

**ALASKA STATE LEGISLATURE**  
**HOUSE SPECIAL COMMITTEE ON ECONOMIC DEVELOPMENT, TRADE, AND**  
**TOURISM**

February 20, 2014  
11:19 a.m.

**MEMBERS PRESENT**

Representative Shelley Hughes, Chair  
Representative Bob Herron  
Representative Pete Higgins  
Representative Lance Pruitt  
Representative Geran Tarr

**MEMBERS ABSENT**

Representative Lynn Gattis  
Representative Craig Johnson  
Representative Kurt Olson  
Representative Harriet Drummond

**COMMITTEE CALENDAR**

PRESENTATION: CENTER OF INTERNATIONAL GOVERNANCE INNOVATION~  
CARLETON UNIVERSITY~ OTTAWA~ CANADA

- HEARD

PRESENTATION: MARINE EXCHANGE OF ALASKA

- HEARD

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

JOHN HIGGINBOTHAM, Senior Distinguished Fellow  
Carleton University  
Ottawa, Ontario, Canada;  
Senior Fellow, Centre for International Governance Innovation  
Waterloo, Ontario, Canada  
**POSITION STATEMENT:** Provided a presentation on North America  
and the Arctic region.

PAUL FUHS, President

Board of Directors  
Marine Exchange of Alaska  
Juneau, Alaska

**POSITION STATEMENT:** Provided an overview of the Marine Exchange of Alaska.

**ACTION NARRATIVE**

[11:19:12 AM](#)

**CHAIR SHELLEY HUGHES** called the House Special Committee on Economic Development, Trade, and Tourism meeting to order at 11:19 a.m. Representatives Herron, Higgins, and Hughes were present at the call to order. Representatives Pruitt and Tarr arrived as the meeting was in progress.

**PRESENTATION(S): CENTER OF INTERNATIONAL GOVERNANCE  
INNOVATION; CARLETON UNIVERSITY**

[11:20:02 AM](#)

CHAIR HUGHES announced that the first order of business would be a presentation by John Higginbotham of Carleton University, Ottawa, Ontario, Canada, and the Centre for International Governance Innovation, Waterloo, Ontario, Canada.

[11:20:09 AM](#)

JOHN HIGGINBOTHAM, Senior Distinguished Fellow, Carleton University, and Senior Fellow, Centre for International Governance Innovation, gave a brief history of his background. Mr. Higginbotham stated that he brings to Arctic issues a sense of urgency, which is based on 30 years of diplomatic and other experiences. This sense of urgency is related to the gap between international pressures and [the lack of] regional and federal resources applied to the future of the Arctic. Mr. Higginbotham directed attention to the PowerPoint presentation entitled, "North America and the New Arctic." He and others are drawn to this issue by the dramatic melting of the Arctic ice cap that has taken place over the past 30 years. This phenomenon is not well understood, but it is evident that the ice is melting in the Arctic and having an effect on permafrost, on communities, and on geopolitical issues and economic activities. He said he would not explore the causes of global warming, but there is a dramatic trend, and individuals and governments must think about the near future. The projected reduction in the size of the summer ice cap over the next 50

years is important for Canada and Alaska with respect to: the accessibility of communities; fisherman; tourists; resource exploration; and shipping routes throughout the world [slide 1].

[11:25:43 AM](#)

REPRESENTATIVE HIGGINS referred to the map on slide 1 and asked for clarification.

MR. HIGGINBOTHAM explained that the red area on the map marked "2007" is an indication of the ice coverage in the summer. In further response to Representative Higgins, he confirmed that the Northwest Passage (NWP) is only open for two months per year - and a short time longer with the use of icebreakers - although "some people are suggesting" that the center of the Arctic Ocean will be ice-free in September and October. Slide 2 was a rough chart of the extensive petrochemical and mineral resources in the Arctic Ocean that have not been exploited because doing so is dark, cold, dangerous, and very expensive. He acknowledged that the Arctic remains an attractive place to invest without regard to its constraints. Slide 3 entitled, "Arctic Boundaries Claims" illustrated the legal claims by different countries over the Arctic Ocean; this is an important issue as uncertainties over boundaries have caused centuries of war. For the moment, the United Nations Convention on the Law of the Sea (UNCLOS), Commission on the Limits of the Continental Shelf process has the issue under control between the various Arctic coastal states; in fact, there is an agreement by the Arctic coastal states to reach bilateral agreements where there are territorial disputes. For example, the Russians and the Norwegians have unexpectedly reached a territorial agreement in the Barents Sea. Mr. Higginbotham characterized this commitment to come to a peaceful settlement of boundary issues as "quite promising." On the other hand, there is an ongoing Canada/U.S. dispute over a portion of the Beaufort Sea, the U.S. has not ratified UNCLOS, and there are questions on the issue of innocent passage through the waters of the Canadian Arctic Archipelago.

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MR. HIGGINBOTHAM continued to slide 4 entitled, "Arctic Shipping Routes." He said his interest in shipping routes was inspired by the search for NWP, and the relative lack of attention to its development by Canada. There is a long history of maritime commerce through NWP, most of a destination nature for the purpose of servicing communities. Four routes were shown on slide 4: the Canadian NWP; the central Transpolar Sea Route

(TSR), which can be used in the summer with the assistance of a large icebreaker; the Russian Northern Sea Route (NSR); and the Arctic Bridge Route (ABR). He advised that Russia is the commercial leader in the Arctic because it has invested billions of dollars in fleets of nuclear icebreakers, has developed offshore oil and gas facilities, and has created a NSR administration to encourage paying traffic from Europe to Asia, as this is a much shorter route compared to transit through the Panama Canal.

[11:35:11 AM](#)

CHAIR HUGHES asked whether the increase in activity along NSR is because of retreating ice, or because Russia is active in encouraging its use. Also, how do shipping opportunities compare between NSR and NWP.

[11:36:00 AM](#)

MR. HIGGINBOTHAM said it is a combination of both factors. Geographically, NSR is more ice-free in July, August, or September because the straits in NWP clog up with moving ice. Also, the Russians have developed a system of icebreakers, convoys, and ice pilots; for example, just one ship went through NWP from Vancouver to Finland without icebreaker assistance last summer. In contrast, hundreds of ships went through NSR and there were between twenty-five and sixty international transits of major ships. Russia has made the "return to the Russian Arctic" a major priority in order to serve energy projects and transit traffic. The development of Russian deep-water ports is broadly integrated with defense and security efforts as well, although this aspect is tempered by its need for international capital to develop oil and gas resources in Siberia and along the Arctic coast. Mr. Higgenbotham opined Canada and the U.S. are the least developed, with respect to Arctic maritime development, of all of the Arctic states. He directed attention to slide 5 entitled, "Icebreakers of the World (Source: USCG)" which illustrated the investment that has been made by Russia in state-owned equipment and infrastructure to promote economic development in the Arctic. Norway is also very advanced - it is probably the world leader in Arctic oil and gas development - and all of the Scandinavian countries cooperate with Russia through the Barents Euro-Arctic Council.

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MR. HIGGINBOTHAM turned to slide 6 entitled, "Northern Sea Route." He pointed out there are search and rescue stations all along the route, and Russia maintains a high level of mapping and control in the area, charging countries fees for transiting. Access is limited and ships are monitored by electronics and by Russia's fleet of icebreakers. The traffic is now a fraction of world trade compared to that of the Suez Canal, which has 18,000 transits per year, but it is the beginning of an important trend in light of the changing ice and the coming of global commerce. Mr. Higginbotham cautioned that granting the Russians a commercial monopoly over transpolar travel and marine transport in the Arctic is a mistake for North America.

REPRESENTATIVE HIGGINS asked whether transit through NSR is restricted to summer use.

MR. HIGGINBOTHAM estimated that it is open to use for approximately four months. In further response to Representative Higgins, Mr. Higginbotham said it is possible for the ice to return but that is unknown. The evidence of the last 30-40 years shows the retreating ice is a steady trend, although there are many different explanations for climate patterns.

[11:46:43 AM](#)

CHAIR HUGHES asked how many transits are attributed to the Panama Canal.

MR. HIGGINBOTHAM responded about 10,000 per year. In further response to Chair Hughes, he said passage through the Arctic saves about a week of sailing time for ships from Japan or Korea that would otherwise travel through the Suez Canal. He then turned to Canada's "Northern Strategy," which is a document outlining Canada's unique concern about sovereignty, its concern about economic and social development, and its attention to the environment. Regarding governance, Canada has seen the devolution of federal powers to the northern territories; for example, Yukon has a level of governance not far from that of a Canadian province. Recently the federal government and the Northwest Territories have reached agreement on the control of natural resources. Nunavut, a large area populated mostly by Inuit, is the least developed area and is governed by a combination of territorial government and a quasi-government formed by the Inuit population. However, all three territories remain largely dependent on the federal government for the funding of education and health systems [slide 7]. He opined the Canadian government has not carried its full responsibility

for national development in the Arctic to the degree it has in the South. Slide 8 displayed "Canada's Arctic Council Priorities 2013-2015." He noted that Canada is currently chair of the Arctic Council, which influences peaceful development and cooperation in the region. As chair, Canada has set the following priorities: Resource development in the Arctic to meet the interests of Northerners; safe Arctic shipping, which is a deviation from previous priorities directed toward the environment and science; and sustainable circumpolar communities. Slide 9 was a map entitled, "Northern Transportation System and Northern Projects Management Office Projects." Mr. Higginbotham pointed out there is a lot of traffic from Montreal and Baffin Island; there is an Arctic port at Churchill; there is a route from Alberta down the Mackenzie River; and Yukon has access to Skagway and south. The Canadian Arctic is in acute need of greater attention to small and large ports, aids to navigation, charting, and better communications; in fact, the Canadian Coast Guard and Transport Canada are considering a policy framework for marine corridors. Slide 10 was a map of the Nordic Orion's profitable voyage from Vancouver to Norway through NWP. Finally, he displayed slide 11 entitled, "The North American Arctic Marine Highway." Mr. Higginbotham said his years of experience in Washington D.C. leads him to say sufficient dialogue between Canada and the U.S. on Arctic issues "is not really happening."

[11:57:21 AM](#)

REPRESENTATIVE HERRON inquired as to on what the U.S. should concentrate during its chairmanship of the Arctic Council.

MR. HIGGINBOTHAM expressed his belief that the Arctic Council "tries to do everything," and needs to turn away from research and stewardship - [although they] are important - and put more focus on marine transportation and closer cooperation among the coastal Arctic states. Also, he urged for an examination of how working groups are constituted, and especially important for Canada and the U.S., are how regional governments are represented, because Canadian territories and Alaska should have their own voice outside of federal authority. He observed work should focus on bilateral relations between Canada and the U.S. and on triangular cooperation between Russia, Canada, and the U.S.

REPRESENTATIVE HERRON said he would contact Mr. Higginbotham directly with other questions and share his responses with the committee.

CHAIR HUGHES urged for proactive work on Arctic issues.

[12:00:57 PM](#)

**PRESENTATION: MARINE EXCHANGE OF ALASKA**

[12:01:46 PM](#)

CHAIR HUGHES announced that the final order of business would be a presentation by the Marine Exchange of Alaska.

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PAUL FUHS, President, Board of Directors, Marine Exchange of Alaska (Exchange), informed the committee the Exchange is a non-profit organization that set up a vessel tracking and emergency response system. The Exchange has also been working on the Northern Sea Route (NSR) for about 20 years. He observed that global warming has accelerated [Arctic shipping], but regardless of the changing climate, the Arctic "is open." He displayed a map of four Arctic shipping routes and advised that there has been an increase in transpolar shipping [slide 3]. Although there is less ice, the ice moves around and still creates a challenge to shipping. In 2013, about 400 vessels transited through the Bering Strait - of which 71 were transpolar shipments across NSR -, 17,000 vessels transited through the Suez Canal, and 14,000 vessels transited through the Panama Canal [slide 4]. Vessel traffic [through the Arctic] is increasing by 50 percent per year and estimates are by 2030 there will be about 2,000 vessels per year. Mr. Fuhs explained his data comes from automated identification systems (AIS) stations around the Arctic. Vessels over a certain size are required to indicate their destination; AIS stations pick up their signals every six seconds that are accurate to three meters [slide 5]. Also recorded is the name of the vessel, its owner, the cargo, and fuel type. He advised that almost all of the shipping through NSR has been bulk ore and petroleum; however, a great amount of container shipping travels the Great Circle Route between Asia and the U.S., and with icebreakers, container ships on NSR can connect at Adak or Dutch Harbor with the container ships on their way to the U.S [slide 6]. Slide 7 depicted vessel traffic on the Great Circle Route on 1/22/14, and Mr. Fuhs noted that this route carries about 80 percent of its capacity of container vessels.

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REPRESENTATIVE HERRON suggested that anticipated new Canadian shipping may double the existing traffic through Unimak Pass within 10-15 years.

MR. FUHS agreed and added that the aforementioned new shipping would consist of tanker cargoes of crude oil, increasing concern about environmental issues. He noted that further information on this matter can be found in the draft Aleutian Islands Risk Assessment, and recommended that a similar assessment is needed of the Bering Strait. Slide 8 showed NSR, the Great Circle Route, and shipping routes through the Panama and Suez Canals. Use of NSR from the U.S. West Coast saves about ten days when compared to the route through the Panama Canal, and saves about twenty days when compared to the route through the Suez Canal. Although an icebreaker is needed for transit through NSR, the cost of a Russian icebreaker is a little less than the cost of the anti-piracy insurance required to ship around Cape Horn and along the coast of Africa. Thus, shipping on NSR is not more expensive, from an administrative view. In response to Chair Hughes, Mr. Fuhs further explained that if a shipper owns the vessel, and the cost of anti-piracy insurance equals the cost of icebreaker fees, all of the cost of the fuel used for ten or twenty extra days of sailing is saved. Slide 9 illustrated a South Korean design for an icebreaking containership, powered by liquefied natural gas [LNG], and dedicated to run on NSR and connect to other ships on the Great Circle Route. Black carbon [emission] is an issue of debate in the Arctic, and an LNG-powered vessel avoids that issue. In response to Chair Hughes, he said the South Korean ship is in the design stage. Slide 10 illustrated different Russian diesel- and nuclear-powered icebreakers. Icebreakers with a shaft power of 25 megawatts (MW) are in existence today. Three Russian icebreakers with a shaft power of 60 MW will be built by 2020, and two more by 2030. He compared the power of one 60 MW ship to that of the power of Bradley Lake Hydro, which produces 45 MW. These icebreakers will extend the shipping window on NSR from about five months to about seven months out of the year. A future Russian icebreaker of 110-130 MW will be operational year-round, and will travel at 12 knots through 3.5 meters of ice [slide 11]. He said, "This ship has not been built yet, but this changes everything right here."

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REPRESENTATIVE PRUITT asked for further details.

[12:11:19 PM](#)

MR. FUHS said the icebreakers do not hold cargo, but lead the cargo ships in a convoy. Slide 12 was an illustration of an icebreaker with shaft power of 110 MW, length of 600 feet, width of 100 feet, and draft of 11-13 meters. He pointed out that vessels of this size require about 35 feet of depth in port, thus Arctic ports need to be designed at this depth to accommodate icebreakers and U.S. Coast Guard (USCG) ships. Two potential deep-water ports that can achieve this depth are Nome and Port Clarence. Slide 13 was an illustration of a South Korean LNG vessel that is 900 feet long and travels through the Suez Canal to Asia for seven months of the year, and through NSR for five months of the year. Two of these vessels have been built and fourteen more are under construction. Slide 14 illustrated the route taken by the Chinese icebreaker Xue through U.S. waters. Because the U.S. has not ratified the United Nations Convention on the Law of the Sea (UNCLOS), U. S. sovereignty has not been established. Mr. Fuhs advised that there is potential opportunity and risk associated with the opening of NSR. Some of the risk is presented by crude oil tankers. Slide 16 pictured a crude oil tanker transiting the Bering Strait, and he noted that the total cargo through the Bering Strait in 2013 was 1.3 million tons, 800,000 tons of which were petroleum products. He cautioned that the U.S. is unprepared for an incident in that area because the circulation patterns in the Arctic indicate that if there is an incident in Bering Strait, the spill will come straight to the west coast of Alaska [slide 17]. He stressed that Alaska needs Arctic ports to establish response capability. Slide 18 identified all of the Arctic oil developments leased by Russia, Iceland, Canada, and Greenland [slide 18]. He expressed his frustration in that U.S. offshore development has been "shut down" in U.S. waters, but oil development continues in the Arctic, therefore Alaska holds "... zero percent of the opportunity and almost 100 percent of the risk." The Exchange and USCG are trying to determine the response capabilities of ports along NSR [slide 19]. There are some joint response agreements with Russia; however, the responses need to be drilled and exercised to determine prevention and response capabilities. Mr. Fuhs restated the importance of establishing ports and response centers at Nome and Port Clarence. Although USCG and the Department of Defense (DoD) have "weighed-in now," there has not been concrete federal action or investment. Mr. Fuhs closed, saying the Arctic is a high-risk area and a U.S. presence is needed to ensure actions taken there are right each and every time. He thanked Representative Herron for his leadership and

urged for the passage of legislation on the development of Arctic infrastructure.

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REPRESENTATIVE HERRON added that the Bering Strait is a sieve and pressure from the warm water going north and the cold water going south brings the current to Alaska's coastline from above or below the strait, making Alaska a victim by its geography.

CHAIR HUGHES observed that Russia is ahead of the U.S. in Arctic activity and asked whether Russia is taking liability for [the Arctic's] protection.

MR. FUHS said no. He recalled at a recent international conference in Norway the chain of liability was discussed, but the answer remains unknown. He expressed his hope that working with the Russians on a local level may be effective, as was done in the resolution of the Barents Sea dispute between Russia and Norway.

CHAIR HUGHES asked whether the Arctic Council is the best venue for working on an agreement.

MR. FUHS acknowledged that at some of the Arctic Council meetings the Russians seemed interested in establishing real criteria and policies. Part of the problem is that the U.S. has been a defender of worldwide innocent passage because it does not want any restrictions on its vessels. Therefore, the U.S. has little ability to regulate vessels transiting in international trade because of the U.S. Department of State and DoD policies. However, if following these policies, Mr. Fuhs warned the federal government needs to provide assets to protect its coastline such as icebreakers, a deep-water Arctic port, and clean-up facilities. He opined Alaska's Congressional Delegation does not have sufficient "traction" to influence federal policy.

REPRESENTATIVE HERRON advised the Barents Regional [Council] is a good model, as is the Pacific Northwest Economic Region (PNWER) Arctic Caucus. He advised that Alaska needs to reach out to Canada and Russia in a grassroots effort to develop subnational agreements that are then presented to national governments. There will be more success with multinational negotiations if subnational governments have worked out regional projects in subnational jurisdictions; for example, Alaska,

Yukon, and Northwest Territories have the Beaufort Sea as a common denominator.

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MR. FUHS related the Exchange approached the Canadian national government and offered to install receiving stations in two villages and share the resulting information, but the offer was refused pending a new Canadian administration. He opined international politics interfered, even in the issue of marine domain awareness; however, a commercial path using the protections required by insurance companies may force the issue.

REPRESENTATIVE PRUITT asked for the impact the proposed canal through Nicaragua - funded by China - will have on the shipping traffic through NWP, especially if China steers its shipping traffic through Nicaragua because of its investment therein.

MR. FUHS said he met with Chinese delegates at the international conference in Tromso, Norway, and they were very aggressive on NSR regardless of the Panama Canal. The expansion of the Panama Canal is so larger vessels can transit at the same cost, which allows individual companies an advantage. However, it is more of an advantage to save shipping time, depending on whether the cargo is perishable. He said the Chinese have done a lot of economic analysis on shipping from China to Europe.

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REPRESENTATIVE PRUITT restated his observation about China's investment in Nicaragua.

MR. FUHS referred to the map and pointed out that even with passage through Nicaragua, "that's a lot of distance to make up."

REPRESENTATIVE TARR inquired as to whether cost overruns on the Panama Canal expansion affect the attractiveness of the canal route.

MR. FUHS explained that the expansion of the Panama Canal has about a \$1.6 billion cost overrun which must be built into its economic model. Although larger ships will be able to pass through, it will not be any cheaper.

(Indisc.)

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CHAIR HUGHES noted the canal in Nicaragua may have environmental impacts.

MR. FUHS assured the committee that the Exchange will continue monitoring, and has the diagnostic tools to track every ship. Because of federal regulations regarding non-tank vessels within 50 miles of shore, the Exchange has established additional emergency and oil spill response capability to provide an additional 1,000 vessels in response. However, about one-half of the vessels in innocent passage on the Great Circle Route are still missed. In addition, the Exchange seeks to partner with other oil spill response organizations in order to cover Alaska's 30,000 miles of coastline. Mr. Fuhs cautioned that there are limitations on response vessels due to policy and ownership issues that affect contingency plans, and there remain several overlapping jurisdictions on spill response that need to be addressed. Oil spill response coverage is funded by a toll paid by each vessel, except for those transiting in innocent passage.

12:31:22 PM

**ADJOURNMENT**

There being no further business before the committee, the House Special Committee on Economic Development, Trade, and Tourism meeting was adjourned at [12:31] p.m.