction and control.[10]

In making this declaration, President Truman ensured that any crude oil, natural gas, minerals, and any other resources discovered beneath the U.S. continental shelf were the property of the United States. Such resources belong to the United States because fate or Providence placed them beneath the U.S. continental shelf; the matter was no longer open to debate.

A Sovereign and Independent Nation. President Truman, acting as the leader of a sovereign and independent nation—and without the permission of the United Nations or the "international community"—did not believe that the U.S. needed to be party to an international treaty such as LOST before he declared U.S. rights over its own resources. Rather, the only "seat at the table" President Truman required when he made Presidential Proclamation No. 2667 was the chair behind his desk in the Oval Office.

The "seat at the table" argument has been thoroughly debunked by U.S. participation in the Arctic Ocean Conference. Membership in an international treaty is clearly not required to secure and protect sovereign rights to a nation's own territory, whether such land is located in the Arctic or anywhere else in the world.

The United States should continue to behave in the international arena as a sovereign and independent nation and not as a country that looks to the United Nations or the "international community" to determine its own rights.

—Steven Groves is Bernard and Barbara Lomas Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation.

10. Presidential Proclamation No. 2667, "Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf," September 28, 1945, at *http://www.presidency.ucsb.edu/ws/index.php?pid=12332* (June 13, 2008). Subsequent legislation further defined the U.S. continental shelf; see, for example, the Outer Continental Shelf Lands Act of 1953, 43 U.S.C. § 1331.

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Accession to the U.N. Convention on the Law of the Sea Is Unnecessary to Secure U.S. Navigational Rights and Freedoms

Steven Groves

Abstract: *For more than 200 years, the United States has successfully preserved and protected its navigational rights and freedoms by relying on naval operations, diplomatic protests, and customary international law. U.S. membership in the United Nations Convention on the Law of the Sea (UNCLOS) would not confer any maritime right or freedom that the U.S. does not already enjoy. The U.S. can best protect its rights by maintaining a strong U.S. Navy, not by acceding to a deeply flawed multilateral treaty.*

The United Nations Convention on the Law of the Sea (UNCLOS) is a controversial and fatally flawed treaty. Accession to the convention would result in a dangerous and irreversible loss of American sovereignty. It would require the U.S. Treasury to transfer tens, if not hundreds, of billions of dollars to an unaccountable international organization in Jamaica, which in turn is empowered to redistribute those American dollars to countries with interests that are inimical to the U.S. The convention's mandatory dispute mechanisms will result ultimately in troublesome and costly legal judgments if the United States is deemed to have "violated" the convention—most likely when the United States has acted in its own best interests.

On the surface, UNCLOS sounds like a treaty that it would be worthwhile to join, as it relates to navigational rights and freedoms, development of the natural resources of the deep seabed, protection of the marine environment, and many other matters regarding the world's oceans.[1] However, in July 1982, President Ronald Reagan announced that he would not sign the convention because of "several major problems in the Convention's deep seabed mining provisions."[2] Those provisions underwent revision during the 1990s, and the Clinton Administration signed an agreement regarding those revisions in July 1994 and subsequently transmitted the convention to the U.S. Senate for its advice and consent. Although the Senate has held several hearings since 1994 regarding UNCLOS, it has never given its consent, and the United States remains a non-party to the convention.

There are many reasons why accession to UNCLOS would not advance U.S. national interests and would in fact harm those interests. The convention creates the International Seabed Authority (ISA) and an attendant international bureaucracy that serve as unaccountable gatekeepers to exploration of the deep seabed. If the United States joined the convention, it would be required to transfer royalties generated from oil and gas development on the U.S. continental shelf to the ISA for redistribution to the "developing world."[3] The United States would also be compelled under Part XV of the convention to submit to international dispute resolution mechanisms, potentially exposing it to specious environmental claims.

The United States Navy is the finest navy the world has ever seen. It is, to quote the Navy's recruiting pitch, a "global force for good." Its mission is "to maintain, train and equip combat-ready Naval forces capable of winning wars, deterring aggression and maintaining freedom of the sea."[4] Respect for the military, including the Navy, is at record levels, and it is therefore no surprise that national leaders listen when the Navy talks.

The Navy is strongly in favor of U.S. accession to UNCLOS. It asserts that U.S. membership in the convention is essential to guaranteeing the Navy's navigational rights and freedoms. However, the Navy's vocal and consistent support for UNCLOS is extremely narrow, based largely on the navigational rights and freedoms contained within the convention—its least controversial provisions. That said, for more than 200 years before UNCLOS came into existence in 1982 and during the almost 30 years since then, the United States has successfully preserved and protected its maritime interests regardless of the fact that it has not acceded to the convention.

The navigational rights and freedoms enjoyed by the United States and the Navy are guaranteed not by membership in a treaty, but rather through a combination of long-standing legal principles and persistent naval operations. Specifically, the United States relies on the customary international law of the sea and the U.S. Freedom of Navigation Program to protect those rights and freedoms.

Customary international law existed long before UNCLOS and includes the principles of freedom of navigation and overflight on the high seas, "innocent passage" through territorial waters, and passage rights through international straits and archipelagoes. The convention merely codified and elaborated upon widely accepted principles of the customary international law of the sea. Under the Freedom of Navigation Program, the United States disputes excessive maritime claims made by other countries in contravention of customary international law, as reflected in UNCLOS. U.S. efforts combine diplomatic protests and military operations to affirmatively establish and protect U.S. navigational interests.

UNCLOS proponents claim that U.S. accession to the convention is critical for the protection of navigational freedoms. The convention is often promoted as a panacea, and they argue that U.S. membership in UNCLOS would be the determin-

Talking Points

- The United States has enjoyed freedom of the seas since its independence and will continue to do so even if it does not accede to UNCLOS.
- For more than 200 years before UNCLOS was adopted in 1982 and for 30 years since then, the U.S. Navy has successfully protected its maritime interests regardless of the fact that the U.S. has not joined the convention.
- By forgoing membership in UNCLOS, the United States has not hindered its ability to secure and protect its navigational rights and freedoms. Those rights and freedoms are best guaranteed by a strong Navy, not by acceding to the convention.
- Instead of reconsidering a deeply flawed multilateral convention that was first rejected by President Ronald Reagan almost 30 years ago, the Senate should endeavor to provide the Navy with the resources it requires to preserve its preeminent position on the world's oceans.

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1. United Nations Convention on the Law of the Sea (UNCLOS), December 10, 1982, at *http://www.un.org/Depts/los/convention_agreements/texts/unclos/UNCLOS-TOC.htm* (July 28, 2011).
2. Ronald Reagan, "Statement on United States Oceans Policy," March 10, 1983, at *http://www.reagan.utexas.edu/archives/speeches/1983/31083c.htm* (July 28, 2011).
3. Steven Groves, "U.N. Convention on the Law of the Sea Erodes U.S. Sovereignty over U.S. Extended Continental Shelf," Heritage Foundation *Backgrounder* No. 2561, June 7, 2011, at *http://www.heritage.org/Research/Reports/2011/06/UN-Convention-on-the-Law-of-the-Sea-Erodes-US-Sovereignty-over-US-Extended-Continental-Shelf*.
4. U.S. Navy, "Mission & History," at *http://www.navy.com/about/mission.html* (August 16, 2011).

ing factor in any number of maritime controversies, such as Russian mineral claims in the Arctic Ocean, Chinese aggression in the South China Sea, and virtually any other maritime matter.

The United States has enjoyed freedom of the seas since its independence and will continue to do so even if it does not accede to UNCLOS. This paper demonstrates how the United States has successfully protected its navigational rights and freedoms for centuries without joining the convention.

- Part I establishes that the United States has successfully relied on the customary international law of the sea as the basis for its maritime rights and discusses how it protects those rights through the Freedom of Navigation Program.
- Part II addresses the traditional freedoms of navigation and overflight on the high seas and "innocent passage" through territorial waters.
- Part III addresses the navigational regimes of "transit passage" through international straits and "archipelagic sea-lanes passage," including brief case studies of the Strait of Hormuz, the Strait of Bab el-Mandeb, and the archipelagic waters of Indonesia and the Philippines.
- Part IV concludes that U.S. membership in UNCLOS is not essential to the U.S. Navy's global mission. Nor is membership necessary to maintain the U.S.'s position as the dominant naval power in the world and the preeminent leader on international law of the sea and maritime matters. Rather than spending its time debating a convention that the United States has rejected for almost 30 years, Congress should focus on providing the Navy with the resources that it requires to face the current and future challenges on the world's oceans.

Part I: Protecting U.S. Navigational Rights and Freedoms

The Continental Congress established the U.S. Navy on October 13, 1775, by enacting legislation to outfit two warships. Over the ensuing 236 years, the U.S. Navy has become the greatest maritime force in history. Yet proponents accept as an article of faith that U.S. accession to UNCLOS is essential to "guarantee" navigational rights and freedoms.[5]

However, in 1993, the Department of Defense issued an Ocean Policy Review Paper on "the currency and adequacy of U.S. oceans policy, from the strategic standpoint, to support the national defense strategy,"[6] which concluded that U.S. national security interests in the oceans have been protected even though the U.S. is not party to UNCLOS:

> U.S. security interests in the oceans have been adequately protected to date by current U.S. ocean policy and implementing strategy. U.S. reliance on arguments that customary international law, as articulated in the non-deep seabed mining provisions of the 1982 Law of the Sea Convention, and as supplemented by diplomatic protests and assertion of rights under the Freedom of Navigation Program, have served so far to preserve fundamental freedoms of navigation and overflight with acceptable risk, cost and effort.[7]

That is not to say that the Department of Defense does not currently support U.S. accession to UNCLOS—it certainly does. However, the Department of Defense does not, and cannot, say either that U.S. membership in UNCLOS is absolutely essential to the preservation of navigational rights and freedoms or that the United States is incapable of protecting those rights unless it accedes to the convention.

5. "Specifically, the [Law of the Sea] Convention…[g]uarantees unimpeded overflight and passage rights through international straits and archipelagic sea lanes." Rear Admiral William D. Center, prepared statement, in hearing, *Current Status of the Convention on the Law of the Sea*, Committee on Foreign Relations, U.S. Senate, 103rd Cong., 2nd Sess., August 11, 1994, pp. 26–27. The convention "guarantee[s] the rights of our naval and air forces to transit through the seas of other countries and key straits." Tom Lantos, in hearing, *The United Nations Convention on the Law of the Sea*, Committee on International Relations, U.S. House of Representatives, 108th Cong, 2nd Sess., May 12, 2004, p. 4.
6. U.S. Department of Defense, "DOD Ocean Policy Review Paper," 1993, in hearing, *Current Status of the Convention on the Law of the Sea*, pp. 76–94.
7. *Ibid.*, p. 86.

The 1993 report's conclusion that the United States is successfully protecting its national security interests on the world's oceans is correct, and the U.S. has done so without being party to UNCLOS. The practices of the United States and other maritime powers over the course of centuries have created the very customary law of the sea that is the foundation of UNCLOS's navigational provisions. It is therefore erroneous to claim that the United States may benefit from the convention's navigational provisions only if it joins the convention.

Proponents accept as an article of faith that U.S. accession to UNCLOS is essential to "guarantee" navigational rights and freedoms.

Moreover, a review of the development of the law of the sea since the 1993 Ocean Policy Review Paper—and an assessment of the status quo—demonstrates that the United States need not accede to UNCLOS to protect its navigational freedoms.

UNCLOS and Customary International Law. Throughout its history, the United States has successfully protected its maritime interests despite not being an UNCLOS member. Enjoyment of the convention's navigational provisions is not restricted to UNCLOS members. Those provisions represent widely accepted customary international law, some of which has been recognized as such for centuries. UNCLOS members and nonmembers alike are bound by the convention's navigational provisions.

The body of international law known as the "law of the sea" was not invented in 1982 when UNCLOS was adopted, but rather "has its origins in the customary practice of nations spanning several centuries."[8] It developed as "customary international law," which is "that body of rules that nations consider binding in their relations with one another. It derives from the practice of nations in the international arena and from their international agreements."[9] Although not a party to UNCLOS, the United States is bound by and acts in accordance with the customary international law of the sea and considers the UNCLOS navigational provisions as reflecting international law.

Most of the UNCLOS navigational provisions have long been recognized as customary international law. The convention's articles on navigation on the high seas (Articles 86–115, generally) and passage through territorial waters (Articles 2–32, generally) were copied almost verbatim from the Convention on the High Seas and the Convention on the Territorial Sea and the Contiguous Zone, both of which were adopted in 1958. The United States is party to both conventions, which are considered to be codifications of widely accepted customary international law.

Similar to other multilateral conventions, such as the Vienna Convention on Diplomatic Relations, UNCLOS is said to "have codified settled customary international law or to have 'crystallized' emerging customary international law."[10] As explained in more detail below, UNCLOS codified customary law relating to navigation on the high seas and through territorial waters and "crystallized" emerging customary law, such as the concepts of "transit passage" through international straits and "archipelagic sea-lanes passage." As summarized by Defense Department official John McNeill in 1994, UNCLOS "contains a comprehensive codification of long-recognized tenets of customary international law which reflect a fair balance of traditional ocean uses."[11] In short, the convention's navigational provisions have attained such a status that all nations—UNCLOS members and nonmembers alike—are expected to adhere to them.

One way to determine the extent to which UNCLOS's navigational provisions have achieved the status of binding international law is to study the behavior of nations. Behavior in conformity with the convention—known as "state practice"—is

8. *Ibid.*, p. 81.
9. *Ibid.*, p. 80.
10. Barry E. Carter, Phillip R. Trimble, and Allen S. Weiner, *International Law*, 5th ed. (New York: Aspen Publishers, 2007), p. 123.
11. For example, see John H. McNeill, prepared statement, in hearing, *Current Status of the Convention on the Law of the Sea*, p. 20.

additional evidence that its navigational provisions reflect international law. Indications that a state is acting in conformity with international law may be found in states' "legislation, the decisions of their courts, and the statements of their official government and diplomatic representatives."[12] A nation's inaction regarding a particular navigational provision may also be viewed as state practice because it can be deemed to be acquiescence.

The body of international law known as the "law of the sea" was not invented in 1982 when UNCLOS was adopted, but rather "has its origins in the customary practice of nations spanning several centuries."

As demonstrated throughout this paper, the consistent practice of states—maritime states, coastal states, UNCLOS members, and nonmembers—indicates that the UNCLOS navigational provisions are almost universally accepted law. The *Restatement of the Law, Third, of the Foreign Relations Law of the United States* notes:

> [B]y express or tacit agreement accompanied by consistent practice, the United States, and states generally, have accepted the substantive provisions of the Convention, other than those addressing deep sea-bed mining, as statements of customary law binding upon them apart from the Convention.[13]

This has long been the U.S. position. Since the Reagan Administration, the official U.S. policy has been that the UNCLOS provisions on the traditional uses of the oceans, including the provisions on navigation and overflight, confirm international law and practice.[14] Specifically, in March 1983, President Ronald Reagan announced the U.S. oceans policy in light of his decision not to sign UNCLOS.[15] Reagan announced that "the United States is prepared to accept and act in accordance with the balance of interests relating to traditional uses of the oceans—such as navigation and overflight" and "will recognize the rights of other states in the waters off their coasts, as reflected in the Convention, so long as the rights and freedoms of the United States and others under international law are recognized by such coastal states."[16]

Reagan's 1983 oceans policy statement confirmed what was already widely recognized: that the navigational provisions of UNCLOS generally reflect customary international law and as such must be respected by all nations.[17]

Yet proponents of U.S. accession to UNCLOS imply that the United States cannot fully benefit from these navigational rights unless it is a party to the convention, which "provides" and "preserves" these rights.[18] This is simply incorrect. The United States enjoys the same navigational rights as UNCLOS parties enjoy.

At the December 1982 final plenary meeting of the Third United Nations Conference on the Law of the Sea (UNCLOS III), some nations took the opposite position, contending that a nation that chose not to join the convention would forgo all of these rights. On March 8, 1983, the United States, exercising its right to reply, expressly rejected that position:

> Some speakers discussed the legal question of the rights and duties of States which do not become party to the Convention adopted by the Conference. Some of these speakers alleged that such States must either accept the provisions of the Convention as a "package deal" or forgo all of the rights referred to in the Convention. This supposed election is without foundation or precedent in international law. It is a basic principle of law that parties may not, by agreement among themselves, impair the rights of third parties or their obligations to third parties. Neither the Conference nor the States indicating an intention to become parties to the Convention have been granted global legislative power....
>
> The United States will continue to exercise its rights and fulfil its duties in a manner consistent with international law, including those aspects of the Convention which either codify customary international law or refine and elaborate concepts which represent an accommodation of the interests of all States and form part of international law.[19]

It is not essential or even necessary for the United States to accede to UNCLOS to benefit from the certainty and stability provided by its navigational provisions. Those provisions either codify customary international law that existed well before the convention was adopted in 1982 or "refine and elaborate" navigational rights that are now almost universally accepted as binding international law.

The navigational provisions of UNCLOS generally reflect customary international law and as such must be respected by all nations.

The Freedom of Navigation Program. In addition to relying on customary international law as reflected in UNCLOS, the United States protects its navigational rights by diplomatically protesting excessive maritime claims made by other nations and by conducting operational assertions with U.S. naval forces to physically dispute such claims. Well before the adoption of UNCLOS in 1982, the United States had issued protests and conducted naval operations to dispute excessive maritime claims by other nations.[20]

These diplomatic and military activities were formally operationalized as the Freedom of Navigation (FON) Program in March 1979 during the Carter Administration.[21] The FON Program was instituted to challenge attempts by other nations to "extend their domain of the sea beyond that afforded them by international law."[22] The program also serves a broader purpose:

> The objective of the FON Program is not just to maintain the legal right to operate freely in and over international waters. The more important objectives are, first, to have other nations recognize and respect the legal right of all nations to operate, in conformity with the navigational provisions of the LOS Convention, in and over the territorial sea and international waters, and second, to minimize

12. R. R. Churchill and A. V. Lowe, *The Law of the Sea*, 3d ed. (Manchester: Manchester University Press, 1999), p. 11.
13. American Law Institute, *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, Vol. 2 (St. Paul, Minn.: American Law Institute Publishers, 1987), p. 5.
14. For example, see McNeill, prepared statement, p. 19.
15. Reagan, "Statement on United States Oceans Policy." On the same day, Reagan released a separate proclamation asserting jurisdiction over a 200-nautical-mile exclusive economic zone, consistent with Part V of UNCLOS.
16. *Ibid.*
17. The United States may also recognize as customary international law the UNCLOS provisions "relating to the conservation and management of living marine resources." D. James Baker, prepared statement, in hearing, *Current Status of the Convention on the Law of the Sea*, p. 35.
18. "In particular, the Convention provides core navigational rights through foreign territorial seas, international straits and archipelagic waters, and preserves critical high seas freedoms of navigation and overflight seaward of the territorial sea, including in the EEZ." Admiral James D. Watkins, prepared statement, in hearing, *The U.N. Convention on the Law of the Sea*, p. 44.
19. Statement by the United States of America, March 8, 1983, in "Note by the Secretariat," extract from *Official Records of the Third United Nations Conference on the Law of the Sea*, Vol. 17, A/CONF62/WS/37, p. 243, at *http://untreaty.un.org/cod/diplomaticconferences/lawofthesea-1982/docs/vol_XVII/a_conf-62_ws_37%20and%20add-1%20and%202.pdf* (July 28, 2011).
20. For example, in 1956, the U.S. protested a Panamanian claim that the Gulf of Panama was a "historic bay"; in 1961, it protested a Philippine claim of straight archipelagic baselines; and in 1979, the Navy conducted an operational assertion against Sudan to protest, *inter alia*, a requirement that foreign warships obtain prior permission before transiting its territorial sea. U.S. Department of Defense, Under Secretary of Defense for Policy, *Maritime Claims Reference Manual*, June 23, 2005, pp. 452, 463, and 575, at *http://www.jag.navy.mil/organization/documents/mcrm/MCRM.pdf* (July 28, 2011). The United States issued 30 diplomatic notes between 1948 and March 1979 and 110 more between March 1979 and 1996. J. Ashley Roach and Robert W. Smith, *United States Responses to Excessive Maritime Claims*, 2nd ed. (The Hague: Martinus Nijhoff Publishers, 1996), pp. 7–8.
21. Roach and Smith, *United States Responses to Excessive Maritime Claims*, p. 5.
22. Lieutenant Commander James K. Greene, "Freedom of Navigation: New Strategy for the Navy's FON Program," U.S. Naval War College, February 13, 1992, p. 2.

efforts by other States to reduce those rights by making excessive maritime claims.[23]

Every U.S. Administration since President Jimmy Carter has prosecuted the FON Program.[24] When President Reagan decided not to sign UNCLOS in 1983, he confirmed that the United States would nevertheless continue to protect its navigational rights:

> [T]he United States will exercise and assert its navigation and overflight rights and freedoms on a worldwide basis in a manner that is consistent with the balance of interests reflected in the convention. The United States will not, however, acquiesce in unilateral acts of other states designed to restrict the rights and freedoms of the international community in navigation and overflight and other related high seas uses.[25]

The vast majority of FON assertions have been conducted in relative obscurity, with a few notable exceptions, such as the operations in the Gulf of Sidra in 1981 and 1989 (challenging Libya's claim of "historic waters" in the Gulf) and the "Black Sea Bumping" incident in February 1988 (challenging an excessive claim made by the Soviet Union regarding its territorial sea).

Starting in the early 1990s, the Defense Department began to publish its operational assertions on a regular basis.[26] From fiscal year (FY) 1993 to FY 2010, the Navy conducted hundreds of FON operations to dispute various types of excessive maritime claims made by 47 nations.

In addition to operational assertions, the Navy routinely transits international straits and archipelagic waters to demonstrate that it enjoys the rights of transit passage and archipelagic sea-lanes passage, regardless of whether the U.S. is party to UNCLOS. For instance, in FY 1997, Navy warships and warplanes "frequently conducted routine transits through international straits," including the Straits of Gibraltar, Hormuz, and Malacca, and transited through the archipelagic waters of Indonesia and the Philippines on 73 and 47 occasions, respectively.[27]

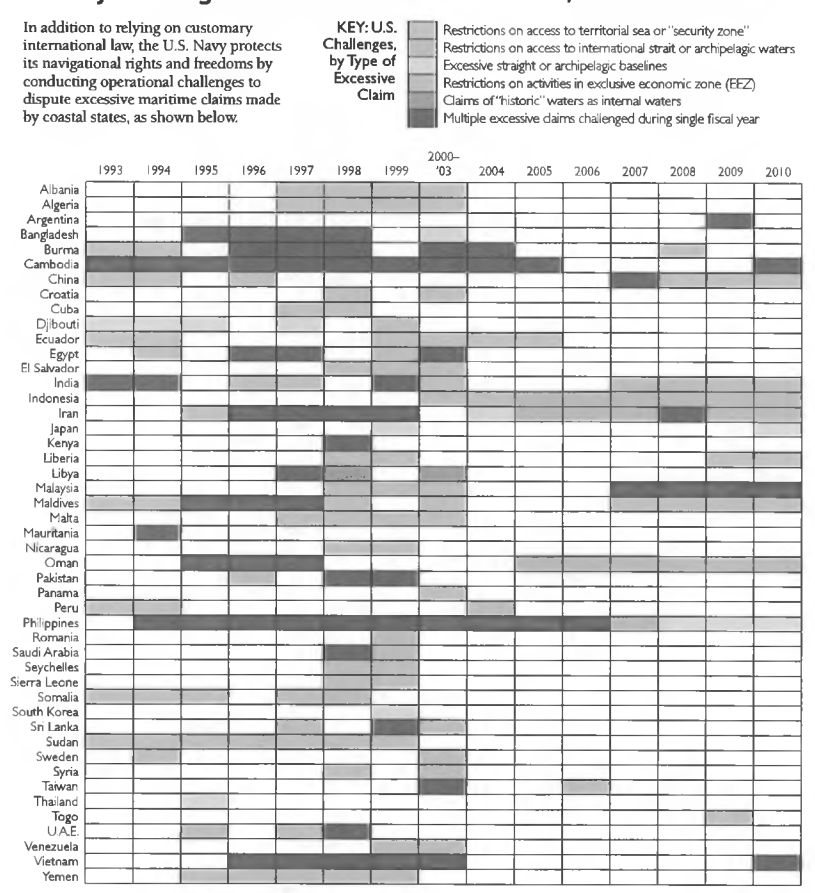
The FON Program has been very successful in demonstrating U.S. conformity to UNCLOS, securing U.S. navigational rights and freedoms, and protesting excessive maritime claims by foreign countries that do not conform with the convention. According to the 1993 Department of Defense Ocean Policy Review Paper:

> The effectiveness of the FON program as a means to gain full coastal state compliance with the navigation and overflight provisions of the Convention has been positive. It has clearly and convincingly demonstrated to the international community that the U.S. will not acquiesce in excessive maritime claims. It has played a positive role in curbing nonconforming territorial sea, contiguous zone and exclusive economic zone (EEZ) claims and, arguably, has helped persuade states to bring some of their domestic laws into conformity with the Convention.[28]

23. Roach and Smith, *United States Responses to Excessive Maritime Claims*, p. 8.
24. For example, see Ronald Reagan, "United States Program for the Exercise of Navigation and Overflight Rights at Sea," National Security Decision Directive No. 72, December 13, 1982, and George H. W. Bush, "Freedom of Navigation Program," National Security Directive No. 49, October 12, 1990.
25. Reagan, "Statement on United States Oceans Policy."
26. The U.S. Navy's operational assertions for FY 1994–FY 1999 were appended to the Department of Defense's *Annual Report to the President and the Congress*. The assertions for FY 2000–2010 were posted on the Web site of the Office of the Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction. U.S. Department of Defense, Office of the Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction, "Freedom of Navigation Operational Assertions," at *http://policy.defense.gov/gsa/cwmd/fon.aspx* (July 28, 2011). For a complete list of the Navy's operational assertions during FY 1994–FY 2010, see the Appendix. For a listing of the Navy's assertions on a country-by-country basis, see U.S. Department of Defense, *Maritime Claims Reference Manual*.
27. U.S. Department of Defense, *Annual Report to the President and the Congress*, 1998, Appendix I, at *http://www.dod.gov/execsec/adr98/index.html* (July 28, 2011).
28. U.S. Department of Defense, "DOD Ocean Policy Review Paper," p. 83.

U.S. Navy Challenges to Excessive Maritime Claims, FY 1993–FY 2010

In addition to relying on customary international law, the U.S. Navy protects its navigational rights and freedoms by conducting operational challenges to dispute excessive maritime claims made by coastal states, as shown below.



Sources: U.S. Department of Defense, Office of the Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction, "Freedom of Navigation Operational Assertions," at *http://policy.defense.gov/gsa/cwmd/fon.aspx* (July 28, 2011).

Table 1 • B 2599 ☎ heritage.org

In sum, the United States has been aggressive in protecting its maritime interests. Since the Reagan Administration, the U.S. has made clear that it will act in accordance with the navigational provisions of UNCLOS and will recognize the maritime rights of other nations. When other nations assert claims contrary to customary international law as reflected in the convention, the United States actively contests such claims through the FON Program. In this manner, the United States has preserved its navigational rights and continued to shape the international law of the sea.

Proponents of U.S. accession to UNCLOS claim that reliance on customary international law and the FON Program is insufficient to protect U.S. navigational freedoms,[29] but such arguments are not supported by the facts. Indeed, proponents are obliged to admit that U.S. reliance on customary international law and the FON Program has adequately protected its navigational rights to date while simultaneously contending that continued reliance would not adequately protect these same rights. Testimony at a 1994 congressional hearing offers a typical example of this incongruous argument:

> While the United States has repeatedly taken the position that the provisions of the Convention with respect to traditional uses of the oceans, such as navigation and overflight, generally confirm existing maritime law and practice and fairly balance off all states, and asserted they should be considered to reflect customary international law, not all other States have accepted this view. More importantly, customary international law can change as the practice of States changes. Should the United States and other maritime powers fail to become party to the Convention, the degree to which its provisions reflect customary international law is likely to erode.[30]

Claims that the navigational provisions of UNCLOS will somehow erode in the absence of U.S. membership is a consistent meme of the convention's proponents.[31] Proponents have similarly argued that if the U.S. does not join the convention, "it will not be in a position to affect the evolution of this ocean regulatory regime."[32]

Still others insist that time is running out for the United States to realize the benefits of the convention's navigational provisions. For instance, in 1995, Admiral William Schachte warned, "This may be our last opportunity to 'lock in' those critical navigational and overflight rights so essential to our economic and military security."[33] A dozen years later, in 2007, the Vice Chief of Naval Operations repeated the same warning to the Senate Foreign Relations Committee: "We need to lock in the navigation and overflight rights and high seas freedoms contained in the Convention while we can."[34]

However, the evidence indicates that the navigational provisions of UNCLOS are already locked in to the extent that any aspect of international law can be. Indeed, the passage of time has demonstrated that nations—UNCLOS members and nonmembers alike—have generally adhered to the convention's navigational provisions in good faith and that those provisions have endured, not eroded. The United States is no pariah in regard to development of the law of the sea. To the contrary, the United States played a central role in the creation of the customary international law upon which the navigational provisions of UNCLOS are based, as well as the evolution and interpretation of those provisions since the convention was adopted in 1982.

The endurance of the navigational provisions of UNCLOS and the central role that the United States has played in preserving them are best demonstrated by examining the origins and development of the navigational rights and freedoms codified in the convention; high seas freedoms and "innocent passage" through territorial waters (Part II); and "transit passage" through international straits and "archipelagic sea lanes passage" (Part III).

Part II: Navigation on the High Seas and Through Territorial Waters

> *The law of the sea has its origins in the customary practice of nations spanning several centuries. A basic tenet of customary international law is that the high seas are free and open for navigation and commerce, and that coastal states may subject only a narrow margin [the territorial sea] to their own jurisdiction and control.*
>
> —U.S. Department of Defense (1993)[35]
>
> *One of the fundamental tenets in the international law of the sea is the right enjoyed by all ships of every state to innocent passage through another state's territorial sea.*
>
> —U.S. Department of State (1992)[36]

Proponents of accession to UNCLOS maintain that membership is the *sine qua non* of U.S. enjoyment of navigational freedoms on the high seas. One proponent has gone as far as to imply that failure to join the convention will cost the lives of American servicemen:

> The UNCLOS is a key weapon in this struggle for our oceans' freedom. The United States won through the [UNCLOS III] negotiations the core elements of that freedom. To abandon that win is the legal equivalent of unilateral disarmament for the United States in the struggle for freedom of the seas. The price we will pay through time for any such error in judgment will be high. In essence the critics who would have us abandon a rule of law in the world's oceans may effectively be asking American service men and women someday to pay with their lives for the absence of such a rule of law. This is not mere hyperbole; already disputes about the oceans regime have cost American lives. Thus, an American aircraft in lawful overflight of the high seas was forced down by Peru in asserting an illegal claim over an extended area of the seas. More recently, harassment by Chinese fighters brought down a United States aircraft engaged in lawful activities under the 1982 Convention.[37]

Other UNCLOS proponents are less hyperbolic, claiming only that the convention "preserves" high seas freedoms such as navigation and overflight.[38]

Nevertheless, U.S. membership in UNCLOS would not preserve its high seas freedoms, and it certainly would not guarantee that U.S. servicemen will not be killed while serving their country. The convention's provisions regarding the high seas and territorial waters reflect customary international law of the sea that existed long before UNCLOS was proposed and would have persisted even if the convention had never been adopted.

Freedom of the High Seas. The concept of the freedom of the seas dates back at least to 1609, when Hugo Grotius's *Mare Liberum* (The Free Sea) was published. Responding to claims that a nation may legitimately assert sovereignty over the world's oceans, Grotius argued that the oceans should be considered international territory that all nations are free to use.

29. For example, see William L. Schachte, Jr., "National Security: Customary International Law and the Convention on the Law of the Sea," *Georgetown International Environmental Law Review*, Vol. 7 (1995), p. 709.
30. David A. Colson, testimony, in hearing, *Current Status of the Convention on the Law of the Sea*, p. 52.
31. "However universally accepted the Convention's provisions may now appear they will surely erode over time if the United States fails to exercise the kind of continuing leadership and participation which led to this extraordinary achievement in the first place." Dennis W. Archer, prepared statement in report, "United Nations Convention on the Law of the Sea," Committee on Foreign Relations, U.S. Senate, 108th Cong., 2nd Sess., March 11, 2004, p. 151.
32. McNeill, prepared statement, p. 24. "For the United States to remain outside of the convention would…limit our ability to shape the future of the convention as it evolves over time." Rear Admiral John E. Shkor, prepared statement, in hearing, *Current Status of the Convention on the Law of the Sea*, p. 33.
33. Schachte, "National Security," p. 715.
34. Admiral Patrick M. Walsh, prepared statement, in hearing, *The United Nation's [sic] Convention on the Law of the Sea (Treaty Doc. 103-39)*, Committee on Foreign Relations, U.S. Senate, 110th Cong., 1st Sess., September 27, 2007, p. 24.
35. U.S. Department of Defense, "DOD Ocean Policy Review Paper," p. 81.
36. U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, "United States Responses to Excessive National Maritime Claims," *Limits in the Seas*, No. 112, March 9, 1992, p. 51, at *http://www.state.gov/documents/organization/58381.pdf* (July 28, 2011).
37. John Norton Moore, prepared statement, in hearing, *Military Implications of the United Nations Convention on the Law of the Sea*, Committee on Armed Services, U.S. Senate, 108th Cong., 2nd Sess., April 8, 2004, p. 86.
38. Center, prepared statement, p. 27.

For centuries, the law of the sea developed organically in conjunction with the vast expansion of maritime travel. Common maritime practices became widely accepted and were adopted as law by maritime and coastal states alike:

> International law of the high seas has evolved over the years based on accepted and agreeable practices of nations. It has generally been held that usage becomes an international legal norm when it has been repeated over a period of time by several states, when they have generally acquiesced in such behavior by one another, and when governments begin to act in certain ways out of a sense of legal obligation. Customary acceptance of the practice of nations, over time, results in international law and is binding on all nations.[39]

Only in the 20th century did nations seek to codify the law of the sea, beginning in 1930 at a conference convened by the League of Nations. However, the nations in attendance were unable to reach agreement on key provisions, such as the proper breadth of the territorial sea, and no codification conventions were adopted at the conference.[40]

There was a renewed effort to codify the law of the sea after World War II. These efforts culminated in the first United Nations Conference on the Law of the Sea (UNCLOS I), convened in Geneva in February 1958 "to examine the law of the sea, taking account not only of the legal but also of the technical, biological, economic and political aspects of the problem and to embody the results of its work in one or more international conventions or such other instruments as it may deem appropriate."[41] UNCLOS I was attended by 86 nations and resulted in the adoption of four separate conventions[42] that "codified the law as it had grown up over two centuries" and "constituted the core of the generally accepted rules of the law of the sea concerning maritime zones."[43]

The freedoms of navigation on and overflight over the high seas simply do not hinge on UNCLOS membership. They have existed for hundreds of years as part of the customary international law of the sea.

The Convention on the High Seas (CHS), one of the 1958 conventions, explicitly set out "to codify the rules of international law relating to the high seas" and adopted a series of provisions as "generally declaratory on established principles of international law."[44] The CHS codified key principles regarding freedom of the high seas, including that the high seas are open to all nations, whether coastal or landlocked, and that no nation may claim sovereignty over any part of the high seas.[45]

Other basic tenets of high seas freedom codified in the CHS include freedom of navigation, freedom of overflight, freedom of fishing, and freedom to lay submarine cables and pipelines.[46] The CHS also addressed issues relating to access to the seas for landlocked nations, flying maritime flags, safety, responding to collisions, rendering assistance, and dealing with piracy.[47] The United States ratified the CHS in April 1961, and the convention remains in force.[48]

39. Greene, "Freedom of Navigation," p. 5, quoting Walter S. Jones, *The Logic of International Relations* (Boston: Little, Brown & Company, 1985), p. 493 (internal quotations omitted).
40. Carter *et al.*, *International Law*, pp. 848–849.
41. U.N. General Assembly, Resolution 1105 (XI), February 21, 1957.
42. Convention on the High Seas, Convention on the Territorial Sea and the Contiguous Zone, Convention on the Continental Shelf, and Convention on Fishing and Conservation of the Living Resources of the High Seas. An optional protocol regarding the compulsory settlement of disputes was also adopted at UNCLOS I. See, generally, Tullio Treves, "1958 Geneva Conventions on the Law of the Sea," Audiovisual Library of International Law, at *http://untreaty.un.org/cod/avl/ha/gclos/gclos.html* (July 28, 2011).
43. American Law Institute, *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, Introductory Note, and Churchill and Lowe, *The Law of the Sea*, p. 15.
44. Convention on the High Seas, April 29, 1958, at *http://untreaty.un.org/ilc/texts/instruments/english/conventions/8_1_1958_high_seas.pdf* (July 28, 2011).
45. Convention on the High Seas, art. 2.
46. *Ibid.*, art. 2(1)–(4).

The United Nations convened a third Conference on the Law of the Sea (UNCLOS III) in 1973. Negotiations for the adoption of a comprehensive convention on the law of the sea spanned nine years and overlapped four U.S. Administrations. In the end, the CHS provisions relating to the high seas were adopted wholesale into UNCLOS. For example, the freedom of navigation and overflight codified in Article 2(1) and 2(4) of the CHS are repeated verbatim in UNCLOS as Article 87(1)(a) and (1)(b). The definition of piracy in Article 15 is mirrored in Article 101 of UNCLOS, and the right of "hot pursuit" of a foreign ship in Article 23 is repeated almost verbatim in Article 111 of UNCLOS. Indeed, every substantive provision of the CHS (Articles 1–29) has an equivalent in UNCLOS (Articles 86–115).

In sum, freedom of navigation on the high seas has long been recognized as customary international law and was codified as such in 1958 in the Convention on the High Seas. Those same provisions were restated in UNCLOS in 1982.

It is therefore erroneous to claim that U.S. membership in UNCLOS is essential to guaranteeing the U.S. Navy's high seas freedoms. The freedoms of navigation on and overflight over the high seas simply do not hinge on UNCLOS membership. They have existed for hundreds of years as part of the customary international law of the sea. The United States has been party to the Convention on the High Seas since 1961, and in 1983, President Reagan clearly stated that, while he would not sign UNCLOS, "the United States is prepared to accept and act in accordance with the balance of interests relating to traditional uses of the oceans—such as navigation and overflight."[49]

Moreover, the United States actively protects its freedoms of the high seas from erosion and direct threats. Many coastal states, including UNCLOS members, regularly assert excessive maritime claims in an attempt to restrict military activities within their 200 nautical mile (nm) exclusive economic zone (EEZ). Excessive claims by coastal states commonly include a requirement that foreign warships obtain permission before entering their EEZ or a prohibition on military maneuvers in their EEZ without authorization.[50] Under the FON Program, the U.S. Navy regularly protests such claims by entering foreign EEZs without prior permission and engaging in any number of "prohibited" activities, including military maneuvers, "oceanographic surveys, underwater surveillance, hydrographic surveys, missile tracking and acoustic surveys."[51]

Since FY 1993, the Navy has conducted FON operational assertions against at least seven nations, primarily in Asia, that have attempted to restrict military activities in their EEZs.[52] With some notable exceptions, such as China's interference with the surveillance activities of the USNS *Impeccable* and USNS *Victorious* in the South China Sea in 2009, the vast majority of the Navy's FON assertions in foreign EEZs were conducted without fanfare and without any objection from the coastal state making the excessive claim.

Innocent Passage Through Territorial Waters. The Convention on the Territorial Sea and the Con-

47. Convention on the High Seas, arts. 3, 4–7, 10–12, and 14–21.
48. U.S. Department of State, *Treaties in Force: A List of Treaties and Other International Agreements of the United States in Force on January 1, 2010*, p. 400, at *http://www.state.gov/documents/organization/143863.pdf* (July 28, 2011).
49. Reagan, "Statement on United States Oceans Policy."
50. For examples of excessive claims made by Brazil, Cape Verde, India, Iran, and Uruguay concerning military activities in their EEZs, see, generally, Roach and Smith, *United States Responses to Excessive Maritime Claims*, pp. 409–414.
51. Captain Raul (Pete) Pedrozo, USN (Ret.), "Preserving Navigational Rights and Freedoms: The Right to Conduct Military Activities in China's Exclusive Economic Zone," *Chinese Journal of International Law*, Vol. 9, No. 1 (2010), p. 14. Many of the Navy's operational assertions are conducted by special-mission ships assigned to the U.S. Navy Special Mission Program. *Ibid.*
52. By state and fiscal years of operational assertion, those seven nations are Burma (2008); China (2007–2010); Egypt (2000–2003); India (1999 and 2007–2010); Malaysia (1998–2003 and 2007–2010); Maldives (2007–2010); and Pakistan (1998). For more details, see the Appendix.

tiguous Zone (CTS), another of the 1958 conventions, confirmed the long-standing view that a coastal nation may claim sovereignty over a narrow strip of water adjacent to its coast, called the "territorial sea."[53] The CTS memorialized the widely accepted principle that a coastal nation may exert nearly complete control of maritime activity within its territorial sea, including the requirement that foreign warships and warplanes may pass through and over the territorial sea only via "innocent passage."

That is to say that warships may transit through the territorial waters of a coastal state "so long as it is not prejudicial to the peace, good order or security of the coastal State."[54] Submarines are required to navigate on the surface while passing through territorial waters and must show their flag.[55] Any warship that does not transit in such a manner is considered to be abusing its right to innocent passage and may be required by the coastal state to leave the territorial sea.[56]

The nations attending UNCLOS I were unable to agree on the maximum breadth of the territorial sea, so the CTS gives no specific limit. A second U.N. Conference on the Law of the Sea (UNCLOS II) was convened in 1960 to address the issue, but it also failed to reach agreement, and no convention was adopted.[57] At UNCLOS III, the negotiators finally agreed that the maximum breadth of the territorial sea would be 12 nm.[58]

In addition to agreeing on the 12 nm limit, the negotiators developed a more detailed definition of the scope of innocent passage, including a comprehensive and inclusive list of activities that would not be considered "innocent." These activities include "any act aimed at collecting information to the prejudice of the defence or security of the coastal State," "any act of propaganda aimed at affecting the defence or security of the coastal State," and "the carrying out of research or survey activities."[59]

During the final stages of the UNCLOS III negotiations, some nations at the conference claimed that only those nations that joined the convention could benefit from its provisions, including the provisions on navigational rights and freedoms. The United States flatly rejected that position, stating in March 1983 that, *inter alia*, the "Convention includes provisions, such as those related to the regime of innocent passage in the territorial sea, which codify existing rules of international law which all States enjoy and are bound by."[60] In other words, the right of innocent passage exists on its own accord, independent of UNCLOS or any other international treaty.

The United States goes to great lengths to secure its right to innocent passage. The most common excessive maritime claim by coastal states is a requirement that foreign warships either notify or seek prior permission from the coastal state before entering its territorial sea.[61] To protect its navigational right to innocent passage, since 1979, the U.S. Navy has issued dozens of diplomatic protests to states that make excessive maritime claims. Between 1979 and 1992, the State Department issued diplomatic protest notes to 37 coastal states that maintained that warships must receive permission or provide notification before transiting their territorial waters.[62]

Operational assertions regarding territorial waters is the most common FON mission conducted by the Navy, which regularly transits territorial waters in Asia, Africa, Europe, and South America to challenge excessive maritime claims. Between 1979 and 1995, the Navy has asserted its navigational rights against 28 coastal states to protest excessive claims involving their territorial waters, conducting multiple challenges to 21 such states.[63] Since FY 1993, the Navy has conducted multiple operational assertions against at least 29 nations that have made excessive claims attempting to restrict access to their territorial waters.[64]

The United States does not need UNCLOS membership either to enjoy the freedom of the high seas or to exercise the right of innocent passage through the territorial waters of foreign nations.

In sum, the United States does not need UNCLOS membership either to enjoy the freedom of the high seas or to exercise the right of innocent passage through the territorial waters of foreign nations. These rights and freedoms are among the oldest and most widely accepted principles of the law of the sea. They have been codified twice, first in the Convention on the Territorial Sea and Contiguous Zone in 1958 and then in UNCLOS in 1982. Moreover, in situations in which the United States believes that a coastal state is violating the customary international law of the sea as reflected in UNCLOS, the U.S. Navy regularly challenges such excessive claims to demonstrate its commitment to protecting its navigational rights and freedoms.

Finally, U.S. accession to UNCLOS will not end excessive maritime claims in foreign territorial waters or EEZs. Nor will it do anything to assist the Navy in executing its mission under the FON Program. So long as coastal states persist in making excessive claims, the Navy will continue to conduct operational assertions to protest those claims, regardless of whether the U.S. is a member of UNCLOS.

Part III: Passage Through International Straits and Archipelagic Waters

Recent practice of states, supported by the broad consensus achieved at the Third United Nations Conference on the Law of the Sea, has effectively established as customary international law the concept and the basic rules of transit passage through international straits and sea-lanes passage through archipelagic waters.

—*Restatement of the Law, Third, of the Foreign Relations Law of the United States* (1987)[65]

In contrast to high seas freedoms and the regime of innocent passage through territorial waters, the regimes of transit passage through international straits and archipelagic sea-lanes passage are examples of customary law that were "refined and elaborated" and "crystallized" in UNCLOS.

Some UNCLOS proponents infer that these navigational rights may be "guaranteed" only if the United States accedes to the convention.[66] However, the United States has long maintained that passage rights through straits and archipelagoes were recognized under international law well before UNCLOS was adopted. For example, during the closing session of UNCLOS III in December 1982, some nations asserted that these were new rights to be

53. Convention on the Territorial Sea and the Contiguous Zone, April 29, 1958, arts. 1–2, at *http://untreaty.un.org/ilc/texts/instruments/english/conventions/8_1_1958_territorial_sea.pdf* (July 28, 2011).
54. *Ibid.*, art. 14(4).
55. *Ibid.*, art. 14(6).
56. *Ibid.*, art. 23.
57. Churchill and Lowe, *The Law of the Sea*, p. 15.
58. UNCLOS, art. 3.
59. *Ibid.*, art. 19(2)(c), (d), and (j).
60. Statement by the United States of America, p. 243.
61. See, generally, Roach and Smith, *United States Responses to Excessive Maritime Claims*, pp. 251–278.
62. *Ibid.*, pp. 266–267.
63. *Ibid*
64. By state and fiscal years of operational assertion, the 29 nations are Albania (1997–2003); Algeria (1997–2003); Argentina (2009); Burma (1993–1994); Cambodia (1993–1995, 1999, and 2010); China (1993–1994 and 1996); Croatia (1998 and 2000–2003); Djibouti (1999); Egypt (1994, 1996–1997, and 1999–2003); India (1993–1994, 1996–1997, and 1999–2003); Indonesia (2000–2004); Iran (1995–1999); Libya (1997); Malaysia (2007–2010); Maldives (1993–1998 and 2000–2003); Malta (1997–2003); Oman (1995–1997); Pakistan (1996); Romania (1999); Seychelles (1998–1999); Somalia (1995 and 1997–1998); Sri Lanka (1997 and 1999–2003); Sudan (1993–1998); Sweden (1994); Syria (1998 and 2000–2003); Taiwan (2006); United Arab Emirates (1995 and 1997–1998); Vietnam (1998–2003 and 2010); and Yemen (1995–1999). See the Appendix. The information in the *Maritime Claims Reference Manual* varies, sometimes significantly, from the information gleaned from the *Annual Report to the President and the Congress*. For example, the manual notes that in 1982, the United States protested a 1977 Burmese law restricting access to the territorial sea and that it conducted operational assertions to dispute that law in 1985, 1989, 1991, 1992, 1998, 2000, and 2001.
65. *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, § 513 cmt. j.

enjoyed only by members of the convention. The United States rejected that notion:

> To the contrary, long-standing international practice bears out the right of all States to transit straits used for international navigation and waters which may be eligible for archipelagic status. Moreover, these rights are well established in international law. Continued exercise of these freedoms of navigation and overflight cannot be denied a State without its consent.[67]

By the time the *Restatement of the Law, Third, of the Foreign Relations Law of the United States* was published five years later, a pattern of state practice had emerged to confirm that both transit passage and archipelagic sea-lanes passage had become widely accepted:

> Recent practice of states, supported by the broad consensus achieved at the Third United Nations Conference on the Law of the Sea, has effectively established as customary international law the concept and the basic rules of transit passage through international straits and sea-lanes passage through archipelagic waters.[68]

The United States has consistently asserted that the UNCLOS provisions on transit passage and archipelagic sea-lanes passage reflect customary international law. For example, in 1989, the Legal Adviser's Office in the State Department wrote a letter that addressed Indonesia's temporary closure of two of its international straits for naval exercises:

> Prior to the Third United Nations Conference on the Law of the Sea, international law did not permit archipelagic claims. Although the 1982 Law of the Sea Convention is not yet in force, the archipelagic provisions reflect customary international law and codify the only rules by which a nation can now rightfully assert an archipelagic claim....
>
> The United States is of the view that interference with the right of straits passage or archipelagic sea lanes passage would violate international law as reflected in the 1982 Law of the Sea Convention....
>
> No nation may, consistent with international law, prohibit passage of foreign vessels or aircraft in a manner that interferes with straits transit or archipelagic sea lanes passage.[69]

Like its operations to dispute excessive maritime claims relating to the high seas and territorial waters, the United States also issues diplomatic protests and conducts naval assertions under the FON Program to protect U.S. access to key international straits and archipelagic waters. Even proponents of U.S. accession to UNCLOS have confirmed that the U.S. Navy's operational assertions have helped to preserve U.S. rights to transit passage and archipelagic sea-lanes passage. For example, in 1994, Defense Department official John McNeill testified before the Senate Committee on Foreign Relations:

> Combined with diplomatic initiatives, U.S. military forces have exercised navigational rights throughout the world to maintain and preserve these rights through State practice. As a result of frequent and routine transits, concepts such as transit passage and archipelagic sealanes passage have become well established in international practice.[70]

Transit Passage Through International Straits. The right of warships to enjoy navigational freedoms while transiting through an international strait has been largely unchallenged for centuries. This is primarily because the coastal states that border on international straits have historically claimed only a 3 nm territorial sea.[71] Since almost all strategic international straits are wider than 6 nm, warships could transit using the corridor of high seas in the middle of the strait without entering the territorial waters of the coastal states. Thus, "the ships and aircraft of all nations had the uncontested right to pass through such strategically important straits as Gibraltar, Hormuz, Bab el Mandeb, Lombok and Malacca, regardless of the political unpopularity of their mission."[72]

However, shortly after World War II, many coastal states bordering on international straits (straits states) began to claim territorial seas of greater and greater breadth.[73] By 1979, only 23 states, including the United States, still claimed a territorial sea of only 3 nm, while 76 states claimed a territorial sea of 12 nm. (The U.S. did not extend its territorial sea to 12 nm until December 1988.)[74] These expanded claims could have "closed" several key international straits, because the high seas corridors through the centers of these straits were reclassified as territorial waters of the straits states and were therefore subject to the restrictive regime of innocent passage.[75]

For example, the Strait of Bab el-Mandeb is about 14.5 nm wide at its narrowest point between the Republic of Yemen and Djibouti. When these nations expanded their territorial seas out to 12 nm in 1967 and 1979, respectively, the entire breadth of the Bab el-Mandeb was converted to territorial waters.[76] Several other key straits—Gibraltar, Hormuz, and Malacca—are also less than 24 nm wide at their narrowest points and would similarly be "covered" by territorial waters if the bordering straits states claimed territorial seas of 12 nm.

The trend of expanding territorial waters to 12 nm during the years leading up to UNCLOS III was troubling to world maritime powers, such as the United States and the Soviet Union, whose warships and submarines regularly transited key straits. This would limit warships' ability to maneuver and transit in a protective formation and preclude submarines from transiting undetected if a straits state strictly adhered to a regime of innocent passage.

Hence, during the UNCLOS III negotiations, the United States and the Soviet Union insisted that their acceptance of a uniform 12 nm territorial sea be part of an "indivisible package" that guaranteed freedom of navigation through international straits. Indeed, "on no other issue in the negotiation did the major participants express themselves so unmistakably on and off the record and make their views so well known."[77]

66. "The LOS Convention guarantees our armed forces a non-suspendable right of transit passage in, over and under these straits in the 'normal mode' of operation. The same guaranteed, non-suspendable rights apply to warships, military aircraft and submarines transiting through archipelagoes, such as Indonesia and the Philippines." Rear Admiral William L. Schachte (ret.), prepared statement, in hearing, *The United Nations Convention on the Law of the Sea*, Committee on International Relations, U.S. House of Representatives, 108th Cong, 2nd Sess., May 12, 2004, p. 15.
67. Statement by the United States of America, p. 244.
68. *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, § 513 cmt. j.
69. Marian Nash Leich, "Contemporary Practice of the United States Relating to International Law," *American Journal of International Law*, Vol. 83, No. 1 (January 1989), pp. 559–560.
70. McNeill, prepared statement, pp. 18–19.
71. While there is some debate regarding the origins of the 3 nm territorial sea, that breadth was "almost universally accepted" by the end of the Napoleonic Wars in the early 19th century. Tommy T. B. Koh, "Negotiating a New World Order for the Sea," *Virginia Journal of International Law*, Vol. 24, No. 4 (1984), pp. 762–763.
72. Roach and Smith, *United States Responses to Excessive Maritime Claims*, p. 24.
73. The trend in expansion of territorial sea breadth may have begun as early as 1930 as a result of the Hague Convention of 1930. Koh, "Negotiating a New World Order for the Sea," pp. 762–764.
74. John Norton Moore, "The Regime of Straits and the Third United Nations Conference on the Law of the Sea," *American Journal of International Law*, Vol. 74, No. 1 (January 1980), p. 86. At that time, seven states claimed a territorial sea between 3 nm and 12 nm, while 25 states made claims between 15 nm and 200 nm. The United States extended its territorial sea from 3 nm to 12 nm on December 27, 1988. Ronald Reagan, "Territorial Sea of the United States," Presidential Proclamation 5928, December 27, 1988, at *http://www.presidency.ucsb.edu/ws/index.php?pid=35297#axzz1TQdtXNj9* (July 28, 2011).
75. The right of innocent passage through an international strait covered entirely by the territorial waters of a single coastal state has been considered customary international law since at least 1949. For example, see *Corfu Channel Case (United Kingdom v. Albania); Merits*, International Court of Justice, April 9, 1949, and Convention on the Territorial Sea and the Contiguous Zone, 1958, art. 16(4).
76. U.S. Department of Defense, *Maritime Claims Reference Manual*, pp. 185 and 693.
77. Moore, "The Regime of Straits and the Third United Nations Conference on the Law of the Sea," p. 100, and Horace B. Robertson, Jr., "Passage Through International Straits: A Right Preserved in the United Nations Conference on the Law of the Sea," *Virginia Journal of International Law*, Vol. 20, No. 4 (1980), p. 808.

The United Kingdom proposed a solution: a navigational regime of "transit passage." UNCLOS III adopted the concept of transit passage as "the freedom of navigation and overflight solely for the purpose of continuous and expeditious transit of the strait between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone."[78]

U.S. membership in UNCLOS would not grant the United States any rights or freedoms that it does not already enjoy.

While transiting, warships may conduct activities that are "incident to their normal modes" of transit.[79] Although "normal mode" is not defined in the convention, the official U.S. position is that it "means that our submarines can transit submerged, military aircraft can overfly in combat formation with normal equipment operation, and warships can transit in a manner necessary for their security, including launching and recovering aircraft, formation steaming and other force protection measures."[80] This understanding is key to the concept of transit passage because the alternative regime of innocent passage would not permit warships and warplanes to conduct any of those activities.

Since the adoption of UNCLOS, some proponents of U.S. accession have argued that the convention itself, not customary international law, guarantees navigational freedoms, inferring that the United States cannot secure its right to transit passage if it is not a party. For example, former Chief of Naval Operations Admiral Vernon Clark testified to the Senate Armed Services Committee in April 2004:

> What I am saying is that the convention gives us new protections that did not exist before, and they are transit passage and rights in archipelagic waters.... What I was saying about passing through straits, under the old rules before we had this convention, innocent passage was the only thing prescribed in international law.[81]

Yet this is not the case. U.S. membership in UNCLOS would not grant the United States any rights or freedoms that it does not already enjoy. The specific legal regime of transit passage had not been articulated before the adoption of UNCLOS, but that was due only to the fact that straits states historically claimed territorial seas only 3 nm in breadth. Traditionally, U.S. ships did not navigate international straits under the regime of innocent passage, but rather on a corridor of high seas that ran through the center of such straits. When straits states began to claim 12 nm territorial seas, a compromise was negotiated during UNCLOS III that recognized those claims while not impeding the customary rights of maritime states to navigate through international straits.

In short, a right of warships to pass freely through international straits existed prior to 1982, and it exists today, regardless of whether a state is or is not a party to UNCLOS.

U.S. officials have made it clear that "long-standing international practice bears out the right of all States to transit straits used for international navigation" and that no nation may "prohibit passage of foreign

78. UNCLOS, art. 38(2).

79. *Ibid.*, art. 39(1)(c).

80. Schachte, prepared statement, p. 15, and U.S. Department of the Navy, *The Commander's Handbook on the Law of Naval Operations*, NWP 9, July 2007, para. 2.5.3.1, at *http://www.usnwc.edu/getattachment/a9b8e92d-2c8d-4779-9925-0defea93325c/1-14M_(Jul_2007)_(NWP)* (July 28, 2011). Some commentators contend that the convention's reference to "normal mode" is too vague and therefore may not be relied upon to secure navigational rights, such as submerged submarine transit. For example, see W. Michael Reisman, "The Regime of Straits and National Security," *American Journal of International Law*, Vol. 74 (1980), pp. 71–75, at *http://digitalcommons.law.yale.edu/fss_papers/718/* (July 28, 2011).

81. Admiral Vernon E. Clark, testimony, in hearing, *Military Implications of the United Nations Convention on the Law of the Sea*, p. 41. Admiral Clark was likely referring to Article 16(4) of the 1958 Convention on the Territorial Sea and the Contiguous Zone, which forbids the suspension of innocent passage through international straits.

vessels or aircraft in a manner that interferes with straits transit."[82] Even Professor John Norton Moore, an eminent scholar of the law of the sea and a proponent of U.S. accession to UNCLOS, has observed that "the United States is on sound legal ground in insisting on freedom of navigation through straits used for international navigation with or without a comprehensive law of the sea treaty."[83]

States have long enjoyed the right to navigate through international straits under the customary international law of the sea. That customary right became threatened after World War II when several straits states claimed territorial seas of 12 nm or greater. To address these competing rights, a compromise was reached during UNCLOS III that recognized claims to a 12 nm territorial sea but preserved the long-standing customary right of passage through international straits. That compromise—the transit passage regime—represents a customary navigational right that was "refined and elaborated" or "crystallized" in UNCLOS. Since 1982, the regime of transit passage has itself attained the status of customary international law, both through widespread adoption of UNCLOS and by state practice.[84]

In sum, the United States need not accede to UNCLOS to guarantee its right to transit international straits. The international community accepted the concept of transit passage during the negotiations for UNCLOS, and more than 160 nations are party to the convention. The practice of straits states since the adoption of the convention indicates compliance with the regime of transit passage. Maritime states, including the United States and its naval forces, regularly navigate through and fly over international straits around the world, including Hormuz, Malacca, Bab el-Mandeb, and Gibraltar.

Key International Straits: Case Studies. While more than 150 international straits are covered entirely by territorial waters, the U.S. Navy considers only around a dozen to be strategic for commercial and military purposes. These straits include Bab el-Mandeb, Bonafacio, Dover, Gibraltar, Hormuz, and Malacca and the straits that permit ingress and egress to the archipelagic waters of Indonesia and the Philippines.[85]

Some of the straits states that border on these key international straits, including UNCLOS members, have sought at various times to restrict passage in violation of customary international law as reflected in UNCLOS. The United States has successfully kept such key straits "open" to its Navy and the navies of other nations through diplomatic protests and operational assertions under the FON Program.

Strait of Hormuz. As the sole entrance and exit for the Persian Gulf, the Strait of Hormuz is one of the world's most important maritime chokepoints for both commercial and military traffic. The strait is bordered by Oman on the south and Iran on the north and measures only 21 nm at its narrowest point.[86] Oman is a party to UNCLOS, but Iran is not.[87]

For centuries, a high seas corridor ran through the center of the Strait of Hormuz, permitting foreign warships to transit without entering either Iranian or Omani territorial waters. This changed in April 1959 when Iran attempted to alter the legal status of the strait by expanding its territorial sea to 12 nm and declaring that it would recognize only transit by innocent passage through the newly

82. Statement by the United States of America, p. 244, and Leich, "Contemporary Practice of the United States Relating to International Law," p. 560.

83. Moore, "The Regime of Straits and the Third United Nations Conference on the Law of the Sea," p. 87.

84. Chris Forward, "Archipelagic Sea-Lanes in Indonesia—Their Legality in International Law," *Australian and New Zealand Maritime Law Journal*, Vol. 23, No. 2 (2009), p. 148, at *https://maritimejournal.murdoch.edu.au/index.php/maritimejournal/article/download/113/152* (July 28, 2011).

85. Center, prepared statement, p. 27.

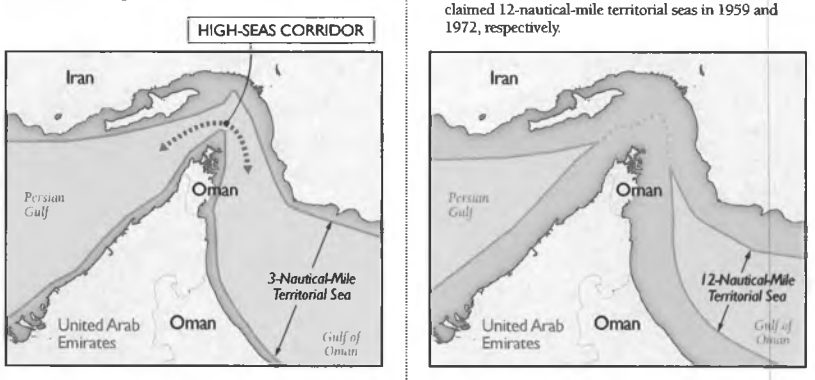
86. Commander R. H. Kennedy, "A Brief Geographical and Hydro Graphical Study of Straits Which Constitute Routes for International Traffic," A/CONF13/6 and Add.1, extract from *Official Records of the United Nations Conference on the Law of the Sea*, Vol. 1, 1958, at *http://untreaty.un.org/cod/diplomaticconferences/lawofthesea-1958/docs/english/vol_I/9_A-CONF-13-6_PrepDocs_vol_I_e.pdf* (July 28, 2011).

87. Iran signed UNCLOS on December 10, 1982, but has never ratified it.

Expansion of Territorial Waters in the Strait of Hormuz

Before UNCLOS. Traditionally, coastal states claimed only a 3-nautical-mile territorial sea. Straits states, such as Iran and Oman, had narrow territorial seas that left a corridor of high seas passing through the center of the Strait of Hormuz. As such, foreign warships could easily transit through the strait without entering the territorial waters of either nation.

After UNCLOS. Under UNCLOS, states may claim territorial seas up to 12 nautical miles, essentially closing the high seas corridors that once passed through the center of narrow straits. Today, the Strait of Hormuz—which is only 21 nautical miles wide at its narrowest point—is "covered" by the combined territorial waters of Iran and Oman. Iran and Oman claimed 12-nautical-mile territorial seas in 1959 and 1972, respectively.



Note: Map locations and boundaries are approximate.

Source: U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, "Iran's Maritime Claims," *Limits in the Seas*, No. 114, March 16, 1994, at *http://www.state.gov/documents/organization/58228.pdf* (July 28, 2011).

Map 1 • B 2599 ☎ heritage.org

expanded area. In July 1972, Oman expanded its territorial sea to 12 nm by decree.[88] Thus, by mid-1972, the Strait of Hormuz was completely "closed" by the combined territorial waters of Iran and Oman.

During the 1970s, neither Iran or Oman attempted to impede the passage of warships through the strait, but in the 1980s, both countries asserted claims that were inconsistent with customary international law. In February 1981, Oman issued a royal decree declaring its "full sovereignty over the territorial sea of the Sultanate…in harmony with the principle of innocent passage of ships and planes of other States through international straits."[89]

Upon ratifying UNCLOS in August 1989, Oman submitted declarations confirming its 1981 royal decree that only innocent passage is permitted through its territorial sea. The declarations further asserted that prior permission was required before foreign warships could pass through Omani territorial waters.[90]

88. S. H. Amin, "The Regime of International Straits: Legal Implications for the Strait of Hormus," *Journal of Maritime Law and Commerce*, Vol. 12, No. 3 (April 1981), pp. 389 and 398.
89. Sultanate of Oman, "Royal Decree Concerning the Territorial Sea, Continental Shelf and Exclusive Economic Zone," February 10, 1981, at *http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/OMN_1981_Decree.pdf* (July 28, 2011).
90. U.S. Department of Defense, *Maritime Claims Reference Manual*, p. 441.

Upon signing the convention in December 1982, Iran entered a declaration stating "that only states parties to the Law of the Sea Convention shall be entitled to benefit from the contractual rights created therein," including "the right of transit passage through straits used for international navigation."[91] Although Iran never ratified UNCLOS, in May 1993, it enacted a comprehensive law on maritime areas, several provisions of which conflict with UNCLOS provisions, including a requirement that warships, submarines, and nuclear-powered ships obtain permission before exercising innocent passage through Iran's territorial waters.[92]

The United States does not recognize any of the excessive claims by Oman and Iran and has contested each of them. In response to Oman's 1981 decree, the U.S. Navy conducted regular transits through Omani territorial waters, including the Strait of Hormuz, between 1983 and 1996. The U.S. also contested Oman's declarations submitted upon its ratification of UNCLOS, both by diplomatic protest in 1991 and by conducting operational assertions in 1991, 1992, 1995–1997, and 2005–2010. During FY 1995–FY 1997, the Navy entered Omani territorial waters without first obtaining permission. In addition, on multiple occasions during FY 2005–FY 2010, the Navy navigated through the Strait of Hormuz under the regime of transit passage in contravention of Oman's claim that only innocent passage was permitted.[93]

In April 1987, Iran protested the fact that U.S. warships were transiting regularly through the Strait of Hormuz, claiming that this violated its territorial waters restrictions. The U.S. diplomatic response to Iran's complaint stated:

> [T]he United States…particularly rejects the assertions that the…right of transit passage through straits used for international navigation, as articulated in the Convention, are contractual rights and not codification of existing customs or established usage. The regimes of…transit passage, as reflected in the Convention, are clearly based on customary practice of long standing and reflects the balance of rights and interests among all States, regardless of whether they have signed or ratified the Convention.[94]

The United States protested Iran's 1993 Marine Areas Act by diplomatic note in January 1994.[95] In addition to its diplomatic protest, the Navy conducted regular operational assertions against Iran's excessive claims by transiting the Strait of Hormuz through Iranian territorial waters. On multiple occasions during FY 2005–FY 2010, the Navy navigated through the strait under the regime of transit passage rather than innocent passage. In addition, the Navy entered Iranian territorial waters without permission during FY 1995–FY 1999.[96]

Strait of Bab el-Mandeb. The Strait of Bab el-Mandeb provides the strategic link between the Indian Ocean, the Red Sea, and the Suez Canal and is bordered at its narrowest point by Djibouti to the west and the Republic of Yemen to the east. Both nations are party to UNCLOS.

Yemen has historically made excessive claims regarding passage through the strait.[97] In April 1967 and January 1978, Yemen decreed that foreign warships must obtain prior permission before transiting

91. United Nations Convention on the Law of the Sea, Declarations and Reservations: Iran (Islamic Republic of), in United Nations Treaty Collection, at *http://treaties.un.org/pages/ViewDetailsIII.aspx?&src=TREATY&mtdsg_no=XXI~6&chapter=21&Temp=mtdsg3&lang=en#EndDec* (July 28, 2011).
92. Islamic Republic of Iran, "Act on the Marine Areas of the Islamic Republic of Iran," art. 9, May 2, 1993, at *http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/PDFFILES/IRN_1993_Act.pdf* (July 28, 2011).
93. Appendix, *infra*, and U.S. Department of Defense, *Maritime Claims Reference Manual*, p. 441.
94. U.S. Department of State, "United States Responses to Excessive National Maritime Claims," p. 68.
95. U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, "Iran's Maritime Claims," *Limits in the Seas*, No. 114, March 16, 1994, pp. 37–39, at *http://www.state.gov/documents/organization/58228.pdf* (July 28, 2011).
96. Appendix, *infra*, and U.S. Department of Defense, *Maritime Claims Reference Manual*, p. 302.

its territorial waters, including the Bab el-Mandeb.[98] Yemen reiterated that position in December 1982, when it submitted a declaration upon signing UNCLOS.[99] The United States officially protested the Yemeni claim with a diplomatic note:

> [T]he Government of the Yemen Arab Republic may not legally condition the exercise of the right of transit passage through or over an international strait, such as Bab-el-Mandeb, upon obtaining prior permission. Transit passage is a right that may be exercised by ships of all nations, regardless of type or means of propulsion, as well as by aircraft, both state and civil. While warplanes and other state aircraft normally require prior authorization before overflying another State's territory, authorization is not required for the exercise of the right of straits transit passage under customary law as reflected in article 32 of the Convention.
>
> For the above reasons, the United States cannot accept the claim of authority by the Government of the Yemen Arab Republic...to condition the exercise of the right of transit passage by any ships or warplanes upon prior authorization. Accordingly, the United States reserves its rights and those of its nationals in this regard.[100]

In addition to protesting through diplomatic channels, the U.S. Navy has conducted operational assertions to dispute Yemen's excessive claims regarding its territorial waters and the Bab el-Mandeb. Specifically, from 1979 to 1990, the Navy regularly transited through Yemeni territorial waters and the Bab el-Mandeb without first seeking permission from the government of Yemen. Additional operational assertions were conducted during FY 1995–FY 1999.[101]

Securing Transit Rights. The case studies of the Strait of Hormuz and the Strait of Bab el-Mandeb demonstrate that U.S. membership in UNCLOS has not been necessary to secure America's right to transit through key international straits. Through diplomatic protests by the State Department and operational assertions by the U.S. Navy, the United States has secured the right of its ships to transit international straits, including strategic chokepoints, such as Hormuz and Bab el-Mandeb.

Even though it is not party to UNCLOS, the United States has regularly and successfully challenged the excessive claims of straits states, such those by Iran, Oman, and Yemen. Likewise, through adherence to the customary international law of the sea as reflected in UNCLOS and through operational assertions, the U.S. Navy regularly transits other key international straits such as Dover, Gibraltar, and Malacca as part of its global mission.[102]

Archipelagic Sea-Lanes Passage. Nations that are archipelagoes (an island chain or a cluster of islands), present special challenges to navigational freedom. For many years before the adoption of UNCLOS, Indonesia and the Philippines led an effort to establish a special regime that would recognize the concept of an "archipelagic state" and regulate the passage of foreign ships through the "archipelagic waters" of such a state.[103]

The position of several archipelagic states was that the waters located within the state's "baseline"—an imaginary line enclosing the islands of an archipelago—should be considered "internal waters" and therefore subject to transit only under restrictive conditions pertaining to jurisdiction over and control of their land. Major maritime states, on the other hand, have sailed through archipelagos such as Indonesia and the Philippines for centuries, firmly establishing a custom that the waters within an archipelago are subject to freedom of navigation and overflight for the purpose of continuous and expeditious transit. These states, including the United States, conditioned their acceptance of the archipelago concept on "a legal guarantee that freedoms of navigation and overflight be maintained in and over the waters between the islands of the archipelago."[104]

Through diplomatic protests by the State Department and operational assertions by the U.S. Navy, the United States has secured the right of its ships to transit international straits, including key strategic chokepoints.

A compromise was reached during UNCLOS III that balanced the sovereign rights of an archipelagic state and the rights of other nations to transit through archipelagic waters. Archipelagic states were officially recognized and permitted to "convert" the high seas waters within their baselines to "archipelagic waters," which would be governed by a new navigational regime.[105] Under the new archipelagic sea-lanes passage (ASLP) regime, foreign vessels and aircraft, including warships and warplanes, may transit through a state's archipelagic waters via specifically designated sea-lanes.

The ASLP regime is substantially similar to the rules of transit passage through international straits, meaning that submarines may transit submerged, military aircraft may overfly in combat formation, and warships may steam in formation and launch and recover aircraft.[106] Outside of the designated sea-lanes, vessels are permitted to transit all other areas of a state's archipelagic waters under the regime of innocent passage.[107]

An archipelagic state may elect to seek official recognition of its archipelagic sea-lanes (ASL) by submitting the proposed ASL to the International Maritime Organization (IMO).[108] The state works in consultation with the IMO for the formal adoption of the ASL. The United States, as an IMO member and a major maritime power, wields substantial influence in that body.

If a state elects to undergo the process at the IMO, it is required to designate all of the "normal passage routes used as routes for international navigation or overflight" through its waters.[109] The ships and aircraft of all nations, whether party to UNCLOS or not, "enjoy the right of archipelagic sea lanes passage in such sea lanes and air routes."[110] An archipelagic state may also elect not to formally designate ASL through the IMO process. In such cases, the right of ASLP may be exercised by any state through any route "normally used for international navigation."[111]

97. Djibouti passed a law in January 1979 requiring nuclear-powered vessels and vessels carrying nuclear or radioactive material to give prior notification before entering its territorial waters, but the law did not modify "international rules of navigation" in the Strait of Bab el-Mandeb. U.S. Department of Defense, *Maritime Claims Reference Manual*, p. 185, and Djibouti Law No. 52/AN/78, January 9, 1979. The U.S. protested the territorial seas claim in 1989 and conducted operational assertions in 1998–2000.
98. U.S. Department of Defense, *Maritime Claims Reference Manual*, p. 693.
99. United Nations Convention on the Law of the Sea, Declarations and Reservations: Yemen Arab Republic, in United Nations Treaty Collection, at *http://treaties.un.org/pages/ViewDetailsIII.aspx?&src=TREATY&mtdsg_no=XXI~6&chapter=21&Temp=mtdsg3&lang=en#12* (July 28, 2011).
100. Embassy of the United States in Sana'a, Yemen, Diplomatic Note No. 449, October 6, 1986, reproduced in Roach and Smith, *United States Responses to Excessive Maritime Claims*, pp. 298–299.
101. Appendix, *infra*, and U.S. Department of Defense, *Maritime Claims Reference Manual*, p. 693.
102. Other major international straits—such as the Danish Straits, Magellan, and the Turkish Straits—are subject to conventions that were in place prior to UNCLOS, and passage through them is governed by special regimes. See UNCLOS, art. 35(c). However, the Navy conducted an operational assertion against Argentina during FY 2009 to challenge its claim that foreign warships must give notification before transiting the Strait of Magellan.
103. For a historical description of the efforts made by archipelagic states for recognition of their special status, see Vivien Jane Evangelio Cay, "Archipelagic Sea Lanes Passage and Maritime Security in Archipelagic Southeast Asia," World Maritime University, August 30, 2010.
104. Roach and Smith, *United States Responses to Excessive Maritime Claims*, pp. 26–27.
105. UNCLOS, arts. 46–49. See also U.S. Department of State, "State Department Telegram to the U.S. Embassy in Jakarta Concerning Archipelagic Claims," August 8, 2003, at *http://www.state.gov/s/l/2003/44347.htm* (July 28, 2011).
106. UNCLOS, art. 53.
107. *Ibid.*, art. 52.
108. *Ibid.*, art. 53(9). While Article 53(9) refers only to "the competent international organization" as the proper venue, the IMO has been designated as such in practice.
109. *Ibid.*, art. 53(4).
110. *Ibid.*, art. 53(2).

Therefore, even though it is not an UNCLOS member, the United States enjoys the right of navigation through and overflight of the sea-lanes of every archipelago in the world, whether or not the archipelagic state has formally designated ASL. U.S. policy regarding the universality of the right of ASLP is reflected in the *Commander's Handbook on the Law of Naval Operations*, the navigational guide used by the U.S. Navy, Marine Corps, and Coast Guard:

> Archipelagic nations may designate archipelagic sea lanes through their archipelagic waters suitable for continuous and expeditious passage of ships and aircraft. All normal routes used for international navigation and overflight are to be included. If the archipelagic nation does not designate such sea lanes, the right of archipelagic sea lanes passage may nonetheless be exercised by all nations through routes normally used for international navigation and overflight. If the archipelagic nation makes only a partial designation of archipelagic sea lanes, a vessel or aircraft must adhere to the regime of archipelagic sea lanes passage while transiting in the established archipelagic sea lanes but retains the right to exercise archipelagic sea lanes passage through all normal routes used for international navigation and overflight through other parts of the archipelago.[112]

At present, only Indonesia has submitted a proposal to the IMO seeking formal recognition of its ASL. All other archipelagic states have apparently been satisfied with the customary practice of permitting foreign vessels, including warships, to transit their waters via normal routes.

Contrary to the fears of some UNCLOS proponents, no evidence suggests that the ASLP regime is deteriorating or eroding. As one maritime analyst put it, if the ASLP regime was "under threat of destabilization, it would be logical to expect some countervailing State practice."[113] To the contrary, since the adoption of the convention in 1982, the status quo "has not proven unacceptable to most archipelagic states."[114]

Moreover, since the adoption of UNCLOS, the concept of ASLP has become widely accepted by archipelagic states and maritime states alike, and there is "a good deal of evidence to suggest that the Convention's provisions [regarding archipelagos] have passed into custom."[115]

Key Archipelagic Waters: Case Studies. The United States has demonstrated its ability to secure passage rights through key archipelagic waters by its interactions with Indonesia and the Philippines, two major archipelagic states. Indonesia and the Philippines are at the crossroads between the Pacific and Indian Oceans and the South China Sea, making their waters a key strategic geographical area for U.S. national security interests and for international commercial shipping.[116]

Historically, both nations have sought to regulate their respective waters in a manner that is inconsistent with customary international law and contrary to UNCLOS, even after both nations ratified the convention. The United States has successfully contested their excessive claims and has secured its maritime rights through a combination of bilateral diplomacy, diplomatic protests, operational assertions under the FON Program, and its influence at the IMO.

The Philippines. The Philippines has a history of attempting to restrict passage through its archipelago by declaring that the waters connecting its islands are "internal waters." In a March 1955 communication to the U.N. Secretary-General and in legislation passed by the Philippine Congress in June 1961, the Philippines claimed that the waters "around, between and connecting" its islands were internal waters subject to its exclusive sovereignty.[117] The 1973 Philippine Constitution stated similarly that the "waters around, between, and connecting the islands of the archipelago…form part of the internal waters of the Philippines."[118]

As noted previously, UNCLOS recognized the right of archipelagic states to assert sovereignty over their waters but required them to respect passage rights through sea-lanes within those waters. When the Philippines signed and ratified UNCLOS, it persisted in classifying the waters within its baselines as internal. Specifically, in May 1984, when the Philippines deposited its instrument of ratification for UNCLOS, it submitted eight understandings that qualified its acceptance of the convention. Among the Philippine understandings was the following statement:

> The concept of archipelagic waters is similar to the concept of internal waters under the Constitution of the Philippines, and removes straits connecting these waters with the economic zone or high sea from the rights of foreign vessels to transit passage for international navigation.[119]

The implication of this understanding is that the Philippines would treat its archipelagic waters as internal waters, therefore subjecting foreign warships to a regime of passage by permission instead of the ASLP regime with its greater transit rights.

The United States well understood that such a designation could not go unchallenged due to the strategic significance of Philippine waters and officially protested the excessive claim by diplomatic note in January 1986:

> [The United States] wishes to observe that, as generally understood in international law, including that reflected in the 1982 Law of the Sea Convention, the concept of internal waters differs significantly from the concept of archipelagic waters. Archipelagic waters are only those enclosed by properly drawn archipelagic baselines and are subject to the regimes of innocent passage and archipelagic sea lanes passage. The Government of the United States further wishes to point out that straits linking the high seas or exclusive economic zone with archipelagic waters, as well as straits within archipelagic waters, are, if part of normal passage routes used for international navigation or overflight through or over archipelagic waters, subject to the regime of archipelagic sea lanes passage.[120]

Through this note, the United States made it clear to the Philippines that the U.S. does not consent to the Philippines' claim regarding its archipelagic waters and that the claim contravenes international law as reflected in UNCLOS. Australia, Bulgaria, Czechoslovakia, Ukraine, and the Soviet Union also objected to the understandings submitted by the Philippines.

In October 1988, in an apparent response to the protests raised by the United States and others, the Philippines submitted a declaration to the U.N. Secretary-General stating that it "intends to harmonize its domestic legislation with the provisions of the Convention." The declaration gave assurances that the "necessary steps are being taken to enact legislation dealing with archipelagic sea lanes passage" and that the Philippines "will abide by the provi-

111. *Ibid.*, art. 53(12).

112. U.S. Department of the Navy, *The Commander's Handbook on the Law of Naval Operations*, paras. 1.5.4 and 2.5.4.

113. Stuart Kaye, "Freedom of Navigation in the Indo-Pacific Region," Sea Power Centre *Papers in Australian Maritime Affairs* No. 22, 2008, p. 16, at *http://www.navy.gov.au/w/images/PIAMA22.pdf* (July 28, 2011).

114. *Ibid.*

115. Churchill and Lowe, *The Law of the Sea*, pp. 129–130.

116. Captain Jonathan P. Edwards, "The Development and Operational Impact of Indonesia's Approved Partial System of Archipelagic Sea Lanes," Naval War College, May 17, 1999, and Mary Ann Palma, "The Philippines as an Archipelagic and Maritime Nation: Interests, Challenges, and Perspectives," S. Rajaratnam School of International Studies *Working Paper* No. 182, July 21, 2009, at *http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1088&context=lawpapers* (July 28, 2011).

117. Mohamed Munawar, *Ocean States, Archipelagic Regimes in the Law of the Sea* (AD Dordrecht, Netherlands: Martinus Nijhoff Publishers, 1995), p. 63; Cay, "Archipelagic Sea Lanes Passage and Maritime Security in Archipelagic Southeast Asia," p. 20; and Republic of the Philippines, An Act to Define the Baselines of the Territorial Sea of the Philippines, Republic Act No. 3046, June 17, 1961.

118. Constitution of the Republic of the Philippines, art. I (1973), at *http://www.chanrobles.com/1973constitutionofthephilippines.htm* (July 28, 2011). The current Philippine constitution, enacted in 1987 (after the Philippines ratified UNCLOS), persists in claiming that its archipelagic waters are "internal."

119. U.N. Office of the Special Representative of the Secretary-General for the Law of the Sea, *Law of the Sea Bulletin*, No. 1, September 1983, p. 14, at *http://www.un.org/Depts/los/doalos_publications/LOSBulletins/bulletinpdf/bulE1.pdf* (July 28, 2011).

120. U.S. Department of State, "United States Responses to Excessive National Maritime Claims," p. 51.

sions" of UNCLOS.[121] In a further effort to conform to its international commitments, the Philippines enacted legislation in March 2009 to adopt a baseline system consistent with UNCLOS.[122]

In practice, the Philippines has complied with UNCLOS by permitting foreign vessels, including military warships and warplanes, to transit through its archipelagic waters via routes that existed prior to the adoption of the convention. The Philippine archipelago is traditionally transited via one north–south route and several east–west routes.[123] The Philippines has not submitted a proposal to the IMO seeking official recognition of those sea-lanes.[124]

Since no formal sea-lanes are recognized as yet, the United States and other maritime states continue to exercise their right of passage "through the routes normally used for international navigation" pursuant to UNCLOS.[125] The Philippines' state practice complies with the UNCLOS provisions by allowing foreign vessels, including warships and submerged submarines, to transit through Philippine archipelagic waters without notification or authorization.[126] There is no evidence that the United States has been hindered while transiting through Philippine archipelagic waters.

Regardless of the Philippines' stated intention to conform its laws to UNCLOS and its actual practice of permitting the transit of foreign vessels, the U.S. Navy regularly conducts operational assertions in Philippine archipelagic waters to challenge any residual excessive claims. For example, Navy vessels and aircraft transited Philippine archipelagic waters on 47 occasions in FY 1997, 32 occasions in FY 1998, and 34 occasions in FY 1999.[127]

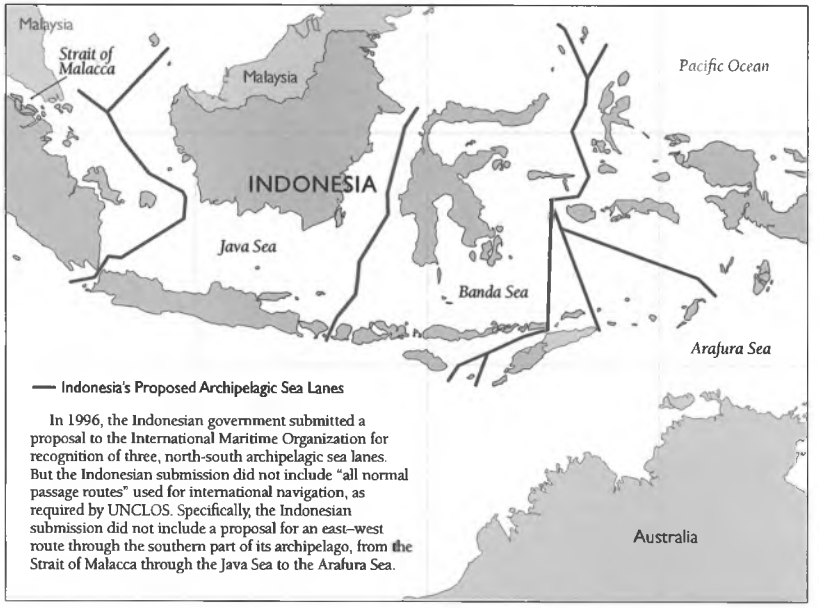
Indonesia. Indonesia, the world's largest archipelagic state, has also long sought special recognition of its waters with the intention of placing restrictions on the passage of foreign vessels. In February 1960, Indonesia enacted legislation proclaiming that all of the waters enclosed within its baselines were "internal waters." The law required any ship passing through its internal waters to travel under the restrictive regime of innocent passage.[128] The Indonesian law was met with "almost universal international condemnation."[129]

Although Indonesia ratified UNCLOS in February 1986, it continued to adhere to its 1960 law declaring its waters to be internal. The United States and Indonesia took steps to resolve that inconsistency. Specifically, the U.S. and Indonesia entered into a tax treaty in 1988 that included an exchange of diplomatic notes that included the following understanding:

> The United States recognizes the archipelagic States principles as applied by Indonesia on the understanding that they are applied in accordance with the provisions of Part IV of the 1982 United Nations Convention on the Law of the Sea and that Indonesia respects international rights and obligations pertaining to transit of the Indonesian archipelagic waters in accordance with international law as reflected in that Part.[130]

121. Roach and Smith, *United States Responses to Excessive Maritime Claims*, p. 403.
122. Republic of the Philippines, An Act to Amend Certain Provisions of Republic Act No. 3046, as Amended by Republic Act No. 5446, to Define the Archipelagic Baselines of the Philippines, and for Other Purposes, Republic Act No. 9522, March 10, 2009. The act was deposited with the U.N. Secretary-General on April 1, 2009.
123. Barbara Kwiatkowska, "The Archipelagic Regime in Practice in the Philippines and Indonesia—Making or Breaking International Law?" *International Journal of Estuarine and Coastal Law*, Vol. 6, No. 1 (1991), p. 6, and Palma, "The Philippines as an Archipelagic and Maritime Nation: Interests, Challenges, and Perspectives," p. 7. Palma describes five routes as "important" to international navigation.
124. Cay, "Archipelagic Sea Lanes Passage and Maritime Security in Archipelagic Southeast Asia," p. 56.
125. UNCLOS, art. 53(12).
126. Palma, "The Philippines as an Archipelagic and Maritime Nation," p. 7, and Kwiatkowska, "The Archipelagic Regime in Practice in the Philippines and Indonesia," p. 12.
127. U.S. Department of Defense, *Annual Report to the President and the Congress*, 1997, Appendix I; *Annual Report to the President and the Congress*, 1998, Appendix I; and *Annual Report to the President and the Congress*, 1999, Appendix H, at *http://www.dod.gov/execsec/adr_intro.html* (July 28, 2011).
128. Government of Indonesia, Act Concerning Indonesian Waters, arts. 1(3) and 3(1), February 18, 1960, in U.S. Department of State, Bureau of Intelligence and Research, "International Boundary Study, Straight Baselines, Indonesia," *Limits in the Seas*, No. 35, July 20, 1971, pp. 2–4, at *http://www.state.gov/documents/organization/61544.pdf* (July 28, 2011).
129. Forward, "Archipelagic Sea-Lanes in Indonesia," p. 149.
130. Convention Between the Government of the United States of America and the Government of the Republic of Indonesia for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, July 11, 1988. The convention entered into force on December 30, 1990. Rear Admiral Center acknowledged the 1988 tax treaty in his 1994 written testimony but asserted that it was a "haphazard approach" to securing transit rights. Center, prepared statement, p. 28.

Indonesia's "Partial" Archipelagic Sea Lane Designation



In 1996, the Indonesian government submitted a proposal to the International Maritime Organization for recognition of three, north-south archipelagic sea lanes. But the Indonesian submission did not include "all normal passage routes" used for international navigation, as required by UNCLOS. Specifically, the Indonesian submission did not include a proposal for an east–west route through the southern part of its archipelago, from the Strait of Malacca through the Java Sea to the Arafura Sea.

Source: Royal Australian Navy, *Australian Maritime Issues 2005, Papers in Australian Maritime Affairs* No. 16, p. 117, at *http://www.navy.gov.au/Publication:Papers_in_Australian_Maritime_Affairs_No._16* (August 1, 2011).

Map 2 • B 2599 heritage.org

Indonesia is the only archipelagic state that has sought formal recognition of its ASL at the IMO. Even though the U.S. is not a party to UNCLOS, it has been successful in shaping Indonesia's ASL claim in a way that protects U.S. navigational interests. In August 1996, the Indonesian government submitted a proposal to the IMO for rec-

ognition of three north–south ASL, which did not include "all normal passage routes" used for international navigation, as required by UNCLOS. Specifically, the Indonesian submission did not include a proposal for a key east–west ASL route through the southern part of its archipelago, from the Strait of Malacca through the Java Sea to the Arafura Sea.[131]

The United States and several other nations objected to the Indonesian proposal and blocked its consideration at the IMO.[132] Thereafter, Indonesia consulted closely with the United States and Australia regarding the three north–south ASL.

Indonesia subsequently submitted a revised proposal for the adoption of the three ASL, which was approved by the IMO in May 1998.[133] Since Indonesia had not proposed any east–west ASL, the IMO, with the express agreement of Indonesia, designated the Indonesian submission as a "partial system."[134] The United States and other maritime nations could continue to transit Indonesia's archipelagic waters through every other route "normally used for international navigation" including the east–west route.[135]

For several years, this arrangement was seemingly acceptable to all concerned parties, but in June 2002, Indonesia promulgated Regulation No. 37, which proclaimed that its three north–south ASL were a "full designation" and that all maritime traffic outside of those ASL was subject to the regime of innocent passage.[136]

In August 2003, the United States officially protested Regulation No. 37 in a diplomatic note, which reminded the Indonesian government of its commitment in the 1988 tax treaty to comply with UNCLOS.[137] The note further stated that the Indonesian submission to the IMO was only a "partial designation" and that "the right of the ships and aircraft of all states to exercise archipelagic sea lanes passage continues on all normal routes used for international navigation through other parts of the Indonesian archipelago, as provided in article 53(12) of the law of the sea convention."

The U.S. bolstered its diplomatic protest with naval operational assertions. In July 2003, the USS *Carl Vinson* and five F-18s conducted maneuvers near Bawean island in the Java Sea, well outside of Indonesia's three designated north–south ASL.[138] The Navy also conducted regular operations through Indonesian archipelagic waters to assert U.S. maritime rights. Navy vessels and aircraft transited Indonesian archipelagic waters on 73 occasions in FY 1997, 20 occasions in FY 1998, and 22 occasions in FY 1999.[139] Additionally, during FY 2005–2010, the Navy conducted multiple operational challenges within Indonesia's archipelagic waters, including protests against Indonesia's claim that its partial designation of ASL was a "full designation."[140]

131. UNCLOS, art. 53(4), and Forward, "Archipelagic Sea-Lanes in Indonesia," p. 152.
132. Commander David K. Wright, "Archipelagic Sea Lanes Designation: Considerations for Operational Level Planners," Naval War College, May 18, 1998. Other states that objected to Indonesia's ASL submission included France, Russia, China, Germany, South Korea, Vietnam, Malaysia, South Africa, Thailand, Ghana, Greece, Jamaica, Japan, Mexico, and New Zealand.
133. Edwards, "The Development and Operational Impact of Indonesia's Approved Partial System of Archipelagic Sea Lanes," pp. 16–20.
134. International Maritime Organization, "Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization," September 10, 2008, p. 32, at *http://www.imo.org/ourwork/legal/documents/6.pdf* (July 28, 2011).
135. UNCLOS, art. 53(12).
136. Indonesian Government Regulation No. 37, quoted in Forward, "Archipelagic Sea-Lanes in Indonesia," p. 153.
137. U.S. Department of State, "State Department Telegram to the U.S. Embassy in Jakarta Concerning Archipelagic Claims."
138. Cay, "Archipelagic Sea Lanes Passage and Maritime Security in Archipelagic Southeast Asia," p. 48. The July 2003 operational assertion also challenged Indonesia's claim that warships are required to give notification before entering its territorial sea.
139. U.S. Department of Defense, *Annual Report to the President and the Congress*, 1997, Appendix I; *Annual Report to the President and the Congress*, 1998, Appendix I; and *Annual Report to the President and the Congress*, 1999, Appendix H.

Protecting U.S. Maritime Rights. The case studies of Indonesia and the Philippines demonstrate that U.S. membership in UNCLOS is not critical to securing America's passage rights through key archipelagic waters. Even though it is not party to UNCLOS, the United States, joined by other nations, successfully challenged excessive claims made by both nations that their archipelagic seas constituted "internal waters." The United States, joined by Australia, used its prominent position at the IMO to ensure that Indonesia did not restrict its official ASL to three north–south lanes. To further demonstrate its maritime rights, the United States has conducted FON operations over, through, and under the archipelagic sea-lanes of both Indonesia and the Philippines over the span of many years.

Finally, the United States maintains comprehensive, mutually beneficial bilateral relationships with both Indonesia and the Philippines, which has a mutual defense treaty with the United States.[141] These bilateral relationships further ensure that any disputes arising over ASLP will be resolved amicably.[142]

Part IV: Ensuring Continued U.S. Global Leadership on the Oceans

For more than 180 years and through two world wars, the U.S. Navy thrived, developing into a global maritime power, without the benefit of a written convention on the law of the sea. In 1958, the principles of high seas freedom and innocent passage through territorial waters were codified in the first round of law of the sea conventions. Between 1958 and 1982, the Navy continued to fulfill its mission on a global scale. UNCLOS was adopted in 1982, duplicating the navigational provisions of the 1958 conventions and "crystallizing" the concepts of transit passage and archipelagic sea-lanes passage. Since 1982, through the end of the Cold War and to the present day, the Navy continues to prosecute its mission as the world's preeminent naval power.

By forgoing UNCLOS membership, the United States is in no way hindering its ability to secure, preserve, or otherwise protect its navigational rights and freedoms. Nor, as contended by several UNCLOS proponents, is it failing to demonstrate leadership on maritime issues by remaining outside the convention.[143] To the contrary, the United States remains the greatest maritime power in the world and is deeply involved in ongoing issues relating to the law of the sea.

The United States plays an essential, if not indispensable, role in the development of the law of the sea. The U.S. Navy's *Commander's Handbook on the Law of Naval Operations* is the preeminent operational manual on the convention's navigational provisions and is considered the gold standard by maritime nations worldwide, many of which have adopted it for use by their own navies.[144]

The United States is an active participant in many multilateral organizations and forums that deal with law of the sea issues, such as the annual meetings of the Major Maritime Powers, IMO proceedings, and meetings of the states parties to UNCLOS, which the U.S. attends as an observer nation. Despite repeated claims to the contrary, the United States effectively protects its Arctic interests, navigational and otherwise, regardless of its nonmembership in UNCLOS. It was a founding member of the Arctic Council, an eight-member intergovernmental body established to foster coordination among Arctic nations that

140. See Appendix, *infra*.
141. Renato De Castro and Walter Lohman, "U.S.–Philippines Partnership in the Cause of Maritime Defense," Heritage Foundation *Backgrounder* No. 2593, August 8, 2011, at *http://www.heritage.org/research/reports/2011/08/us-philippines-partnership-in-the-cause-of-maritime-defense*, and Mutual Defense Treaty Between the Republic of the Philippines and the United States of America, August 30, 1951.
142. For example, see Bruce Vaughn, "Indonesia: Domestic Politics, Strategic Dynamics, and U.S. Interests," Congressional Research Service *Report for Congress*, January 31, 2011, at *http://www.fas.org/sgp/crs/row/RL32394.pdf* (July 28, 2011), and Thomas Lum, "The Republic of the Philippines and U.S. Interests," Congressional Research Service *Report for Congress*, January 3, 2011, at *http://www.fas.org/sgp/crs/row/RL33233.pdf* (July 28, 2011).
143. For example, see McNeill, prepared statement, pp. 23–24.
144. U.S. Department of the Navy, *The Commander's Handbook on the Law of Naval Operations*.

recently adopted an agreement on search and rescue cooperation in the Arctic Ocean.[145]

The United States is party to a number of multilateral treaties regarding the law of the sea and maritime navigation, including the International Convention for the Safety of Life at Sea, the Convention on the Facilitation of International Maritime Traffic, and the Convention on International Regulations for Preventing Collisions at Sea.[146] The U.S. is also a global leader in maritime enterprises that are not treaty-based, such as the Proliferation Security Initiative (a multilateral effort to prevent trafficking of weapons of mass destruction) and Combined Task Force 151 (a multinational counterpiracy effort operating off the coast of Somalia).[147]

In short, the United States has played and continues to play a dominant worldwide role in matters concerning the law of the sea. However, the United States needs to take the necessary steps to ensure that U.S. dominance persists well past 2011 and through the 21st century. To that end:

- Congress should work with the Department of Defense to provide the U.S. Navy with the assets it needs to maintain its preeminent position on the high seas.[148] Freedom of navigation and overflight, innocent passage through territorial waters, transit passage through international straits, and archipelagic sea-lanes passage are best guaranteed by a strong Navy, not by a signature on a treaty.
- The United States should continue to advance its interests, including freedom of navigation, in the Arctic.[149] To the extent that the U.S. requires a "seat at the table" on Arctic issues, its prominent position on the Arctic Council serves that role. Nothing indicates that accession to UNCLOS would be a factor, much less a determinative one, in securing U.S. interests in the Arctic.[150]
- The United States should address Chinese maritime ambitions and confront China's aggression in the South China Sea by maintaining its strong forward posture in East Asia and supporting its allies in the region.[151] To that end, the U.S. may rely on the customary international law of the sea, as reflected in the UNCLOS navigational provisions, while continuing to challenge China's excessive maritime claims through the Freedom of Navigation Program.

145. Arctic Council, Web site, at *http://www.arctic-council.org* (July 28, 2011), and Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic, May 12, 2011, at *http://arctic-council.org/filearchive/Arctic%20SAR%20Agreement%20EN%20FINAL%20for%20signature%2021-Apr-2011.pdf* (July 28, 2011).

146. International Convention for the Safety of Life at Sea, June 17, 1960; Convention on the Facilitation of International Maritime Traffic, April 9, 1965; and Convention on International Regulations for Preventing Collisions at Sea, October 20, 1972.

147. U.S. Department of State, "Proliferation Security Initiative," at *http://www.state.gov/t/isn/c10390.htm* (July 28, 2011), and U.S. Navy, "Combined Task Force (CTF) 151," at *http://www.cusnc.navy.mil/cmf/151/index.html* (July 28, 2011).

148. "A Strong National Defense: The Armed Forces America Needs and What They Will Cost," Heritage Foundation *Special Report* No. 90, April 5, 2011, at *http://www.heritage.org/Research/Reports/2011/04/A-Strong-National-Defense-The-Armed-Forces-America-Needs-and-What-They-Will-Cost*, and Mackenzie Eaglen and Bryan McGrath, "Thinking About a Day Without Sea Power: Implications for U.S. Defense Policy," Heritage Foundation *Backgrounder* No. 2555, May 16, 2011, at *http://www.heritage.org/Research/Reports/2011/05/Thinking-About-a-Day-Without-Sea-Power-Implications-for-US-Defense-Policy*.

149. Ariel Cohen, Lajos F Szaszdi, and Jim Dolbow, "The New Cold War: Reviving the U.S. Presence in the Arctic," Heritage Foundation *Backgrounder* No. 2202, October 30, 2008, at *http://www.heritage.org/Research/Reports/2008/10/The-New-Cold-War-Reviving-the-US-Presence-in-the-Arctic*.

150. Steven Groves, "LOST in the Arctic: The U.S. Need Not Ratify the Law of the Sea Treaty to Get a Seat at the Table," Heritage Foundation *WebMemo* No. 1957, June 16, 2008, at *http://www.heritage.org/Research/Reports/2008/06/LOST-in-the-Arctic-The-US-Need-Not-Ratify-the-Law-of-the-Sea-Treaty-to-Get-a-Seat-at-the-Table*.

151. Dean Cheng, "Sea Power and the Chinese State: China's Maritime Ambitions," Heritage Foundation *Backgrounder* No. 2576, July 11, 2011, at *http://www.heritage.org/Research/Reports/2011/07/Sea-Power-and-the-Chinese-State-Chinas-Maritime-Ambitions*.

While the future is unknowable, the U.S. Navy will continue to face new and difficult challenges in the years ahead. It is crucial that Congress provide the Navy the resources that it requires to meet those challenges and to prosecute its mission of protecting navigational rights and freedoms on a global basis. UNCLOS membership is not necessary, much less essential, to accomplish that mission.

Moreover, most of the reasons why the United States should continue to forgo membership in UNCLOS are unrelated to navigational rights and freedoms. The convention's royalty-sharing provisions, compulsory dispute resolution requirements, and creation of an international bureaucracy to regulate deep seabed mining are just a few of its major flaws.[152] The navigational benefits claimed by proponents of U.S. accession to UNCLOS must necessarily be balanced against the irrefutably negative aspects of the convention that stem from its non-navigational provisions.

The practices of the U.S. Navy and the navies of other major maritime powers created the very customary international law upon which the navigational provisions of UNCLOS are based. The Navy enjoys those same navigational rights and freedoms despite non-accession to the treaty. The Navy's insistence that a failure to join UNCLOS will hinder its ability to conduct its global mission successfully is belied by the facts and demonstrably disproved by history. Moreover, the Navy's support for the navigational rights enshrined in UNCLOS is far outweighed by the convention's dangerous non-navigational provisions.

—Steven Groves is Bernard and Barbara Lomas Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation and a contributor to ConUNdrum: The Limits of the United Nations and the Search for Alternatives *(Rowman & Littlefield Publishers, 2009).*

152. See, generally, Groves, "U.N. Convention on the Law of the Sea Erodes U.S. Sovereignty over U.S. Extended Continental Shelf," and Edwin Meese III, Baker Spring, and Brett D. Schaefer, "The United Nations Convention on the Law of the Sea: The Risks Outweigh the Benefits," Heritage Foundation *WebMemo* No. 1459, May 16, 2007, at *http://www.heritage.org/Research/Reports/2007/05/The-United-Nations-Convention-on-the-Law-of-the-Sea-The-Risks-Outweigh-the-Benefits*.

APPENDIX

U.S. Navy Challenges to Excessive Maritime Claims, FY 1993–2010

In FY 1994–1999, a list of the U.S. Navy's operational assertions under the Freedom of Navigation Program was appended to the Department of Defense's *Annual Report to the President and the Congress*. The list of annual assertions for FY 2000–FY 2010 was posted on the Web site of the Office of the Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction. In FY 2000–FY 2003, the Department of Defense did not specifically indicate the fiscal year in which each assertion was conducted.

Note: An asterisk (*) indicates that multiple operational challenges to the same excessive claim were conducted during a single fiscal year.

Albania

1997: Prior permission for warships to enter territorial sea

1998: Prior permission for warships to enter territorial sea

1999: Prior permission for warships to enter territorial sea

2000–2003: Prior permission for warships to enter territorial sea

Algeria

1997: Prior permission for warships to enter territorial sea

1998: Prior permission for warships to enter territorial sea

1999: Prior permission for warships to enter territorial sea

2000–2003: Prior permission for warships to enter territorial sea

Argentina

2009: Notification required before foreign warships transit the Strait of Magellan or in proximity to the territorial sea

Bangladesh

1995: Claimed security zone • Claimed territorial airspace beyond 12 nm

1996: Excessive straight baselines • Claimed security zone • Claimed territorial airspace beyond 12 nm

1997: Excessive straight baselines • Claimed security zone • Claimed territorial airspace beyond 12 nm

1998: Excessive straight baselines • Claimed security zone

2000–2003: Excessive straight baselines*

Burma

1993: Prior permission for warships to enter territorial sea

1994: Prior permission for warships to enter territorial sea

1996: Excessive straight baselines • Claimed security zone • Claimed territorial airspace beyond 12 nm

1997: Excessive straight baselines • Claimed security zone • Claimed territorial airspace beyond 12 nm

1998: Excessive straight baselines • Claimed security zone

2000–2003: Claimed 24 nm security zone • Excessive straight baselines • Authority to regulate overflight in international space*

2004: Claimed 24 nm security zone • Excessive straight baselines

2008: Broad restrictions in EEZ*

Cambodia

1993: Prior permission for warships to enter territorial sea • Excessive straight baselines

1994: Prior permission for warships to enter territorial sea • Excessive straight baselines

1995: Claimed security zone • Claimed territorial airspace beyond 12 nm • Prior permission for warships to enter territorial sea

1996: Excessive straight baselines • Claimed security zone • Claimed territorial airspace beyond 12 nm

1997: Excessive straight baselines • Claimed security zone • Claimed territorial airspace beyond 12 nm

1998: Excessive straight baselines • Claimed security zone

1999: Excessive straight baselines • Claimed security zone • Prior permission for warships to enter territorial sea and security zone

2000–2003: Excessive straight baselines • Claimed 24 nm security zone*

2004: Excessive straight baselines • Claimed 24 nm security zone*

2005: Excessive straight baselines • Claimed 24 nm security zone

2010: Excessive straight baselines • Prior permission for warships to enter territorial sea or contiguous zone • Security jurisdiction in contiguous zone*

China

1993: Prior permission for warships to enter territorial sea

1994: Prior permission for warships to enter territorial sea

1996: Prior permission for warships to enter territorial sea

2007: Claimed jurisdiction of superadjacent airspace over the EEZ • Domestic law criminalizes survey activity by foreign entities in any waters under the jurisdiction of the coastal state*

2008: Jurisdiction over airspace above EEZ • Domestic law criminalizing survey activity by foreign entities in the EEZ*

2009: Jurisdiction over airspace above EEZ • Domestic law criminalizing survey activity by foreign entities in the EEZ*

2010: Jurisdiction over airspace above EEZ • Domestic law criminalizing survey activity by foreign entities in the EEZ*

Croatia

1998: Prior permission for warships to enter territorial sea

2000–2003: Prior authorization for warships to enter territorial sea

Cuba

1997: Require state aircraft to comply with directions from air traffic control within flight information region

1998: Require state aircraft to comply with directions from air traffic control within flight information region

Djibouti

1993: Excessive straight baselines

1994: Excessive straight baselines

1995: Excessive straight baselines

1997: Excessive straight baselines

1999: Prior notification for nuclear-powered vessels to enter territorial sea

Ecuador

1993: Claimed 200 nm territorial sea

1994: Claimed 200 nm territorial sea

1999: Claimed 200 nm territorial sea

2000–2003: Claimed 200 nm territorial sea

2004: Claimed 200 nm territorial sea

2005: Claimed 200 nm territorial sea*

Egypt

1994: Prior notification for warships to enter territorial sea

1996: Excessive straight baselines • Prior permission for warships to enter territorial sea

1997: Excessive straight baselines • Prior permission for warships to enter territorial sea

1999: Prior permission for warships to enter territorial sea

2000–2003: Prior notice for warships or nuclear-powered vessels to enter territorial sea or EEZ*

El Salvador

1998: Claimed 200 nm territorial sea

1999: Claimed 200 nm territorial sea

2000–2003: Claimed 200 nm territorial sea

India

1993: Prior notification for warships to enter territorial sea • Historic waters claim (Gulf of Mannar)

1994: Prior notification for warships to enter territorial sea • Historic waters claim (Gulf of Mannar)

1996: Prior permission for warships to enter territorial sea

1997: Prior permission for warships to enter territorial sea

1999: Prior notification for warships to enter territorial sea • Prior permission required for military exercises and maneuvers in EEZ • Historic waters claim (Gulf of Mannar)

2000–2003: Claimed 24 nm security zone • Prior authorization for warships to enter territorial sea

2007: Requirement for prior consent for military maneuvers in the EEZ*

2008: Authorization required for military maneuvers in the EEZ*

2009: Authorization required for military maneuvers in the EEZ*

2010: Authorization required for military maneuvers in the EEZ*

Indonesia

2000–2003: Prior notification for warships to enter territorial sea*

2004: Prior notification for warships to enter territorial sea*

2005: Archipelagic sea lanes passage*

2006: Archipelagic sea lanes passage*

2007: Conduct of ASLP through normal passage routes used as routes for international navigation through or overflight over archipelagic waters*

2008: Partial designation of archipelagic sea lanes*

2009: Partial designation of archipelagic sea lanes*

2010: Partial designation of archipelagic sea lanes*

Iran

1995: Prior permission for warships to enter territorial sea

1996: Excessive straight baselines • Prior permission for warships to enter territorial sea

1997: Excessive straight baselines • Prior permission for warships to enter territorial sea

1998: Excessive straight baselines • Prior permission for warships to enter territorial sea

1999: Excessive straight baselines • Prior permission for warships to enter territorial sea

2004: Excessive straight baselines*

2005: Restriction on right of transit passage through Strait of Hormuz to UNCLOS signatories*

2006: Restriction on right of transit passage through Strait of Hormuz to UNCLOS signatories*

2007: Restriction on right of transit passage through Strait of Hormuz to UNCLOS signatories*

2008: Restriction on right of transit passage through Strait of Hormuz to UNCLOS signatories • Excessive straight baselines*

2009: Restriction on right of transit passage through Strait of Hormuz to UNCLOS signatories*

2010: Restriction on right of transit passage through Strait of Hormuz to UNCLOS signatories*

Japan

1999: Excessive straight baselines

2010: Excessive straight baselines

Kenya

1998: Excessive straight baselines • Historic bay claim (Ungwana Bay)

Liberia

1998: Claimed 200 nm territorial sea

1999: Claimed 200 nm territorial sea

2009: Excessive territorial sea claim*

2010: Excessive territorial sea claim*

Libya

1997: Excessive straight baselines • Prior notification for warships to enter territorial sea

1998: Historic waters claim (Gulf of Sidra)

2000–2003: Historic waters claim (Gulf of Sidra)

Malaysia

1998: Excessive restrictions on military activities in EEZ

1999: Prior permission for military exercises in EEZ

2000–2003: Prior permission to conduct military activities in EEZ*

2007: Prior authorization for nuclear-powered ships to enter territorial sea and for military maneuvers in EEZ*

2008: Prior authorization for nuclear-powered ships to enter territorial sea and for military maneuvers in EEZ*

2009: Prior authorization for nuclear-powered ships to enter territorial sea and for military maneuvers in EEZ*

2010: Prior authorization for nuclear-powered ships to enter territorial sea and for military maneuvers in EEZ*

Maldives

1993: Prior permission for warships to enter territorial sea

1994: Prior permission for warships to enter territorial sea

1995: Prior permission for warships to enter territorial sea • Claimed territorial airspace beyond 12 nm

1996: Excessive straight baselines • Prior permission for warships to enter territorial sea

1997: Excessive straight baselines • Prior permission for warships to enter territorial sea

1998: Prior permission for warships to enter territorial sea

2000–2003: Prior notification for warships to enter territorial sea*

2007: Permission required for foreign vessels to enter EEZ*

2008: Permission required for foreign vessels to enter EEZ*

2009: Permission required for foreign vessels to enter EEZ*

2010: Permission required for foreign vessels to enter EEZ*

Malta

1997: Prior permission for warships to enter territorial sea

1998: Prior permission for warships to enter territorial sea

1999: Prior permission for warships to enter territorial sea

2000–2003: Prior permission for warships to enter territorial sea

Mauritania

1994: Excessive straight baselines • Recognizes only innocent passage, not transit passage, through international straits

Nicaragua

1998: Claimed 200 nm territorial sea

1999: Claimed 200 nm territorial sea

Oman

1995: Excessive straight baselines • Prior permission for warships to enter territorial sea

1996: Excessive straight baselines • Prior permission for warships to enter territorial sea

1997: Excessive straight baselines • Prior permission for warships to enter territorial sea

2005: Claimed to recognize only the regime of innocent passage through Strait of Hormuz*

2006: Claimed to recognize only the regime of innocent passage through Strait of Hormuz*

2007: Claimed to recognize only the regime of innocent passage through Strait of Hormuz*

2008: Claimed to recognize only the regime of innocent passage through Strait of Hormuz*

2009: Claimed to recognize only the regime of innocent passage through Strait of Hormuz*

2010: Claimed to recognize only the regime of innocent passage through Strait of Hormuz*

Pakistan

1996: Prior permission for warships to enter territorial sea

1998: Claimed security zone • Excessive restrictions on military activities in EEZ

1999: Excessive straight baselines • Claimed security zone

Panama

2000–2003: Claimed 200 nm territorial sea

Peru

1993: Claimed 200 nm territorial sea

1994: Claimed 200 nm territorial sea

2004: Claimed 200 nm territorial sea

Philippines

1994: Excessive straight baselines • Claimed archipelagic waters as internal waters

1995: Excessive straight baselines • Claimed archipelagic waters as internal waters

1996: Excessive straight baselines • Claimed archipelagic waters as internal waters

1997: Excessive straight baselines • Claimed archipelagic waters as internal waters

1998: Excessive straight baselines • Claimed archipelagic waters as internal waters

1999: Excessive straight baselines • Claimed archipelagic waters as internal waters

2000–2003: Excessive straight baselines • Claimed archipelagic waters as internal waters*

2004: Excessive straight baselines • Claimed archipelagic waters as internal waters*

2005: Excessive straight baselines • Claimed archipelagic waters as internal waters*

2006: Excessive straight baselines • Claimed archipelagic waters as internal waters*

2007: Claimed archipelagic waters as internal waters*

2008: Excessive archipelagic baselines*

2009: Excessive archipelagic baselines*
2010: Excessive archipelagic baselines*

Romania
1999: Prior permission for warships to enter territorial sea

Saudi Arabia
1998: Excessive straight baselines • Claimed security zone
1999: Claimed security zone

Seychelles
1998: Prior permission for warships to enter territorial sea
1999: Prior notification for warships to enter territorial sea

Sierra Leone
1998: Claimed 200 nm territorial sea
1999: Claimed 200 nm territorial sea

Somalia
1993: Claimed 200 nm territorial sea
1994: Claimed 200 nm territorial sea
1995: Claimed 200 nm territorial sea • Prior permission for warships to enter territorial sea
1997: Claimed 200 nm territorial sea • Prior permission for warships to enter territorial sea
1998: Claimed 200 nm territorial sea • Prior permission for warships to enter territorial sea

South Korea
1999: Excessive straight baselines

Sri Lanka
1997: Prior permission for warships to enter territorial sea
1999: Prior permission for warships to enter territorial sea • Historic waters claim (Gulf of Mannar)
2000–2003: Claimed security zone • Prior permission for warships to enter territorial sea

Sudan
1993: Prior permission for warships to enter territorial sea
1994: Prior permission for warships to enter territorial sea
1995: Prior permission for warships to enter territorial sea
1996: Prior permission for warships to enter territorial sea
1997: Prior permission for warships to enter territorial sea
1998: Prior permission for warships to enter territorial sea • Claimed security zone
1999: Claimed security zone

Sweden
1994: Prior permission for warships to enter territorial sea

Syria
1998: Claimed 35 nm territorial sea • Prior permission for warships to enter the territorial sea
2000–2003: Claimed 35 nm territorial sea • Prior permission for warships to enter the territorial sea*

Taiwan
2000–2003: Excessive straight baselines • Claimed 24 nm security zone
2006: Restriction on right of innocent passage through territorial sea • Requirement of prior notice of warships transiting territorial sea

Thailand
1995: Excessive straight baselines

Togo
2009: Excessive territorial sea claim

United Arab Emirates
1995: Prior permission for warships to enter territorial sea
1997: Prior permission for warships to enter territorial sea
1998: Prior permission for warships to enter territorial sea • Claimed security zone

Venezuela
1999: Claimed security zone
2000–2003: Claimed security zone*

Vietnam
1996: Excessive straight baselines • Claimed security zone
1997: Excessive straight baselines • Claimed security zone
1998: Excessive straight baselines • Claimed security zone • Prior permission for warships to enter territorial sea
1999: Excessive straight baselines • Claimed security zone • Prior permission for warships to enter territorial sea and contiguous zone • Requirement that warships place weapons in non-operative positions prior to entering contiguous zone • Historic waters claim (Gulf of Tonkin)
2000–2003: Excessive straight baselines • Prior permission for warships to enter territorial sea*
2010: Excessive straight baselines • Prior permission for warships to enter territorial sea and contiguous zone

Yemen
1995: Prior permission for warships to enter territorial sea
1996: Prior permission for warships to enter territorial sea
1997: Prior permission for warships to enter territorial sea
1998: Prior permission for warships to enter territorial sea • Claimed security zone
1999: Prior permission for nuclear-powered warships to enter territorial sea • Claimed security zone

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Accession to U.N. Convention on the Law of the Sea Would Expose the U.S. to Baseless Climate Change Lawsuits

Steven Groves

Abstract

Among the many reasons why the U.S. should not accede to the U.N. Convention on the Law of the Sea (UNCLOS) is the reality that it would expose the United States to international environmental lawsuits that would harm its environmental, economic, and military interests. Having failed to impose their agenda on the U.S., climate change alarmists and other environmental activists are preparing the legal ground and claimants to sue the U.S. if it joins UNCLOS. Even the threat of such suits or failed suits will affect the U.S. by imposing unnecessary legal and political costs. The best option for the U.S. is simply not to open the door to such frivolous lawsuits.

This paper, in its entirety, can be found at **http://report.heritage.org/bg2660**

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The Heritage Foundation
214 Massachusetts Avenue, NE
Washington, DC 20002-4999
(202) 546-4400 | heritage.org

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With the support and encouragement of environmental activists and legal academics, some nations are actively exploring the possible use of international litigation to impose their favored environmental standards on large emitters of greenhouse gases, particularly the United States.

Major international conferences held in recent years in Denmark, Mexico, and most recently Durban, South Africa, have failed to produce a legally binding climate change convention. The continued failure of efforts to regulate greenhouse gases (GHG) through comprehensive treaty commitments has led some proponents of the theory of anthropogenic climate change to seek alternate avenues of enforcement. As one international law professor put it in 2007, "In light of this regulatory failure, victims of climate change have started to think of ways to bring the worst emitters of greenhouse gases to justice."[1]

Currently, there is no forum in which to initiate a viable international climate change lawsuit against the United States. The U.S. withdrew from the compulsory jurisdiction of the International Court of Justice (ICJ) in 1985 and is not as yet a party to the United Nations Convention on the Law of the Sea (UNCLOS).[2]

Talking Points

- U.S. accession to the United Nations Convention on the Law of the Sea (UNCLOS) would harm U.S. national interests. Joining the convention would needlessly expose the United States to baseless environmental lawsuits, including suits based on alleged U.S. contributions to global climate change.
- Certain UNCLOS states parties, with the support and encouragement of environmental activists and international legal academics, are actively exploring the potential of using international litigation against the United States to advance their climate change agenda.
- An adverse judgment in a climate change lawsuit initiated under UNCLOS would be final, not subject to appeal, and enforceable in the United States. Such a judgment would impose massive regulatory burdens on U.S. companies, which would pass the costs on to American consumers.
- Such a judgment would accomplish through international litigation what climate change alarmists have failed to achieve through treaty negotiations or in the U.S. Congress.

However, if the United States accedes to UNCLOS, thereby reversing a 30-year policy of remaining outside of the convention, the U.S. would be exposed to climate change lawsuits and other environmental actions brought against it by other members of the convention. The economic and political ramifications of such lawsuits would be dire.

This paper demonstrates that accession to UNCLOS would unnecessarily expose the United States to baseless and opportunistic international lawsuits, including suits based on the theory of anthropogenic climate change.

- Part I describes UNCLOS's compulsory dispute resolution mechanisms, the finality and enforceability of judgments rendered by UNCLOS tribunals, and the impact of adverse judgments against the United States in other international lawsuits, including U.S. experiences in the International Court of Justice.
- Part II outlines the legal basis for an international climate change lawsuit against the United States: the "no-harm rule" pronounced in the *Trail Smelter* case and U.S. commitments under the United Nations Framework Convention on Climate Change.
- Part III identifies the potential claimants that are poised to bring an UNCLOS climate change lawsuit against the United States (the most likely target of such a suit) and the support that such claimants would receive from international legal and environmental activists.
- Part IV concludes that the United States should not accede to the convention because of the potential climate change regime that an UNCLOS tribunal could impose on the U.S. and describes the economic and political costs of an adverse judgment.

To date, no study has comprehensively addressed the potential legal, economic, and political consequences that an adverse judgment from an UNCLOS tribunal would have for the United States. The U.S. government should assess the litigation risks that would come with membership in the convention.

The Obama Administration should conduct an interagency review of the convention's compulsory dispute resolution mechanisms to determine both the extent to which acceding to UNCLOS would expose the United States to baseless lawsuits and the potential economic and political costs that could result from accession. Relevant Senate and House committees should hold oversight hearings on potential lawsuits and how an adverse judgment would affect U.S. environmental, economic, and military interests.

1. Timo Koivurova, "International Legal Avenues to Address the Plight of Victims of Climate Change: Problems and Prospects," *Journal of Environmental Law and Litigation*, Vol. 22, No. 2 (Fall 2007), p. 269, at *http://www.law.uoregon.edu/org/jell/docs/222/OEL202.pdf* (February 9, 2012).
2. United Nations Convention on the Law of the Sea (UNCLOS), December 10, 1982, at *http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm* (February 9, 2012).

Part I
Resolution of Maritime Disputes

At the outset, it should be noted that the United States need not accede to UNCLOS in order to resolve its maritime disputes with other nations. The U.N. Charter directs the United States and all other nations to attempt to settle their disputes, maritime or otherwise, through peaceful measures. Specifically, the charter states that nations "shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered."[3] Chapter VI of the charter directs states to "seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice."[4]

The United States has resolved contentious maritime disputes with other nations regularly and peacefully without being a member of UNCLOS both before the adoption of the convention in 1982 and afterward. For example:

- In May 1972, the United States and the Soviet Union signed an agreement designed to prevent incidents between the two superpowers on the high seas through strict observation of the International Regulations for Preventing Collisions at Sea.[5]
- In February 1988, two U.S. warships were "bumped" by Soviet warships in the Black Sea while the U.S. was challenging the excessive Soviet claim regarding its territorial sea. The next year, the two nations signed the Uniform Interpretation of Rules of International Law Governing Innocent Passage, a joint statement that acknowledged U.S. passage rights through Soviet waters.[6]
- In June 2000, the United States and Mexico adopted a treaty delimiting the boundary of their respective continental shelves beyond the 200-nautical-mile line.[7]

The United States and other nations are free to resolve their maritime disputes in a number of ways outside of UNCLOS, including bilateral negotiations, fact-finding and conciliation commissions, and proceedings at the Permanent Court of Arbitration, to name a few.[8] The United States may also submit a dispute by special agreement to the International Court of Justice, as it did in 1981 to resolve a dispute with Canada over maritime boundaries in the Gulf of Maine.[9]

THE UNITED STATES AND OTHER NATIONS ARE FREE TO RESOLVE THEIR MARITIME DISPUTES IN A NUMBER OF WAYS OUTSIDE OF UNCLOS.

Bilateral negotiations, special agreements, arbitration, and conciliation commissions have in common the fact that they are *voluntary* means of resolving maritime disputes. The United States may choose to engage in such voluntary proceedings depending on whether the predicted outcome would advance its national interests. However, if the U.S. accedes to UNCLOS, it will be compelled to submit itself to legally binding dispute resolution whenever another member state brings a lawsuit against it.

Compulsory Dispute Resolution Under UNCLOS

Part XV of UNCLOS addresses the settlement of maritime disputes between parties to the convention. Part XV contemplates that UNCLOS states parties, in accordance with the U.N. Charter, will attempt to resolve maritime disputes peacefully without resort to the convention's compulsory procedures.[10] When a dispute arises between two UNCLOS members, they are obligated to "proceed expeditiously to an exchange of views regarding its settlement by negotiation or other peaceful means."[11] States parties may also resort to a nonbinding "conciliation procedure" under Annex V of the convention.[12]

If a maritime dispute cannot be settled in a voluntary manner, an UNCLOS state party may compel another state party to defend itself in one of four forums: the International Tribunal for the Law of the Sea (ITLOS), the International Court of Justice, an arbitral tribunal organized under Annex VII, or a "special" arbitral tribunal organized under Annex VIII.[13]

International Tribunal for the Law of the Sea. ITLOS was established by Annex VI of UNCLOS and is located in Hamburg, Germany. To date, UNCLOS states parties have initiated 19 cases in ITLOS, 12 of which involved demands for the release of vessels allegedly detained improperly.[14]

ITLOS is composed of 21 recognized experts in the law of the sea elected by UNCLOS states parties. The 21 members must collectively represent the "principal legal systems of the world," and their nationalities must reflect an "equitable geographical distribution" with "no fewer than three members from each geographical group as established by the General Assembly of the United Nations." The members of the tribunal serve nine-year terms and may be reelected. Members select a president of the tribunal from among themselves. ITLOS's jurisdiction is general, encompassing "all disputes ... submitted to it in accordance" with the convention.[15]

Within ITLOS, a special tribunal, the Seabed Disputes Chamber (SDC), was established to resolve disputes about activities on the seabed floor beyond the limits of national jurisdiction, known as "the Area."[16] The SDC is composed of 11 members chosen from among the 21 members of ITLOS. The chamber has jurisdiction over disputes between states parties concerning the Area, between the International Seabed Authority and deep seabed mining contractors, and between states parties and the authority for alleged violations of the deep seabed provisions of the convention and for other matters. For these categories of disputes, states parties, contractors, and the International Seabed Authority must submit to SDC jurisdiction, not to the jurisdiction of ITLOS, the ICJ, or an arbitral tribunal.[17] With the notable exception of a 2011 advisory opinion on the responsibilities of member states in the Area, the chamber has not yet adjudicated any matter.[18]

Both ITLOS and the SDC have the authority to grant preliminary relief (known as "provisional measures") to a state party to "preserve the respective rights of the parties to the dispute or to prevent serious harm to the marine environment." In the event that a claimant has brought a lawsuit in an Annex VII or VIII arbitral tribunal and the panel of arbitrators has not yet been assembled, the claimant may seek provisional measures at ITLOS or, in a case concerning the Area, at the SDC. ITLOS and the SDC may order provisional measures if there is a prima facie case that the arbitral tribunal, once assembled, would have jurisdiction and that "the urgency of the situation so requires." Parties to the dispute "shall comply promptly with any provisional measures" granted by ITLOS or the SDC. Once an arbitral tribunal is assembled, it may modify, revoke, or affirm any provisional

3. Charter of the United Nations, October 24, 1945, Art. 2(3), at *http://www.un.org/en/documents/charter/index.shtml* (February 9, 2012).
4. Charter of the United Nations, Art. 33(1).
5. Agreement Between the United States and the Union of Soviet Socialist Republics on the Prevention of Incidents on and over the High Seas, May 25, 1972, at *http://avalon.law.yale.edu/20th_century/sov008.asp* (February 9, 2012).
6. Lieutenant Commander John W. Rolph, "Freedom of Navigation and the Black Sea Bumping Incident: How 'Innocent' Must Innocent Passage Be?" *Military Law Review*, Vol. 135 (Winter 1992) , pp. 137-165, at *http://www.loc.gov/rr/frd/Military_Law/Military_Law_Review/pdf-files/276475-1.pdf* (February 9, 2012).
7. Treaty on the Delimitation of the Continental Shelf in the Western Gulf of Mexico Beyond 200 Nautical Miles, with Annexes, June 9, 2000.
8. R. R. Churchill and A. V. Lowe, *The Law of the Sea*, 3rd ed. (Manchester, U.K.: Manchester University Press, 1999), pp. 449-453.
9. *Delimitation of the Maritime Boundary in the Gulf of Maine Area*, International Court of Justice, October 12, 1984, at *http://www.icj-cij.org/docket/index.php?sum=346&code=cigm&p1=3&p2=3&case=67&k=6f&p3=5* (February 10, 2012).

BACKGROUNDER | NO. 2660
MARCH 12, 2012

10. United Nations Convention on the Law of the Sea (UNCLOS), December 10, 1982, Arts. 279-280, at *http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm* (February 9, 2012). Article 264 appears to restrict the settlement of disputes relating to marine scientific research to the compulsory procedures of Part XV, Section 2, although the practical effect of requiring states to resolve such disputes only by compulsory procedures is unclear. Churchill and Lowe, *The Law of the Sea*, p. 454.
11. UNCLOS, Art. 283(1).
12. *Ibid.*, Art. 284 and Annex V.
13. *Ibid.*, Art. 286.
14. International Tribunal for the Law of the Sea, "List of Cases," at *http://www.itlos.org/index.php?id=35* (February 9, 2012).
15. UNCLOS, Annex VI, Arts. 2-5, 12, and 21.
16. *Ibid.*, Arts. 1(1) and 187.
17. Churchill and Lowe, *The Law of the Sea*, pp. 458-459. "The Seabed Disputes Chamber shall have jurisdiction under this Part and the Annexes relating thereto." UNCLOS, Art. 187.
18. *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Advisory Opinion*, Seabed Disputes Chamber, Case No. 17, February 1, 2011, at *http://www.itlos.org/index.php?id=109&L=0* (February 9, 2012).

measures granted by ITLOS or the SDC.[19]

International Court of Justice. The ICJ was established in June 1945 and is located in The Hague, Netherlands.[20] The ICJ is a court of general jurisdiction and operates independently from the UNCLOS tribunals. Parties to the convention may nevertheless opt to submit maritime disputes to the ICJ.

The United States accepted ICJ jurisdiction at the time of its establishment and for 40 years could be brought before the court by any other nation that also accepted the court's compulsory jurisdiction. In 1985, however, the U.S. announced that it was withdrawing from the ICJ's compulsory jurisdiction after an adverse judgment in the *Case Concerning Military and Paramilitary Activities in and Against Nicaragua*, a lawsuit concerning U.S. support for the Contras.

Annex VII Arbitral Tribunal. The Annex VII tribunal is an arbitral panel of general jurisdiction and is considered the "default means of dispute resolution" if a state party has not declared a preference upon signing or ratifying UNCLOS. These tribunals have been used on a handful of occasions to litigate matters under the auspices of the Permanent Court of Arbitration in The Hague, including cases concerning the delimitation of maritime boundaries and the *MOX Plant* case, an environmental degradation lawsuit.[21]

Annex VII tribunals are composed of five members selected by the two states parties to the dispute. Each party may appoint one of its nationals as a member, and the remaining three members are chosen by agreement between the parties. If the two parties are unable to agree on any of the three members, they are appointed by the ITLOS president.[22]

Annex VIII Special Arbitral Tribunal. States parties may submit cases on four specific subjects—fisheries, protection and preservation of the marine environment, marine scientific research, and navigation—to arbitration by an Annex VIII tribunal.[23] Annex VIII arbitral panels have five members. Each party to the dispute appoints two members, one of which may be a national of the state party. The fifth member is appointed by agreement of the parties and serves as president of the tribunal. If the parties are unable to agree, the U.N. Secretary-General appoints the president.[24]

Enforceability in the U.S.

Acceding to UNCLOS would expose the U.S. to lawsuits on virtually any maritime activity, such as alleged pollution of the marine environment from a land-based source or even through the atmosphere. Regardless of the case's merits, the U.S. would be forced to defend itself against every such lawsuit at great expense to U.S. taxpayers. Any judgment rendered by an UNCLOS tribunal would be final, could not be appealed, and would be enforceable in U.S. territory.

ANY JUDGMENT RENDERED BY AN UNCLOS TRIBUNAL WOULD BE FINAL, COULD NOT BE APPEALED, AND WOULD BE ENFORCEABLE IN U.S. TERRITORY.

Unlike a resolution passed by the U.N. General Assembly or a recommendation made by a human rights treaty committee, judgments issued by UNCLOS dispute resolution tribunals are legally enforceable upon members of the convention. Article 296 of the convention, titled "Finality and binding force of decisions," states, "Any decision rendered by a court or tribunal having

19. UNCLOS, Art. 290, and Annex VI, Art. 25.
20. International Court of Justice, website, at *http://www.icj-cij.org/homepage/index.php* (February 9, 2012).
21. Permanent Court of Arbitration, "*Ad Hoc* Arbitration Under Annex VII of the United Nations Convention on the Law of the Sea," at *http://www.pca-cpa.org/showpage.asp?pag_id=1288* (February 9, 2012).
22. UNCLOS, Annex VII, Art. 3(a)–(e). States parties are urged but not required to select tribunal members from a list of maritime experts. UNCLOS members may nominate up to four experts to the list. Any appointments made by the ITLOS president must be made from the list of experts, which is maintained by the U.N. Secretary-General. For the list, see the notifications made under UNCLOS in United Nations, "Treaty Collection," Web site, at *http://treaties.un.org/Pages/ViewDetailsIII.aspx?&src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&lang=en* (February 9, 2012).
23. The United States has agreed to submit itself to dispute resolution under Annex VIII of UNCLOS for disputes arising under the U.N. Fish Stocks Agreement, a 1995 convention relating to the conservation of straddling and highly migratory fish stocks.
24. UNCLOS, Annex VIII, Art. 1, 3(a)–(e). Similar to Annex VII tribunals, states parties are urged but not required to select arbitrators from lists of experts in the specific subject matter areas under the purview of Annex VIII tribunals. Any appointment made by the U.N. Secretary-General shall be from the relevant expert list. The lists of experts for use by parties to Annex VIII arbitration proceedings are maintained by four international organizations relevant to the subject matter areas. See U.N. Office of Legal Affairs, Division for Ocean Affairs and the Law of the Sea, "Settlement of Disputes Mechanism: List of Experts for the Purposes of Article 2 of Annex VIII (Special Arbitration) to the Convention," updated October 12, 2011, at *http://www.un.org/Depts/los/settlement_of_disputes/experts_special_arb.htm* (February 9, 2012).

jurisdiction under this section shall be final and shall be complied with by all the parties to the dispute."[25]

Judgments made by UNCLOS tribunals are enforceable in the same manner that a judgment from a U.S. domestic court would be. For example, Article 39 of Annex VI states that "The decisions of the [Seabed Disputes] Chamber shall be enforceable in the territories of the States Parties in the same manner as judgments or orders of the highest court of the State Party in whose territory the enforcement is sought."[26] In other words, if the United States accedes to the convention, the U.S. government will be required to enforce and comply with SDC judgments in the same manner as it would enforce and comply with a judgment of the U.S. Supreme Court. The U.S. court system will serve not as an avenue for appeal from UNCLOS tribunals, but rather as an enforcement mechanism for their judgments.

The domestic enforceability of UNCLOS tribunal judgments was confirmed by U.S. Supreme Court Justice John Paul Stevens in *Medellin v. Texas*, a landmark case in 2008.[27] In *Medellin*, Justice Stevens, writing in a concurring opinion, cited Article 39 of Annex VI for the proposition that UNCLOS members—presumably including the United States if it accedes to the convention—are obligated to comply with the judgments of the convention's tribunals.

The *Medellin* case concerned whether the ICJ's judgment in 2003 against the United States in the *Case Concerning Avena and Other Mexican Nationals* (the *Avena* case) is domestically enforceable. Justice Stevens concluded that the relevant treaties in the *Avena* case—the U.N. Charter and the Vienna Convention on Consular Relations (VCCR)—did not require the Supreme Court to enforce the ICJ's ruling. Justice Stevens contrasted the permissive language of the U.N. Charter and the VCCR with the explicit language of UNCLOS and concluded that the convention would indeed oblige the Supreme Court to enforce the judgments of UNCLOS tribunals within the United States.[28]

The fact that the judgments of UNCLOS tribunals are legally binding, not subject to appeal, and domestically enforceable is particularly troubling because the United States has suffered adverse judgments in high-profile international lawsuits in the past.

Judgments Against the U.S. in International Courts

As mentioned, the United States initially accepted compulsory ICJ jurisdiction when the court was established shortly after World War II. For almost 40 years, the U.S. could be sued at the court by any other nation that accepted ICJ jurisdiction.[29]

However, the U.S. relationship with the ICJ changed on April 9, 1984, when the government of Nicaragua initiated the *Case Concerning Military and Paramilitary Activities in and Against Nicaragua* (the *Paramilitary Activities* case) against the United States, alleging that the U.S. had illegally intervened in Nicaragua's internal affairs and used military force against it in violation of international law.[30] Three days before Nicaragua initiated its lawsuit, U.S. Secretary of State George Shultz delivered a letter to the U.N. Secretary-General withdrawing U.S. consent to jurisdiction under the ICJ Statute for disputes arising between

25. UNCLOS, Annex VI, Art. 33; Annex VII, Art. 11; and Annex VIII, Art. 4. Annex VI provides no procedure to appeal the judgments of ITLOS or the SDC.
26. UNCLOS, Annex VI, Art. 39. The domestic enforceability of the decisions of UNCLOS tribunals regarding deep seabed exploration is reiterated in Article 21 of Annex III: "Any final decision rendered by a court or tribunal having jurisdiction under this Convention relating to the rights and obligations of the Authority and of the contractor shall be enforceable in the territory of each State Party."
27. *Medellin v. Texas*, 552 U.S. 491 (2008).
28. In essence, Justice Stevens held that the dispute resolution mechanisms of UNCLOS are self-executing and that additional congressional action, such as implementing legislation, would not be necessary to enforce a judgment rendered by an UNCLOS tribunal. However, the Senate Committee on Foreign Relations included a declaration in its 2004 draft Resolution of Advice and Consent to Ratification stating that SDC judgments shall be enforceable "only in accordance with procedures established by implementing legislation and that such decisions shall be subject to such legal and factual review as is constitutionally required and without precedential effect in any court of the United States."
29. "The states parties to the present Statute may at any time declare that they recognize as compulsory ipso facto and without special agreement, in relation to any other state accepting the same obligation, the jurisdiction of the Court in all legal disputes." Statute of the International Court of Justice, Art. 36, at *http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0* (February 9, 2012).
30. *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States of America): Application Instituting Proceedings*, International Court of Justice, April 9, 1984, at *http://www.icj-cij.org/docket/files/70/9615.pdf* (February 9, 2012).

the U.S. and any Central American nation.[31]

Since its jurisdiction was in question, the ICJ held hearings in October 1984 to determine whether it would hear the case. The United States contended that the ICJ did not have jurisdiction over the lawsuit due to, *inter alia*, the U.S. withdrawal from the court's jurisdiction as per Secretary Shultz's letter.[32] The ICJ rejected the arguments made by the United States and in November 1984 ruled that it had jurisdiction to proceed to the merits phase of the case.[33] The court later noted that, pursuant to the ICJ Statute, any dispute regarding the scope of the court's jurisdiction is determined by the court itself: "Under Article 36, paragraph 6, of its Statute, the Court has jurisdiction to determine any dispute as to its own jurisdiction, and its judgment on that matter, as on the merits, is final and binding on the parties."[34]

In response to the ICJ's ruling on jurisdiction, Secretary Shultz notified the court that the U.S. was withdrawing from the proceedings in the *Paramilitary Activities* case and that thereafter the U.S. would no longer accept the ICJ's compulsory jurisdiction in any lawsuit initiated under the ICJ Statute.[35] Nevertheless, the ICJ proceeded with the case and in June 1986 issued a lengthy judgment against the United States, demanding that the U.S. cease all activities complained of by Nicaragua and pay reparations to the Sandinista government for intervening in its internal affairs.[36]

The U.S. withdrawal from the ICJ's compulsory jurisdiction under the ICJ Statute remains effective to the present day.[37]

Although the United States withdrew from the ICJ's compulsory jurisdiction in response to the *Paramilitary Activities* case, the court retained jurisdiction over the U.S. in lawsuits arising under the Vienna Convention on Consular Relations, which the U.S. ratified in 1969, because the U.S. had also ratified the VCCR's Optional Protocol Concerning the Compulsory Settlement of Disputes, thereby consenting to compulsory ICJ jurisdiction on disputes arising from the interpretation or application of the VCCR.[38]

In January 2003, the government of Mexico initiated a lawsuit against the United States at the ICJ pursuant to the VCCR's Optional Protocol: the *Case Concerning Avena and Other Mexican Nationals*. Mexico alleged that, in violation of the VCCR, Carlos Avena and 53 other Mexican nationals sitting on death row in the United States had been improperly denied access to the Mexican consulate when they were arrested.[39] The Mexican government demanded that the United States vacate the convictions and sentences of the 54 death row inmates and exclude any of their confessions from any subsequent legal proceedings because the Mexican nationals were not informed of their right to consular access.

The ICJ accepted jurisdiction, and the United States, because of its membership in the VCCR's Optional Protocol, was compelled to defend itself against Mexico's allegations. In March 2004, the ICJ ruled that the United States had violated the VCCR by failing to inform the Mexican nationals of their right to consular access at the time of their arrests and ordered the U.S. to review and reconsider their convictions and sentences.[40]

A year later, in response to the ICJ's judgment in *Avena*, U.S. Secretary of State Condoleezza Rice delivered a letter to U.N. Secretary-General Kofi Annan withdrawing the United States from the Optional Protocol to the Vienna Convention and thereby from the ICJ's compulsory jurisdiction on any future lawsuits initiated under the VCCR.[41]

By consenting to the compulsory jurisdiction of the ICJ, the United States had exposed itself to legally and politically embarrassing judgments on matters of national interest. In the *Paramilitary Activities* case, the ICJ disregarded a clear and unequivocal withdrawal from its jurisdiction and then passed judgment on the U.S. use of military force in support of the Contras against Nicaragua's Sandinista government. In the *Avena* case, the ICJ intervened in a highly controversial social issue—the death penalty—and again passed judgment on the United States.

If the United States accepts the compulsory jurisdiction of UNCLOS tribunals, it should expect to defend itself against similar lawsuits initiated by opportunistic foreign governments and suffer adverse judgments along the lines of the *Paramilitary Activities* and *Avena* cases.

31. George P. Shultz, letter to the U.N. Secretary-General, April 6, 1984. Secretary Shultz's letter withdrew U.S. consent to jurisdiction for a period of two years.
32. Thomas J. Pax, "Nicaragua v. United States in the International Court of Justice: Compulsory Jurisdiction or Just Compulsion?" *Boston College International and Comparative Law Review*, Vol. 8, No. 2 (1985).
33. *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States of America): Jurisdiction and Admissibility*, International Court of Justice, November 26, 1984, at *http://www.icj-cij.org/docket/files/70/6485.pdf* (February 9, 2012).
34. *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States of America): Merits, Judgment*, International Court of Justice, June 27, 1986, para. 27, at *http://www.icj-cij.org/docket/files/70/6503.pdf* (February 9, 2012).
35. George P. Shultz, letter to the U.N. Secretary-General, October 7, 1985, at *http://findarticles.com/p/articles/mi_m1079/is_v86/ai_4076208/* (February 9, 2012), and W. Michael Reisman, "Has the International Court Exceeded Its Jurisdiction?" *American Journal of International Law*, Vol. 80 (1986), p. 128.
36. *Military and Paramilitary Activities: Merits*, International Court of Justice, para. 292.
37. Sean D. Murphy, "The United States and the International Court of Justice: Coping with Antinomies," George Washington University Law School *Legal Studies Research Paper* No. 291, February 8, 2007, pp. 23–24, at *http://www.law.georgetown.edu/internationalhrcolloquium/documents/PICTProjectICJPaper.pdf* (February 9, 2012).
38. Vienna Convention on Consular Relations, April 24, 1963, at *http://untreaty.un.org/ilc/texts/instruments/english/conventions/9_2_1963.pdf* (February 9, 2012), and Optional Protocol Concerning the Compulsory Settlement of Disputes, April 24, 1963, Art. 1, at *http://untreaty.un.org/ilc/texts/instruments/english/conventions/9_2_1963_disputes.pdf* (February 9, 2012).
39. *Avena and Other Mexican Nationals (Mexico v. United States of America): Application Instituting Proceedings*, International Court of Justice, January 9, 2003, at *http://www.icj-cij.org/docket/files/128/1913.pdf* (February 9, 2012).
40. *Avena and Other Mexican Nationals (Mexico v. United States of America): Judgment*, International Court of Justice, March 31, 2004, at *http://www.icj-cij.org/docket/files/128/8188.pdf* (February 9, 2012).
41. Condoleezza Rice, letter to the U.N. Secretary-General, March 7, 2005.

Part II
Exposure to Environmental Lawsuits Under UNCLOS

When U.S. Secretary of State Warren Christopher submitted UNCLOS to President Bill Clinton for transmittal to the Senate in 1994, he characterized it as "the strongest comprehensive environmental treaty now in existence or likely to emerge for quite some time." Christopher further declared that the convention "creates a positive and unprecedented regime for marine environmental protection that will compel parties to come together to address issues of common and pressing concern."[42] Indeed, UNCLOS is widely considered to be a cornerstone of modern international environmental law.[43]

UNCLOS's provisions for protecting the marine environment are stunning in their breadth and depth. Its definition of "pollution of the marine environment" appears to ban any activity that could have even a minimal environmental impact on the world's oceans:

> "[P]ollution of the marine environment" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.[44]

UNCLOS dedicates an entire section, Part XII, to "Protection and Preservation of the Marine Environment." Under Part XII, members of the convention must "adopt laws and regulations" to prevent pollution of the marine environment from land-based sources (e.g., rivers, estuaries, and pipelines); activities on the seabed subject to their jurisdiction (e.g., the continental shelf); and activities in the deep seabed and even from pollution emanating through the atmosphere.[45]

In a provision titled "Responsibility and liability," UNCLOS makes clear that states parties will be held legally responsible for any breach of their environmental obligations: "States are responsible for the fulfilment of their international obligations concerning the protection and preservation of the marine environment. *They shall be liable in accordance with international law.*"[46]

U.S. accession to the convention would provide an opportunity and legal forum for other UNCLOS members to initiate lawsuits against the U.S. challenging the adequacy of its efforts to protect the marine environment. Although current U.S. law may satisfy many of the general environmental obligations set forth in Part XII,[47] the U.S. might nevertheless be forced to defend itself in a costly and politically embarrassing lawsuit challenging the sufficiency and enforcement of U.S. domestic environmental laws and regulations.

The *MOX Plant* Case

In October 2001, the Republic of Ireland initiated one such lawsuit, the *MOX Plant* case, at the Permanent Court of Arbitration against the United Kingdom pursuant to Annex VII of UNCLOS. Ireland alleged that the U.K. violated its legal obligations under the convention by commissioning a mixed oxide (MOX) fuel plant at a nuclear reprocessing site in Cumbria, England, located 114 miles from the coast of Ireland across the Irish Sea. Ireland had also initiated another lawsuit against the U.K. in June 2001 under the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention).[48]

In its UNCLOS lawsuit, Ireland claimed that the U.K. had violated Articles 123 and 197 of the convention by failing to "provide Ireland with adequate information of the environmental consequences arising from the MOX project" and by failing to "carry out a proper assessment of the likely impact of the MOX development upon the marine environment of the Irish Sea."[49] Ireland also accused the U.K. of violating at least nine other UNCLOS articles, including provisions prohibiting pollution from land-based sources, by failing to take a "precautionary approach" to protecting the marine environment.

Ireland initiated its lawsuit despite the fact that permission to build the MOX plant had been granted by the relevant U.K. authorities and the European Commission after environmental impact assessments and cost-benefit analyses had been conducted and approved at both the domestic and international levels.[50]

In November 2001, in conjunction with initiating Annex VII arbitration, Ireland requested injunctive relief ("provisional measures") from the International Tribunal for the Law of the Sea. Ireland requested that ITLOS order the U.K., *inter alia*, to "immediately suspend the authorisation of the MOX plant" and "take such other measures as are necessary to prevent with immediate effect the operation of the MOX plant."[51]

At hearings on Ireland's request for provisional measures, the United Kingdom contended that ITLOS lacked jurisdiction to hear the case because an OSPAR tribunal was already litigating the matter and because the case should have been initiated in the European Court of Justice (ECJ) pursuant to the Treaty Establishing the European Community.[52] ITLOS overruled the U.K.'s jurisdictional objections and ordered that the Annex VII tribunal had jurisdiction over the lawsuit because the dispute "concerns the interpretation or application" of UNCLOS. Similar to the ICJ's ruling in the *Paramilitary Activities* case, ITLOS judged that the Annex VII tribunal had jurisdiction over the lawsuit, and its judgment was final and not subject to appeal.

ITLOS also ordered provisional measures that required Ireland and the U.K. to cooperate with one another, exchange information about the environmental consequences of commissioning the MOX plant, monitor risks for the Irish Sea caused by the plant's operations, and devise appropriate measures to prevent pollution caused by the plant. In light of assurances from the U.K. that there would be no marine transports of radioactive materials to or from the MOX plant until the summer of 2002, ITLOS did not order that operations at the plant be suspended.[53]

Ireland thereafter pursued its case through the Annex VII arbitration proceeding, and hearings were held over two weeks in June 2003 at the Permanent Court of Arbitration.[54] However, the arbitral tribunal never ruled on the merits of the case, and the proceedings were

42. *United Nations Convention on the Law of the Sea, with Annexes, and Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea, with Annex*, Treaty Doc. 103-39, 103rd Cong., 2nd Sess., October 7, 1994, pp. vi–vii.
43. Patricia W. Birnie and Alan E. Boyle, *International Law & the Environment*, 2nd ed. (New York: Oxford University Press Inc., 2002).
44. UNCLOS, Art. 1(4).
45. *Ibid.*, Arts. 207, 208, 209, and 212.
46. *Ibid.*, Art. 235(1) (emphasis added).
47. For example, see the National Environmental Policy Act (NEPA); Clean Air Act; Federal Water Pollution Control Act (Clean Water Act); Toxic Substances Control Act (TSCA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Ocean Dumping Ban Act; Deepwater Port Act; Rivers and Harbors Act; Coastal Zone Management Act; Outer Continental Shelf Lands Act (OCSLA); Fishery Conservation and Management Act (Magnuson-Stevens Act); Resource Conservation and Recovery Act (RCRA); Marine Mammal Protection Act (MMPA); Endangered Species Act; and National Marine Sanctuaries Act.

BACKGROUNDER | NO. 2660
MARCH 12, 2012

48. Daniel Bodansky, "The OSPAR Arbitration of the MOX Plant Dispute," University of Georgia *Research Paper Series* No. 08-002, January 2008, and Permanent Court of Arbitration, "Ireland v. United Kingdom ('OSPAR' Arbitration)," website, July 2, 2003, at *http://www.pca-cpa.org/showpage.asp?pag_id=1158* (February 9, 2012).
49. *MOX Plant, International Movements of Radioactive Materials, and the Protection of the Marine Environment of the Irish Sea (Ireland v. United Kingdom): Memorial of Ireland*, International Tribunal for the Law of the Sea, July 26, 2002, Vol. I, pp. 3–4, at *http://www.pca-cpa.org/upload/files/Ireland%20Memorial%20Part%20I.pdf* (February 9, 2012).
50. Bodansky, "The OSPAR Arbitration of the MOX Plant Dispute," pp. 4–7.
51. *MOX Plant, International Movements of Radioactive Materials, and the Protection of the Marine Environment of the Irish Sea (Ireland v. United Kingdom): Request for Provisional Measures and Statement of the Case of Ireland*, International Tribunal for the Law of the Sea, November 9, 2001, p. 67, at *http://www.itlos.org/fileadmin/itlos/documents/cases/case_no_10/request_ireland_e.pdf* (February 9, 2012).
52. *MOX Plant, International Movements of Radioactive Materials, and the Protection of the Marine Environment of the Irish Sea (Ireland v. United Kingdom): Written Response of the United Kingdom*, International Tribunal for the Law of the Sea, November 15, 2001, at *http://www.itlos.org/fileadmin/itlos/documents/cases/case_no_10/response_uk_e.pdf* (February 9, 2012), and UNCLOS, Art. 282.
53. *MOX Plant Case (Ireland v. United Kingdom): Order*, International Tribunal for the Law of the Sea, December 3, 2001, at *http://www.itlos.org/filecadmin/itlos/documents/cases/case_no_10/Order.03.12.01.E.pdf* (February 10, 2012).
54. Permanent Court of Arbitration, "Ireland v. United Kingdom ('OSPAR' Arbitration)."

suspended because the European Commission, apparently agreeing with the U.K.'s jurisdictional objections, initiated a lawsuit against Ireland in the ECJ claiming that Ireland should have brought its suit in the ECJ and not in an UNCLOS tribunal.[55]

In June 2008, at the request of Ireland, the Annex VII tribunal terminated the proceedings in the *MOX Plant* case. To date, no tribunal has passed judgment on whether the operations of the MOX plant actually caused any harm to Ireland or the Irish Sea or violated the U.K.'s obligations under UNCLOS.[56]

In sum, despite rigorous environmental vetting of the MOX plant by U.K. officials and the approval of the European Commission, Ireland prosecuted a highly costly but ultimately unsuccessful lawsuit against the U.K. in an Annex VII tribunal and sought provisional measures at ITLOS, but the case was ultimately dismissed due to a jurisdictional squabble between Ireland and the European Commission.

By joining UNCLOS, the United States would open itself up to baseless and costly lawsuits like the *MOX Plant* case. Like the U.K., the United States would be responsible for fulfilling its international obligations to protect and preserve the marine environment in proximity to other UNCLOS members, such as the Bahamas, Cuba, and Russia. For example, the United States could be exposed to environmental lawsuits for allegedly polluting the Gulf of Mexico, the Straits of Florida, or the Bering Sea. As illustrated by the *MOX Plant* case, even a body of water more than 100 miles wide could not prevent the U.K. from being sued by Ireland for alleged environmental degradation.

DESPITE RIGOROUS ENVIRONMENTAL VETTING OF THE MOX PLANT BY U.K. OFFICIALS AND THE APPROVAL OF THE EUROPEAN COMMISSION, IRELAND PROSECUTED A HIGHLY COSTLY BUT ULTIMATELY UNSUCCESSFUL LAWSUIT AGAINST THE U.K. IN AN ANNEX VII TRIBUNAL.

U.S. accession to the convention would also give rise to a greater threat—a lawsuit brought against the U.S. for contributing to global climate change.

The Legal Basis for a Climate Change Lawsuit

A widely accepted principle of international law known as the "no-harm rule" obligates a nation to use its territory in such a manner that injury is not caused to persons or property located in another nation. In the context of environmental protection, the principle prohibits a nation from allowing pollution to escape its territory and damage another nation's air, land, water, ecosystem, or living resources or the health of its inhabitants.[57] Ironically, the no-harm rule, which would constitute the legal basis of a climate change claim against the United States, has its origins in the landmark *Trail Smelter* dispute between the United States and Canada in 1941.

***Trail Smelter* and the No-Harm Rule.** The *Trail Smelter* case involved damages to land and livestock located in the State of Washington, allegedly caused by sulfur dioxide fumes discharged from a lead smelter operated by the Consolidated Mining and Smelting Company, located across the international border in Trail, British Columbia.[58] Since no treaty existed to address or resolve the dispute, Canada and the United States adopted a special bilateral convention in 1935 that established an arbitral tribunal for the specific purpose of determining whether Canada was liable for the damage caused by the pollution and, if so, the legal relief to which the United States was entitled.[59]

In 1938, after lengthy proceedings, the arbitral tribunal issued a preliminary judgment ordering the smelter to operate at a reduced level so that elaborate measurements of emissions, air flow, and weather could be made before a final disposition of the case. The tribunal appointed two scientists as technical consultants to conduct experiments and make meteorological observations during the crop-growing seasons of 1938–1940.

The technical consultants reported regularly to the tribunal and "were empowered to require regular reports from the Trail Smelter as to the methods of operation of its plant and the latter was to conduct its smelting operations in conformity with the directions of the Technical Consultants and of the Tribunal."[60] The consultants conducted extensive scientific experiments for three years. In 1941, based on these experiments, the tribunal imposed a strict, comprehensive "regime" on the smelter's future operations, including restrictions on the "hourly permissible emission of sulphur dioxide."[61]

The tribunal ruled that Canada was "responsible in international law for the conduct of the Trail Smelter" and that it had a duty to conform the conduct of the smelter with Canada's obligations under the law. In reaching that decision, the tribunal pronounced its legal rationale:

> Under the principles of international law ... no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.[62]

That principle—the no-harm rule—is the legacy of the *Trail Smelter* case.

From *Trail Smelter* to UNCLOS. The no-harm rule is now widely accepted as the foundation of the international law prohibiting transboundary air pollution.[63] The 1965 *Restatement of the Law, Second, of the Foreign Relations Law of the United States* cited *Trail Smelter* for the principle "that a state may be held responsible under international law for damage which it causes in the territory of another state." By the time that the current *Restatement* was published in 1987, the no-harm rule was defined in explicitly environmental terms:

> A state is obligated to take such measures as may be necessary, to the extent practicable under the circumstances, to ensure that activities within its jurisdiction or control...are conducted so as not to cause significant injury to the environment of another state or of areas beyond the limits of national jurisdiction.[64]

The current *Restatement* adopts other aspects of the *Trail Smelter* judgment, including potential remedies for transboundary pollution such as the reduction or termination of activities "threatening or causing the violation" and the payment of reparations.[65]

The no-harm rule has been "internationalized" in various international declarations.[66] For example, it was adopted at the United Nations' first major environmental conference, the U.N. Conference on the Human Environment (Stockholm Conference) in June 1972. At the conclusion of the conference, the assembled nations, including the United States, adopted a Declaration of Principles (the Stockholm

55. *European Commission v. Ireland*, Case C-459/03, European Court of Justice, May 30, 2006, and Nikolaos Lavranos, "The Epilogue in the MOX Plant Dispute: An End Without Findings," *European Energy and Environmental Law Review*, Vol. 18, No. 3 (June 2009), p. 180, at *http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1429909* (February 10, 2012).
56. In August 2011, the U.K. Nuclear Decommissioning Authority announced the imminent closure of the MOX fuel plant in the wake of Japan's earthquake and its impact on the Fukushima nuclear plant. The Japanese nuclear industry and the Fukushima reactor in particular were the primary consumers of the reprocessed fuel produced at the MOX plant. Fiona Harvey, "Sellafield Mox Nuclear Fuel Plant to Close," *The Guardian*, August 3, 2011, at *http://www.guardian.co.uk/environment/2011/aug/03/sellafield-mox-plant-close* (February 10, 2012), and Rowena Mason, "Failing Sellafield Fuel Plant Shuts After Losing Japan Orders," *The Telegraph*, August 4, 2011, at *http://www.telegraph.co.uk/finance/newsbysector/energy/8680072/Failing-Sellafield-fuel-plant-shuts-after-losing-Japan-orders.html* (February 10, 2012).
57. American Law Institute, *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, Vol. 2 (St. Paul, Minn.: American Law Institute Publishers, 1987), pp. 99–100. The "no-harm rule" is related to the common law maxim of nuisance, *sic utere tuo ut alienum non laedas* ("So use your own as not to injure another's property").
58. *Trail Smelter Case (U.S. v. Canada)*, April 16, 1938, and March 11, 1941, in United Nations, *Reports of International Arbitral Awards*, Vol. III (2006), pp. 1905–1982, at *http://untreaty.un.org/cod/riaa/cases/vol_III/1905-1982.pdf* (February 10, 2012).
59. Convention Between the United States of America and the Dominion of Canada, Signed at Ottawa, April 15, 1935.
60. *Trail Smelter Case*, pp. 1965–1967, and Alfred P. Rubin, "Pollution by Analogy: The Trail Smelter Arbitration," *Oregon Law Review*, Vol. 50, No. 3 (Spring 1971), p. 262.
61. *Trail Smelter Case*, pp. 1974–1978.
62. *Ibid.*, p. 1965.
63. For example, see Rubin, "Pollution by Analogy," p. 272.
64. *Restatement of the Law, Third*, § 601(1)(b).
65. *Ibid.*, § 602(1).
66. Durwood Zaelke and James Cameron, "Global Warming and Climate Change—An Overview of the International Legal Process," *American University International Law Review*, Vol. 5, No. 2 (1990), pp. 263–265, at *http://digitalcommons.wcl.american.edu/auilr/vol5/iss2/4/* (February 10, 2012).

Declaration) that explicitly recognized the "right to a healthy environment." Principle 21 of that declaration affirms the no-harm rule:

> States have, in accordance with the Charter of the United Nations and the principles of international law ... the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.[67]

The language of Principle 21 was subsequently echoed in resolutions adopted by the U.N. General Assembly in the 1970s, including the 1974 Charter of Economic Rights and Duties of States.[68]

By the time that UNCLOS was adopted in 1982, the no-harm rule was a widely recognized principle in the international environmental lexicon and was considered to reflect customary international law, which is binding on all nations.[69] The no-harm rule articulated in the *Trail Smelter* case, the *Restatement*, the Stockholm Declaration, and various other international pronouncements is restated in Article 194 of UNCLOS:

> States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention.[70]

Accession to UNCLOS would obligate the United States to affirm and adopt the no-harm rule, specifically within the context of the marine environment. Accession to the convention also would commit the U.S. to "take all measures ... necessary to prevent, reduce and control" the "release of toxic, harmful or noxious substances ... from or through the atmosphere."[71]

Regrettably, the no-harm rule's internationalization has transformed it over time from a sensible principle to regulate conduct between two neighboring countries into a seemingly unconstrained doctrine to impute global liability for alleged acts of atmospheric pollution. Contemporary legal academics take a breathtakingly expansive view of the rule: "While *Trail Smelter* focused on pollution of U.S. territory directly traceable to a Canadian smelter, the no-harm rule now extends to relations between all States, however distant and has also extended its scope from territories of States to common spaces and the environment as a whole."[72] The no-harm rule is cited in legal and environmental journals as a basis for establishing state responsibility for climate change damages.[73]

Acceding to UNCLOS would commit the U.S. to controlling its pollutants, including alleged "harmful substances" such as carbon emissions and other GHG, in such a way that they do not spread beyond U.S. territory and negatively impact the marine environment. The U.S. would also be obligated to adopt laws and regulations to prevent the pollution of the marine environment from the atmosphere and could be liable under international law for failing to enact legislation necessary to prevent atmospheric pollution. Such domestic laws and regulations "shall" take into account "internationally agreed rules, standards and recommended practices and procedures."[74]

67. Declaration of the United Nations Conference on the Human Environment, June 16, 1972, at *http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=97&ArticleID=1503&l=en* (February 10, 2012).
68. U.N. General Assembly, "International Responsibility of States in Regard to the Environment," December 15, 1972, at *http://www.unhcr.org/refworld/docid/3b00effa71.html* (February 10, 2012), and "Charter of Economic Rights and Duties of States," Resolution 3281 (XXIX), Art. 30, December 12, 1974, at *http://www.un-documents.net/a29r3281.htm* (February 10, 2012).
69. For example, see Roda Verheyen, *Climate Change Damage and International Law: Prevention Duties and State Responsibility* (Leiden, Netherlands: Martinus Nijhoff Publishers, 2005), pp. 145-149, and Rio Declaration on Environment and Development, Principle 2, June 1992, at *http://www.unep.org/Documents.Multilingual/Default.asp?documentid=78&articleid=1163* (February 10, 2012). "The existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment." *Legality of the Threat or Use of Nuclear Weapons: Advisory Opinion*, International Court of Justice, para. 29, July 8, 1996, at *http://www.icj-cij.org/docket/files/95/7495.pdf* (February 10, 2012).
70. UNCLOS, Art. 194(2).
71. *Ibid.*, Art. 194(1) and (3)(a).
72. Verheyen, *Climate Change Damage and International Law*, p. 149.
73. Christina Voigt, "State Responsibility for Climate Change Damages," *Nordic Journal of International Law*, Vol. 77, Nos. 1-2 (2008), pp. 1-22, at *http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1145199* (February 10, 2012); Zaelke and Cameron, "Global Warming and Climate Change," pp. 263-265; and Christophe Schwarte and Ruth Byrne, "International Climate Change Litigation and the Negotiation Process," Foundation for International Environmental Law and Development, October 2010, pp. 6-7, at *http://www.field.org.uk/files/FIELD_cclit_long_Oct.pdf* (February 10, 2012).

BACKGROUNDER | NO. 2660
MARCH 12, 2012

THE NO-HARM RULE'S INTERNATIONALIZATION HAS TRANSFORMED IT OVER TIME FROM A SENSIBLE PRINCIPLE TO REGULATE CONDUCT BETWEEN TWO NEIGHBORING COUNTRIES INTO A SEEMINGLY UNCONSTRAINED DOCTRINE TO IMPUTE GLOBAL LIABILITY FOR ALLEGED ACTS OF ATMOSPHERIC POLLUTION.

UNCLOS contemplates a central role for "competent international organizations" and "diplomatic conferences" in establishing "global and regional rules, standards and recommended practices and procedures" to prevent atmospheric pollution.[75] As to which diplomatic conferences and global standards may be relevant to establishing U.S. obligations under the convention, the 1992 U.N. Conference on Environment and Development ("Earth Summit") and the U.N. Framework Convention on Climate Change (UNFCCC) are instructive.

U.S. Commitments Under UNFCCC. The United States signed the U.N. Framework Convention on Climate Change in June 1992 at the U.N. Conference on Environment and Development. The U.S. ratified the convention in October 1992 and is therefore bound by international law to adhere to its terms.[76]

With 195 states parties, the UNFCCC has been universally adopted and therefore is widely considered to reflect internationally agreed rules and standards. One such rule—the no-harm rule—features prominently in the text of the UNFCCC: "States have, in accordance with the Charter of the United Nations and the principles of international law ... the responsibility to ensure that activities within their jurisdiction and control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."[77]

By ratifying the UNFCCC, the United States committed to achieving the convention's central objective: "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." Although the UNFCCC does not include binding emissions targets like those included in the Kyoto Protocol, U.S. ratification commits it to "adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs."[78] Potential climate change claimants will undoubtedly cite these commitments as part of its legal basis for a lawsuit against the United States.[79]

In sum, the *Trail Smelter* case's internationalized no-harm rule, combined with UNCLOS's numerous other environmental provisions and U.S. commitments under the UNFCCC, establishes a plausible legal basis to sue the United States in an UNCLOS tribunal for allegedly contributing to global climate change due to its transboundary atmospheric pollution. In the words of one Canadian law professor, "the provisions of UNCLOS, particularly Part XII, are sufficiently broad to allow for a state to claim that a failure by another state to mitigate climate change violates its obligations to preserve and protect the marine environment."[80]

74. UNCLOS, Art. 212(1), and *Restatement of the Law, Third*, § 601, cmt. d.
75. UNCLOS, Art. 212(3).
76. United Nations Framework Convention on Climate Change (UNFCCC), Art. 14, May 9, 1992, at *http://unfccc.int/key_documents/the_convention/items/2853.php* (February 10, 2012). Unlike UNCLOS, the UNFCCC does not require its members to submit to compulsory dispute resolution. Parties to the UNFCCC may submit a declaration accepting the jurisdiction of the ICJ or an arbitral tribunal, but to date only the Netherlands and the Solomon Islands have done so.
77. UNFCCC, preamble. A general rule of treaty interpretation is that treaties shall be interpreted in accordance with their context, which shall comprise, *inter alia*, the preamble. Vienna Convention on the Law of Treaties, May 22, 1969, Article 31(2). The no-harm rule was also adopted at the Earth Summit as Principle 2 of the Rio Declaration on Environment and Development.
78. UNFCCC, Art. 2, 4(2)(a).
79. Michael G. Faure and Andre Nollkaemper, "International Liability as an Instrument to Prevent and Compensate for Climate Change," *Stanford Journal of International Law*, Vol. 26A (2007), pp. 142-143, at *http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1086281##* (February 10, 2012).
80. Meinhard Doelle, "Climate Change and the Use of the Dispute Settlement Regime of the Law of the Sea Convention," *Ocean Development & International Law*, Vol. 37, Nos. 3-4 (2005), p. 324.

Part III
Tuvalu, Bangladesh, et al. v. United States

The possibility that a small island state, or another injured party, would bring a liability claim against states responsible for climate change no longer is a topic for fiction or a theoretical prospect. There is a rise in plans for litigation worldwide for consequences of global warming.

—International law professors Michael Faure and Andre Nollkaemper[81]

Numerous nations qualify as potential claimants in a lawsuit against the United States in an UNCLOS tribunal, including virtually every developing nation in the world that claims to have experienced a negative impact from climate change. The highly controversial and error-prone U.N. Intergovernmental Panel on Climate Change[82] has identified multiple negative impacts related to the world's oceans that are attributable to climate change, including sea-level rise, reduction in sea-ice cover, elevated sea surface temperatures, increased storm floods, coastal erosion, seawater intrusions into fresh surface and groundwater, and adverse impacts on marine fish and aquaculture.[83]

Some climate scientists claim that these changes in the oceans are caused by GHG emissions and are responsible for damaging the environments of coastal and small island states around the world.

- Rising ocean temperatures will negatively affect coral reefs in the Pacific and Indian Oceans as well as the Caribbean Sea, leading to the loss of 50 percent of the subsistence and artisanal fisheries due to coral bleaching.
- Rising sea levels will destroy vast areas of mangrove trees on the world's tropical coastlines and wipe out critical beach habitats, such as those of sea turtles, due to storm surges and coastal erosion.
- Increases in ocean acidification due to increased carbon dioxide emissions will damage coral reefs in the Red Sea, the west central Pacific, and the Caribbean.[84]

Because these alleged climate change phenomena are global in effect, so is the potential pool of litigants in an UNCLOS lawsuit.

Perhaps the first treatise that identified potential climate change claimants and outlined the contours of an international climate change lawsuit was written in 1990 by law professors Durwood Zaelke and James Cameron.[85] Zaelke and Cameron projected that the nations most likely to bring a climate change lawsuit were low-lying islands negatively affected by the sea-level rise allegedly caused by global warming, such as Kiribati, Maldives, the Marshall Islands, and Tuvalu.

According to Zaelke and Cameron, a rise in sea level would seriously damage these island nations, causing the inundation of wetlands and lowlands, erosion of shorelines, increased coastal flooding, salinization of aquifers, and increased height and frequency of waves. The rise in sea level "combined with the increased intensity and frequency of storms, could cause the loss of lives, property, livelihood, and, in some cases, the entire territory of a state, creating stateless environmental refugees."[86]

IN 2002, THE PRIME MINISTER OF TUVALU STATED HIS INTENTION TO INITIATE A CLIMATE CHANGE LAWSUIT AGAINST THE UNITED STATES BECAUSE OF ITS FAILURE TO ADOPT THE KYOTO PROTOCOL.

More than a decade after their treatise was published, one of Zaelke and Cameron's hypothetical claimants threatened to sue the United States for its alleged contribution to global climate change. Specifically, in 2002, the prime minister of Tuvalu, a Pacific island nation consisting of a chain of nine coral atolls, stated his intention to initiate a climate change lawsuit against the United States because of its failure to adopt the Kyoto Protocol. That year, at the World Summit for Sustainable Development held in Johannesburg, Tuvalu's government lobbied other small island nations to join them in such a suit at the International Court of Justice.[87]

Tuvalu and three other small Pacific island nations (Fiji, Kiribati, and Nauru) have contemplated such a lawsuit, as evidenced by their declarations upon signing the UNFCCC in 1992. Specifically, each of these nations submitted a declaration that preserved its right to seek legal redress for damages allegedly suffered as a result of climate change. For example, Fiji's UNFCCC declaration reads:

> The Government of Fiji declares its understanding that signature of the Convention shall, in no way, constitute a renunciation of any rights under international law concerning state responsibility for the adverse effects of climate change, and that no provisions in the Convention can be interpreted as derogating from the principles of general international law.[88]

In other words, these four nations took specific measures to ensure that signing the UNFCCC did not constitute a waiver of their rights to hold other nations responsible for damages allegedly caused by climate change.

Of course, Fiji, Kiribati, Nauru, and Tuvalu are not the only small island nations that qualify as potential climate change litigants. Many other small island states may also experience sea-level rise and other adverse impacts from climate change, as well as ocean acidification allegedly caused by an increase in carbon dioxide emissions. The Alliance of Small Island States, an intergovernmental body established in 1990 to address global warming and negotiate within the U.N. system, has 37 members, 36 of which are UNCLOS states parties.[89]

While small island states are among the most likely climate change claimants, there is no shortage of other nations that could bring a lawsuit against the United States if it accedes to UNCLOS. Low-lying coastal states would suffer from rising sea levels in the same manner as small island states. A rise in sea level of only one meter would allegedly destroy a large portion of Bangladesh, while a two-meter rise would flood Lagos, the capital of Nigeria, as well as 20 percent of the populated area of Egypt.[90] Such low-lying nations may also experience "extreme weather events" induced by climate change such as tropical cyclones of increased frequency and intensity.[91] Even some European nations will allegedly suffer from sea level rise, salt water infusions, and coastal erosion due to climate change.[92]

Potential climate change litigants are not limited to states that would suffer damages from a rise in sea levels. Landlocked nations in the Himalayan mountains may have a claim for climate change damages. For example, climate change is allegedly responsible for causing glaciers to retreat, adversely affecting nations such as Nepal, which is "highly dependent on the water from mountain runoff and on the electricity generated by these waters."[93]

81. Faure and Nollkaemper, "International Liability as an Instrument," pp. 124–125.
82. Eli Kintisch, "IPCC/Climategate Criticism Roundup," *Science*, February 15, 2010, at *http://news.sciencemag.org/scienceinsider/2010/02/an-overview-of-ipccclimategate-criticism.html* (February 13, 2012); Quirin Schiermeier, "IPCC Flooded by Criticism," *Nature*, February 2, 2010, at *http://www.nature.com/news/2010/100202/full/463596a.html* (February 13, 2012); and Minority Staff of the Committee on Environment and Public Works, U.S. Senate, *"Consensus" Exposed: The CRU Controversy*, February 2010, at *http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=7db3fbd8-f1b4-4fdf-bd15-12b7df1a0b63* (February 13, 2012).
83. Doelle, "Climate Change and the Use of the Dispute Settlement Regime," p. 320.
84. William C. G. Burns, "Potential Causes of Action for Climate Change Damages in International Fora: The Law of the Sea Convention," *International Journal of Sustainable Development Law & Policy*, Vol. 2, No. 1 (2006), pp. 39–44, at *http://papers.ssrn.com/sol3/papers.cfm?abstract_id=930438* (February 13, 2012).
85. Zaelke and Cameron, "Global Warming and Climate Change."
86. *Ibid.*, pp. 252–262.
87. Reuters, "Tiny Tuvalu Sues United States over Rising Sea Level," Tuvalu Online, August 29, 2002, at *http://www.tuvaluislands.com/news/archived/2002/2002-08-29.htm* (February 13, 2012), and Kalinga Seneviratne, "Tiny Tuvalu Steps Up Threat to Sue Australia, U.S.," Inter Press Service, September 5, 2002, at *http://www.commondreams.org/headlines02/0905-02.htm* (February 13, 2012).
88. UNFCCC, "Declarations," at *http://treaties.un.org/pages/ViewDetailsIII.aspx?&src=TREATY&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&lang=en#EndDec* (February 13, 2012). Papua New Guinea has also submitted a declaration similar to those made by Fiji, Kiribati, Nauru, and Tuvalu.
89. Alliance of Small Island States, website, at *http://www.sidsnet.org/aosis/members.html* (February 13, 2012). The 36 AOSIS members that are also UNCLOS states parties are Antigua and Barbuda, Bahamas, Barbados, Belize, Cape Verde, Comoros, Cuba, Dominica, Dominican Republic, Fiji, Federated States of Micronesia, Grenada, Guinea-Bissau, Guyana, Haiti, Jamaica, Kiribati, Maldives, Marshall Islands, Mauritius, Nauru, Palau, Papua New Guinea, Samoa, Singapore, Seychelles, Sao Tomé and Príncipe, Solomon Islands, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Tonga, Trinidad and Tobago, Tuvalu, and Vanuatu.
90. Zaelke and Cameron, "Global Warming and Climate Change," p. 259. Bangladesh, Nigeria, and Egypt are UNCLOS states parties.
91. Verheyen, *Climate Change Damage and International Law*, p. 280.
92. European Commission, "Sea-Level Rise," at *http://ec.europa.eu/clima/sites/change/how_will_we_be_affected/sea_level_rise_en.htm* (February 13, 2012).
93. Verheyen, *Climate Change Damage and International Law*, pp. 280–281. Nepal is an UNCLOS state party.

From coral atolls in the Pacific Ocean to low-lying coastal states to landlocked Himalayan nations, as long as a country is an UNCLOS state party and can demonstrate that it has suffered adverse effects from climate change, it qualifies as a potential litigant in the convention's compulsory dispute resolution tribunals. Scores of such nations are positioned to initiate climate change lawsuits against the United States if it accedes to the convention.

The "Most Logical Target"

There is consensus within the international environmental and legal community that the United States is the best target for an international climate change lawsuit.[94] One law professor has characterized the United States as a likely target because it is a developed nation with high per capita and total GHG emissions, adding that the "higher the overall historic and present contribution to global emissions by the defending party, arguably the better the chance of a successful outcome."[95]

Over the past decade, since Tuvalu's 2002 threat to sue the United States, the drumbeat to sue the U.S. has increased steadily, and UNCLOS tribunals have featured prominently among the potential forums for such a case.

- In 2003, the Washington, D.C.-based Environmental Law Institute published "The Legal Option: Suing the United States in International Forums for Global Warming Emissions" by law professor Andrew L. Strauss. According to Strauss, the U.S. rejection of the Kyoto Protocol "makes the United States the most logical first country target of a global warming lawsuit in an international forum." The article proposed various forums for initiating a lawsuit against the United States, including UNCLOS's compulsory dispute resolution mechanisms, but Strauss lamented, "As the United States has not adhered to the Convention, however, a suit could not be brought directly against it under the Convention."[96]
- In her 2005 book *Climate Change Damage and International Law*, law professor Roda Verheyen posed a comprehensive hypothetical case that could be brought against the United States for its alleged responsibility in melting glaciers and causing glacial outburst floods in the Himalayas. The claim would include compensation for flood damages as well as additional funds to monitor glacial lakes and prevent future floods. Verheyen based liability for such damages on the U.S.'s alleged violation of its commitments under the UNFCCC and failure to ratify the Kyoto Protocol.[97]
- In December 2005, the Inuit Circumpolar Council, an international nongovernmental organization representing Inuit peoples in Alaska, Canada, Greenland, and Russia, filed a petition against the United States at the Inter-American Commission on Human Rights (IACHR), a human rights body operating within the Organization of American States. The petition requested that the IACHR direct the United States to adopt mandatory measures to limit its emissions and to provide assistance to help the Inuit adapt to the impacts of climate change.[98]
- In 2006, the *International Journal of Sustainable Development Law & Policy* published "Potential Causes of Action for Climate Change Damages in International Fora: The Law of the Sea Convention," in which law professor William C. G. Burns cited UNCLOS's marine pollution provisions as a basis for a cause of action for rising sea levels and changes in ocean acidity. Burns named the United States as "the most logical State to bring an action against given its status as the leading producer of anthropogenic greenhouse gas emissions, as well as its failure to ratify Kyoto," but noted that the U.S. "is not currently a Party to the Convention."[99]
- In a September 2011 speech to the U.N. General Assembly, Johnson Toribiong, president of the small Pacific island nation of Palau, called upon the General Assembly to seek an advisory opinion from the International Court of Justice "on the responsibilities of States under international law to ensure that activities carried out under their jurisdiction or control that emit greenhouse gases do not damage other States." President Toribiong cited Article 194 of UNCLOS (the no-harm rule) in support of his statement.[100]

In sum, the United States is undoubtedly at the top of the list of potential defendants against climate change suits brought by environmental lawyers and academics, native peoples such as the Inuit, and UNCLOS states parties such as Tuvalu. Moreover, UNCLOS's compulsory dispute resolution tribunals are regularly cited as viable international forums for bringing an international climate change action against the United States.[101]

Thus far, the United States has denied potential climate change claimants their day in international court by withdrawing from compulsory ICJ jurisdiction and by refusing to accede to UNCLOS. Clearly, accession to the convention would open the door to these litigants as well as to their advocates in the international academic, environmental, and nongovernmental organization communities.

THUS FAR, THE UNITED STATES HAS DENIED POTENTIAL CLIMATE CHANGE CLAIMANTS THEIR DAY IN INTERNATIONAL COURT BY WITHDRAWING FROM COMPULSORY ICJ JURISDICTION AND BY REFUSING TO ACCEDE TO UNCLOS.

Environmental NGO Enablers

Some environmental activist groups have already demonstrated a propensity for supporting, participating in, and in some cases actually filing climate change lawsuits against U.S. targets, as well as taking other legal actions relating to the marine environment in U.S. courts[102] and international forums.

- In 2002, Greenpeace, Friends of the Earth, and the city of Boulder, Colorado, filed a climate change lawsuit against the Export–Import Bank of the United States and the Overseas Private Investment Corporation, alleging that they improperly financed fossil fuel projects in foreign nations without assessing whether the projects contributed to global warming or harmed the U.S. environment in violation of the National Environmental Policy Act.[103]
- In 2004, environmental activists including the Natural Resources Defense Council, Greenpeace, and the Pew Environment Group formed the Deep Sea Conservation Coalition, which urges UNCLOS member states to "initiat[e] legal action through the International Tribunal for the Law of the Sea (ITLOS) against States that continue to allow deep-sea [bottom] fishing on the high seas in contravention of the provisions of [U.N. General Assembly] resolutions."[104]

94. Accession to UNCLOS may also expose U.S. persons and businesses to climate change and other environmental lawsuits in U.S. courts. Pursuant to Article 235(2), states parties to the convention "shall ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction." See also *Restatement of the Law, Third*, § 602(2). The viability and potential consequences of such domestic lawsuits are outside the scope of this paper.
95. Doelle, "Climate Change and the Use of the Dispute Settlement Regime," p. 332. Doelle also identified Canada and Australia as potential defendants in a climate change lawsuit.
96. Andrew L. Strauss, "The Legal Option: Suing the United States in International Forums for Global Warming Emissions," *Environmental Law Reporter*, Vol. 33, No. 3 (2003), pp. 10185-10188, at *http://www.climatelaw.org/articles/strauss_elr_article.pdf* (February 13, 2012).
97. Verheyen, *Climate Change Damage and International Law*, pp. 279–308.
98. Petition to the Inter-American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States, December 7, 2005, at *http://www.inuitcircumpolar.com/files/uploads/icc-files/FINALPetitionICC.pdf* (February 13, 2012), and Koivurova, "International Legal Avenues to Address the Plight of Victims of Climate Change," pp. 285–286. The IACHR dismissed the Inuits' petition in November 2006 because the petition failed to allege facts that would constitute a violation of human rights under the American Declaration of the Rights and Duties of Man.
99. Burns, "Potential Causes of Action for Climate Change Damages in International Fora," p. 44. See also William C. G. Burns and Hari M. Osofsky, eds., *Adjudicating Climate Change: State, National and International Approaches* (New York: Cambridge University Press, 2009).
100. Johnson Toribiong, statement to the U.N. General Assembly, 66th Regular Sess., September 22, 2011.
101. Doelle, "Climate Change and the Use of the Dispute Settlement Regime," pp. 327–331; Schwarte and Byrne, "International Climate Change Litigation and the Negotiation Process," pp. 19–20; and Jennifer Kilinski, "International Climate Change Liability: A Myth or a Reality?" *Journal of Transnational Law & Policy*, Vol. 18, No. 2 (Spring 2009), pp. 396–398.
102. Several major climate change lawsuits have been filed in U.S. courts during the past decade, including *Massachusetts, et al. v. U.S. Environmental Protection Agency* (D.C. Cir.); *Connecticut, et al. v. American Electric Power Company, Inc., et al.* (S.D. N.Y.); *Comer, et al. v. Nationwide Mutual Insurance Co., et al.* (S.D. Mass); and *Native Village of Kivalina v. ExxonMobil Corporation, et al.* (N.D. Cal.).
103. *Friends of the Earth, Inc., et al. v. Spinelli, et al.* (N.D. Cal.).
104. Deep Sea Conservation Coalition, "Call to Action," at *http://www.savethehighseas.org/calltoaction/* (February 13, 2012).

- In 2005, when the Inuit Circumpolar Council drafted its climate change petition accusing the United States of human rights violations, the council "received a great deal of assistance from environmental non-governmental organizations such as the Center for International Environmental Law and Earthjustice." The council also received assistance from academic specialists in "the field of indigenous peoples' human rights."[105]

- In 2010, Greenpeace International and the World Wide Fund for Nature intervened in ITLOS proceedings in connection with an advisory opinion concerning the responsibilities of UNCLOS states parties with respect to their activities in the deep seabed.[106]

- In 2011, Greenpeace and the te Whanau-a-Apanui tribe petitioned the government of New Zealand to revoke an oil exploration permit that had been awarded to Petrobras, a major Brazilian oil company. The petition claimed that New Zealand had failed to properly consider the environmental impact of the permit, in violation of customary international law and UNCLOS.[107]

Not surprisingly, major U.S. and international environmental activist groups and nongovernmental organizations strongly support U.S. accession to UNCLOS. Supporters of U.S. accession include the Defenders of Wildlife, the Environmental Defense Fund, Greenpeace, the International Union for Conservation of Nature, the Natural Resources Defense Council, the Nature Conservancy, the Ocean Conservancy, Oceana, and the World Wildlife Fund.[108]

These activists, bolstered by international environmental lawyers and academics, will undoubtedly support any climate change lawsuit brought against the United States by an UNCLOS state party. Such support could come in a number of forms, including fundraising, legal research, political advocacy and pressure within the U.S. and at international conferences, public relations campaign activities, letter-writing efforts, and online petitions.

Three Unpredictable "Swing" Votes

If the U.S. accedes to UNCLOS and a climate change lawsuit is brought against it, the case will most likely be litigated by an Annex VII arbitral tribunal.[109] It is also likely that a climate change claimant will seek "provisional measures" injunctive relief at ITLOS while the arbitral tribunal is being assembled.

Litigating a politically explosive climate change lawsuit in an Annex VII tribunal would create great uncertainty for the United States because of the manner in which the five-member tribunal is assembled. Under Annex VII, the U.S. and the opposing party would each select one of their nationals as the first two members of the tribunal, possibly from a list of maritime experts maintained by the U.N. Secretary-General. Thereafter, the two parties would jointly select the remaining three members, again possibly from the same list of experts. However, if the two parties were unable to agree on these three "swing vote" members, their selection would fall to the president of the International Tribunal for the Law of the Sea, who would select the three members from the list of experts at his complete discretion.[110]

Therein lies the great uncertainty and risk of litigating in an UNCLOS arbitral tribunal. Due to the potential legal, economic, and political consequences of a climate change lawsuit, there is a strong likelihood that the United States and a climate change claimant would not agree on the three "swing" members of an Annex VII tribunal. The U.S. would then be at the mercy of the ITLOS president, who would select those three members from a list of international experts who likely sympathize legally, ideologically, and politically with the aggrieved climate change claimant.

The current list of Annex VII arbitrators is populated with foreign nationals from countries that do not necessarily have the best interests of the United States at heart. For example, the current list includes the nationals of UNFCCC "non-Annex I" nations and other developing countries (Argentina, Brazil, Chile, Costa Rica, Indonesia, Mexico, Mongolia, Sri Lanka, and Trinidad and Tobago) that are likely to be sympathetic to the perceived plight of small island states and other developing countries. European Union countries with nationals on the current Annex VII arbitrator list (Austria, Cyprus, the Czech Republic, Estonia, Finland, France, Germany, Italy, the Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden, and the United Kingdom) are uniformly proponents of the theory of anthropogenic climate change. Still other countries represented on the list (Russia and Sudan) are nations that the U.S. would not consider reliable allies.[111]

In sum, by acceding to UNCLOS the United States would unnecessarily expose itself to baseless environmental lawsuits, including a claim that its GHG emissions have caused harm to other nations. Because of its membership in the convention, the U.S. could be compelled to appear before a tribunal to defend itself in any such lawsuit. International courts and tribunals, including those created by UNCLOS, have not hesitated to assert jurisdiction and pass judgment in controversial social, political, and environmental lawsuits. The judgment of an UNCLOS tribunal in a climate change lawsuit would be final, unappealable, and enforceable in the United States.

105. Koivurova, "International Legal Avenues to Address the Plight of Victims of Climate Change," pp. 286–287.

106. Jon M. Van Dyke, Duncan E. J. Currie, and Daniel Simons, "Memorial Filed on Behalf of Stichting Greenpeace Council (Greenpeace International) and the World Wide Fund for Nature," August 13, 2010, at *http://www.itlos.org/fileadmin/itlos/documents/cases/case_no_17/Statement_Greenpeace_WWF.pdf* (February 13, 2012).

107. Press release, "Greenpeace and te Whanau-ā-Apanui Unite to Legally Challenge Deep Sea Oil Permits," Greenpeace New Zealand, September 19, 2011, at *http://www.greenpeace.org/new-zealand/en/press/Greenpeace-and-te-Whnau—Apanui-unite-to-legally-challenge-deep-sea-oil-permits/* (February 13, 2012).

108. U.S. Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, "Supporters," at *http://www.state.gov/e/oes/lawofthesea/statements/index.htm* (February 13, 2012), and Greenpeace USA, "Stand Up for Ocean Wildlife," at *https://secure3.convio.net/gpeace/site/Advocacy?cmd=display&page=UserAction&id=661* (February 13, 2012).

109. Article 287 of UNCLOS permits member states to declare which tribunals they will submit to for dispute resolution. The Senate Committee on Foreign Relations included a declaration in its 2004 draft Resolution of Advice and Consent to Ratification that selected Annex VII tribunals for all general disputes and Annex VIII tribunals for disputes involving four categories of cases, including cases involving the protection and preservation of the marine environment. However, a climate change case would likely "default" to an Annex VII tribunal because the likely claimants have not submitted declarations under Article 287. UNCLOS, Art. 287(5).

110. UNCLOS, Annex VII, Arts. 2–3. UNCLOS states parties may nominate up to four experts to the list of potential tribunal members.

111. UNCLOS, "Notifications Made Under Article 2 of Annexes V and VII (List of Conciliators and Arbitrators)," at *http://treaties.un.org/pages/ViewDetailsIII.aspx?&src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&lang=en* (February 13, 2012); UNFCCC, Annex I; and Group of 77, "The Member States of the Group of 77," at *http://www.g77.org/doc/members.html* (February 13, 2012).

BACKGROUNDER | NO. 2660
MARCH 12, 2012

Part IV
The U.S. Should Avoid Unnecessary Legal and Political Exposure

If the United States acceded to UNCLOS and was sued for climate change damages, it would certainly defend itself vigorously. However, a review of the proceedings and judgments in the *Paramilitary Activities*, *Avena*, and *MOX Plant* cases shows that having strong jurisdictional and legal defenses does not necessarily carry the day. The United States ignores the lessons learned from those international lawsuits at its peril.

A Climate Change Regime for the U.S.

Unlike the U.S. legal system, which prohibits lawsuits that raise nonjusticiable political questions, international tribunals have not hesitated to accept jurisdiction in such cases and have issued judgments that have adversely affected U.S. national interests.

The ICJ's judgments in the *Paramilitary Activities* case, in which it condemned U.S. use of force in Nicaragua and ordered the payment of reparations, and the *Avena* case, in which it questioned the use of the death penalty in Texas and ordered additional legal reviews, prove that international courts will not hesitate to interfere in contentious social, military, and political matters. In the *MOX Plant* case, UNCLOS tribunals asserted jurisdiction over a major environmental dispute between Ireland and the United Kingdom.

Perhaps the greatest danger that the U.S. would face if it acceded to UNCLOS is a judgment that falls along the same lines as that imposed in the *Trail Smelter* case. That case involved a single smelting operation in Canada, yet the arbitral tribunal ordered intrusive studies and comprehensive, costly remedies.

PERHAPS THE GREATEST DANGER THAT THE U.S. WOULD FACE IF IT ACCEDED TO UNCLOS IS A JUDGMENT THAT FALLS ALONG THE SAME LINES AS THAT IMPOSED IN THE *TRAIL SMELTER* CASE.

The *Trail Smelter* tribunal ordered a complex, multiyear study of the fumes from the Canadian smelter. Scientists were hired to serve as technical consultants and to conduct wide-ranging experiments, as described in the tribunal's judgment:

> Through the authority vested in it by the Tribunal, this technical staff was enabled to study the influence of meteorological conditions on dispersion of the sulphurous gases emitted from the stacks of the smelter. This involved the establishment, operation, and maintenance of standard and newly designed meteorological instruments and of sulphur-dioxide recorders at carefully chosen localities in the United States and the Dominion of Canada, and the design and construction of portable instruments of various types for the observation of conditions at numerous surface locations in the Columbia River Valley and in the atmosphere over the valley. Observations on height, velocity, temperature, sulphur dioxide content, and other characteristics of the gas-carrying air currents, were made with the aid of captive balloons, pilot balloons and airplane flights.[112]

The results of these experiments, which were conducted over three years, were transmitted to the tribunal in a 374-page report, accompanied by "numerous scientific charts, graphs, and photographs."[113] Based on that report, the tribunal ordered that the smelter operation "shall be regulated" through a comprehensive "regime" to monitor and restrict its operations. The tribunal ordered the smelter to install meteorological instruments to measure and record wind direction and velocity on an hourly basis and a special "bridled cup turbulence indicator" to measure wind turbulence. The tribunal further ordered that atmospheric temperature and barometric pressure must also be measured and that sulfur dioxide concentrations be measured on a daily basis and reported to the U.S. and Canada on a monthly basis.[114]

Most apropos to a potential legal remedy for climate change damages, the *Trail Smelter* tribunal set maximum levels of "hourly permissible emission" of sulphur dioxide fumes from the smelter. One such restriction required the smelter to shut down or reduce its emissions during the growing season if the sulphur dioxide recorder located at Columbia Gardens (halfway between the smelter and the international boundary line) indicated the presence of 0.3 parts per million or more of sulphur dioxide emissions over two consecutive 20-minute periods.[115] The tribunal's regime included similarly detailed regulations for the nongrowing season:

> If the Columbia Gardens recorder indicates 0.5 part per million or more of sulphur dioxide for three consecutive twenty minute periods during the non-growing season and the wind direction is not favorable, emission shall be reduced by four tons of sulphur per hour or shut down completely when the turbulence is bad, until the recorder shows 0.2 part per million or less of sulphur dioxide for three consecutive twenty minute periods.[116]

As a consequence of the tribunal's comprehensive regulations, the smelter operation ultimately spent nearly $20 million (approximately $310 million in today's dollars) to reengineer the smelter to recover the pollutants and turn them into a marketable byproduct.[117]

If the United States received an adverse judgment in an UNCLOS climate change lawsuit, the tribunal could order remedies similar to those imposed by the *Trail Smelter* tribunal—a regime of regulations, compliance measures, and even reparations. In anthropogenic climate change parlance, such a regime would be akin to mitigation measures (i.e., actions to reduce the level of U.S. GHG emissions).

A comprehensive GHG mitigation regime imposed on the U.S. would seriously affect the American economy because carbon emissions and other GHG are produced throughout the United States by several significant sectors of the economy, including the electricity generation, transportation, industrial, residential, and commercial sectors. Like the "cap-and-trade" regulations that have been debated in Congress, the imposition of international *Trail Smelter*–style regulations on every U.S. power plant, refinery, automobile, chemical plant, and landfill would harm the U.S. economy.[118]

The U.S. government has already completed much of the groundwork for formulating a potential mitigation regime that could be imposed by an UNCLOS tribunal. The Environmental Protection Agency (EPA) has helpfully compiled an inventory of all U.S. GHG emissions from 1990 to 2009, which would assist an UNCLOS tribunal in developing a mitigation plan for the United States.[119] Starting in 2010, approximately 13,000 U.S. facilities accounting for 85 percent of U.S. GHG emissions will be required to track their own emissions and report them to the EPA under the Greenhouse Gas Reporting Program.[120] If an UNCLOS tribunal needed examples of GHG regulations for inspiration, it could refer to such publications as the EPA's 673-page proposed rule for regulating GHG emissions from medium- and heavy-duty vehicles.[121] Such industry data, government reports, and programs would also be considered admissions of liability by the United States and would likely feature prominently in any international climate change lawsuit.

As in the *Trail Smelter* case, an UNCLOS tribunal could field a team of technical experts to report regularly on U.S. compliance with the tribunal's judgment, providing daily

112. *Trail Smelter Case*, p. 1967.
113. *Ibid.*
114. *Ibid.*, pp. 1974–1975.
115. *Ibid.*, pp. 1975–1976.
116. *Ibid.*, p. 1976.
117. Keith A. Murray, "The Trail Smelter Case: International Air Pollution in the Columbia Valley," *BC Studies*, No. 15 (Autumn 1972), p. 84; Rubin, "Pollution by Analogy," p. 272; and DollarTimes, "Inflation Calculator," at *http://www.dollartimes.com/calculators/inflation.htm* (February 13, 2012).
118. David W. Kreutzer, Karen A. Campbell, William W. Beach, Ben Lieberman, and Nicolas D. Loris, "What Boxer–Kerry Will Cost the Economy," Heritage Foundation *Backgrounder* No. 2365, January 26, 2010, at *http://www.heritage.org/research/reports/2010/01/what-boxer-kerry-will-cost-the-economy*.
119. U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2009*, April 2011, pp. ES-1–ES-19, at *http://www.epa.gov/climatechange/emissions/downloads11/US-GHG-Inventory-2011-Complete_Report.pdf* (February 13, 2012).
120. U.S. Environmental Protection Agency, "Mandatory Reporting of Greenhouse Gases (40 CFR part 98)," June 2011, at *http://www.epa.gov/climatechange/emissions/downloads09/FactSheet.pdf* (February 13, 2012); OMB Watch, "Companies Required to Report Greenhouse Gas Pollution," September 29, 2009, at *http://www.ombwatch.org/node/10431* (February 13, 2012); and Robin Bravender, "EPA Air Chief Says Carbon Registry Could Spur Emissions Cuts," *The New York Times*, October 13, 2009, at *http://www.nytimes.com/gwire/2009/10/13/13greenwire-epa-air-chief-says-carbon-registry-could-spur-26767.html* (February 13, 2012).
121. U.S. Environmental Protection Agency and National Highway Traffic Safety Administration, *Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles*, October 25, 2010, at *http://www.epa.gov/otaq/climate/regulations/hd-preamble-regs.pdf* (February 13, 2012).

or monthly reports tallying GHG emissions, mitigation efforts, temperature monitoring, and so forth. Intrusive site inspections by international climate change scientists might also be judged appropriate to monitor compliance with the tribunal's orders. Such reports and inspections would amount to a "measurement, reporting and verification" system that a comprehensive climate change convention has thus far failed to adopt.

In addition to mitigation and compliance measures, the United States could be ordered to pay monetary reparations, long recognized under international law, to the aggrieved climate change claimant.[122] Small island states such as Tuvalu and Palau consider climate change an existential threat and believe that they will eventually be submerged beneath rising sea levels.[123] Other low-lying nations such as Bangladesh expect to endure massive displacements of their coastal populations due to coastline erosion.

Assigning dollar amounts to such catastrophic events is necessarily difficult, but the costs would undoubtedly be significant. In 2008, for example, an Inupiat village of 400 people in Alaska initiated a climate change lawsuit against major oil companies and electric utilities, alleging that their contribution to climate change had caused coastal erosion, endangering the village's existence. The village demanded that the defendants pay $400 million ($1 million per villager) to relocate their village 12 miles inland.[124]

Such reparations awards would accomplish under the patina of international law a transfer of wealth from the global North to the global South, a goal that has long been central to the demands of the developing world at international climate change negotiations.[125]

Political Exposure and International Pressure

A claimant in a climate change lawsuit against the United States would face several legal and evidentiary challenges in proving its case in an UNCLOS tribunal, including jurisdictional hurdles, causation issues, and the question of equitable apportionment of damages.[126] Nevertheless, regardless of whether the U.S. might ultimately prevail in such a case, acceding to the convention is fraught with political danger.

Advocates of international climate change lawsuits see them as an acceptable way to achieve their environmental ends, including U.S. capitulation to a comprehensive climate change treaty:

> Litigation or the threat thereof would emphasise the urgency of the need to agree [to] binding commitments on climate change and would put additional pressure on the negotiations process. Negotiators may feel more of a responsibility vis-à-vis the international community and have an additional lever in relation to their national governments. A high-profile court case would also engage a variety of actors in the debate and provide new momentum to find consensual solutions inside and outside the UNFCCC talks ... . *Inter-State climate change litigation may help to create the political pressure and third-party guidance required to re-invigorate the international negotiations, within or outside the UNFCCC.*[127]

One law professor believes that "litigation will very likely play a role" in determining who will bear the costs of climate change and singles out the United States for special treatment, stating that "litigation efforts need to be primarily focused on the United States as the major

122. *Restatement of the Law, Third,* § 602(1); *Factory at Chorzów (Germany v. Poland)*, Permanent Court of International Justice, September 13, 1928; and Faure and Nollkaemper, "International Liability as an Instrument," pp. 173–175.

123. Rebecca Elizabeth Jacobs, "Treading Deep Waters: Substantive Law Issues in Tuvalu's Threat to Sue the United States in the International Court of Justice," *Pacific Rim Law & Policy Journal*, Vol. 14, No. 1 (2005), pp. 103–128.

124. Felicity Barringer, "Flooded Village Files Suit, Citing Corporate Link to Climate Change," *The New York Times*, February 27, 2008, at *http://www.nytimes.com/2008/02/27/us/27alaska.html* (February 13, 2012).

125. Court-ordered wealth transfers would be consistent with other provisions of UNCLOS, such as the redistribution of oil and gas royalties and other proceeds from exploitation of the extended continental shelf and the deep seabed. See UNCLOS, Art. 82 and Part XI.

126. See Shi-Ling Hsu, "A Realistic Evaluation of Climate Change Litigation Through the Lens of a Hypothetical Lawsuit," *University of Colorado Law Review*, Vol. 79, No. 3 (Spring 2008), pp. 125–130, at *http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1014870* (February 16, 2012); Voigt, "State Responsibility for Climate Change Damages," pp. 20–21; Burns, "Potential Causes of Action for Climate Change Damages in International Fora," pp. 44–50; and Schwarte and Byrne, "International Climate Change Litigation and the Negotiation Process," pp. 10–17.

127. Schwarte and Byrne, "International Climate Change Litigation and the Negotiation Process," pp. 21–23 (emphasis added).

BACKGROUNDER | NO. 2660
MARCH 12, 2012

hindrance to beginning the remedial process" (i.e., by failing to ratify the Kyoto Protocol).[128] Other proponents of the theory of anthropogenic climate change understand that there are precedents for using international courts to achieve purposes other than legal redress. For instance, the World Trade Organization "has similarly been strategically employed by governments to influence negotiations and clarify State obligations."[129]

INDEED, "THE MOST IMPORTANT ROLE OF INTERNATIONAL CLIMATE CHANGE LITIGATION" MAY BE TO INFLUENCE TREATY NEGOTIATIONS.

Another law professor maintains that the mere act of "preparing, announcing, filing, advocating and forcing a response" to a climate change lawsuit would significantly affect ongoing treaty negotiations; build awareness of climate change; develop climate science, law, and policy; strengthen international institutions; support the democratization of global environmental governance; promote the progressive development of international law; and bolster "transnational climate advocacy networks."[130] Indeed, "the most important role of international climate change litigation" may be to influence treaty negotiations:

> [T]he threat of such litigation may have an important effect on the negotiations concerning further reductions of GHG emissions. Thus, exploring the possibilities of such international climate change litigation can be seen as a useful device for furthering the international process and negotiations aiming at the reduction of GHG emissions.[131]

Therefore, those who want the recalcitrant United States brought to heel would win a significant political and diplomatic victory for their cause merely if an UNCLOS tribunal asserted jurisdiction over a climate change lawsuit. Like the International Court of Justice, the tribunals established under UNCLOS have complete discretion over whether they have jurisdiction on a particular case: "In the event of a dispute as to whether a court or tribunal has jurisdiction, the matter shall be settled by decision of that court or tribunal."[132] As was seen in both the *Paramilitary Activities* and *MOX Plant* cases, international courts have asserted and maintained jurisdiction in cases where a party rightly and correctly opposes jurisdiction and even in cases where a nation abandons the proceedings altogether.

Moreover, if the United States fails to adhere to an adverse judgment on climate change issued by an UNCLOS tribunal, it risks political backlash both domestically and within the international community. This was starkly illustrated in both the *Paramilitary Activities* and *Avena* cases.

In the *Paramilitary Activities* case, the ICJ issued an adverse judgment against the United States despite the U.S.'s withdrawal from that court's jurisdiction. When the United States continued to insist that the ICJ lacked jurisdiction over the matter, Nicaragua elevated its case to the U.N. Security Council. Specifically, in July and October of 1986, Nicaragua petitioned the Security Council to enforce the ICJ's judgment in *Paramilitary Activities*.[133] In both instances, the council voted overwhelmingly (11 to 1) to demand that the United States fully comply with the ICJ's judgment.[134] On both occasions, the United States was forced to cast a politically embarrassing veto

128. Strauss, "The Legal Option," p. 10191.

129. Schwarte and Byrne, "International Climate Change Litigation and the Negotiation Process," p. 2, citing Tim Josling, Longyue Zhao, Jeronimo Carcelen, and Kaush Arha, "Implications of WTO Litigation for the WTO Agricultural Negotiations," International Food and Agricultural Trade Policy Council *Issue Brief*, March 2006, at *http://www.agritrade.org/Publications/WTO%20litigation.pdf* (February 13, 2012).

130. David Hunter, "The Implications of Climate Change Litigation for International Environmental Law-Making," American University, Washington College of Law *Research Paper* No. 2008-14, July 15, 2007, at *http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1005345* (February 13, 2012).

131. Faure and Nollkaemper, "International Liability as an Instrument," p. 179.

132. UNCLOS, Art. 288(4).

133. Pursuant to Article 94 of the U.N. Charter, a nation "may have recourse to the Security Council" if another nation "fails to perform the obligations incumbent upon it under a judgment rendered by the [International Court of Justice]."

134. The vote on both resolutions was 11 in favor (Australia, Bulgaria, China, Congo, Denmark, Ghana, Madagascar, Trinidad and Tobago, the U.S.S.R., the United Arab Emirates, and Venezuela); one against (the United States); and three abstentions (France, Thailand, and the United Kingdom).

to prevent the council from adopting the resolutions.

The United States also suffered negative political exposure from its refusal to comply with the ICJ's judgment in the *Avena* case. One of the 54 Mexican death-row inmates in the *Avena* case was Jose Ernesto Medellin, a man who had been convicted and sentenced to death in Texas for the brutal gang rape and murder of two Houston teenagers. After the ICJ's ruling in *Avena*, Medellin filed a petition for habeas corpus in U.S. court, asserting that Texas was obligated to enforce the ICJ's judgment and reconsider his conviction and death sentence. The *Medellin* case was ultimately heard by the U.S. Supreme Court, which in March 2008 held that the ICJ's judgment in *Avena* was not enforceable in the United States.[135]

The Supreme Court's ruling in the *Medellin* case led to diplomatic protests by Mexico and demonstrations in Mexico City, both at the time of the court's decision and on the day of Medellin's execution. The government of Mexico accused the United States of violating international law by refusing to enforce the ICJ's judgment.[136]

In addition, in the 112th Congress, Senator Patrick Leahy (D–VT), chairman of the Committee on the Judiciary, introduced the Consular Notification Compliance Act of 2011. If enacted, the legislation would grant U.S. federal courts jurisdiction to review the cases of Mexican nationals convicted and sentenced to death who claim that their rights under the Vienna Convention on Consular Relations were violated.[137] Senator Leahy's bill is strongly supported by Amnesty International, Human Rights First, Human Rights Watch, and the American Civil Liberties Union.[138]

Finally, unlike the situation in the *Paramilitary Activities* and *Avena* cases, it would not be politically feasible for the United States to withdraw from UNCLOS in the wake of an adverse climate change judgment. The U.S. could not limit its withdrawal to UNCLOS's compulsory dispute resolution provisions, but instead would be required to withdraw from the entire convention, exposing it to criticism for rejecting the convention's environmental protection rules, deep seabed regulations, and navigational provisions.

Don't Open the Door

U.S. national interests would be harmed rather than advanced by accession to UNCLOS. In addition to needlessly exposing itself to baseless environmental lawsuits, the United States would be required to transfer billions of dollars in oil and gas royalties generated on its continental shelf to the International Seabed Authority for redistribution to the developing world.[139] However, the loss of those royalties pales in comparison to the potential costs of a climate change judgment by an UNCLOS tribunal against the United States.

Some UNCLOS states parties, particularly small island nations that view climate change as an existential threat, are poised to sue major greenhouse gas emitters, particularly the United States, in international court. A climate change lawsuit would be encouraged, promoted, and funded by willing international academics, nongovernmental organizations, and climate activists such as Greenpeace and the Natural Resources Defense Council.

In the past, international courts have not hesitated to pronounce adverse judgments against the United States that have negatively affected its national interests, including judgments on critical matters such as the use of military force, as in the *Paramilitary Activities* case, and on controversial legal and social issues such as the death penalty, as in the *Avena* case. UNCLOS tribunals have already indicated that they will

135. *Medellin v. Texas*, 552 U.S. 491 (2008).

136. Reuters, "Mexico Protests U.S. Ruling on Death Row Case," March 31, 2008, at *http://www.reuters.com/article/2008/04/01/us-mexico-usa-execution-idUSN31313818200804O1* (February 13, 2012); Reed Johnson, "Texas Executes Mexican Killer Amid International Protests," *Los Angeles Times*, August 6, 2008, at *http://www.latimes.com/news/nationworld/world/la-fg-execute6-2008aug06,0,2738895.story* (February 13, 2012); and CNN, "Mexican Government Protests Texas Execution," August 6, 2008, at *http://articles.cnn.com/2008-08-06/justice/mexican.executed_1_nationals-on-death-row-execution-date-ruling* (February 13, 2012).

137. Consular Notification Compliance Act of 2011, S. 1194, 112th Cong., 1st Sess., June 14, 2011.

138. American Civil Liberties Union *et al.*, letter to Senator Patrick Leahy and Senator Charles Grassley, July 27, 2011, at *http://www.aclu.org/files/assets/civil_human_rights_congress_letter_7-27-11_for_groups.pdf* (February 13, 2012).

139. Steven Groves, "U.N. Convention on the Law of the Sea Erodes U.S. Sovereignty over U.S. Extended Continental Shelf," Heritage Foundation *Backgrounder* No. 2561, June 7, 2011, at *http://www.heritage.org/research/reports/2011/06/un-convention-on-the-law-of-the-sea-erodes-us-sovereignty-over-us-extended-continental-shelf*.

BACKGROUNDER | NO. 2660
MARCH 12, 2012

engage in hotly contested international environmental disputes, as demonstrated by the *MOX Plant* case.

An adverse judgment against the United States in a climate change lawsuit would be domestically enforceable and would undoubtedly harm the U.S. economy. The regime formulated by the arbitral tribunal in the *Trail Smelter* case, if extrapolated to its logical extent and applied to U.S. industries that produce greenhouse gases, would impose massive regulatory burdens on U.S. companies, and the costs would be passed on to American consumers. Such a judgment would accomplish through international litigation what climate change alarmists could not achieve through treaty negotiations or in the U.S. Congress.

No comprehensive study of the potential legal, economic, political, and military consequences of adverse judgments from UNCLOS tribunals has been conducted. The U.S. government should assess the litigation risks that would come with UNCLOS membership. To that end:

- The Obama Administration should conduct an interagency review of UNCLOS's compulsory dispute resolution mechanisms to determine the extent to which the United States would be exposed to baseless environmental and other lawsuits and the potential economic, political, and military costs to the U.S. that could result from such suits.
- Relevant Senate and House committees should hold oversight hearings on potential lawsuits that may be brought in an UNCLOS tribunal that could result in adverse judgments that harm U.S. environmental, economic, and military interests.

The proponents of anthropogenic climate change—including small island states, low-lying coastal nations, environmental activists, and international legal academics—already possess the means and motive to initiate a climate change lawsuit against the United States but currently lack the opportunity to do so. Accession to UNCLOS would open that door.

—Steven Groves is Bernard and Barbara Lomas Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation and a contributor to ConUNdrum: The Limits of the United Nations and the Search for Alternatives *(Rowman & Littlefield Publishers, 2009).*

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The Law of the Sea: Costs of U.S. Accession to UNCLOS

By Steven Groves

Hearing before the
United States Senate
Committee on Foreign Relations

June 14, 2012

Mr. Chairman and members of the Committee:

Thank you for inviting me to testify before you today regarding the United Nations Convention on the Law of the Sea (UNCLOS).

UNCLOS, like any complex treaty or piece of legislation, should be thoroughly examined by the Committee to determine its costs as well as its benefits. At bottom, the disagreement between those who favor U.S. accession to the convention and those who oppose boils down to a disagreement regarding whether the benefits of membership are outweighed by the costs.

By its nature, no treaty comes without costs. As with comprehensive legislation, there are often provisions of a treaty that are uncontroversial and attractive in themselves. Likewise, there are other provisions that are controversial and divisive. This rule generally holds true for all treaties, including those involving arms control, human rights, the environment, international courts, and others. UNCLOS is no exception.

However, unlike most other treaties, the terms of UNCLOS prevent the United States from exempting itself from its more controversial provisions. Specifically, pursuant to Article 309, UNCLOS forbids states parties from submitting reservations or exceptions that would otherwise allow the United States to disregard provisions that do not comport with the U.S. Constitution or long-standing U.S. law and policy.

My testimony today focuses on the costs associated with U.S. accession to UNCLOS and whether the benefits of accession are such that the costs are outweighed. The costs of accession are not imaginary. Nor is opposition to U.S. accession based on purist ideology, but rather on the available evidence, current U.S. law and policy, customary international law, U.S. experience in other international organizations, the U.S. record in international

tribunals, and of course the provisions of the convention itself.

In summary:

- If the U.S. accedes to UNCLOS, it will be required by Article 82 to transfer royalties generated from hydrocarbon production of the U.S. "extended continental shelf" (ECS) to the International Seabed Authority for redistribution to developing and landlocked countries. Since the value of the hydrocarbon resources lying beneath the U.S. ECS may be worth trillions of dollars, the amount of royalties that the U.S. Treasury would be required to transfer to the Authority would be substantial. In any event, U.S. accession would amount to an open-ended commitment to forgo an incalculable amount of royalty revenue for no appreciable benefit.
- U.S. accession to UNCLOS is not necessary to develop or secure title to the hydrocarbon resources of the ECS. Under international law and long-standing U.S. policy and practice, the U.S. has established full jurisdiction and control over its ECS and is in the process of delimiting its ECS boundaries on a worldwide basis. The successful delimitation of areas of U.S. ECS and subsequent leasing of those areas in the Gulf of Mexico to U.S. and foreign oil exploration companies demonstrate that the United States does not need to achieve universal international recognition of its ECS to provide "certainty" to oil exploration companies.
- Proponents of U.S. accession to UNCLOS contend that by failing to join the convention the United States is forbidden from mining the deep seabed—the ocean floor lying beyond the ECS and designated as "the Area." However, no legal barriers prevent U.S. access, exploration, and exploitation of the resources of the deep seabed. The United States has long held that U.S. corporations and citizens have the right to develop the resources of the deep seabed and may do so whether or not the United States accedes to UNCLOS.
- U.S. accession to UNCLOS would expose the U.S. to lawsuits regarding virtually any maritime activity, such as alleged pollution of the marine environment from a land-based source or through the atmosphere. Regardless of the lack of merits of such a case, the U.S. would be forced to defend itself against every such lawsuit at great expense to U.S. taxpayers. Any adverse judgment rendered by an UNCLOS tribunal would be final, could not be appealed, and would be enforceable in U.S. territory.
- Finally, it is not essential or even necessary for the United States to accede to UNCLOS to protect and preserve its navigational rights and freedoms. The navigational and maritime boundary provisions of the convention either codify customary international law that existed well before the convention was adopted in 1982 or "refine and elaborate" navigational rights and regimes that are now widely accepted as binding international law.

Article 82 and the Costs of Compliance

Proponents of U.S. accession to UNCLOS extol the supposed benefits of joining the convention but are reluctant to discuss its very real costs.

One area where the U.S. can expect to experience significant costs—with no appreciable benefit—is in its compliance with Article 82 of the Convention: "Payments and contributions with respect to the exploitation of the continental shelf beyond 200 nautical miles."

If the U.S. accedes to UNCLOS, it will be required pursuant to Article 82 to transfer royalties generated on the U.S. continental shelf beyond 200 nautical miles (nm)—an area known as the "extended continental shelf" (ECS) —to the International Seabed Authority. These royalties will likely total tens or even hundreds of billions of

dollars over time. Instead of benefiting the American people, the royalties will be distributed by the Authority to developing and landlocked nations, including some that are corrupt, undemocratic, or even state sponsors of terrorism such as Cuba and Sudan.

Article 82 of UNCLOS requires member states to "share" a portion of their royalty revenue for all oil, gas, or other mineral resources extracted from the ECS:

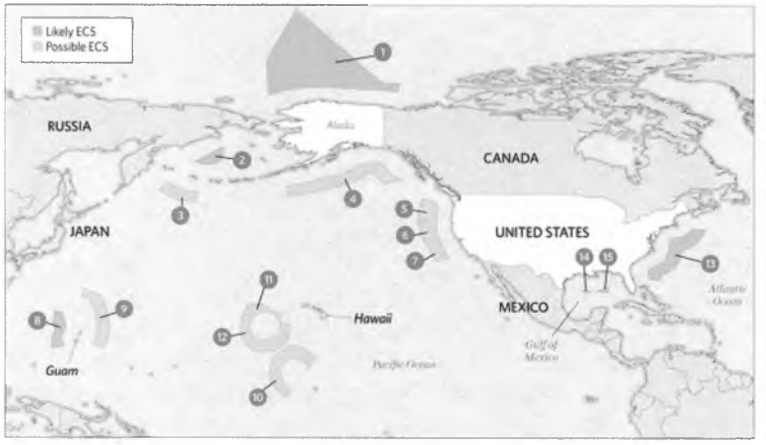
> The coastal State shall make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

These payments are to be made to the Authority on an annual basis by the states parties, and are based on the value of production at the particular site—in most cases, an offshore drilling platform extracting oil or natural gas from the ECS. According to a recent study conducted for the Authority, such payments are considered "international royalties."

The potential size of the U.S. ECS worldwide is significant. The value of the hydrocarbon deposits lying beneath the U.S. ECS is difficult to estimate, but it is likely substantial. According to the U.S. Extended Continental Shelf Task Force, "Given the size of the U.S. continental shelf, the resources we might find there may be worth many billions if not trillions of dollars."

MAP 1

U.S. Extended Continental Shelf (ECS)



1. Arctic Ocean
2. Bering Sea
3. Aleutian Islands
4. Gulf of Alaska
5. Northwest Coast
6. Mendocino Ridge
7. California Coast
8. Northern Marianas and Guam (West)
9. Northern Marianas and Guam (East)
10. Kingman Reef and Palmyra Atoll
11. Necker Ridge
12. Johnson Atoll
13. Atlantic East Coast
14. Gulf of Mexico (Western Gap)
15. Gulf of Mexico (Eastern Gap)

Source: U.S. Extended Continental Shelf Project, "Establishing the Full Extent of the Continental Shelf of the United States," http://continentalshelf.gov/media/ECSposterDec2010.pdf (accessed May 8, 2012)

8 2688 heritage.org

Member states begin to pay these "international royalties" during the sixth year of production at the drilling site. Starting with the sixth year of production, UNCLOS members must pay 1 percent of the value of the total production at that site to the Authority. Thereafter, the royalty rate increases in increments of 1 percentage point per year until the twelfth year of production, when it reaches 7 percent. The rate remains at 7 percent until production ceases at the site.

As such, if the United States accedes to UNCLOS it would be obligated to transfer to the Authority a considerable portion of the royalties generated on the U.S. ECS that would otherwise be deposited in the U.S. Treasury for the benefit of the American people. For example, the royalty rate of the majority of blocks currently under an active lease on the U.S. ECS is 12.5 percent. Beginning in the twelfth year of production on such an ECS block the U.S. would be required to transfer 7 percent—more than half—of its royalty revenue to the Authority and do so each year until production ends on that lease. The remaining 5.5 percent of the royalty would be retained by the Treasury.

Given that resources of the U.S. ECS "may be worth many billions if not trillions of dollars," this would amount to a substantial sum over time.

But there is the rub. There has been no comprehensive study to determine the value of the oil and natural gas that lies beneath the U.S. ECS. The total area of the U.S. ECS is reportedly twice the size of California and stretches from the U.S. East Coast to the South Pacific and up to the Arctic Ocean. How can this Committee be expected to conduct a proper assessment of the financial impact of U.S. accession to UNCLOS if the value of the natural resources on the U.S. ECS is unknown? If the value of U.S. hydrocarbons on the ECS is unknown then so too is the amount of royalty revenue that the United States will ultimately forgo if it accedes to the convention.

As such, by acceding to UNCLOS the United States will be making an open-ended international commitment to transfer an indefinite sum of royalty revenue (indefinite, but likely in the tens if not hundreds of billions of dollars) to the Authority for redistribution to developing and landlocked nations.

Determining the Extent of the U.S. Extended Continental Shelf

Some proponents of U.S. accession to UNCLOS claim that U.S. oil companies cannot achieve the "certainty" they require to develop the hydrocarbon resources on the ECS unless the United States accedes to the convention and receives the approval of the Commission on the Limits of the Continental Shelf—an international committee of geologists and hydrographers located at U.N. headquarters in New York City. For example, in 2007, former Deputy Secretary of State John Negroponte stated, "In the absence of such international recognition and legal certainty, U.S. companies are unlikely to secure the necessary financing and insurance to exploit energy resources on the extended shelf."

However, pursuant to long-standing law and policy the United States already enjoys and exercises full jurisdiction and control over its ECS. In addition to the 1945 Truman Proclamation, in which President Harry S. Truman declared that the United States "regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control," in 1953 Congress passed the Outer Continental Shelf Lands Act, which defined the outer continental shelf as "all submerged lands lying seaward and outside of the area of lands beneath navigable waters… and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control."

After the adoption of UNCLOS in 1982, the U.S. affirmed its jurisdiction over its entire continental shelf, including the ECS. Specifically, in November 1987 a U.S. government interagency group issued a policy statement declaring its intent to delimit the U.S. ECS in conformity with Article 76 of UNCLOS (which provides a formula for measuring the extent of a coastal state's ECS). That statement read, in pertinent part, "The United States has exercised and shall continue to exercise jurisdiction over its continental shelf in accordance with and to the full extent permitted by international law as reflected in Article 76, paragraphs (1), (2) and (3)."

Indeed, the United States has already demarcated areas of its ECS in the Gulf of Mexico, the Bering Sea and the Arctic Ocean via bilateral treaties with Mexico and Russia. In the Gulf, for example, the U.S. and Mexico have negotiated a series of treaties to delimit their maritime and continental shelf boundaries, including areas of abutting ECS:

- In November 1970, the U.S. and Mexico signed a treaty to maintain the Rio Grande and Colorado River as the agreed international boundary between the two nations. As part of the treaty, the two nations demarcated their maritime boundaries in the Gulf of Mexico and the Pacific Ocean out to 12 nm.
- In May 1978, building on the 1970 treaty, the two nations signed a treaty delimiting their maritime

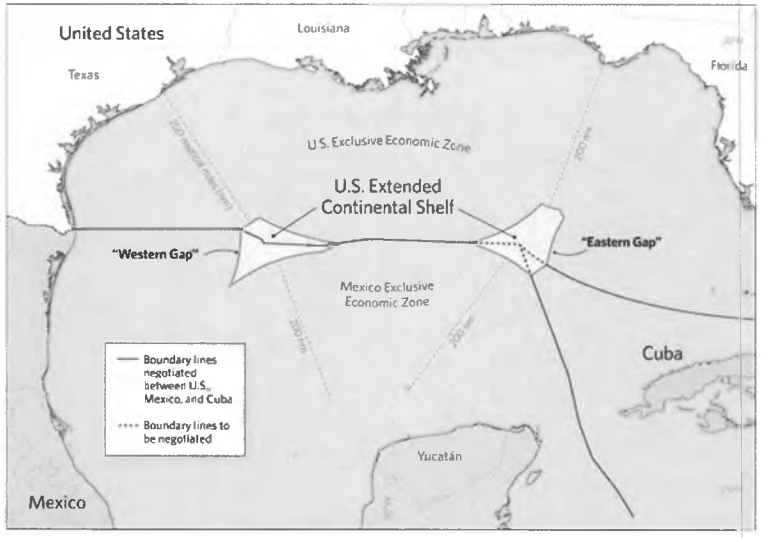
boundaries in the Gulf and in the Pacific out to 200 nm. The treaty demarcated boundary lines in the Gulf where their respective 200 nm exclusive economic zones (EEZ) abutted, leaving a "doughnut hole" of approximately 5,092 square nm (now known as the "western gap") where their 200 nm boundary lines did not meet. A second doughnut hole was created in the eastern Gulf where the EEZ of the U.S., Mexico, and Cuba fail to intersect (the "eastern gap").

- In June 2000, the U.S. and Mexico signed a treaty dividing the area of ECS within the western gap. Of the 5,092 square nm of ECS in the western gap, 1,913 (38 percent) went to the United States and 3,179 (62 percent) went to Mexico. The treaty established a drilling moratorium over a narrow strip along the boundary within the western gap due to the possibility that transboundary hydrocarbon reservoirs are located along the boundary.
- In February 2012, the U.S. and Mexico signed a treaty regarding the exploitation of transboundary reservoirs located along the continental shelf boundary shared by the two nations in the Gulf, including along the ECS boundary within the western gap. The treaty has not yet been transmitted to the U.S. Senate for its advice and consent.

MAP 2

U.S. Extended Continental Shelf in Gulf of Mexico

The Gulf of Mexico contains two areas of submerged continental shelf that extend beyond the 200-nautical-mile exclusive economic zones (EEZ) of Mexico and the United States—the "western gap" and the "eastern gap." The U.S. and Mexico signed a treaty in June 2000 that divides the area of extended continental shelf within the "western gap" between the two nations.



Sources: U.S. Department of the Interior, Bureau of Ocean Energy Management, "Treaty on Maritime Boundaries Between the United Mexican States and the United States of America," May 4, 1978, http://www.boem.gov/uploadedFiles/BOEM/Regulations/Treaties/1978_0504-Treaty-MaritimeBoundariesMexicoandUS.pdf (accessed April 17, 2012); U.S. State Department, "Maritime Boundary Agreement Between the United States of America and the Republic of Cuba," December 16, 1977, http://www.state.gov/documents/organization/125389.pdf (accessed May 8, 2012); and United Nations, "Executive Summary: A Partial Submission of Data and Information on the Outer Limits of the Continental Shelf of the United Mexican States Pursuant to Part VI of and Annex II to the United Nations Convention on the Law of the Sea," December 2007, http://www.un.org/depts/los/clcs_new/submissions_files/mex07/part_1_executive_summary.pdf (accessed May 8, 2012)

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Collectively, these treaties between the United States and Mexico, particularly the June 2000 ECS delimitation treaty, demarcated an area of U.S. ECS—the 1,913 square nm of submerged continental shelf in the northern portion of the western gap. There is no evidence that the "international community" does not or will not recognize the ECS in the northern portion of the western gap and its resources as being subject to the jurisdiction and control of the United States.

The United States exercises jurisdiction and control over its ECS as evidenced by the fact that the Department of the Interior has made the western gap in the Gulf of Mexico available for hydrocarbon development since August 2001. Specifically, the Bureau of Ocean Energy Management (BOEM) offered the northern portion of the western gap for lease almost immediately after the 2000 U.S.–Mexico ECS delimitation treaty was ratified. That treaty entered into force on January 17, 2001. Seven months later, on August 22, BOEM offered the area of U.S. ECS in the western gap in Lease Sale 180. In that lease sale, three U.S. companies (Texaco, Hess, and Burlington Resources Offshore) and one foreign company (Petrobras) submitted bids totaling more than $2

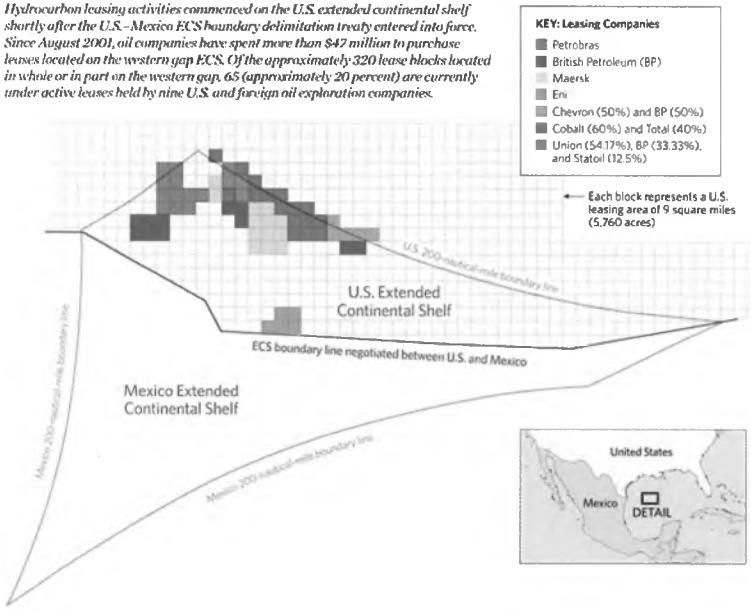
million for seven lease blocks in the western gap.

BOEM has offered western gap ECS blocks in 19 lease sales between 2001 and 2010. Seven U.S. companies (Burlington, Chevron, Devon Energy, Hess, Mariner Energy, NARCA Corporation, and Texaco) submitted bids to lease ECS blocks in the western gap. Five foreign companies—BP, Eni Petroleum (Italy), Maersk Oil (Denmark), Petrobras, and Total (France)—also bid on western gap ECS blocks during those sales. BOEM collected more than $47 million in bonus bids in connection with lease sales on those ECS blocks. Of the approximate 320 blocks located in whole or in part on the western gap ECS, 65 (approximately 20 percent) are currently held under active leases by nine U.S. and foreign oil exploration companies.

MAP 3

Active Hydrocarbon Leases on U.S. Extended Continental Shelf in the "Western Gap"

Hydrocarbon leasing activities commenced on the U.S. extended continental shelf shortly after the U.S.–Mexico ECS boundary delimitation treaty entered into force. Since August 2001, oil companies have spent more than $47 million to purchase leases located on the western gap ECS. Of the approximately 320 lease blocks located in whole or in part on the western gap, 65 (approximately 20 percent) are currently under active leases held by nine U.S. and foreign oil exploration companies.



Sources: U.S. Department of the Interior, Bureau of Ocean Energy Management, "Lease Sale Information," http://www.boem.gov/Oil-and-Gas-Energy-Program/Leasing/Regional-Leasing/Gulf-of-Mexico-Region/GOMR-Historical-Lease-Sale-Information.aspx (accessed April 17, 2012), and "Treaty Between the Government of the United States of America and the Government of the United Mexican States on the Delimitation of the Continental Shelf in the Western Gulf of Mexico Beyond 200 Nautical Miles," June 9, 2000, http://www.boem.gov/uploadedFiles/BOEM/Regulations/Treaties/2000_0609-Treaty-OCSinWGOMbeyond200nm.pdf (accessed April 17, 2012)

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The successful delimitation and subsequent leasing of ECS areas in the Gulf of Mexico demonstrate that the United States does not need to achieve universal international recognition of its ECS. The United States identified and demarcated areas of ECS in the western gap in cooperation with the only other relevant nation, Mexico, and that area was subsequently offered for development to U.S. and foreign oil and gas companies. All of this was

achieved without U.S. accession to UNCLOS or the approval of the Commission on the Limits of the Continental Shelf.

Even though approximately 20 percent of the only area of U.S. ECS that has been made available for lease by BOEM is currently under an active lease, the U.S. oil and gas industry has supported and will likely continue to support U.S. accession to UNCLOS in order to achieve even greater "certainty." That is their prerogative, of course, and achieving a maximum amount of certainty is a legitimate and desirable goal for a capital-intensive commercial enterprise. However, the successful delimitation of the ECS in the western gap and the U.S. government's continuing lease sales of ECS blocks would appear to have provided the certainty necessary for several major U.S. and foreign oil exploration companies to secure leases for the development of the U.S. ECS.

U.S. Rights to Deep Seabed Minerals

Proponents of U.S. accession to UNCLOS contend that by failing to join the convention the United States is forbidden from mining the deep seabed—the ocean floor lying beyond the ECS and designated as "the Area." However, no legal barriers block U.S. access, exploration, and exploitation of the resources of the deep seabed. The United States has long held that U.S. corporations and citizens have the right to explore and exploit the resources of the deep seabed and may do so whether or not the United States accedes to UNCLOS.

The United States made its position on its right to engage in deep seabed mining very clear in March 1983 during the final days of the Third U.N. Conference on the Law of the Sea. Specifically, in response to statements from other U.N. member states that UNCLOS non-parties would not have the right to engage in deep seabed mining, the U.S. stated the following:

Some speakers asserted that existing principles of international law, or the Convention, prohibit any State, including a non-party, from exploring for and exploiting the mineral resources of the deep sea-bed except in accordance with the Convention. The United States does not believe that such assertions have any merit. The deep sea-bed mining regime of the Convention adopted by the Conference is purely contractual in character. The United States and other non-parties do not incur the obligations provided for therein to which they object.

Article 137 of the Convention [forbidding claims of sovereignty over the deep seabed or its resources] may not as a matter of law prohibit sea-bed mining activities by non-parties to the Convention; nor may it relieve a party from the duty to respect the exercise of high seas freedoms, including the exploration for and exploitation of deep sea-bed minerals, by non-parties. Mining of the sea-bed is a lawful use of the high seas open to all States.... The practice of the United States and the other States principally interested in sea-bed mining makes it clear that sea-bed mining continues to be a lawful use of the high seas within the traditional meaning of the freedom of the high seas.

The U.S. legal position set forth in 1983 on deep seabed mining remains the same today. According to the *Restatement of the Law, Third, of the Foreign Relations Law of the United States*, the United States may engage in deep seabed mining activities even if it does not accede to UNCLOS, provided that such activities are conducted without claiming sovereignty over any part of the deep seabed and as long as the mining activities are conducted with due regard to the rights of other nations to engage in mining. As related by the Restatement, "like the fish of the high seas the minerals of the deep sea-bed are open to anyone to take."

The U.S. position is also reflected in the Deep Seabed Hard Mineral Resources Act of 1980, which Congress

enacted two years before the adoption of UNCLOS to provide a framework for U.S. corporations to conduct deep seabed mining until such time as the United States joins an acceptable convention on the law of the sea. The DSHMRA states the U.S. position on the legality of deep seabed mining as follows:

[I]t is the legal opinion of the United States that exploration for and commercial recovery of hard mineral resources of the deep seabed are freedoms of the high seas subject to a duty of reasonable regard to the interests of other states in their exercise of those and other freedoms recognized by general principles of international law.

In sum, the long-held position of the United States, both domestically and internationally, is that U.S. citizens and corporations have the right to explore and exploit the deep seabed regardless of whether or not the United States is a party to UNCLOS.

Exposure to Baseless International Lawsuits

"The possibility that a small island state, or another injured party, would bring a liability claim against states responsible for climate change no longer is a topic for fiction or a theoretical prospect. There is a rise in plans for litigation worldwide for consequences of global warming."

—International law professors Michael Faure and Andre Nollkaemper

Part XV of UNCLOS addresses the settlement of maritime disputes between parties to the convention. Part XV contemplates that UNCLOS states parties, in accordance with the U.N. Charter, will attempt to resolve maritime disputes peacefully without resort to the convention's compulsory procedures. When a dispute arises between two UNCLOS members, they are obligated to "proceed expeditiously to an exchange of views regarding its settlement by negotiation or other peaceful means." States parties may also resort to a nonbinding "conciliation procedure" under Annex V of the convention.

But if a maritime dispute cannot be settled in a voluntary manner, any UNCLOS state party may compel another state party to defend itself in one of four forums: the International Tribunal for the Law of the Sea (ITLOS), the International Court of Justice (ICJ), an arbitral tribunal organized under Annex VII, or a "special" arbitral tribunal organized under Annex VIII. Within ITLOS, a special tribunal, the Seabed Disputes Chamber (SDC), was established to resolve disputes about activities on the seabed floor beyond the limits of national jurisdiction, known as "the Area."

Acceding to UNCLOS would expose the U.S. to lawsuits on virtually any maritime activity, such as alleged pollution of the marine environment from a land-based source or through the atmosphere. Regardless of the merits, the U.S. would be forced to defend itself against every such lawsuit at great expense to U.S. taxpayers. Any judgment rendered by an UNCLOS tribunal would be final, could not be appealed, and would be enforceable in U.S. territory.

Unlike a resolution passed by the U.N. General Assembly or a recommendation made by a human rights treaty committee, judgments issued by UNCLOS tribunals are legally enforceable upon members of the convention. Article 296 of the convention, titled "Finality and binding force of decisions," states, "Any decision rendered by a court or tribunal having jurisdiction under this section shall be final and shall be complied with by all the parties to the dispute."

Judgments made by UNCLOS tribunals are enforceable in the same manner that a judgment from a U.S. domestic court would be. For example, Article 39 of Annex VI states that "The decisions of the [Seabed Disputes] Chamber shall be enforceable in the territories of the States Parties in the same manner as judgments or orders of the highest court of the State Party in whose territory the enforcement is sought." In other words, if the United States accedes to the convention, the U.S. government will be required to enforce and comply with SDC judgments in the same manner as it would enforce and comply with a judgment of the U.S. Supreme Court. In other words, the U.S. court system will serve not as an avenue for appeal from UNCLOS tribunals, but rather as an enforcement mechanism for their judgments.

The domestic enforceability of UNCLOS tribunal judgments was confirmed by U.S. Supreme Court Justice John Paul Stevens in the landmark 2008 case, *Medellin v. Texas*. In *Medellin*, Justice Stevens, writing a concurring opinion, cited Article 39 of Annex VI for the proposition that UNCLOS members—presumably including the United States if it accedes to the convention—are obligated to comply with the judgments of the convention's tribunals.

U.S. accession to the convention would provide an opportunity and legal forum for other UNCLOS members to initiate lawsuits against the U.S. challenging the adequacy of its efforts to protect the marine environment. Although current U.S. law may satisfy many of the general environmental obligations set forth in the convention, the U.S. might nevertheless be forced to defend itself in a costly and politically embarrassing lawsuit challenging the sufficiency and enforcement of U.S. domestic environmental laws and regulations. One such lawsuit—the *MOX Plant Case (Ireland v. United Kingdom)*—has already been litigated in UNCLOS tribunals.

Acceding to UNCLOS would commit the U.S. to controlling its pollutants, including alleged "harmful substances" such as carbon emissions and other greenhouse gases (GHG), in such a way that they do not negatively impact the marine environment. The U.S. would also be obligated to adopt laws and regulations to prevent the pollution of the marine environment from the atmosphere and could be liable under international law for failing to enact legislation necessary to prevent atmospheric pollution. Moreover, such domestic laws and regulations "shall" take into account "internationally agreed rules, standards and recommended practices and procedures." The "internationally agreed rules, standards and recommended practices" that could be invoked by UNCLOS litigants may include instruments such as the U.N. Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol.

A consensus has emerged within the international environmental and legal community that the United States is the best target for an international climate change lawsuit. One law professor has characterized the United States as a likely target because it is a developed nation with high per capita and total GHG emissions, adding that the "higher the overall historic and present contribution to global emissions by the defending party, arguably the better the chance of a successful outcome."

Over the past decade, there has been a steady drumbeat to initiate an international climate change lawsuit against the United States, and UNCLOS tribunals have featured prominently among the potential forums identified as a venue for such a case.

- In 2002, the prime minister of Tuvalu, a Pacific island nation consisting of a chain of nine coral atolls, stated his intention to initiate a climate change lawsuit against the United States because of its failure to adopt the Kyoto Protocol. That year, at the World Summit for Sustainable Development held in Johannesburg, Tuvalu's government lobbied other small island nations to join them in such a suit at the International Court of Justice.

- In 2003, the Washington, D.C.-based Environmental Law Institute published "The Legal Option: Suing the United States in International Forums for Global Warming Emissions" by law professor Andrew L. Strauss. According to Strauss, the U.S. rejection of the Kyoto Protocol "makes the United States the most logical first country target of a global warming lawsuit in an international forum." The article proposed various forums for initiating a lawsuit against the United States, including UNCLOS tribunals, but Strauss lamented, "As the United States has not adhered to the Convention, however, a suit could not be brought directly against it under the Convention."

- In her 2005 book *Climate Change Damage and International Law*, law professor Roda Verheyen posed a hypothetical case that could be brought against the United States for its alleged responsibility in melting glaciers and causing glacial outburst floods in the Himalayas. The claim would include compensation for flood damages as well as additional funds to monitor glacial lakes and prevent future floods. Verheyen based liability for such damages on the U.S.'s alleged violation of its commitments under the UNFCCC and failure to ratify the Kyoto Protocol.

- In December 2005, the Inuit Circumpolar Council, an international nongovernmental organization representing Inuit peoples in Alaska, Canada, Greenland, and Russia, filed a petition against the United States at the Inter-American Commission on Human Rights (IACHR), a human rights body operating within the Organization of American States. The petition requested that the IACHR direct the United States to adopt mandatory measures to limit its emissions and to provide assistance to help the Inuit adapt to the impacts of climate change.

- In 2006, the *International Journal of Sustainable Development Law & Policy* published "Potential Causes of Action for Climate Change Damages in International Fora: The Law of the Sea Convention," in which law professor William C. G. Burns cited UNCLOS's marine pollution provisions as a basis for a cause of action for rising sea levels and changes in ocean acidity. Burns named the United States as "the most logical State to bring an action against given its status as the leading producer of anthropogenic greenhouse gas emissions, as well as its failure to ratify Kyoto," but noted that the U.S. "is not currently a Party to the Convention."

- In a September 2011 speech to the U.N. General Assembly, Johnson Toribiong, president of the Pacific island nation of Palau, called upon the General Assembly to seek an advisory opinion from the International Court of Justice "on the responsibilities of States under international law to ensure that activities carried out under their jurisdiction or control that emit greenhouse gases do not damage other States."

In sum, the United States would be at the top of the list of potential defendants in an UNCLOS climate change lawsuit, if the U.S. accedes to the convention. Thus far, the United States has denied potential climate change claimants their day in international court by refusing to accede to UNCLOS. Clearly, accession to the convention would open the door to these litigants as well as to their advocates in the international academic, environmental, and nongovernmental organization communities.

Navigational Rights and Freedoms

In 1993, the Department of Defense issued an Ocean Policy Review Paper on "the currency and adequacy of U.S. oceans policy, from the strategic standpoint, to support the national defense strategy." The paper concluded that U.S. national security interests in the oceans have been protected even though the U.S. is not party to UNCLOS:

U.S. security interests in the oceans have been adequately protected to date by current U.S. ocean policy and implementing strategy. U.S. reliance on arguments that customary international law, as articulated in the non-deep seabed mining provisions of the 1982 Law of the Sea Convention, and as supplemented by diplomatic protests and assertion of rights under the Freedom of Navigation Program, have served so far to preserve fundamental freedoms of navigation and overflight with acceptable risk, cost and effort.

Almost 20 years later, there is no evidence that suggests a change in circumstances such that U.S. accession to UNCLOS has become essential to the successful execution of the U.S. Navy's global mission.

Throughout its history, the United States has successfully protected its maritime interests despite not being an UNCLOS member. The reason is simple; Enjoyment of the convention's navigational provisions is not restricted to UNCLOS members. Those provisions represent widely accepted customary international law, some of which has been recognized as such for centuries. UNCLOS members and nonmembers alike are bound by the convention's navigational provisions.

The body of international law known as the "law of the sea" was not invented in 1982 when UNCLOS was adopted, but rather "has its origins in the customary practice of nations spanning several centuries." It developed as customary international law, which is "that body of rules that nations consider binding in their relations with one another. It derives from the practice of nations in the international arena and from their international agreements." Although not a party to UNCLOS, the United States is bound by and acts in accordance with the customary international law of the sea and considers the UNCLOS navigational provisions as reflecting international law.

Most of the UNCLOS navigational provisions have long been recognized as customary international law. The convention's articles on navigation on the high seas (Articles 86–115, generally) and passage through territorial waters (Articles 2–32, generally) were copied almost verbatim from the Convention on the High Seas and the Convention on the Territorial Sea and the Contiguous Zone, both of which were adopted in 1958. The United States is party to both conventions, which are considered to be codifications of widely accepted customary international law.

Similar to other multilateral conventions, such as the Vienna Convention on Diplomatic Relations, UNCLOS is said to "have codified settled customary international law or to have 'crystallized' emerging customary international law." UNCLOS codified customary law relating to navigation on the high seas and through territorial waters and "crystallized" emerging customary law, such as the concepts of "transit passage" through international straits and "archipelagic sea-lanes passage." As summarized by Defense Department official John McNeill in 1994, UNCLOS "contains a comprehensive codification of long-recognized tenets of customary international law which reflect a fair balance of traditional ocean uses." In short, the convention's navigational provisions have attained such a status that all nations—UNCLOS members and nonmembers alike—are expected to adhere to them.

One way to determine the extent to which UNCLOS's navigational provisions have achieved the status of binding international law is to study the behavior of nations. Behavior in conformity with the convention—known as "state practice"—is additional evidence that its navigational provisions reflect international law. Indications that a state is acting in conformity with international law may be found in states' "legislation, the decisions of their courts, and the statements of their official government and diplomatic representatives." A nation's inaction regarding a particular navigational provision may also be viewed as state practice because it can be deemed to be acquiescence.

The consistent practice of states—maritime states, coastal states, UNCLOS members, and nonmembers—indicates that the UNCLOS navigational provisions are almost universally accepted law. The *Restatement of the Law, Third, of the Foreign Relations Law of the United States* notes:

[B]y express or tacit agreement accompanied by consistent practice, the United States, and states generally, have accepted the substantive provisions of the Convention, other than those addressing deep sea-bed mining, as statements of customary law binding upon them apart from the Convention.

This has long been the U.S. position. Since the Reagan Administration, the official U.S. policy has been that the UNCLOS provisions on the traditional uses of the oceans, including the provisions on navigation and overflight, confirm international law and practice. Specifically, in March 1983, President Ronald Reagan announced the U.S. oceans policy in light of his decision not to sign UNCLOS. Reagan announced that "the United States is prepared to accept and act in accordance with the balance of interests relating to traditional uses of the oceans—such as navigation and overflight" and "will recognize the rights of other states in the waters off their coasts, as reflected in the Convention, so long as the rights and freedoms of the United States and others under international law are recognized by such coastal states."

Reagan's 1983 oceans policy statement confirmed what was already widely recognized: that the navigational provisions of UNCLOS generally reflect customary international law and as such must be respected by all nations.

Yet proponents of U.S. accession to UNCLOS maintain that the United States cannot fully benefit from these navigational rights unless it is a party to the convention, which "provides" and "preserves" these rights. This is simply incorrect. The United States enjoys the same navigational rights as UNCLOS parties enjoy.

At the December 1982 final plenary meeting of the Third United Nations Conference on the Law of the Sea, some nations took the opposite position, contending that any nation that chose not to join the convention would forgo all of these rights. On March 8, 1983, the United States, exercising its right to reply, expressly rejected that position:

Some speakers discussed the legal question of the rights and duties of States which do not become party to the Convention adopted by the Conference. Some of these speakers alleged that such States must either accept the provisions of the Convention as a "package deal" or forgo all of the rights referred to in the Convention. This supposed election is without foundation or precedent in international law. It is a basic principle of law that parties may not, by agreement among themselves, impair the rights of third parties or their obligations to third parties. Neither the Conference nor the States indicating an intention to become parties to the Convention have been granted global legislative power. . . .

The United States will continue to exercise its rights and fulfil its duties in a manner consistent with international law, including those aspects of the Convention which either codify customary international law or refine and elaborate concepts which represent an accommodation of the interests of all States and form part of international law.

In sum, it is not essential or even necessary for the United States to accede to UNCLOS to benefit from the certainty and stability provided by its navigational provisions. Those provisions either codify customary international law that existed well before the convention was adopted in 1982 or "refine and elaborate" navigational rights that are now almost universally accepted as binding international law.

- One prominent proponent of U.S. accession to UNCLOS recently stated that opposition to the convention was not based on "facts" or "evidence" but rather on "ideology and mythology." The facts and evidence, however, are as follows:
- The U.S. already has full jurisdiction and control over its entire continental shelf—including its "extended" continental shelf. Through presidential proclamations, acts of Congress, and bilateral treaties with neighboring countries, the United States has successfully demarcated the limits of its maritime boundaries and key areas of its ECS;
- The U.S. has clear title to all hydrocarbon resources lying under the ECS and currently enjoys the rights to any and all royalty revenue generated from the exploitation of such resources;
- The U.S. has demonstrably exercised jurisdiction and control over its ECS, as evidenced by the fact that it has been leasing blocks for development to U.S. and foreign oil exploration companies since August 2001;
- The "western gap" in the Gulf of Mexico is the only area of ECS that has been offered for development by the United States, and 20 percent of that area is currently under lease. U.S. companies such as Chevron and companies from Brazil, Denmark, France, Italy, Norway, and the United Kingdom hold active leases on the western gap ECS;
- No comprehensive study has been conducted to determine the value of the hydrocarbon resources that lie beneath the vast U.S. ECS that is likely twice the size of California;
- The U.S. Extended Continental Shelf Task Force estimates that the U.S. ECS resources "may be worth many billions if not trillions of dollars";
- If the U.S. accedes to UNCLOS it will be making an open-ended commitment to transfer an incalculable sum of royalty revenue from the U.S. Treasury to the International Seabed Authority for redistribution to developing and landlocked nations;
- The policy and law of the United States, both domestically (i.e. the Deep Seabed Hard Mineral Resources Act) and internationally, is that U.S. citizens and corporations have the right to explore and exploit the deep seabed regardless of whether or not the United States is a party to UNCLOS;
- Acceding to UNCLOS would expose the United States to international lawsuits, including baseless environmental cases and suits based on alleged U.S. contributions to global climate change;
- Certain UNCLOS states parties, environmental activists, and international legal academics are actively exploring the potential of using international litigation against the United States in an UNCLOS tribunal to advance their climate change agenda;
- An adverse judgment in a climate change lawsuit initiated under UNCLOS would be final, not subject to appeal, and enforceable in the United States. Such a judgment would impose massive regulatory burdens on U.S. companies, which would pass the costs on to American consumers;
- For more than 200 years before UNCLOS was adopted in 1982 and for 30 years since then, the U.S. Navy has successfully protected U.S. maritime interests regardless of the fact that the U.S. has not joined the convention;
- The U.S. Navy has never been successfully denied access to any international strait or archipelagic water and regularly exercises its freedom of navigation and overflight rights on the high seas and "innocent passage" through territorial waters;

- The U.S. Navy's *Commander's Handbook on the Law of Naval Operations* is the preeminent operational manual regarding navigational rights and is considered the gold standard by maritime nations worldwide, many of which have adopted it for use by their own navies; and,
- The United States is a member of the International Maritime Organization and a founding member of the Arctic Council—organizations in which it actually means something to have a "seat at the table."

All of these facts collectively represent compelling evidence that the United States need not accede to UNCLOS in order to advance its maritime and national security interests. Indeed, the evidence suggests that there are real costs involved in accession that outweigh the supposed benefits, which are dubious and insubstantial.

UNCLOS is a controversial and fatally flawed treaty. Accession to the convention would result in a dangerous loss of American sovereignty. It would require the U.S. Treasury to transfer billions of dollars to an unaccountable international organization in Jamaica, which in turn is empowered to redistribute those American dollars to countries with interests that are inimical to the United States. The convention's mandatory dispute mechanisms will result ultimately in troublesome and costly lawsuits and adverse judgments if the United States is deemed to have "violated" the convention—most likely when the United States has acted in its own best interests.

The U.S. Navy's support for the navigational rights enshrined in UNCLOS is far outweighed by the convention's non-navigational provisions. The practices of the Navy and the navies of other major maritime powers created the very customary international law upon which the navigational provisions of UNCLOS are based. The Navy enjoys those same navigational rights and freedoms despite non-accession to the treaty. The Navy's insistence that a failure to join UNCLOS will hinder its ability to conduct its global mission successfully is belied by the facts and demonstrably disproved by history.

—***Steven Groves** is the Bernard and Barbara Lomas Fellow in the Margaret Thatcher Center for Freedom, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation.*

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About the Author

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