

Suggestions from Public Comments, Listening Sessions, and Work Sessions

Red highlighted text detail current AAPC recommendations that align with each suggestion (LOF = line of effort).

Written Public Comments

Craig Wilson (Citizen):

Include recognition that there is a worldwide shortage of ice-qualified marine pilots. A policy recommendation should be that Alaska will support training programs for ice certification of marine pilots.

Original section under Search and Rescue, listing factors corresponding to the need for sea and air search and rescue response capacity. The section currently identifies: increased resource extraction to support economic and community development; increased shipping traffic through the Northern Sea Route; increased activity in the Canadian Arctic, including the Northwest Passage, to support marine operations like community resupply; and increased cruise ship traffic.

Recommendation - Develop workforce development program to prepare Arctic residents to participate in all aspects and phases of Arctic development including research, monitoring, regulatory oversight, project development, construction, operation, remediation, and reclamation, to include: ice navigation, marine mammal observation, spill response, SAR, pilotage, and engineering. (LOF – Promote sustainable development of Alaska’s Arctic resources)

From NOAA, Arctic Task Force:

Include Commission "support [of] State agency participation in Natural Resource Damage Assessment planning and implementation."

Since the definition of the Arctic used in this document includes the Aleutian Islands, discussion of vessel traffic through that region should also be discussed.

Recommendation - Expand development of appropriately integrated systems to monitor and communicate Arctic marine information. (LOF – Address the infrastructure gap in Alaska’s Arctic)

Support the use of dispersants as a primary response tool in oil or hazardous substance discharge or release. There is significant research showing that dispersants are effective in the cold waters found in the Arctic. Further, studies have shown that the oil produced in Alaska is amenable to enhanced dispersion by dispersants (Fisher).

Recommendation - Strengthen partnerships with Oil Spill Response Organizations (OSROs) to develop expertise in open water, broken ice, near shore, and sensitive area protection, and be able to meet contingency plan requirements and operate effectively in the Arctic. (LOF – Promote sustainable development of Alaska’s Arctic resources)

The informational infrastructure of navigation aids, charts, hydrodynamic data etc. The report references the CMTS report at line 993, which is great, but it could highlight better the importance of informational infrastructure to making effective decisions -- not just for navigation, but also those communities impacted by erosion, etc. The gaps in informational infrastructure in Alaska and the Arctic are a challenge and a barrier to safe navigation, marine transportation, marine domain awareness, and for safety and resilience in coastal communities. (Leah Fisher NOAA) **See below**

Preliminary Report has good background on the need for charting but there is no corollary recommendation to move forward. (Leah Fisher NOAA)

Recommendation - Improve and support, invest in and complete communications and mapping, navigational infrastructure, hydrographic and bathymetry. (LOF – Address the infrastructure gap in Alaska’s Arctic)

Prioritize conservation of marine and terrestrial natural ecosystems first, then secondarily pursue environmentally responsible and sustainable natural resource development (KBCS).

Recommendation - Develop and support education of the public and outreach efforts that enhance the understanding of the conservation of Arctic biodiversity and sustainable use of biological resources. (LOF – Promote sustainable development of Alaska’s Arctic resources)

AOGA:

AOGA does not support a funding mechanism for the Oil and Hazardous Substance Release Response Fund that would continually add additional taxes on oil and gas producers, who have been the only contributor to this fund since its inception in 1989. According to the Alaska Department of Environmental Conservation, oil production and exploration facilities accounted for only 16% of the volume of released product in FY 2013. The other type of facilities that reported spill were mining, maintenance yard/ shops, vessels, air transportation, canneries and a variety of other facilities. [Source: Annual Summary of Oil & Hazardous Substance Spills, December 2013]. As the AAPC develops a plan to ensure the Oil and Hazardous Substance Release Prevention and Response account is sustainable, pushing for additional funding from the oil and gas industry should be considered “off the table.”

Original section (P.R.) reads: “The state’s efforts to plan for and prevent oil spills in Alaska are largely paid for by the Oil and Hazardous Substance Release Prevention and Response Fund. This fund was formed in 1986 by the Alaska State Legislature using a five-cent surcharge on each barrel of crude oil produced. The fund was subsequently broken into two accounts: Response and Prevention. Four-cents of the surcharge feed the Prevention account and one-cent feeds the Response account. When the balance of the Response account is greater than \$50 million the state suspends collection of the one-cent surcharge on crude. By law, the Response account must be maintained at \$50 million and occasionally the one-cent surcharge is reactivated. The Response account can be accessed by the Governor or DEC Commissioner with notice given to the legislature and used to assist the state when it responds to the exigencies of a spill. To replenish this account, the state seeks recovery of its expenditures from the responsible party and deposits the funds back into the account. If this cost recovery is not sufficient, and to ensure the account stays at \$50 million, the state can reinstate the one-cent surcharge.”

Recommendation - Ensure the Oil and Hazardous Substance Release Prevention and Response Account is sustainable and available to communities. (LOF – Promote sustainable development of Alaska’s Arctic resources)

Commission recommends the following legislative actions:

1. **Conduct review of similarly structured and successful programs in the nation and around the world to look for best practices**
2. **Consider bill to either increase the current tax or provide a reliable alternative to fully funding the account and program**
3. **Increase spending to the program and fund, as necessary, after reviewing DEC requests and receiving input from constituents**

An overly narrow focus on non-renewable resources is short-sighted. The Report should consider the economic value of other revenue sources, including tourism and the possibility for carbon sinks or

technology opportunities. The State of Alaska needs to have a plan for sustaining the economy after the oil and gas is gone. (AK Wilderness Society)

Recommendation - Support applied research related to energy production and transmission in remote locations, including cold-weather design and engineering, and exploration of local and/or renewable sources; as well as to investigate alternative approaches that are less costly to build, operate and maintain housing and utilities in Arctic communities. (LOF - Strengthen an Alaska Arctic science and research agenda)

Recommend that the AAPC consider adding a policy that addresses the current decline of the Trans-Alaska Pipeline System (TAPS) and its implication for energy security to the State and the U.S. Current throughput rates are approximately 600,000 barrels of oil per day, and are dropping between 6-8% each year. AAPC must push for additional development opportunities in the Arctic, both onshore and offshore, to ensure TAPS sustainability and reduce the reliance on foreign oil sources (XXXX).

Recommendation - Develop a mechanism for State revenue sharing from resource extraction for impacted communities, where lacking, for immediate impacts as well as needs beyond the life of non-renewable resources. (LOF – Promote sustainable development of Alaska’s Arctic resources)

Recommendation - Update hydrocarbon and mineral resource mapping and estimates in the Alaskan Arctic. (LOF – Promote sustainable development of Alaska’s Arctic resources)

Online Survey

Discussion of existing assets of the State of Alaska government for such items as Village Clean Water activities; emergency management resources within the DMVA and how they are and can be brought to bear, in coordination with ADEC, if there were a significant oil spill in State waters. What outreach and especially training does either of the aforementioned departments do in the regions, boroughs and villages in a dedicated and sustained way? Seems like that could bring the temperature of concern down more than a bit if people felt like they were a bit more in charge of their communities and the response to the periodic emergencies and disasters that occur across Alaska (Survey).

See Implementation Plan, specifically the recommendations to:

1) Foster more reliable and affordable approaches for adaptive solutions regarding in-home water, sanitation, and other essential rural infrastructure. (LOF – Address the infrastructure gap in Alaska’s Arctic)

2) Expand and support the Department of Environmental Conservation’s effort to involve communities and stakeholders through Subarea Planning and provide local response training, to maintain local spill response equipment to ensure timely, effective, and safe response. (LOF - Increase response capacity as it relates to a more active Arctic maritime)

AIDEA should not be exempt from cumulative impact transportation planning at the state and federal level even if their projects are defined as private (Survey).

Recommendation - Develop the capacity for strategic planning of port development, such as through an Alaska port authority, which could also liaise with AIDEA to facilitate public-private partnerships and investment. (LOF – Address the infrastructure gap in Alaska’s Arctic)

Suggestions from Work Sessions

Arctic Community Health and Well-being:

Promote reducing the cost of living in Rural Alaska by promoting LNG and alternative energy sources, and possibly developing demonstration projects in various communities.

Recommendation - Support applied research related to energy production and transmission in remote locations, including cold-weather design and engineering, and exploration of local and/or renewable sources; as well as to investigate alternative approaches that are less costly to build, operate and maintain housing and utilities in Arctic communities. (LOF - Strengthen an Alaska Arctic science and research agenda)

The State of Alaska and Federal Government should work together regarding water and sewer and landfill innovations for the villages that reduce the costs of living with a focus on keeping things simple. The State should assess the impacts of Agency regulations regarding water sanitation and work with communities in finding a way to comply with existing regulations.

Recommendation - Foster more reliable and affordable approaches for adaptive solutions regarding in-home water, sanitation, and other essential rural infrastructure. (LOF – Address the infrastructure gap in Alaska’s Arctic)

Continue to fund science and research studies on contaminants in subsistence foods and food security, and introduce further requirements for researchers to share with communities the major challenges, emerging issues, findings, and potential solutions.

Recommendation - Promote the food security of the people and communities, including the expansion of local food production. (LOF – Promote sustainable development of Alaska’s Arctic resources)

Arctic Climate Change: (See LOF – Address the infrastructure gap in Alaska’s Arctic)

Recommendation - Evaluate and respond to risks from climate change related to erosion to community infrastructure and services.

Recommendation - Expand development of appropriately integrated systems to monitor and communicate Arctic marine information.

- Increase support to state of Alaska agencies so that they can adequately evaluate their programs and goals against the recommendations made by the Alaska Climate Change Sub-Cabinet (2009).
- Continue current and increase funding for long-term monitoring data for key cryosphere changes (noted above) that are important for establishing baseline measures and as inputs to climate models.
- The State of Alaska and Federal Government should work together to develop a data depository for climate change data in the US.
- Continue to fund science and research studies on weather prediction and work with communities to develop a vulnerability index or other measures to assist in decisions about moving communities.

Recommendation - Evaluate and respond to risks from climate change related to erosion to community infrastructure and services. (LOF – Address the infrastructure gap in Alaska’s Arctic)

- Support ongoing work to map the history of storm surges in the Arctic region.

Ecosystem-Based Management and Integrated Arctic Management:

- The State of Alaska should facilitate the coordination of research that supports science-influenced decision-making between state and federal agencies; building on existing efforts for robust science.

Recommendation - Support expanding participation within the NSSI, thereby extending the initiative’s geographical scope without compromising its mission or effectiveness. (LOF - Strengthen an Alaska Arctic science and research agenda)

- The State of Alaska should participate in data-sharing between governments, the university system, and industry; building on existing efforts.
Recommendation - Ensure state funding to, and partnership with, the University of Alaska for Arctic research that aligns with state priorities and leverages the University's exceptional facilities and academic capacity. (LOF - Strengthen an Alaska Arctic science and research agenda)
- The State of Alaska should convene a high level working group tasked with streamlining the regulatory framework.
Recommendation - Lead collaborative efforts between multiple levels of government to achieve greater access, coordination and predictable regulatory standards to ensure permitting certainty and robust environmental protection. (LOF – Promote sustainable development of Alaska's Arctic resources)

Investment and Economic Development:

- The State of Alaska should make a priority the deep draft northern port, pending site selection, and take a leadership role in its development.
Recommendation - Facilitate and secure public and private investment in support of critical aviation and maritime response infrastructure and economic development, to include consideration of direct state funding and/or public-private partnerships that address development of communications, a deep draft port(s), icebreaker(s), logistics hubs, and a WX C-130 size aircraft hangar(s). (LOF – Increase response capacity as it relates to a more active Arctic maritime)
- The State of Alaska should increase the ability of AIDEA to invest in Arctic infrastructure and projects, consistent with a road map for development. 1(c)
Recommendation - Develop the capacity for strategic planning of port development, such as through an Alaska port authority, which could also liaise with AIDEA to facilitate public-private partnerships and investment. (LOF – Address the infrastructure gap in Alaska's Arctic)
- The State of Alaska should draft a road map for economic development that includes priorities for action in the near-, mid-, and long-term.

Marine Safety and Response Operations:

- The State of Alaska should supplement and leverage the resources and capabilities of the North Slope Borough (and other local governments) as well as Oil Spill Response Organizations (possibly through some kind of associational membership).
Recommendation – Strengthen partnerships with Oil Spill Response Organizations (OSROs) to develop expertise in open water, broken ice, near shore, and sensitive area protection, and be able to meet contingency plan requirements and operate effectively in the Arctic. (LOF – Increase response capacity as it relates to a more active Arctic maritime)
- The State of Alaska should provide additional resources to DEC's Spill Prevention and Response division, including to further enable its participation in Arctic Council activities related to these topics.
Recommendation – Strengthen partnerships with Oil Spill Response Organizations (OSROs) to develop expertise in open water, broken ice, near shore, and sensitive area protection, and be able to meet contingency plan requirements and operate effectively in the Arctic. (LOF – Increase response capacity as it relates to a more active Arctic maritime)
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aircraft hangar(s). (LOF – Increase response capacity as it relates to a more active Arctic maritime)

- The State of Alaska should conduct a public awareness effort in collaboration with the U.S. Coast Guard, educating coastal communities and other stakeholders about the planning, opportunities for input and capabilities described in the Unified Plan and Sub-Area Planning.

Recommendation - Expand and support the Department of Environmental Conservation's effort to involve communities and stakeholders through Subarea Planning and provide local response training, to maintain local spill response equipment to ensure timely, effective, and safe response. (LOF – Increase response capacity as it relates to a more active Arctic maritime)

Recommendation - Work with industries to identify gaps in primary, secondary, and tertiary response infrastructure, and training and sustaining first responders. (LOF – Increase response capacity as it relates to a more active Arctic maritime)

Recommendation - Expand and support the Department of Environmental Conservation's effort to involve communities and stakeholders through Subarea Planning and provide local response training, to maintain local spill response equipment to ensure timely, effective, and safe response. (LOF – Increase response capacity as it relates to a more active Arctic maritime)

Security and Defense:

- The State of Alaska should expand support for State Troopers for SAR and other response missions and explore the opportunity for expanded Air and Army National Guard response agreements.
- The State of Alaska should invest in R&D and work on “technology transfers” from Department of Defense to the private sector and Alaskans with a goal to be an expanding economic base.
- The State of Alaska can facilitate public understanding of security and defense planning and operations by actively communicating organizational processes and capabilities.
- The State of Alaska will prioritize investment in a port and hangar in the Bering Strait and/or North Slope region.

Recommendation - Facilitate and secure public and private investment in support of critical aviation and maritime response infrastructure and economic development, to include consideration of direct state funding and/or public-private partnerships that address development of communications, a deep draft port(s), icebreaker(s), logistics hubs, and a WX C-130 size aircraft hangar(s). (LOF – Increase response capacity as it relates to a more active Arctic maritime)

Suggestions from New Material Submitted to Commission

AOOS (Molly McCammon):

Arctic monitoring

Monitoring is addressed in the following recommendations:

Expand development of appropriately integrated systems to monitor and communicate Arctic marine information. (LOF – Address the infrastructure gap in Alaska's Arctic)

Ensure state funding to, and partnership with, the University of Alaska for Arctic research that aligns with state priorities and leverages the University's exceptional facilities and academic capacity. (LOF – Strengthen an Alaska Arctic science and research agenda)

Develop workforce development program to prepare Arctic residents to participate in all aspects and phases of Arctic development. (LOF – Promote sustainable development of Alaska's Arctic resources)

In the Arctic, AOOS supports these monitoring initiatives:

- High frequency radars that monitor ocean currents in the Chukchi and Beaufort Seas to be used for oil spill trajectories and ecosystem modeling;

- Ocean acidification monitoring using buoys and ship transects;
- Underwater glider observations to detect marine mammals and measure other subsurface ocean conditions;
- Year-round ocean measurements of 23 physical, chemical, geological and biological parameters to track seasonal, annual and long-term changes;
- Wave measurements to improve storm surge and coastal erosion mapping and planning; and
- Adding marine weather and sea ice forecasts to vessels using AIS tracking.

Recommendation - Expand development of appropriately integrated systems to monitor and communicate Arctic marine information. (LOF – Address the infrastructure gap in Alaska’s Arctic)

Recommendation – Ensure state funding to, and partnership with, the University of Alaska for Arctic research that aligns with state priorities and leverages the University’s exceptional facilities and academic capacity. (LOF – Strengthen an Alaska Arctic science and research agenda)

Recommendation – Support expanding participation within the NSSI, thereby extending the initiative’s geographical scope without compromising its mission or effectiveness. (LOF – Strengthen an Alaska Arctic science and research agenda)

Recommendation – Develop workforce development program to prepare Arctic residents to participate in all aspects and phases of Arctic development. (LOF – Promote sustainable development of Alaska’s Arctic resources)

Research Workspace

Many Arctic researchers are now using a new cloud-based data sharing system developed by AOOS called the Research Workspace to promote scientific data sharing and integration. The system provides secure access to data to project teams for internal synthesis and data sharing, with protocols for publishing data to the AOOS Ocean Data Explorer. This could become a model for promoting data collaboration and integration among the Alaska research community.

Data management is addressed in the following recommendations:

Recommendation - Expand development of appropriately integrated systems to monitor and communicate Arctic marine information. (LOF – Address the infrastructure gap in Alaska’s Arctic)

Recommendation - Strengthen partnerships with Oil Spill Response Organizations (OSROs) to develop expertise in open water, broken ice, near shore, and sensitive area protection, and be able to meet contingency plan requirements and operate effectively in the Arctic. (LOF – Increase response capacity as it relates to a more active Arctic maritime)

Recommendation - Update hydrocarbon and mineral resource mapping and estimates in the Alaskan Arctic. (LOF – Promote sustainable development of Alaska’s Arctic resources)

Food Security (Layla Hughes, AAPC Commissioner):

1. The State should support efforts to define and measure food insecurity in Alaska with particular emphasis on adaptation approaches that are most effective. (see below)
2. The State should support food security and subsistence rights at the international level, and support the participation of Permanent Participants in Arctic Council and other international fora in their effort to achieve food security. (see below)
3. State policies and programs should recognize subsistence as a significant form of development and economic self-reliance and support subsistence economies. (see below)

Promote the food security of the people and communities, including the expansion of local food production.

Recommendation - Promote the food security of the people and communities, including the expansion of local food production. (LOF – Promote sustainable development of Alaska’s Arctic resources)

OCS (Betsy Baker, Professor, Univ of Washington): (LOF – Promote sustainable development of Alaska’s Arctic resources)

- Support Arctic-specific rules for Arctic OCS activity, including BOEM and BSEE’s Arctic-specific regulations under OCSLA expected in 2014, and call for demonstrated continual improvement by both the regulators and the regulated operators to ensure the safest possible oil and gas operations on the U.S. Arctic OCS.
- Encourage federal regulators to standardize conditions for OCS exploration by moving conditions out of individual leases and permits where appropriate and into the regulations themselves, recognizing that some degree of individualized conditionality is needed for flexibility.
- Support the State of Alaska in working with federal regulators toward a “near miss” incidents database and Arctic-specific safety systems design and installation requirements, ideas supported by the Alaska Department of Natural Resources (M) Petroleum Integrity Office (PSIO).
- Investigating how other regions of the Arctic approach regional cooperation for offshore safety, beginning with the models discussed below.

Recommendation - Work with industries to identify gaps in primary, secondary, and tertiary response infrastructure, and training and sustaining first responders. (LOF – Increase response capacity as it relates to a more active Arctic maritime)

- Encouraging continued circumpolar cooperation between regulators and other stakeholders through forums such as the bilateral BOEM-BSEE-National Energy Board of Canada sponsored Northern Oil and Gas Research Forum, and in international forums such as the Arctic Council.
- Recommendation - Work with industries to identify gaps in primary, secondary, and tertiary response infrastructure, and training and sustaining first responders. (LOF – Increase response capacity as it relates to a more active Arctic maritime)**

- Support concrete, on-the-ground examples of state-federal Integrated Arctic Management (IAM) for development in the federal OCS and Alaskan state waters. Alaska can help convert this key federal policy from a vague concept to a practical tool for improved safety and risk management in offshore development.

Recommendation - Lead collaborative efforts between multiple levels of government to achieve greater access, coordination and predictable regulatory standards to ensure permitting certainty and robust environmental protection. (LOF – Promote sustainable development of Alaska’s Arctic resources)

Suggestions from July 2nd Listening Session

- Maintaining stable marine and terrestrial populations is critical for sustaining Arctic communities both economically and culturally.
- Recommendation - Develop and support education of the public and outreach efforts that enhance the understanding of the conservation of Arctic biodiversity and sustainable use of biological resources. (LOF – Promote sustainable development of Alaska’s Arctic resources)**
- It is critical that hunters’ voices are given a prominent place in discussions on how activities in the Arctic are to be regulated.
- Recommendation - Support planning efforts that empower local stakeholders to identify and provide input on regional priorities that support and mitigate the risk from human activity and**

assess cumulative impacts thereof. (LOF - Strengthen an Alaska Arctic science and research agenda)

- Outlines the State's support and recognition that subsistence practices is a way of life that needs to be supported and that co-management of resources should be an option.

Recommendation - Strengthen efforts to incorporate traditional and local knowledge into research and science, as well as management decisions. (LOF - Strengthen an Alaska Arctic science and research agenda)

- It is important to ensure disaster response plans are not just procedural and local residents are able to respond safely and effectively.

Recommendation - Work with industries to identify gaps in primary, secondary, and tertiary response infrastructure, and training and sustaining first responders. (LOF – Increase response capacity as it relates to a more active Arctic maritime)

- A holistic approach is needed when looking at sustainable communities. Economic opportunities play a role in creating healthy communities along with efforts to promote cultural revitalization, education and public health.

Strategic Recommendation 4 - Promote the sustainable development – economic development that responds to culture, society and the environment – of Alaska's Arctic resources

- Work with the Coast Guard to ensure Arctic shipping speed limits are made and enforced.

- Amended the state mining tax to ensure tribal communities have a direct impact from a development, so indigenous people need to benefit from development within their homelands.

Recommendation - Develop a mechanism for State revenue sharing from resource extraction for impacted communities, where lacking, for immediate impacts as well as needs beyond the life of non-renewable resources. (LOF – Promote sustainable development of Alaska's Arctic resources)

- It is important to make sure Arctic residents and stakeholders are represented on these commissions and committees. Co-principal research investigators based and living in an Arctic community should be encouraged.

Membership on committees and input to councils/boards is discussed in the following recs:

Recommendation - Evaluate and respond to risks from climate change related to erosion to community infrastructure and services. (LOF – Address the infrastructure gap in Alaska's Arctic)

Recommendation - Support planning efforts that empower local stakeholders to identify and provide input on regional priorities that support and mitigate the risk from human activity and assess cumulative impacts thereof. (LOF - Strengthen an Alaska Arctic science and research agenda)

Recommendation - Support long term strategic planning efforts that empower local stakeholders to identify and provide input on regional priorities that support and mitigate the risk from human activity and assess cumulative impacts thereof. (LOF - Strengthen an Alaska Arctic science and research agenda)

Recommendation - Strengthen efforts to incorporate traditional and local knowledge into research and science, as well as management decisions. (LOF - Strengthen an Alaska Arctic science and research agenda)

Recommendation - Promote the food security of the people and communities, including the expansion of local food production. (LOF – Promote sustainable development of Alaska's Arctic resources)

- Alaska is part of a bigger group of Arctic nations and groups, and it's important to work together opposed to arguing for "its piece" of the Arctic. Multi-lateral coordination is key across the Arctic for infrastructure.

Recommendation - Add within the Governor's office an Arctic maritime specialist. (LOF – Address the infrastructure gap in Alaska's Arctic)

International Partnerships mentioned in these recommendations:

Develop and support education of the public and outreach efforts that enhance the understanding of the conservation of Arctic biodiversity and sustainable use of biological resources. (LOF – Promote sustainable development of Alaska's Arctic resources)

Foster and strengthen international partnerships with other Arctic nations, establishing bilateral partnerships with, in particular, Canada and Russia, to address emerging challenges in the Arctic. (LOF – Promote sustainable development of Alaska's Arctic resources)

Original section under Wildlife Discussions and Considerations, listing considerations that should be given to an ecosystem-based management approach including:

- Understand and cross integrating the plethora of local, state, national, and cross-border assessments of climate change on marine and terrestrial biodiversity that potentially impact traditions and local foods
 - Recommendation - Promote the food security of the people and communities, including the expansion of local food production. (LOF – Promote sustainable development of Alaska's Arctic resources)**
- Promote the participation of local and indigenous peoples in the development and implementation of monitoring and assessment protocols
 - Recommendation - Support planning efforts that empower local stakeholders to identify and provide input on regional priorities that support and mitigate the risk from human activity and assess cumulative impacts thereof. (LOF – Strengthen an Alaska Arctic science and research agenda)**
- Coordinate assessment and monitoring at the local, state, national levels
 - Recommendation - Lead collaborative efforts between multiple levels of government to achieve greater access, coordination and predictable regulatory standards to ensure permitting certainty and robust environmental protection. (LOF – Promote sustainable development of Alaska's Arctic resources)**

Suggestions from Federal Reports

National Research Council Arctic Oil Spills State/Local-Relevant Recommendations:

A real-time Arctic ocean-ice-meteorological forecasting system is needed to account for variations in sea ice coverage and thickness and should include patterns of ice movement, ice type, sea state, ocean stratification and circulation, storm surge, and improved resolution in areas of potential risk. Such a system requires robust, sustainable, and effective acquisition of relevant observational data.

Recommendation - Expand development of appropriately integrated systems to monitor and communicate Arctic marine information. (LOF – Address the infrastructure gap in Alaska's Arctic)

Dispersant pre-approval in Alaska should be based on sound science, including research on fates and effects of chemically dispersed oil in the Arctic environment, experiments using oils that are representative of those in the Arctic, toxicity tests of chemically dispersed oil at realistic concentrations

and exposures, and the use of representative microbial and lower-trophic benthic and pelagic Arctic species at appropriate temperatures and salinities.

Recommendation - Strengthen partnerships with Oil Spill Response Organizations (OSROs) to develop expertise in open water, broken ice, near shore, and sensitive area protection, and be able to meet contingency plan requirements and operate effectively in the Arctic. (LOF – Promote sustainable development of Alaska’s Arctic resources)

Arctic Research Logistics Workshop Report: (LOF – Strengthen an Alaska Arctic science and research agenda)

- State of Alaska should support and further invest in the high quality northern research station at Toolik Lake, capable of supporting local, national and international science needs as well as remote operations of northern science.
- More emphasis is needed on recruiting, training and retaining logistics providers.
- Suggested actions that could improve coordination of resources are:
 - the development of a mechanism for sharing international archival data (includes making US data sharing tools broadly available);
 - improve sharing of satellite imagery (US satellite data is free but other countries charge a fee to access);
 - and development of international funding solicitations.