

DRAFT PAME INPUT FOR SAO REPORT TO MINISTERS, KIRUNA 2013

8th Arctic Council Ministerial Meeting, Kiruna, Sweden, 15th of May 2013

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I. PAMEs Mandate

The PAME Working Group was established by the Arctic Council Ministers in Nuuk, Greenland in September 1993. PAMEs mandate is to address policy and other measures related to the protection of the Arctic marine and coastal environment from both land and sea-based activities. These measures include coordinated strategic actions, programmes, reports, assessments and guidelines, complementing existing international and regional arrangements.

PAME members include National Representatives of the 8 Arctic Council States: Canada, Denmark (including Faroe Islands and Greenland), Finland, Iceland, Norway, Russian Federation, Sweden and United States. Indigenous groups' organizations, termed "Permanent Participants" also participate in PAME, as well as representatives from several observer countries and organizations. Thus, PAME provides a unique forum for collaboration on a wide range of activities directed towards protection of the Arctic marine environment.

II. Direction from Nuuk Ministerial Declaration

The 2011 Arctic Council Ministerial Meeting in Nuuk Greenland endorsed PAME's 2011-2013 activities with specific reference to the following paragraphs:

- ✓ Decide that the Arctic Council should continue to work towards solutions to address emerging challenges in the Arctic utilizing a wide range of approaches,
- ✓ Decide to establish an expert group on Arctic ecosystem-based management (EBM) for the Arctic environment to recommend further activities in this filed for possible consideration by the SAOs before the end of the Swedish chairmanship,
- ✓ Decide to establish a Task Force, reporting to the SAOs, to develop an international instrument on Arctic marine oil pollution preparedness and response, and call for the Emergency Prevention, Preparedness and Response (EPPR) and other relevant working groups to develop recommendations and/or best practices in the prevention of marine oil pollution,
- ✓ Urge the completion as soon as possible of work at the International Maritime Organization to develop a mandatory polar code for ships,
- ✓ Welcome the progress achieved with the Arctic Ocean Review (AOR) project which considers existing global and regional measures that are relevant for the Arctic marine environment, and look forward to the delivery of the final report of the AOR project in 2013, in particular the options and opportunities for strengthening global and regional efforts for the conservation and sustainable use of the Arctic marine environment,
- ✓ Adopt the recommendations in the SAO Report to Ministers and instruct SAOs to review and adjust, if needed, the mandates of the Arctic Council working groups and task forces and their work plans for 2011-2013

III. Main Achievements of PAME during the 2011-2013 Period

Arctic Marine Strategic Plan (AMSP 2004) – Implementation Status:

Several of the specific PAME Working Group initiatives and activities have been aimed at implementing the AMSP 2004. Based on the work and input of PAME and the other Arctic Council working groups AMAP, CAFF, EPPR and SDWG it is noteworthy that all the strategic actions have been successfully completed or are progressing according to plan and are expected to conclude within this or the next workplan period. Based on this, PAME in cooperation with the other Arctic Council working groups is developing a process to update and expand, as relevant, the AMSP 2004 to improve a coordinated and integrated ecosystem approach to the marine management.

Updating of the AMSP will take place during the 2013-2015 period, as a result of a number of relevant deliverables for the 2013 Arctic Council Ministerial meeting that should be taken into account in this work.

The timeline for the updating of AMSP has been adjusted to ensure that full account is taken of such inputs with the 1st step to launch a workshop with the aim to communicate and collaborate with other Arctic Council working groups in Spring of 2013.

Follow-up of the Arctic Marine Shipping Assessment Report (AMSA 2009):

PAME is following up the recommendations from the AMSA 2009 Report and prepared an AMSA 2011-2013 Progress Implementation Report reflecting the progress on all 17 AMSA recommendations promoting the safety and environmental awareness of current and future Arctic shipping activity. The recommendations are aligned under three themes: Enhancing Arctic Marine Safety; Protecting Arctic People and the Environment; and Building the Arctic Marine Infrastructure. The AMSA 2011-2013 Progress Implementation Report notes that significant and ongoing progress is being made in implementing the recommendations.

Arctic Council Member's State representatives with expertise in shipping (in particular with respect to the work of the International Maritime Organization (IMO)) have been invited to meetings of PAME in an effort to support and promote the continuum of relevant work within the Arctic Council and IMO. There has been a significant increase in participation and collaboration on relevant measures to reduce the environmental impacts of shipping in Arctic waters.

Recommendation I(A) - Linking to Other International Organizations: PAME continues to monitor, and as necessary or appropriate, to report on developments with respect to Arctic initiatives, actions, or activities of other international and regional organizations including the IMO, the International Mobile Satellite Organization (IMSO), the World Meteorological Organization (WMO), the Arctic Regional Hydrographic Council (ARHC), the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), and the International Whaling Commission.

Recommendation I(B) – IMO Measures for Arctic Shipping: As it relates to the IMO Polar Code: PAME continues to support the expeditious development of the mandatory IMO Polar Code noting the extension of the proposed completion date to 2014, and has invited all PAME member governments to ensure that their IMO delegations have all relevant scientific environmental data, in particularly the data from the AMSA Recommendation II(C) Report for their consideration. The environmental chapter is an essential part of the Polar Code and its timely completion and the significance of PAME's work is recognized. PAME has urged Permanent Participants, observers, and other interested parties to timely share with their respective member government IMO representatives, data that will aid in the further development of the Polar Code.

Mitigating Environmental Risks Associated with the Use and Carriage by Vessels of Heavy Fuel Oil (HFO) in the Arctic - Phase II Project continues to move forward, with a contract issued to Det Norske Veritas(DNV) for completion of a final report to be submitted to the PAME I-2014 (Spring 2014) meeting. It is expected that the report will identify and recommend for member government consideration measures that could be pursued at the IMO and perhaps elsewhere to mitigate the risks associated with the use and carriage by vessels of HFO in the Arctic.

Recommendation I(D) - Strengthening Passenger Ship Safety in Arctic Waters: Work is ongoing at IMO on several initiatives to improve passenger ship safety and PAME continues to monitor and as appropriate support these developments. Two PAME member governments compiled a list of existing international, national, industry and NGO best practices standards related to safe and environmentally sound passenger ship operations in Arctic waters (with a report submitted to the IMO in 2011) and PAME has strongly encouraged the cruise ship industry to adopt, implement, share and improve best practices for such operations. PAME has invited representatives from the Association of Arctic Expedition Cruise Operators (AECO) and the Cruise Lines International Associations (CLIA) to present their respective views and information on these topics at PAME meetings.

PAME continues to strongly encourage the passenger ship industry to augment existing and/or develop new best practices for operations in the Arctic to enhance safety and environmental protection. With a view to learning about the relevance of shipping insurance influencing safe operation of passenger ships in the Arctic, PAME heard from a representative of the shipping insurance industry (International P & I Group) on factors that go into setting insurance premiums for Arctic cruises. PAME is also actively exploring options for increasing maritime domain awareness for safety and environmental protection purposes through the identification of national systems for monitoring and tracking vessel traffic in the Arctic as well mechanisms

for increased sharing information generated by such systems among PAME governments. A representative of exactEarth, a Canadian-based provider of satellite-based ship traffic information, also made a presentation to PAME.

Recommendation II(A) – Survey of Arctic Indigenous Marine Use:

NEEDS UPDATING AS PER PAME –I-2013

Recommendation II(C) - Areas of Heightened Ecological and Cultural Significance: AMAP, CAFF and SDWG submitted the final AMSA II(C) Report identifying areas of heightened ecological and cultural significance within the Arctic to the PAME I-2013 meeting for its consideration and use.

Recommendation II(D) - Specially Designated Marine Areas: PAME member governments finalized a tender to retain a consultant to prepare a report under AMSA Recommendation II(D) that will, based on the II(C) Report, make recommendations for measures to protect one or more regions within the high seas portions of the Arctic Ocean from international shipping activities. Based on this information, PAME member governments will then consider whether to pursue protection measures individually or jointly at the IMO.

PAME also continues to encourage member governments to update and keep current information in IMO's Global Integrated Shipping Information System (GISIS) database on their port waste reception facilities and through their respective national standards organization to assist the International Organization for Standardization (ISO) with the development of international standards specifically addressing the unique technical challenges related to Arctic shipping.

Recommendation II(G) – Addressing Shipping Impacts on Marine Mammals -PAME received from a member government detailed information on the work of IMO, the International Organization for Standardization (ISO), and the International Whaling Commission related to impacts of shipping on marine mammals along with options for a number of initiatives that may be pursued to mitigate or reduce the adverse impacts on marine mammals of ship strikes and underwater noise incidentally generated by commercial shipping.

Recommendation II(H – Reducing Air Emissions -

The World Wildlife Foundation, IUCN, and the Circumpolar Conservation Union have submitted to PAME information on IMO's work related to black carbon, in particular as it relates to the Arctic. Information gathered as part of the HFO Phase II Report described previously may contribute to a better understanding of the role Arctic shipping plays in black carbon emissions.

AMSA III(A) – Addressing the Infrastructure Deficit: A paper on the World Meteorological Organization's Voluntary Observing Ship (VOS) Scheme was submitted for PAME's consideration. The VOS Scheme is an international arrangement by which ships plying the various oceans and seas of the world are recruited by National Meteorological Services to take and transmit meteorological and oceanographic observations that aid in safe and environmentally sound navigation. PAME has encouraged member governments and industry associations to increase their level of participation in the World Meteorological Organization's VOS Scheme and promote participation by vessels flying their flag. Letters have been sent to the shipping industry (e.g., International Chamber of Shipping, Cruise Lines International Association, Baltic and International Maritime Council (BIMCO), and AECO) to encourage participation by their members in the VOS Scheme. The PAME Secretariat has also posted information on the VOS Scheme to the PAME Web site. PAME has received information on the Arctic Maritime and Aviation Transportation and Infrastructure Initiative (AMATII) project and has proposed to provide information on Arctic port waste reception facilities for inclusion in the project.

AMSA III(B) - Arctic Marine Traffic Systems: PAME is actively exploring options for increasing real time or near real-time Arctic maritime domain awareness through the identification of national systems for monitoring and tracking vessel traffic in the Arctic. Such information can be used to increase safe and environmentally sound Arctic shipping. Member governments have submitted information to PAME on such systems as well as how such information may be made available to other member governments. Seven member governments already participate in the Maritime Safety and Security Information System, an internet-based system through which ship and shore-based Automated Identification System (AIS) information is

shared. A representative of exactEarth, a commercial provider of satellite-based ship traffic information, also made a presentation to PAME on how such information can support maritime domain awareness and Arctic marine traffic systems.

Arctic Ocean Review Project (AOR)

The overall objective of the Arctic Ocean Review (AOR) is to provide guidance to Arctic Council Ministers on strengthening governance in the Arctic through a cooperative, coordinated, and integrated approach to the management of the Arctic marine environment. The AOR will also play an important role in demonstrating Arctic States' stewardship efforts in this area. The AOR is not a new assessment, but will produce a review of the status and trends of pressures on the arctic marine environment, an analysis of the relevant instruments, and in this final phase of the AOR, options to strengthen the conservation and sustainable use of the Arctic marine environment.

Three Expert Workshops have been convened in support of the development of the AOR Report and workshop summary reports prepared to record the range of views discussed, including those that may be outside the Terms of Reference for the AOR project, but could be further considered for future work by the Arctic Council, as relevant. The final agreed AOR Phase II Report, including its recommendations went through weekly teleconferences during the months of Nov 2011-Mar 2012.

Ecosystem Approach to Management (EA) project

PAME continued to advance the work towards implementation of the ecosystem approach to assessment and management by taking into account the previous work on the Large Marine Ecosystems (LMEs) and the summary of Observed Best Practices for Ecosystem-based Ocean Management (as a part of the 2009 Best Practices in Ecosystem Based Oceans Management in the Arctic project) and the work of the EBM Task Force.

- One workshop was held in 2012 which focused on the issue of integrated assessment of the conditions (status, trends and impacts) of LMEs in the Arctic. The workshop participants agreed that the Arctic LMEs were the primary units and scale for applying the EA to management of arctic marine ecosystems. The workshop participants also noted that integrated assessment is a core element of the EA to management and that the need for such assessments is primarily at the scale of regional ecosystems (LMEs) where they form an essential component of the scientific work needed to support the EA to management.
- PAME representatives have also participated in the work of the EbM Expert Group to ensure synergies with the EA work of PAME. PAME has prepared a concept paper on the Ecosystem Approach to Management to the Arctic Council and a short brochure on the EA based on the concept paper. Furthermore PAME approved the revisions to the map of 17 Arctic LMEs and supporting text on the boundary issues.
- The next EA workshop is planned to be held in spring 2013 to discuss data management, availability, integration, and communications as essential to implement the ecosystem approach to management. Arctic Council working groups working on marine-related issues will take an active involvement in its planning.

Follow up on the 2009 Offshore Oil and Gas Guidelines (OOGG 2009)

Health, Safety and Environmental Management Systems and the Use of Best Operating Practices for Offshore Arctic Oil and Gas Drilling Activities—A Report and Possible Guidelines. The project started in March 2012 and has compiled and compared elements of HSE Management Systems used by Arctic countries and recommended by the AOOOGG 2009. Major HSE systems elements that were not implemented or followed were found by multiple investigations to be root cause of the Deepwater Horizon and other major accidents were highlighted in an Arctic context. Selected common elements of HSE Management Systems used by Arctic countries were also considered for Arctic specific operations.

Two expert workshops have been held. The Keflavik HSE workshop in June 2012 was coordinated with the EPPR RP3 workshop and joint sessions on offshore oil and gas were held. The Safety Culture workshop was held in September in Halifax and explored common root causes for major industrial systems failure accidents related to lack of Safety Culture.

The project team is developing findings and recommendations based on the workshops, Deepwater Horizon investigations, national reviews, and analysis of existing systems being used in the Arctic. A final report will be delivered to the SAO meeting in the fall of 2013. **NEEDS UPDATING AS PER PAME –I-2013**

Arctic Oil and Gas Management, Regulation and Enforcement a Legal Regime Web-Based Information

Resource: The website is under construction and will provide easy indexed access to specific information and data on national entities and agencies websites related to management, regulation, and enforcement of Arctic offshore oil and gas activities. Most countries have supplied indexed links and explanatory information. The preliminary results of the HSE project and related workshop reports will be included on the website. The website will undergo an external review and will be made public in early May before the Ministerial meeting. The web resource will be periodically updated. **NEEDS UPDATING AS PER PAME –I-2013**

Collaboration with other working groups and communications

PAME continues to actively communicate with the other working groups of the Arctic Council on the need to collaborate on related projects to ensure synergies. AMAP, CAFF and EPPR have participated at PAME's meetings.

EPPR has provided an update on relevant AMSA follow-up including AMSA II(F) – Oil Spill Prevention as it relates to Update on the Recommended Practices for Arctic Oil Spill Prevention Project (RP3) and on AMSA III (C) – Circumpolar Environmental Response Capacity Safety Systems in Implementation of Economic and Infrastructural Projects. Furthermore, the PAME Oil and Gas contact group has collaborated with the EPPR on the RP3 project and the HSE project to ensure synergies with both efforts.

AMAP, CAFF and SDWG are working on the AMSA follow-up for Recommendations II(C) on Areas of Heightened Ecological and Cultural Significance.

Representatives from all Arctic Council working groups were invited to participate in the two AOR workshops during the Phase II process (Sep 2011 and Sep 2012) in an effort to provide an opportunities for all working groups to provide inputs and comments as work proceeded with the AOR Phase II Report.

Arctic Council working groups working on marine-related issues (AMAP, CAFF and SDWG) have been invited to participate in the PAME-led Ecosystem Approach (EA) Expert Group on the ecosystem approach to management and will jointly work on the planning of the EA Spring 2013 Workshop.

PAME will commence work on the Arctic Marine Strategic Plan (AMSP) as per PAMEs Work Plan 2013-2015 and seek contributions from other working groups working on marine-related issues. Such a consultative process will start with a workshop with all relevant working group experts. Such a workshop is proposed to take place back-to-back with the Spring 2013 EA Workshop.

IV. PAME Deliverables for the 2013 Ministerial Meeting

List of deliverables to the 2013 Ministerial:

- ✓ AOR Final Report including Recommendations
- ✓ AMSA 2013 Progress Report
- ✓ Status Report on the HFO Phase II Project
- ✓ Status Report on AMSA Recommendation II(D) on Specially Designated Marine Areas
- ✓ HSE workshop reports (HSE and Safety culture workshops) and communication piece on the MRE website up and running
- ✓ Status Report on Ecosystem Approach project including a revised LME map for approval
- ✓ Status Report on the updating of the Arctic Marine Strategic Plan
- ✓ PAME 2013-2015 Work Plan

V. PAME input to “SAOs Recommend to Ministers “

Proposed Text for the SAO Report to the 2013 Ministerial Meeting

THE PARAGRAPH BELOW NEEDS UPDATING (FROM THE 2011 SAO REPORT TO MINISTERS) - CHAPEAU

Arctic marine activities are likely to expand considerably as a result of increased resource demand and improved marine access. These activities will increase risks to the environment and its ecological processes. Hence, strengthened efforts are needed by Arctic states to develop adequate and timely national and international regulations and measures to reduce the risks and the potential negative impacts of shipping and other activities in Arctic waters. Existing and emerging challenges to the health of the Arctic marine environment warrant a more integrated ecosystem based approach to address future needs related to shipping, oil and gas development, fisheries, coastal zone development, and other ocean-related activities. The work plan and activities of the Working Group of the Arctic marine Environment (PAME) is developed to respond to these challenges by giving priority to measures related to shipping and offshore oil and gas activities, and to apply an ecosystem approach to integrated ocean management in order to maximize environmental protection and sustainable use of the marine environment. Through this, the Arctic Council has an opportunity to provide international leadership on the global sustainable development agenda. In the implementation of these activities PAME will work in close cooperation with the other Arctic Council working groups.

SAOs recommend that Arctic Council Ministers:

Recognize the important ongoing work at the IMO on a legally binding polar code and **urge/encourage** its expeditious completion in conjunction with continued implementation of the AMSA Report recommendations to support safe and environmentally sustainable Arctic Shipping.

Welcome the report on follow-up of the Arctic Marine Shipping Assessment (AMSA) Report and note that significant progress is made on implementing its recommendations and encourage the continued strengthening of this work in cooperation with other working groups,

Encourage the timely completion of the Arctic HFO project to identify possible measures to mitigate the environmental risks associated with the use and carriage by vessels of heavy fuel oil in the Arctic and the AMSA II(D) project to recommend measures that may be pursued at IMO by member governments, either individually or jointly, to protect one or more areas of the high seas of the Arctic Ocean from international shipping activities

Welcome the AMSA Progress Implementation Report 2013 on follow-up to the 2009 Arctic Marine Shipping Assessment (AMSA) Report, note that significant progress continues to be made on implementing its recommendations, and encourage the continued strengthening of this work in cooperation with other Arctic Council working groups and relevant international and regional organizations (e.g., IMO, WMO, IHO),

Approve Arctic Ocean Review final report including its recommendations and **request** PAME to develop appropriate follow up actions for approval by the Senior Arctic Officials.

Note that existing and emerging challenges to the health of the Arctic marine environment warrant a more integrated ecosystem based approach to ocean management to ensure the conservation and sustainable use of the marine environment related to shipping, oil and gas development, fisheries, coastal zone development, and other ocean-related activities and **encourage** the PAME led Expert Group on the ecosystem approach to cooperatively integrate the application of this approach within the Arctic Council work and encourage all relevant Working Groups to contribute to the revision of the Arctic Marine Strategic Plan (AMSP 2004) which is based on this approach.

Welcome the progress made on the implementation of the „Ecosystem Approach to Assessment and Management” project. Recognize the increased emphasis on the ecosystem based management (EBM) as the foundation of the Arctic Councils’ work.