

03/19/15

Overviews:

Arctic

Research and

World Trade

Center,

Anchorage

Alaska

<TARGET><BILL></BILL><SUBJECT>03-19-15 Overviews Arctic
Research and World Trade Center, Anchorage
Alaska</SUBJECT><COMM>HEDA29</COMM></TARGET>



Dr. Michael Sfraga

**Vice Chancellor for University and Student
Advancement**

**Co-Director, University of the Arctic Institute for
Arctic Policy**

**Co-Lead Scholar, US State Department
Fulbright Arctic Initiative**

America's Arctic University

Alaska Arctic Policy Commission

The State of Alaska Will:

- Promote Economic and Resource Development
- Address the Response Capacity Gap in Alaska's Arctic
- Support Healthy Communities
- Strengthen Alaska's Arctic Science and Research
- HCR 5

Alaska Arctic Policy Commission

Strategic Recommendations

- Governance and Indigenous Perspectives
- Science and Research
- Planning and Infrastructure
- Oil, Gas, and Mineral Resources
- Security and Defense
- Marine Transportation
- Search and Rescue/Oil Pollution
- Energy and Power
- Fisheries and Wildlife

Understanding the Arctic as a Social/Ecological System

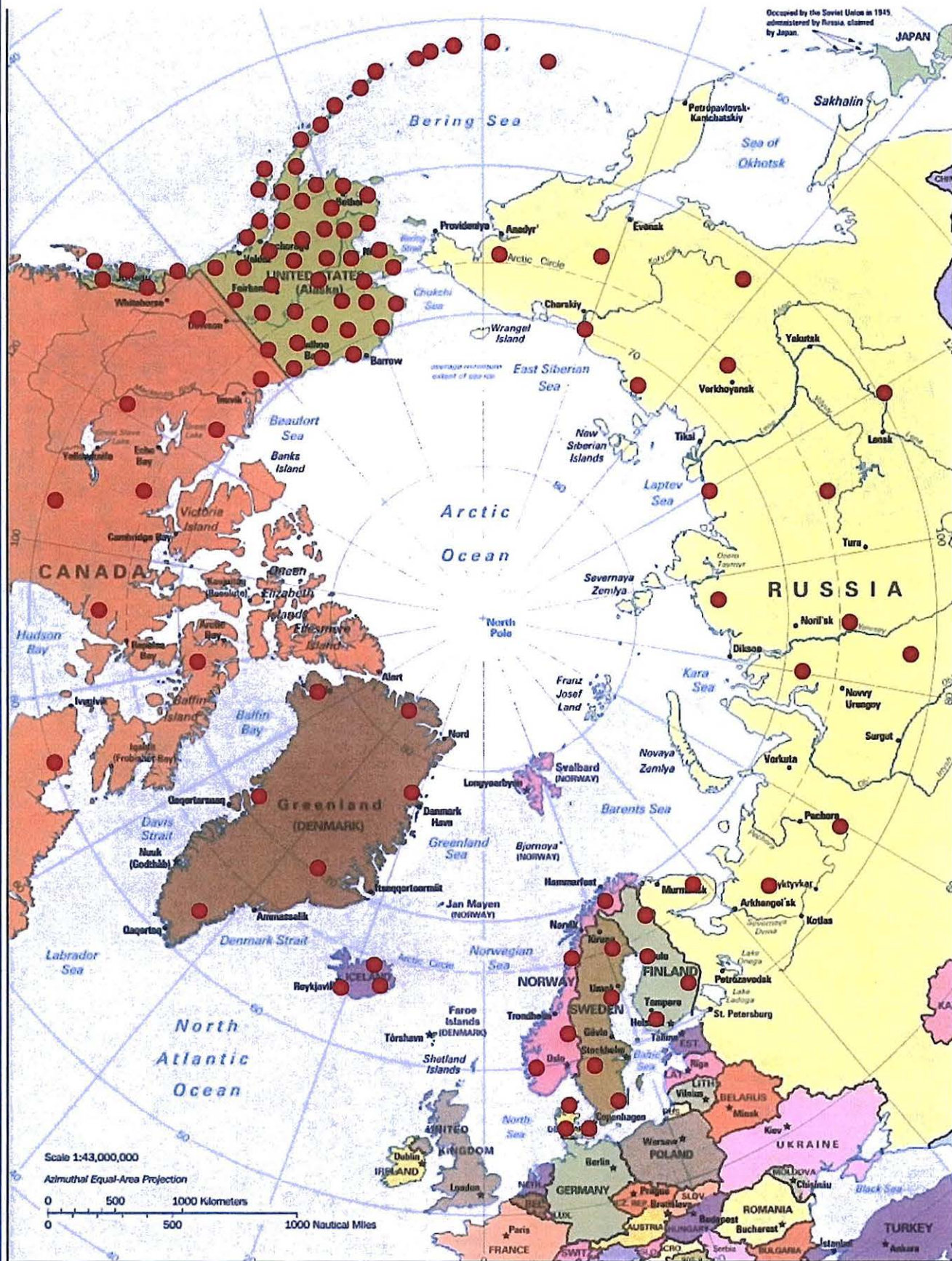


Food and Cultural Security
Energy
Water Availability
Infrastructure
Sustainable Economy
Health
Resiliency



Research is
an
Integrated
Core
Function of
UAF: 100
Year
Investment
in Alaska's
Future





UAF UNIVERSITY OF ALASKA FAIRBANKS

LAND



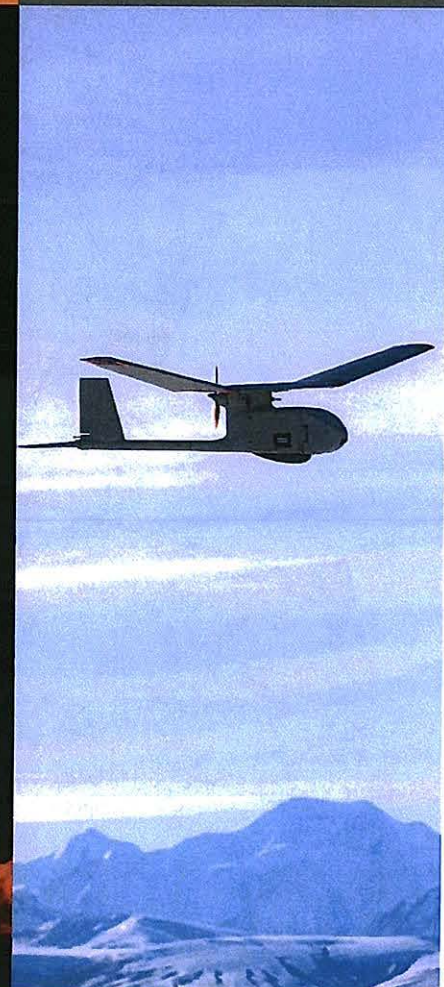
SEA



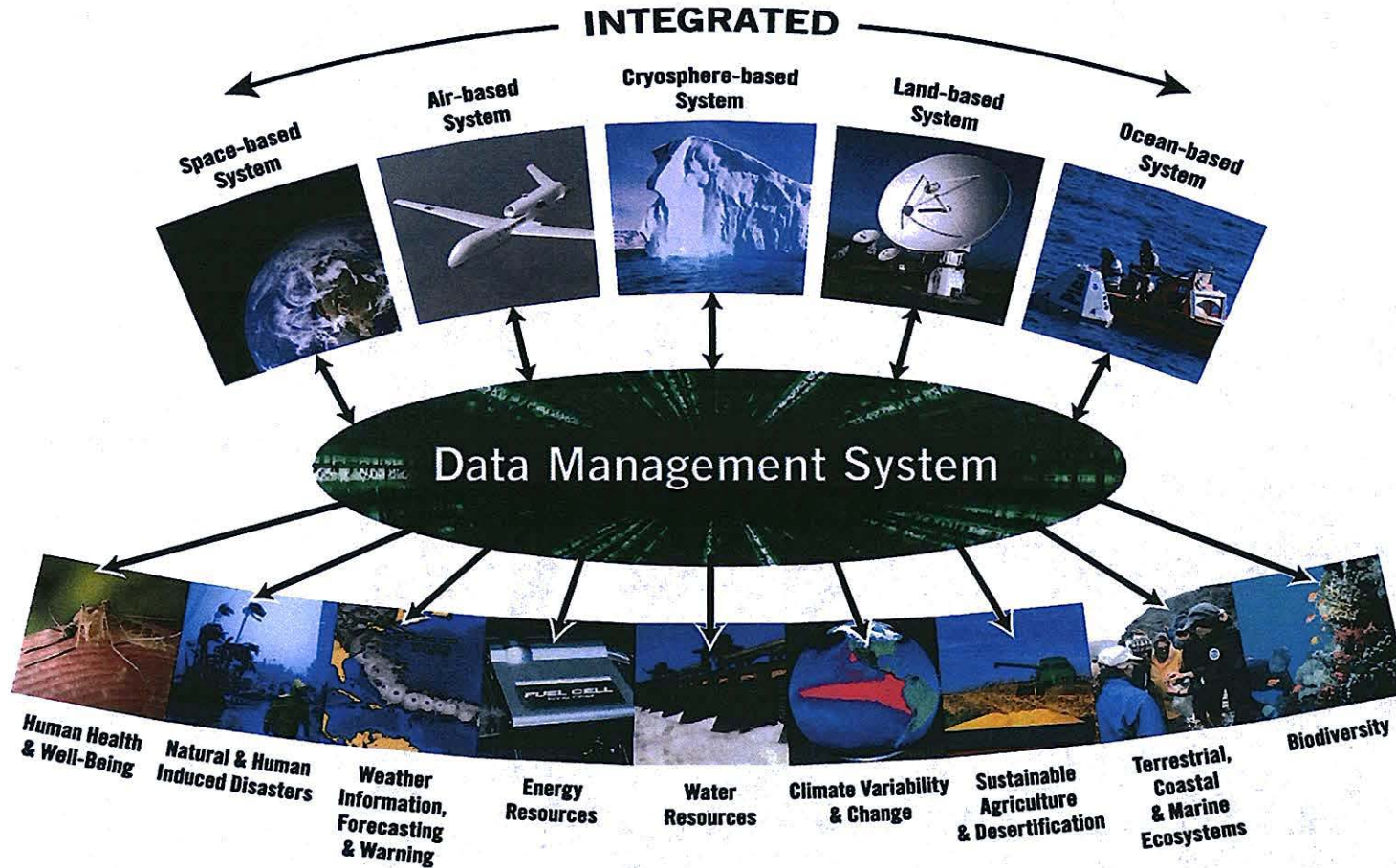
SPACE



AIR



Scientific and Societal Benefits of Integrated Mapping



GEO GROUP ON EARTH OBSERVATIONS

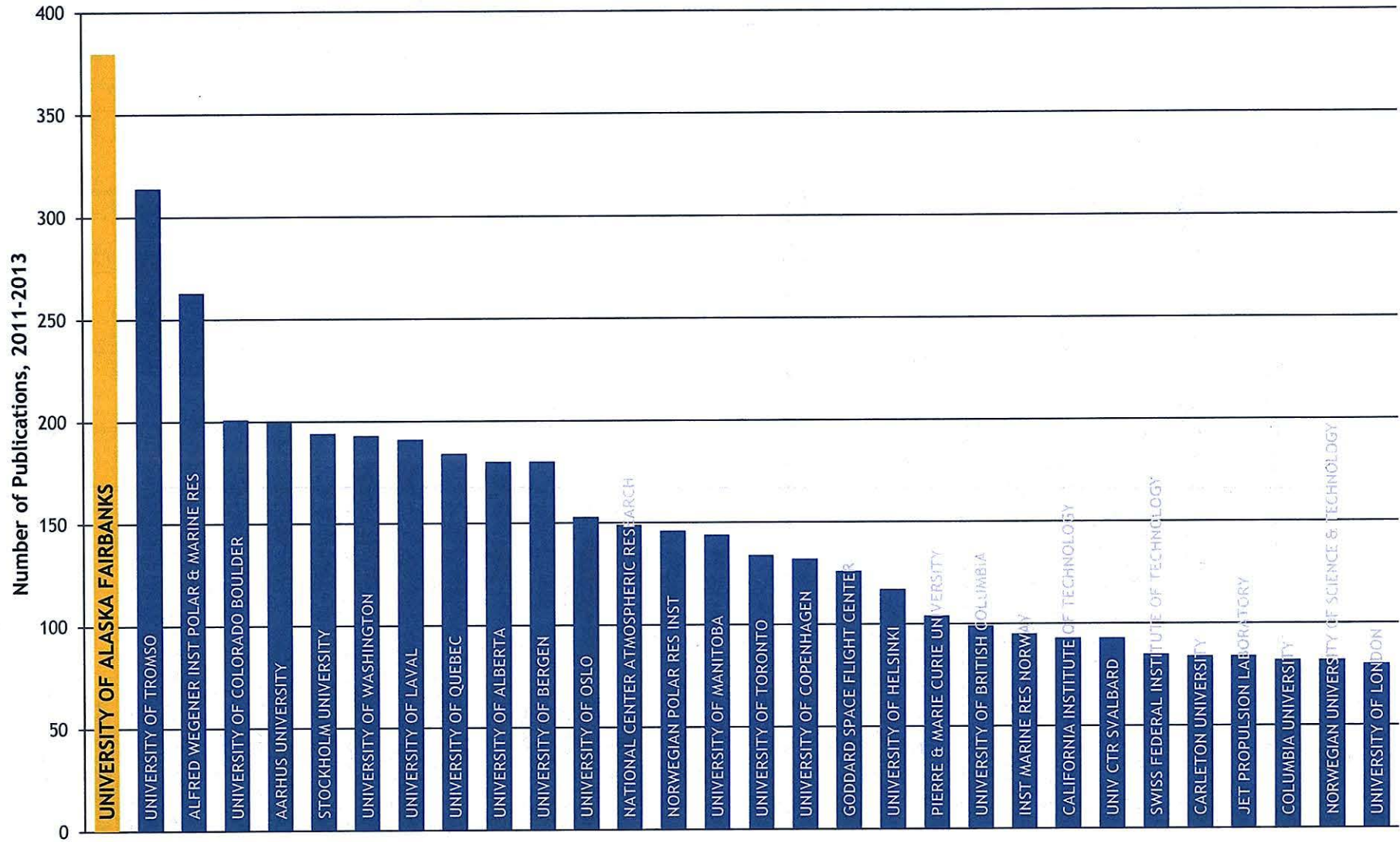
Developing and Applying New Approaches and Technology to the Challenge of Arctic Observation, Monitoring and Research



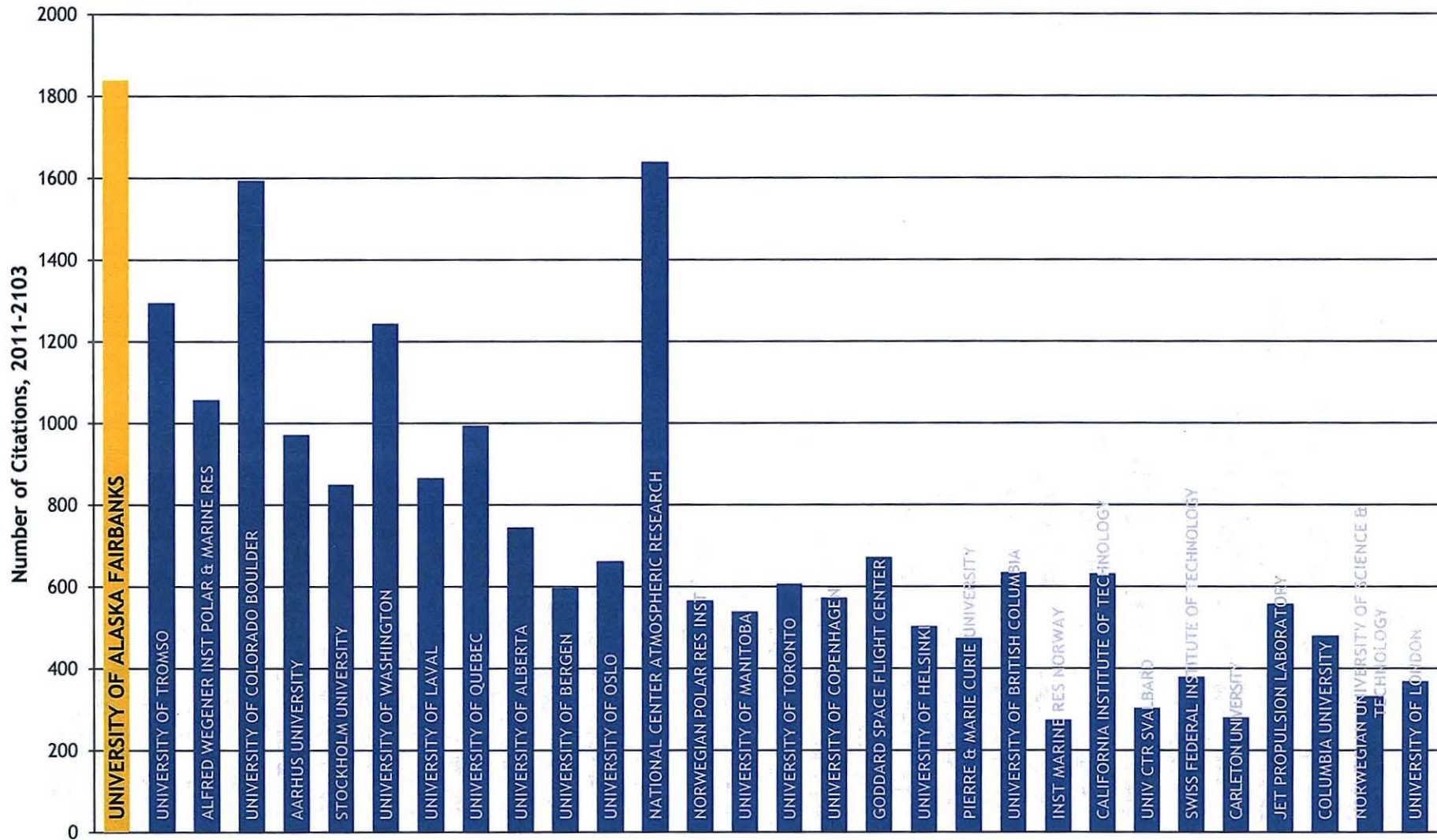
The R/V *Sikuliaq* - the Most Advanced Arctic Research Vessel in the World



The Arctic Science Leader



Arctic Citations





Arctic Countries

Permanent Participants (indigenous peoples organizations)

Observers (countries and organizations)

ARCTIC COUNCIL

ACAP
Arctic
Contaminants
Action Program

Douglas Dasher

AMAP
Arctic Monitoring
and Assessment
Programme

Larry Hinzman
John Walsh
Lawson Brigham
...Many More

CAFF
Conservation
of Arctic Flora
and Fauna

Amy Breen
Skip Walker
Aldona Jonaitis

EPPR
Emergency, Prevention,
Preparedness
and Response

David Barnes

PAME
Protection of
the Arctic Marine
Environment

Michael Castellini
Lawson Brigham

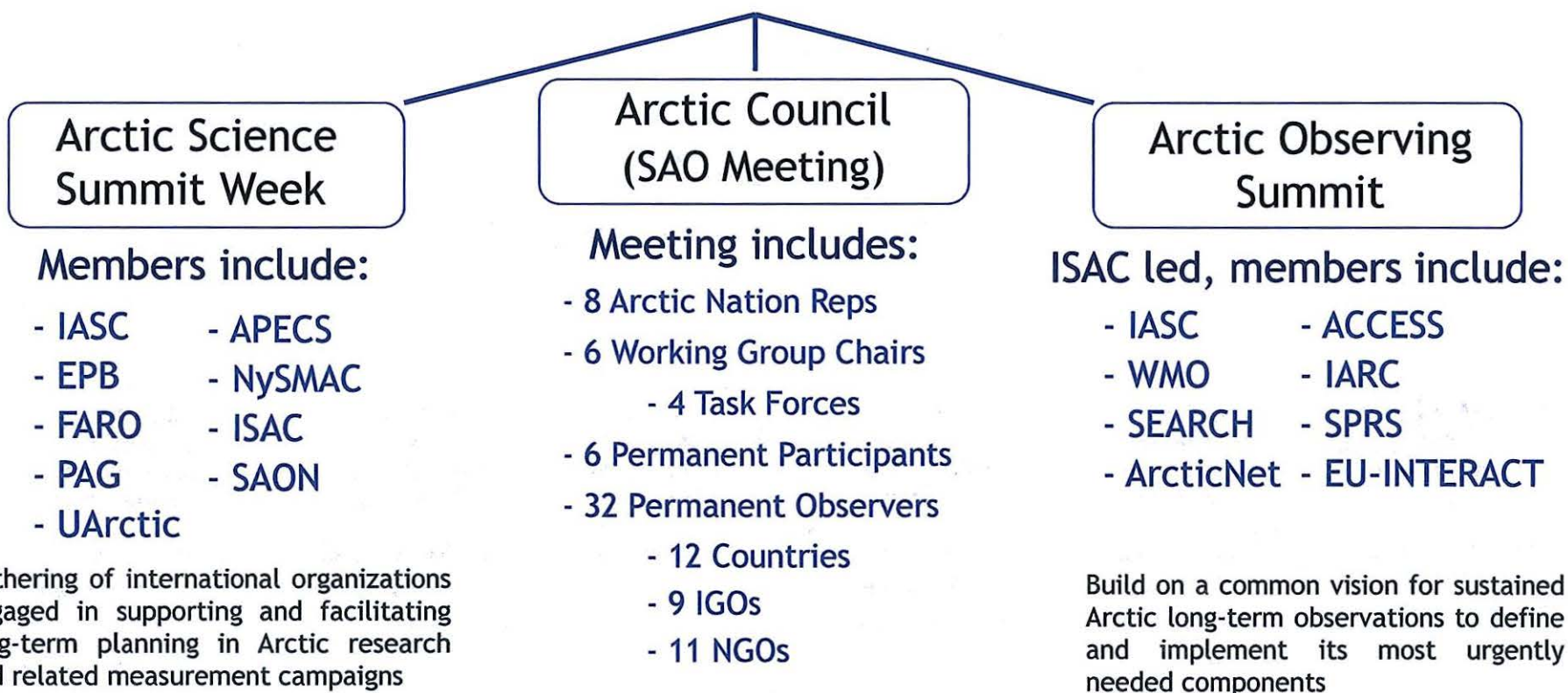
SDWG
Sustainable
Development
Working Group

Pips Veazey
Dayne Broderon

2016 - World's Largest Arctic Science Organization Gathering

March 12-19

UAF will Host the Following Arctic Organizations:



Ancillary Events: Public Lectures • State and Nation Outreach Events • Institutional Engagements *Over 1000 people expected to attend*

Side Meetings, held concurrently with ASSW or AOS

We have been proactive in persuading the following groups to participate in ASSW 2016:

Arctic Council

US Arctic Research Commission

US Polar Research Board

Alaska Arctic Policy Commission

Climate and Cryosphere Science Steering Group

Polar Educators International

International Permafrost Association

International Arctic Social Sciences Association

Sustained Arctic Observing Network

Interagency Arctic Research Policy Committee

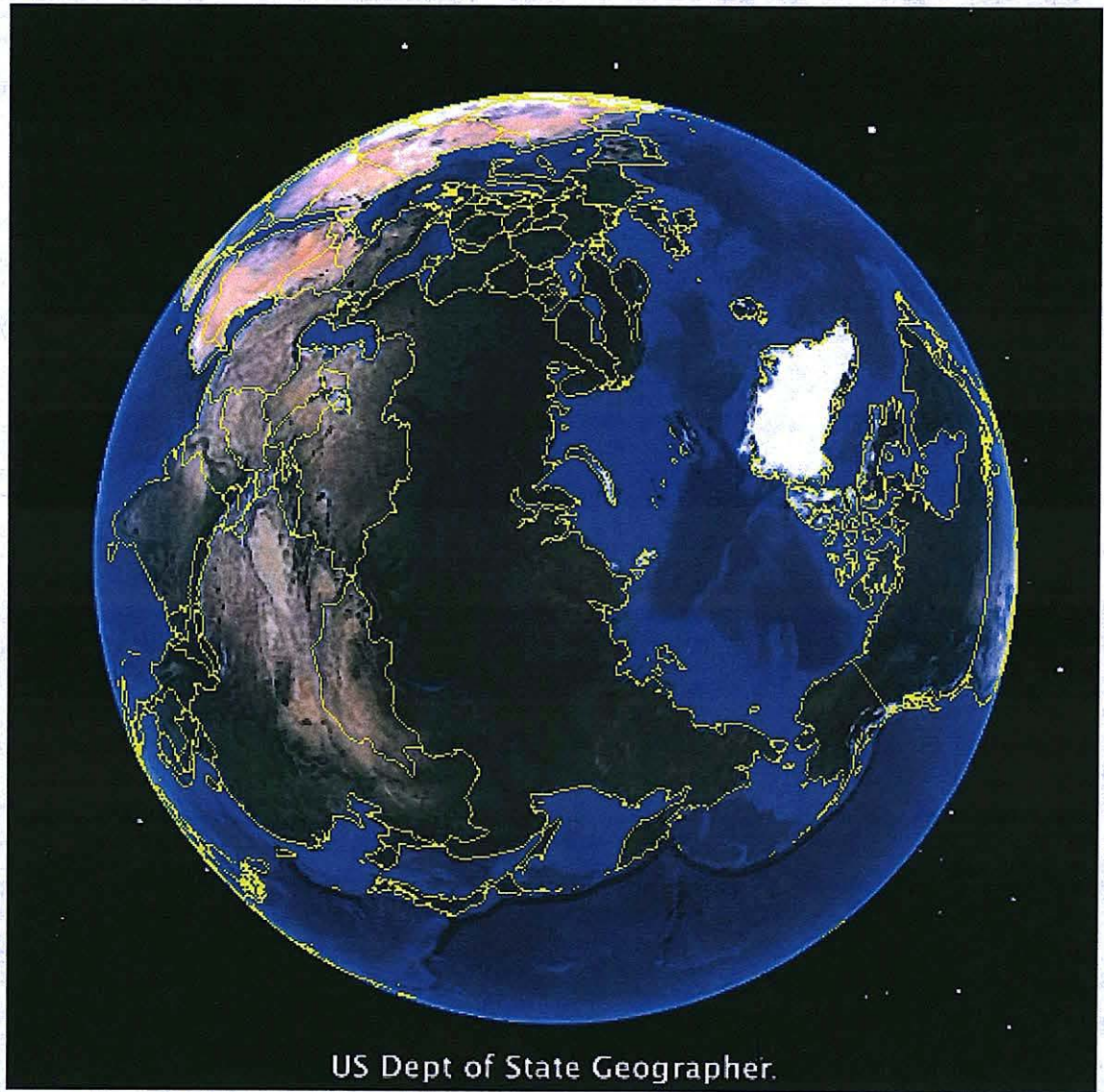
Adaptation Actions for a Changing Arctic

Alaska Native Science Commission

Inuit Circumpolar Council

The Arctic and North Pacific

- Bering Strait bottleneck
- Asian interests in the Arctic
- Establishing domain awareness
- Enabling SAR
- Fostering multinational security:
 - Environmental
 - Political
 - Economic
 - Social
 - Military
- Developing operational capabilities
- Furthering applied sciences and research
- Resource development



University of the Arctic Institute for Arctic Policy (IAP)

- UArctic, UAF, Dartmouth 2008 - Carnegie Endowment for International Peace (DC)

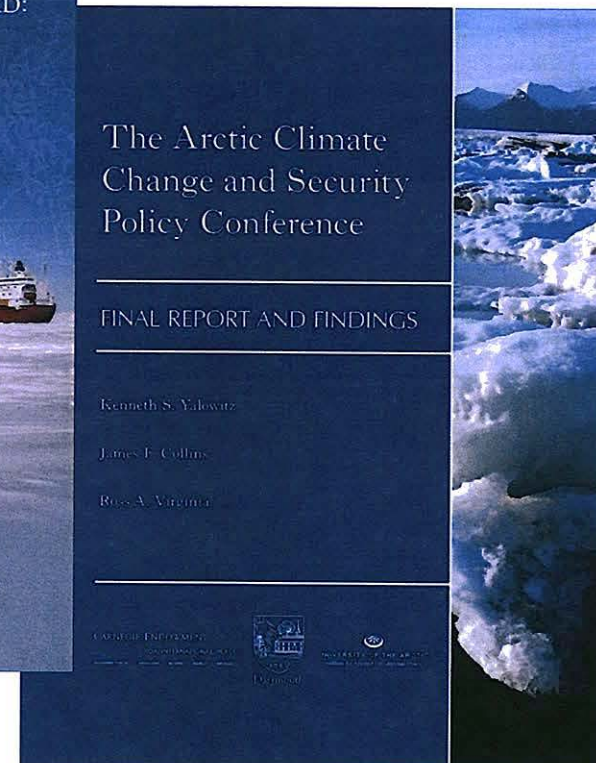
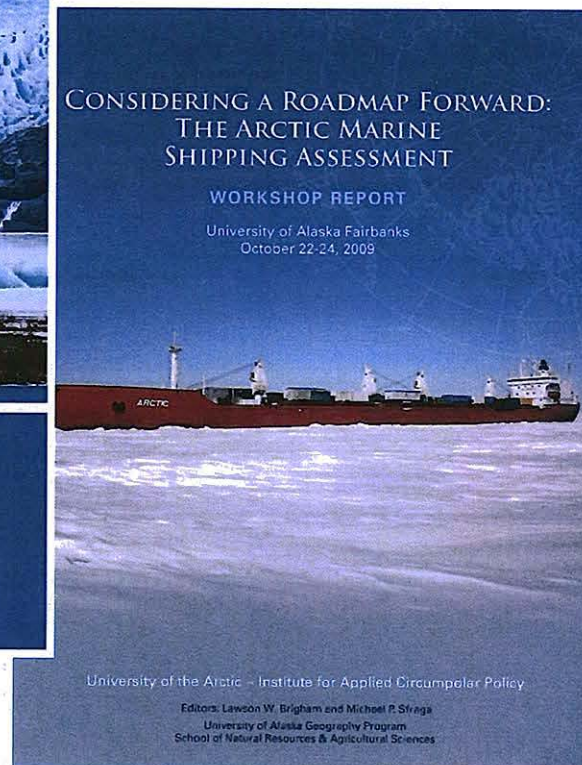
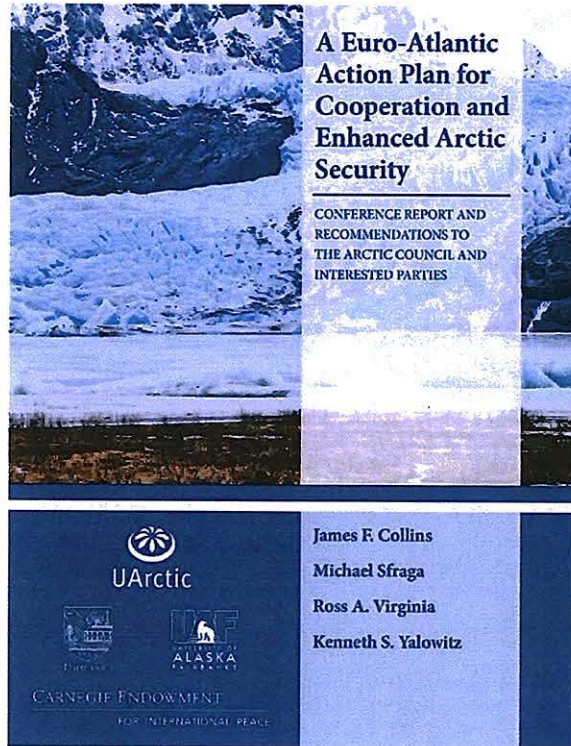
Representatives of governments, the academy, non-governmental groups, and indigenous peoples to:

- Discuss issues requiring policy attention
- Identify and prioritize policy related research needs
- Inform and create position papers/implementation plans for governments, etc. to address pressing policy issues



Institute for Arctic Policy (IAP) University of the Arctic

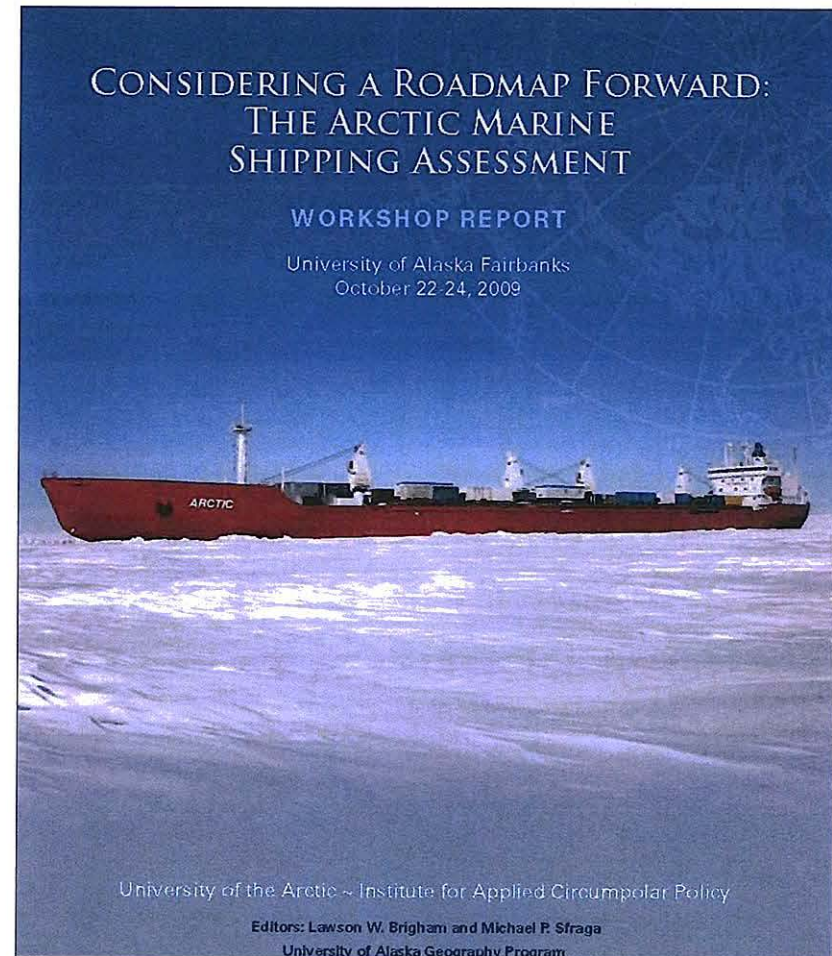
(est. 2008)



- University of Alaska Fairbanks
- Dartmouth College
- Carnegie Endowment for International Peace

IAP Meetings and Reports

- 2008 Environmental Security and Emerging Issues (Dartmouth)
- 2009 Arctic Marine Shipping Assessment - Implementation (UAF)
- 2010 Climate Change and Human Security (U Lapland, Finland)
- 2011 Arctic Health (Dartmouth)
- 2012 Central Arctic Ocean: Jurisdiction Beyond Borders (UAF)
- 2013 Euro-Atlantic Cooperation and Arctic Security (Carnegie, DC)
- 2014-2015 Arctic Council Leadership Transitions (Carnegie, DC)



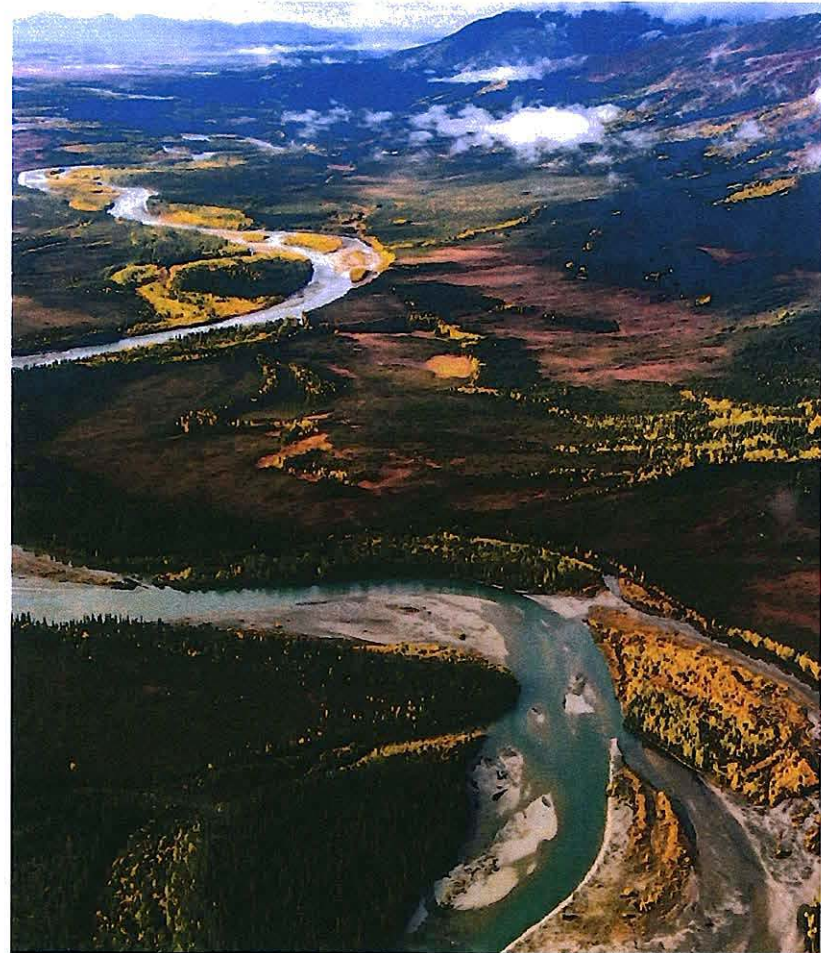
Arctic Council Transitions: CEIP

Washington, DC, October 16-17, 2014 & February
23-24, 2015

40 experts, 20+ observers

Goals:

- October: Frame a set of issues important to the AC under US leadership;
- February: Develop formal recommendations and implementation options and submit to US Secretary of State Kerry, AC and interested parties



United Kingdom



Netherlands



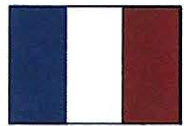
Germany



Poland



France



Spain



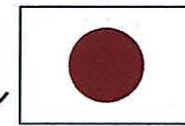
China



Italy



Japan



Korea



Singapore



India



Arctic Countries

Permanent Participants (indigenous peoples organizations)

OBSERVERS

Arctic Council



Issues & Recommendations

Geopolitical Context for the US Chairmanship

- The United States' failure to ratify UNCLOS weakens US voice in Arctic/ international forums
- The AC should ensure mechanisms and procedures for regular consultations at the sub political level given the uncertain geopolitical environment

Issues & Recommendations

Geopolitical Context for the US Chairmanship

- An AC sanctioned multilateral training center should be established for SAR training and joint operations to deal with oil spills
- An experts meeting of the Arctic Coast Guard Forum was held at U.S. Coast Guard Headquarters 24-25 March 2015, and such Forum meetings should continue among the eight Arctic states

Issues & Recommendations

Geopolitical Context US Chairmanship

Much of the Arctic Ocean remains inadequately charted: International Hydrographic Organization - The Arctic states must continue to give Arctic hydrography and charting a high priority

Issues & Recommendations

Arctic Council Governance

- The United States should proactively promote a study of the number, role and participation of Arctic Council observer states and groups
- A study should be undertaken to determine the effectiveness of Council Working Groups
- The Arctic Council, through its working groups, should lead in identifying priorities for scientific study

Issues & Recommendations

Arctic Council Governance

The relationship of the Arctic Economic Council to the Arctic Council requires more definition and could be enhanced by making the former an observer. The Arctic Economic Council should expand its writ beyond its present focus on large industry, energy and mineral extraction to include emphasis on job creation and sustainable development of communities in the Arctic

Issues & Recommendations

Social & Economic Well-being

More small-scale energy pilot projects and evaluation research are needed to stabilize and expand the economic future for small communities. These projects should highlight US and other technologies that might also be applied to isolated communities and remote activities in other regions

Issues & Recommendations

Social & Economic Well-being

- Define and link the role of AC & AEC
- AEC should prioritize research and support strategies to diversify local economies
- The AC's research programs should address individual and community health and food security
- Arctic Infrastructure: Developing public-private partnerships and mechanisms to fund the vast infrastructure gap in the maritime Arctic is a critical issue

Issues & Recommendations

Education, Science Policy and Diplomacy

- Science Ministers from AC members and observers should discuss co-funding and agency cooperation
- The Council should promote the mobility of students, scholars and practitioners engaged in Arctic research and policy (Fulbright)
- The application and acquisition of traditional local knowledge and its use in AC research and in developing policies is a priority

Select Upcoming Programs and Initiatives

- Joint Oceans Commissions Initiative: April 2015 (Meridian Institute), Fairbanks **(ION)**
- Singapore Delegation, April 2015
- Fulbright Arctic Initiative Scholar Announcement: April 2015
- *KUAC “Dynamic Arctic”: June 2015 **(ION)**
- September 2015:Polar Law Symposium: UAA, UAF, UW, Anchorage and Fairbanks
- September 2015: **ION**-Arctic Energy Summit, Fairbanks
- Arctic Science Summit Week: March 2016, Fairbanks **(ION)**

Fulbright Arctic Initiative

- Coincides with, and complements the U.S. Agenda & Chairmanship of the Arctic Council, 2015-17
- Co-lead: Dr. Sfraga, University of Alaska Fairbanks & Dr. Virginia, Dartmouth
- 17+ Scholars from the 8 Arctic Council member countries will spend 18 months conducting multi-disciplinary, collaborative research

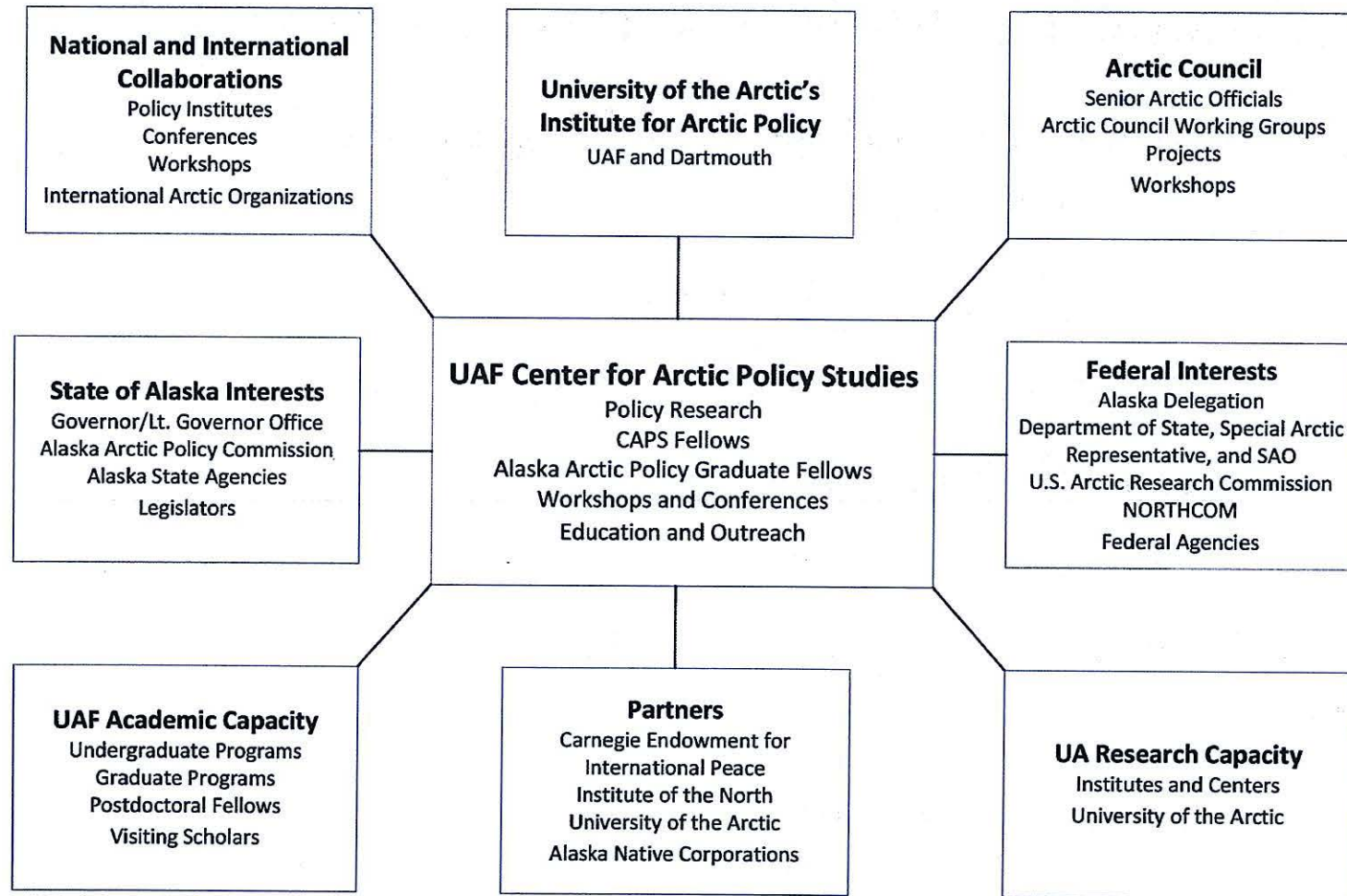


Fulbright Arctic Initiative

- Research Themes:
 - Healthy Communities
 - Energy
 - Water
 - Ottawa, April 22, 2015
 - Iqaluit, May 17 - 22, 2015
 - Finland, Feb. 2016
 - DC, 2017*



UAF Center for Arctic Policy Studies



CAPS & Alaska Arctic Policy Commission

*Graduate Fellows - Areas of Research**

- Governance and Indigenous Perspectives
- Science and Research
- Planning and Infrastructure
- Oil, Gas, and Mineral Resources
- Security and Defense
- Marine Transportation
- Search and Rescue/Oil Pollution
- Energy and Power
- Fisheries and Wildlife
- *Proposed



Thank You

Your State and Arctic University





WORLD TRADE CENTER®
ANCHORAGE
Serving All of Alaska

Alaska's Place in the World: How Exports Drive Alaska's Economy

Presented to the House Special Committee on
Economic Development, Tourism & Arctic Policy
March 26, 2015

Crisis = Danger... and Opportunity

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Will we succumb to the danger or rise to the opportunity?

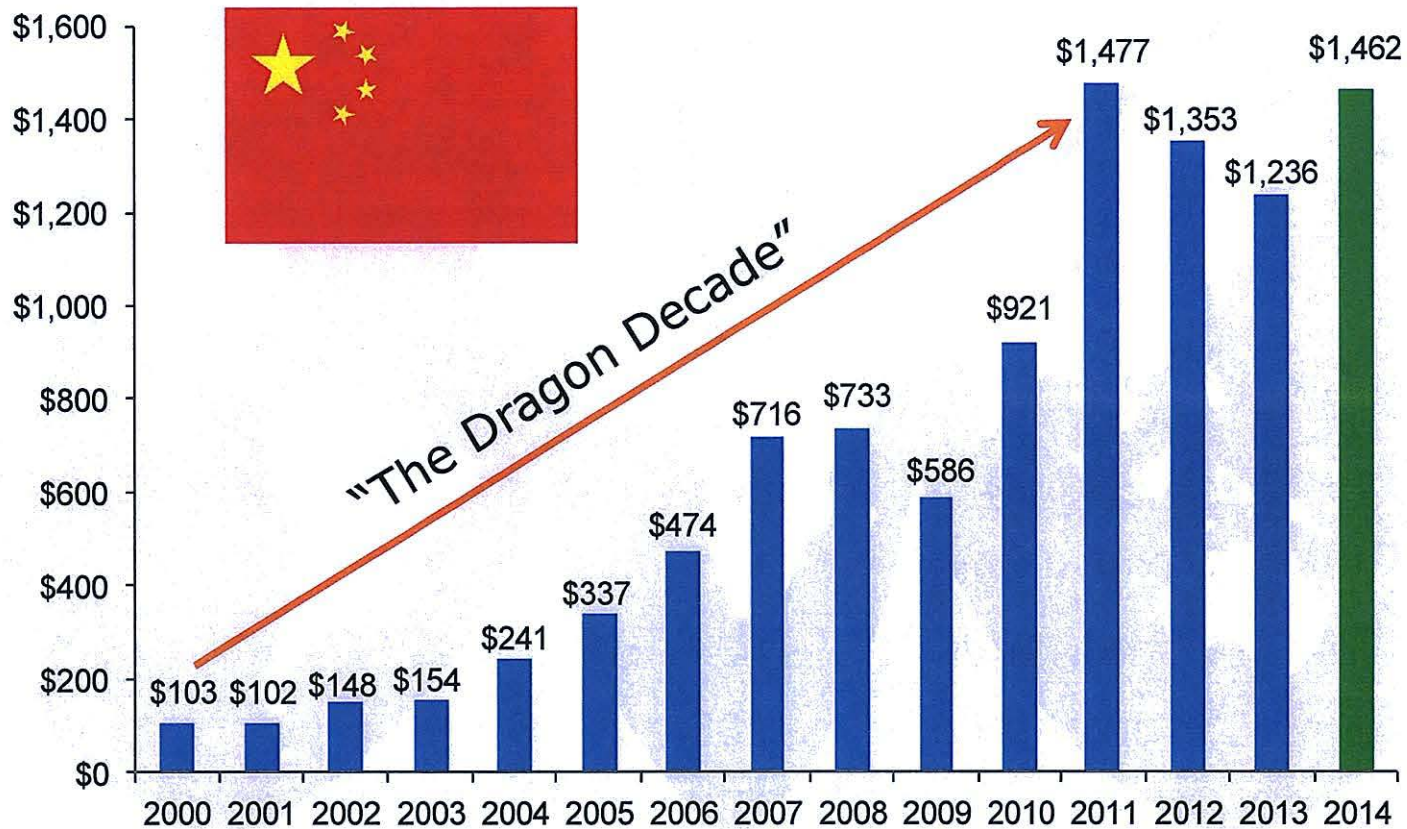
Alaska's Total Overseas Exports Full Year 2014 (\$5.15 Billion)

Ranking	Country	Amount (USD Millions)
1.	China	\$1,462
2.	Japan	\$1,024
3.	South Korea	\$670
4.	Canada	\$515
5.	Germany	\$322
6.	Spain	\$182
7.	Singapore	\$141
8.	Australia	\$111
9.	Netherlands	\$104
10.	South Africa	\$100
11.	Others	\$522

Total: \$5,153

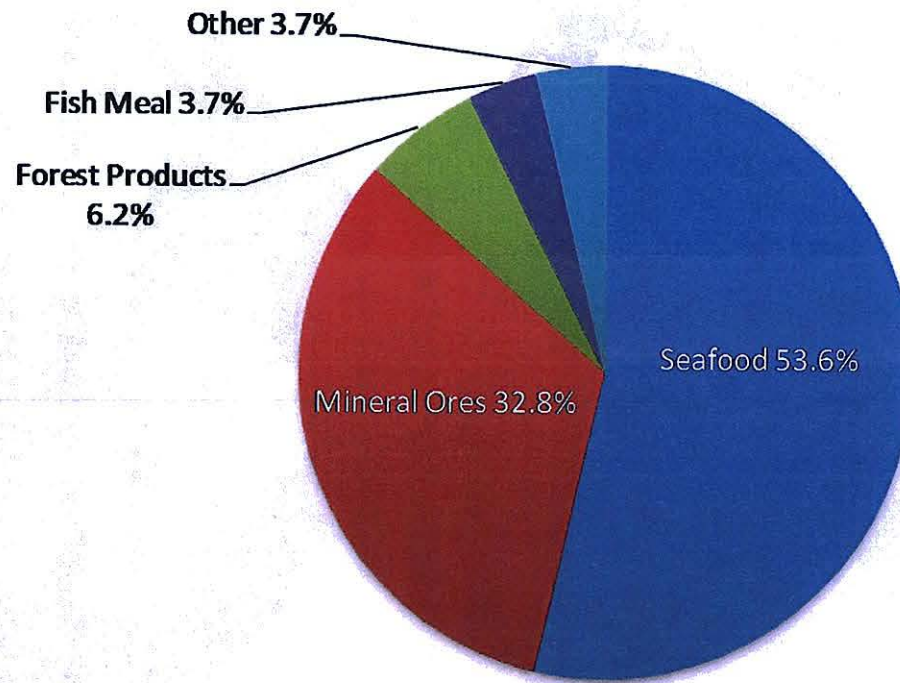
Source: U.S. Census Bureau

Alaska's China Era Continues (2000 - 2014 Comparison, USD Million)



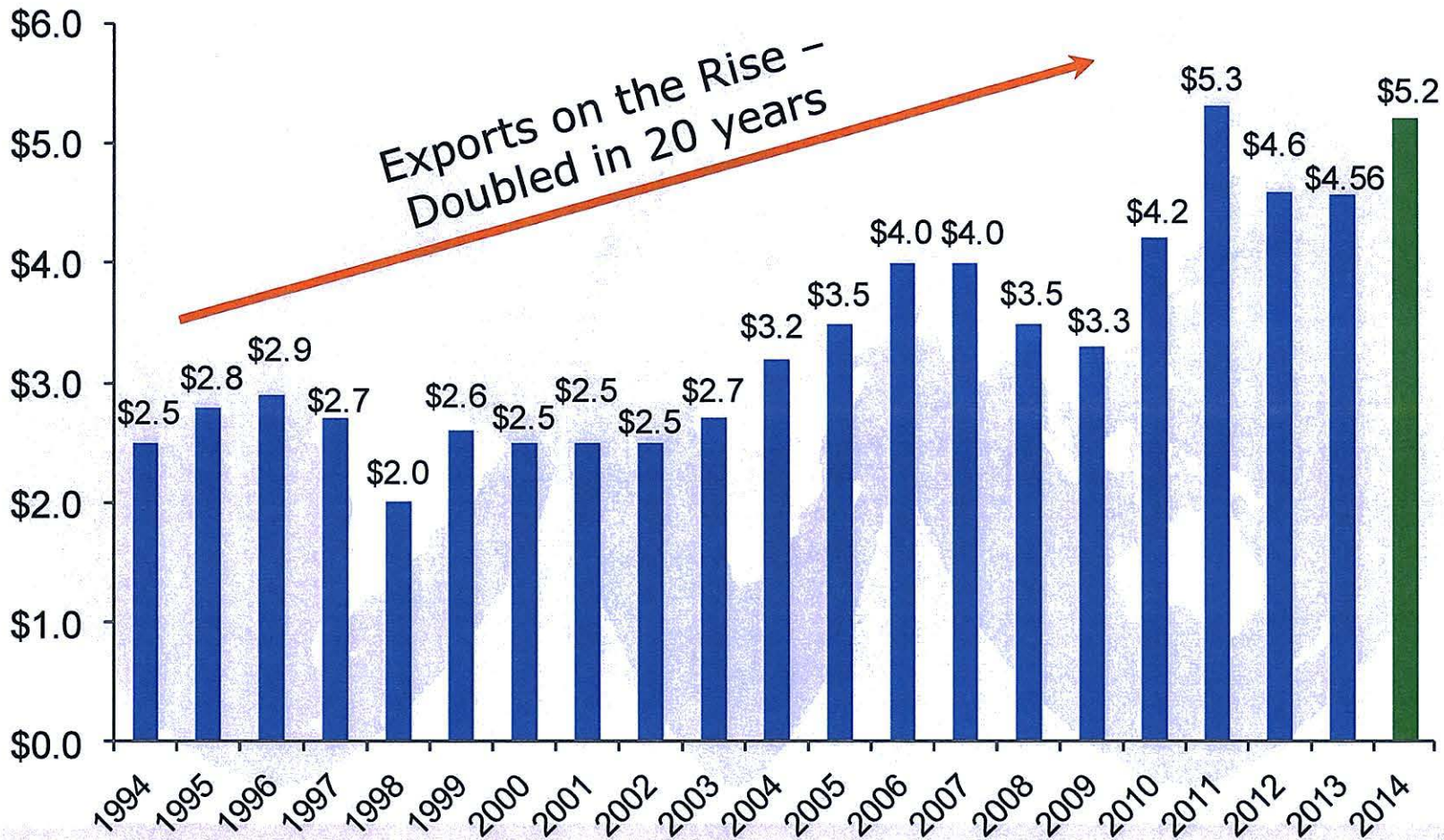
Source: U.S. Census Bureau

Alaska's Exports to China by Commodity - Full Year 2014 (1.46 Billion)



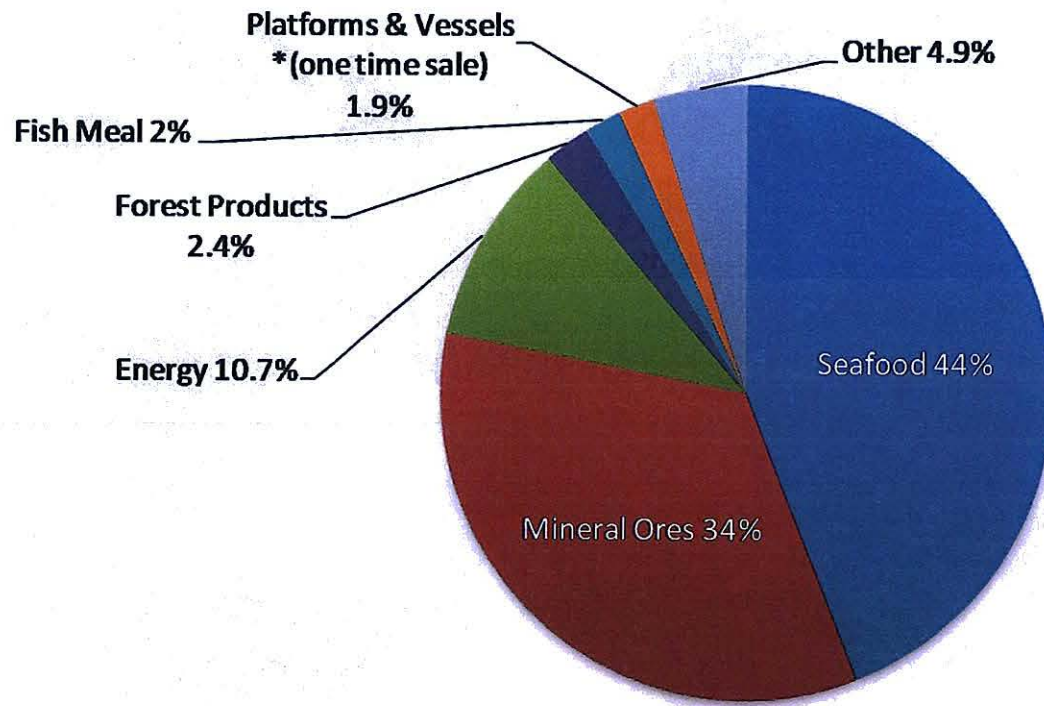
Source: U.S. Census Bureau

Where We've Been (in USD Billion)



Source: U.S. Census Bureau

Alaska's Top Export Commodities Full Year 2014 (5.15 Billion)



Source: U.S. Census Bureau

Current Trends: The Three "Rights"

- Right Place
 - Alaska's geographic location on the Pacific Rim. Fast growing economies and populations
- Right Time
 - Economic liberalization and modernization. Migration to the cities and growth of the middle class
- Right Commodities
 - Alaska has world-class reserves of natural resources. The building blocks of economic development. What people need versus what they want.

The Fourth "Right"

- Right Direction:

- Alaska and the world are heading North

- Access to natural resources

- Transportation infrastructure

- Maritime shipping opportunities

Flowing from commercial development of the Arctic

Opportunities for Alaskan Companies:

- Resource development (offshore & onshore)
 - oil & gas, mining etc.
- Infrastructure build-out
 - engineering, permitting, construction, maintenance etc.
- Maritime logistics & support
 - mapping, fuel, spill prevention & response, communications etc.
- Trade & Commerce
 - exports, new "silk route" potential

International Trade is Big Business for Alaska

- Overseas Exports \$5.2 billion in 2014
- This represents nearly 10% of the Alaska's Gross State Product (GSP)
- New Money into Economy
- Thousands of Direct and Indirect Jobs
- Results in stronger, more diversified economy

International Trade is Big Business for Alaska (cont.)

- Substantial component of Alaska's economy. Exports typically account for approximately 10% of the GSP. Export total does not include the export of services from Alaska — such as construction, engineering and oil & gas services.
- Exports now bring between \$4 and \$5 billion of new money into our economy. New money, not recycled money. Also, exports account for nearly \$2 billion in induced and indirect economic benefits, according to a study by Northern Economics.
- Exports allow companies to become larger through expanded markets and customer base.
- For some Alaska companies, their best bet for growth is overseas markets.

Exports = Jobs

- Exports support nearly 15,000 direct and 10,000 indirect and induced jobs in Alaska
- Export jobs are high paying jobs. Export-related jobs typically pay 13-16% more than jobs tied solely to domestic economy

How Do We Rank?

- Alaska ranks 40th among all states by the value of exports
- As a percent of GSP, Alaska ranks 14th
- On a per capita basis, Alaska ranks 4th
- According to the U.S. Department of Commerce, there are approximately 300 companies that export from locations in Alaska. 75% are considered SMEs

Why am I optimistic?

- We have what the world needs
- We have fast-growing economies and populations in our backyard
- Commercial development of the Arctic presents significant opportunities for Alaska

Why am I optimistic? (cont.)

- Many resources remain untapped – for example, minerals & metals:
 - Coal – 17% of the world's coal; 2nd most in the world
 - Copper – 6% of the world's copper; 3rd most in the world
 - Lead – 2% of the world's lead; 6th most in the world
 - Gold – 3% of the world's gold; 7th most in the world
 - Zinc – 3% of the world's zinc; 8th most in the world
 - Silver – 2% of the world's silver; 8th most in the world

(Source: Commonwealth North – Assets Review)

- North Slope natural gas; Rare Earth Elements; Service Sector Exports

Towards a New Business Model

- Increasing number of Alaskan companies adopting new business model for growth & success
- Traditional model: 700,000 potential customers
- New model: 3 billion potential customers
- This new mindset creates greater feasibility for Alaskan companies & projects

Crisis = Danger... and Opportunity

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Let's Rise to the
Opportunity!