ARHC5-###INF

Arctic Regional Hydrographic Commission (ARHC)
St. Petersburg, Russian Federation October 28-30, 2015

Submitted by: The United States of America

Executive Summary: This Information Paper provides the members of the ARHC with reference documents related to PAME-ARHC interactions in 2015 and opportunities for future collaboration. The primary documents are provided as Appendices to this report.

Related Documents:

- PAME II-2015 Agenda Item 4.1 (b) Update on Activities of the Arctic Regional Hydrographic Commission (see Attachment 1)
- Record of Decisions and Follow-up Action (PAME II-2015) (see Attachment 2)

Related Projects:

Introduction/Background

The Arctic Regional Hydrographic Commission has been in communication with the Protection of the Arctic Marine Environment (PAME) working group of the Arctic Council since 2012 to explore opportunities and needs for the hydrographic offices of Canada, Denmark, Norway, Russian Federation and United States of America to communicate hydrographic information to the PAME in its efforts. At the PAME I-2015 meeting "*PAME request(ed)…the Arctic Regional Hydrographic Commission (ARHC) to submit and update progress on the status of Arctic hydrography and charting, as well as any developments with respect to the Arctic Voyage Planning Guides*." The ARHC progress update is provided as Attachment 1.

At the PAMEII-2015 meeting, PAME received the ARHC report and included reference to ARHC and potential hydrographic follow-up actions in PAME's Record of Decision. The PAME II-2015 Record of Decision is provided as Attachment 2 and specifically includes the following:

> *PAME thanks the Arctic Regional Hydrographic Commission (ARHC) for its report titled "Update on the Activities of the ARHC" and its attachments. PAME notes the substantial value of the national Arctic Voyage Planning Guides (AVPG) produced to date. PAME instructs the Shipping Expert Group to respond intercessionally to ARHC's request for additional information that may contribute to its work in supporting protection of the Arctic marine environment. In particular, the Shipping Expert Group is asked to identify additional information for possible inclusion in the AVPGs and to maintain an ongoing dialogue with the ARHC.*

Analysis/Discussion

PAME requested closer dialogue during intercessional periods between its Shipping Expert Group and the ARHC.

PAME is also addressing a series of important engagements related to safety of navigation that may also be of interest to the hydrographic offices of the ARHC. These include:

- Linking with International Organizations
- IMO Measures for Arctic Shipping

- Strengthening Passenger Ship Safety
- Engagement with Arctic Communities
- Specially Designated Arctic Marine Areas
- Preventing Release of Oil from Ships
- Addressing the Infrastructure Deficit
- Arctic Marine Traffic Systems
- Investing in Hydrographic, Meteorological and Oceanographic Data
- Others.

Conclusions/Recommendations

The ARHC should discuss next steps of engagement with PAME (if any) and efforts the ARHC could take to aid PAME in taking steps to improve navigation safety and marine environmental protection in the Arctic.

Action Required of ARHC

ARHC is invited to:

a. Note the Record of Decisions
b. Discuss and take appropriate action if warranted

Submitted by ARHC (USA, Canada, Russia, Norway, Denmark)

PAME II-2015 Agenda Item 4.1(b)
Update on Activities of the Arctic Regional Hydrographic Commission

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BACKGROUND

PAME-I 2015 adopted a Record of Decision (ROD) stating:

> *PAME requests the Secretariat to invite the Arctic Regional Hydrographic Commission (ARHC) to submit and update progress on the status of Arctic hydrography and charting, as well as any developments with respect to Arctic Voyage Planning Guides.*

Pursuant to this ROD, the members of the Arctic Regional Hydrographic Commission (ARHC) (Canada, Denmark, Norway, the Russian Federation, and the United States) are providing a status report on activities of the Commission since February 2015.

The ARHC is one of 15 Regional Hydrographic Commissions (RHCs), voluntary associations of International Hydrographic Organization (IHO) Member States having common regional interests in hydrographic data and nautical charting. The RHCs complement the work of the IHO. These RHCs along with the IHO Hydrographic Commission on Antarctica, provide a global structure to help achieve IHO objectives at the regional level.

A principal *Aim* of the IHO is to ensure that all the world's seas, oceans and navigable waters are surveyed and charted. The *Mission* of the IHO is to create a global environment in which States provide adequate and timely hydrographic data, products and services and ensure their widest possible use. The *Vision* of the IHO is to be the authoritative worldwide hydrographic body which actively engages all coastal and interested States to advance maritime safety and efficiency and which supports the protection and sustainable use of the marine environment.

The IHO awaits a decision on its observer status at the Arctic Council and our belief that the ARHC is the competent intergovernmental authority regarding the coordination of hydrography and nautical charting services in the region and should be recognized as such by the Arctic Council, in the same way as the IHO is recognized by the UN General Assembly, IMO, IOC, WMO, IALA and others. The Secretariat of the IHO is the International Hydrographic Board.

DISCUSSION

The Arctic Regional Hydrographic Commission was established in October 2010 by Canada, Denmark, Norway, the Russian Federation and the United States in recognition of the need

for enhanced collaboration and coordination on Arctic hydrographic issues.[1] By exchanging knowledge and information and by providing quality assured data, ARHC members aim to facilitate an environmentally responsible utilization of Arctic waters and contribute to the development of the maritime infrastructure required for safe navigation and protection of the Arctic marine environment.[2] Finland and Iceland have participated as "observers" at the ARHC since 2011 in recognition of their membership in the Arctic Council.

Arctic Voyage Planning Guides

ARHC members decided on a path forward for producing nationally managed voyage planning guides (AVPGs) for navigation in Arctic waters. AVPGs are intended to enhance mariner and public awareness of the unique complexities and requirements of navigating in the Arctic marine environment. The information proposed to be common across AVPGs was discussed and addressed at the ARHC-4 (2014) meeting in Portsmouth, New Hampshire (see Attachment I).

The current state of web-based AVPG guides developed by ARHC members may be accessed at the links below:

Canada	http://geoportail-geoportal.gc.ca/eng/Gallery/mapprofile/5
Denmark	http://eng.navigation.gl/
Norway	Pending status update at ARHC-5 (October 2015; St. Petersburg, Russia)
Russian Federation	http://asmp.morflot.ru/en/celi_funktsii/
United States of America	http://www.nauticalcharts.noaa.gov/avpg/guide.htm

The linkage and access to these sites and next steps will be discussed at the ARHC-5 meeting to be held 28 -31 October 2015 in St. Petersburg, Russian Federation.

Status of Hydrography and Nautical Charting

In September 2013, PAME II-2013 (Rostov, Russia) adopted a ROD and invited IHO and ARHC to "*provide relevant updates to PAME as requested on the status of hydrography and nautical charting in the Arctic region and to identify where there may be opportunities for collaboration on areas of common interest.*" And, "*PAME invites member governments to submit information to PAME I-2014 on the currency and accuracy of nautical charting and of future charting plans in Arctic waters subject to their jurisdiction.*"

In response, the ARHC Operations and Technology Working Group comprised of members of seven Arctic States hydrographic offices, collaborated to develop an assessment

[1] The constitutive document of the ARHC, *The Statutes of the Arctic Regional Hydrographic Commission,* is available online at http://www.iho.int/mtg_docs/rhc/statutes/ArHC_Statutes.pdf. Additional information, including past ARHC meeting documents, may be found at http://www.iho.int/srv1/index.php?option=com_content&view=article&id=435&Itemid=690.

[2] *Statement of the Arctic Regional Hydrographic Commission*, ARHC1-07D (6 October 2010) (available at http://www.iho.int/mtg_docs/rhc/ArHC/ArHC1/ARHC1-07D_ARHC_Statement_Oct_6_2010.pdf.)

methodology to provide the requested information.[3] In an effort to determine how best to deploy assets in an incremental survey approach, a comprehensive study was conducted to assess the current hydrographic holdings relative to potential areas of navigational risk. This study presented a risk-based methodology of prioritizing survey areas based on confidence of chart data, estimated depth, and dominant marine traffic patterns. The Hydrographer General of Canada, Mr. Denis Hains, presented the results of this assessment to PAME II-2014 in Whitehourse, Yellowknife, Canada.

PAME I-2015 (February 2015, Akureyri, Iceland) adopted the record of decision cited above. The following updates activities of the ARHC members since then.

The methodology of the Arctic assessment effort was documented and presented at the U.S. Hydrographic Conference[4] (16-19 March 2015) in a paper entitled "*A Risk-based Methodology of Assessing the Adequacy of Charting Products in the Arctic Region: Identifying the Survey Priorities of the Future*"[5] and as a PowerPoint presentation.[6] Feedback has been received on the approach from hydrographic colleagues and maritime transportation stakeholders. Several Hydrographic Offices are actively collaborating and working to improve risk-based methodologies to support development of hydrographic survey priorities, including the United States, Canada, and Australia. Lessons learned should also enable further refinement of the methodology by Hydrographic Offices involved in the Arctic assessment.

A proposal to repeat the Arctic charting assessment in 2016 with more recent satellite Automatic Information System (AIS) data (depending on availability) will be discussed at ARHC-5. AIS is a shipboard broadcast system that transmits a vessel's real-time position and other critical information and is used to understand and assess existing or new shipping routes.

In Canada, a similar methodology has been applied by the Canadian Hydrographic Service (CHS) to support the Government of Canada's Northern Marine Transportation Corridors initiative. The intent is that there will be periodic re-assessments of priority areas as more hydrography is completed and more AIS data becomes available.

[3] Mike Gonsalves (U.S. National Oceanic and Atmospheric Administration), Douglas Brunt (Canadian Hydrographic Service), Noralf Slotsvik (Norwegian Mapping Authority Hydrographic Service), Jens Peter Hartmann (Danish Geodata Agency), and Captain Leonid Shalnov (Russian Federation, Department of Navigation and Oceanography).
[4] The U.S. Hydro 2015 Conference, presented by The Hydrographic Society of America, is a continuation of the series of hydrographic conferences that alternate between the United States and Canada. In addition to the technical papers, the conferences feature an extensive series of Workshops, social program, Exhibition Hall, and a Student Outreach program. The conferences include technical sessions and a poster session on the latest developments and applications in hydrographic surveying, multibeam and side scan sonar, data management, electronic charting, marine archaeology, and related topics. Approximately 200 participants attended US Hydro 2015. The next Conference will be held in Nova Scotia Canada in May 2016.
[5] http://www.hypack.com/ushydro/2015/papers/pdf/USHydro_Risk_based_Methodology_Gonsalves.pdf.
[6] http://www.hypack.com/ushydro/2015/papers/slides/3-Gonsalves_Arctic_Chart_Priority.pdf

Other Activities

- Conference on Global Leadership in the Arctic: Cooperation, Innovation, Engagement and Resilience (GLACIER, 28 August 2015, Anchorage, Alaska):
  - U.S. National Hydrographer, Rear Admiral Gerd F. Glang, Director of the Office of Coast Survey, NOAA addressed a panel on "*Charting the Arctic: Opportunities and Challenges*";
  - The U.S. National Geospatial-Intelligence Agency (NGA), and U.S. National Science Foundation announced their collaboration with the University of Minnesota's Polar Geospatial Center and the private sector to create the first-ever publicly available, high-resolution, satellite-based elevation maps of the Arctic;
  - The U.S. Department of the Interior's U.S. Geological Survey, in partnership with the State of Alaska, announced efforts to fly the Alaskan Arctic with new sensors, generating Interferometric Synthetic Aperture Radar (IfSAR) data that will complement Alaska and Arctic DEMs, improving maps and elevation models of these regions to unprecedented levels of accuracy; and
  - NGA announced development of the most comprehensive pan-Arctic map ever published by the U.S. Government (http://nga.maps.arcgis.com). The map will include layers such as Arctic Routes, Arctic Currents, Oil Production Sites, Gas Production Sites, Oil Drilling Areas, Oil and Gas Reserves, Airfields and Ports, Bathymetric Data, Digital Terrain Elevation Data, and Natural Earth (including rivers, railroads, and populated places).

- Arctic Council Emergency Prevention, Preparedness and Response Working Group:
  - In July, the U.S. National Hydrographer briefed Dr. Amy Merten, Chair of the EPPR Working Group, on the purpose and recent work of the ARHC. EPPR is currently preparing the Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA) Planning Workshop to be held in September 2015 with an international Exercise in 2016. Admiral Glang offered to make hydrographic expertise available (if warranted and logistically feasible) to assist in any future efforts of EPPR in factoring hydrographic considerations in marine emergency response contingency planning.

- Transport Canada Inter-departmental Marine Security Working Group (Canada)
  - The Hydrographer General of Canada made a presentation entitled, "*Charting Canada's Arctic Waters*" in January 2015 to this working group outlining the status and challenges of Arctic charting and highlighting the need for international collaboration, e.g. ARHC.

ARHC-5

The Russian Federation will host the ARHC-5 meeting in St. Petersburg 28 - 30 October 2015. The meeting agenda and supporting documents will be posted on the IHO website: http://www.iho.int/mtg_docs/rhc/ArHC/ArHC5/ArHC5Docs.htm.

RECOMMENDATIONS

The member states of the ARHC recommend that:

- PAME note this report.
- PAME note the preliminary agenda of the ARHC-5 (as of July 9, 2015) and particularly the following agenda item: "D. International Cooperation" and "D3. Report from the Arctic Council/PAME CA." See Attachment 2.
- PAME identify any information, assessments, or other needs that the ARHC might collectively address to inform PAME considerations and recommendations to contribute to the protection of the Arctic marine environment.
- PAME provide an overview of any recommendations or suggestions from the PAME II-2015 meeting regarding this report and/or any other discussion points relevant to the hydrographic offices attending the ARHC-5 meeting.
- PAME consider submitting any requests for ARHC action for the upcoming 2016-17 period. If acceptable, please provide the summary to the Chair (Captain Sergey Travin, Russian Federation, Unio@mil.ru), Vice Chair (Denis Hains, Canada, denis.hains@dfo-mpo.gc.ca), and the International Hydrographic Board (President Robert Ward, pres@iho.int) by October 20, 2015.

Attachment 1

Information Content Identified by the ARHC for Arctic Voyage Planning Guides

From ARHC4-3.3 "*Harmonization of Arctic Voyage Planning Guides for Pan Arctic Coverage*"

Theme 1 – Carriage Requirements

- Navigational Warnings Services
- Radio Aids to Navigation
- List of Lights and Buoys and Aids to Navigation
- Nautical Charts and Publications services

Theme 2 Regulatory Requirements

- Acts and Regulations specific to marine navigation (similar to S-49 E.3.2)
- IMO Guidelines for Operating in Polar Waters

Theme 3 Arctic Environment Considerations

- Communities and Populated Areas Information
- Weather Station Locations and Services Available (similar to S-49 E.4.2 and U.4))
- Airports and Hospitals
- Resource Development Significant Locations

Theme 4 Route Planning

- Traditional Traffic Routes (similar to S-49 E.3.2)
- Controlled Navigational Areas including Vessel Traffic Services Zones
- Limiting Depth For Constricted Waterways
- Tide, Current and Water Level information (similar to S-49 U.6.1)
- Environment Protected Areas
- Major Aids to Navigations (similar to S-49 E.1.2 and U.1.2)
- Places of refuge or Pilot Boarding Stations (similar to S-49 E.1.5)
- Calling-in Points (similar to S-49 E.4.1)

Theme 5 Reporting and Communicating

- Areas of Legislative Importance to Navigation
- Marine Communication Services (similar calling-in info to S-49 E.4.1)

Theme 6 Marine Services

- Ice Breaking Support Services
- Search and Rescue Support Services
- Ice Services Information (similar to S-49 U.6.4)

Theme 7 Nautical Charts and Publication

- Nautical Chart Catalogue and Coverage
- Publication Catalogue and Coverage

Attachment 2

ARHC-5
Letter 1/2015
9 July 2015

The 5th Arctic Regional Hydrographic Commission Meeting
28-30 October 2015, Saint Petersburg, Russian Federation

Preliminary Agenda

A. Opening formalities

B. IHO Work Program 1 - Corporate Affairs

B1. Information about activities of the IHB - **IHB**
B2. Outcome of IRCC7 meeting - **IHB**
B3. Status of actions from ARHC-5 - **Chair**
B4. National reports - **MS**
B4.1 National report of Canada - **CA**
B4.2 National report of Denmark - **DK**
B4.3 National report of Norway - **NO**
B4.4 National report of Russian Federation - **RF**
B4.5 National report of USA - **US**

C. IHO Work Program 2 – Hydrographic Services and Standards

C1. Report of Strategic Planning Working Group - **SPWG Chair**
C2. Report of Operational and Technical Working Group - **OTWG Chair**
C3. Report of of Arctic Voyage Planning Guide Working Group - AVPGWG **Chair**
C4. Status of Arctic International Charting Coordination Working Group – **NO**

D. International cooperation - IHO, IMO, IALA …
D1. The progress of the WEND WG - **…**
D2. Associate Members and Observers of ARHC - **Chair**
D3. Report from Arctic Council/PAME – **CA**

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E. Marine Spatial Data Infrastructure (MSDI)
E1. Report of MSDI Working Group - **DK**

F. Any other international activities in nautical charting and hydrographic surveying

G. Any other business

H. Election of next ARHC Chair and Vice Chair

I. Time and venue for next ARHC Meeting

J. Review of ARHC 5 List of Actions

K. Closing formalities

RECORD OF DECISIONS AND FOLLOW-UP ACTIONS

PAME II-2015 (15-17 September 2015)

Tromsö, Norway

Opening of the Meeting

PAME thanks Norway for hosting this meeting and noted welcoming remarks from the Head of Delegation from Norway, Anja Elisenberg, and the Director of the Arctic Council Secretariat, Magnús Jóhannesson.

Information from the Chair and Secretariat (Agenda Item 3)

The Meeting took note of U.S. Chairmanship Program and its three overarching goals:

1. *Continue strengthening the Arctic Council as an intergovernmental forum*
2. *Raise Arctic and climate change awareness within the United States and across the world.*
3. *Introduce new long-term priorities into the Arctic Council*

Furthermore, the 3 organizational thematic areas of the U.S. Chairmanship were noted, in particular those of relevance to PAME:

- *Arctic Ocean Safety, Security and Stewardship*
- *Improving Economic and Living Conditions*
- *Addressing the Impacts of Climate Change*

PAME took a note on the reflections and outcomes form the Iqaluit Ministerial meeting, in general as presented by the Canadian SAO, Susan Harper, and in particular as it relates to PAME, in addition to the discussions that took place at the Executive SAO meeting 16-17 June 2015 as summarized by the PAME Chair, Renée Sauvé.

Arctic Marine Shipping Assessment (Agenda Item 4)

1) AMSA I(A) – Linking with International Organizations

PAME acknowledges the work and contributions of the Shipping Expert Group representatives in planning and participating in the ShipArc 2015 Conference, co-sponsored by the WMU, IMO and Arctic Council-PAME. PAME requests the Secretariat to work with those from PAME who attended the conference to prepare a short contribution (to be edited and finalized by the SEG Co-Chairs) for inclusion in the forthcoming conference publication.

PAME requests that the Shipping Expert Group develop a 'lessons learned' document detailing the successes and shortcomings of the ShipArc 2015 Conference and PAMEs engagement therein.

PAME thanks the Arctic Regional Hydrographic Commission (ARHC) for its report titled "Update on the Activities of the ARHC" and its attachments. PAME notes the substantial value of the national Arctic Voyage Planning Guides (AVPG) produced to date. PAME instructs the Shipping Expert Group to respond intercessionally to ARHC's request for additional information that may contribute to its work in supporting protection of the Arctic marine environment. In particular, the Shipping Expert Group is asked to identify additional information for possible inclusion in the AVPGs and to maintain an ongoing dialogue with the ARHC.

PAME invites the USA to submit to PAME I-2016 a proposed draft project plan for collaboration between PAME and IALA, taking into account exchanges between the two bodies to date.

PAME requests the Secretariat to invite a representative from the Marine, Trade & Energy Group, DWF LLP to make a presentation on the role of marine insurance in support of the Polar Code (noting the presentation by Michael Kingston at the ShipArc 2015 Conference).

PAME thanks Peter S. Rasch, Director, Collaboration & Innovation, Capital Region, Danish Meteorological Institute, for his presentation on behalf of the International Ice Charting Working Group (IICWG) and invites the Shipping Expert Group to explore follow up on IICWG's proposed areas of collaboration and report back to PAME I-2016.

[PAME thanks both [Kjell Knudsen of BarentsWatch and Bjornar Kleppe for their respective presentations on BarentsWatch and Havbase.]

2) AMSA I(B) – IMO Measures for Arctic Shipping

PAME invites Member Governments, Observer States and Permanent Participants by 15 December 2015 to review and as appropriate provide information to supplement or correct the HFO Project Phase III paper titled "Heavy Fuel Oil Releases from Shipping in the Arctic" submitted by the USA, the Russian Federation, Kingdom of Denmark and Norway to PAME II-2015. PAME invites the USA to lead preparation of a revised version for submission to PAME I-2016.

PAME invites Norway to present the results from the HFO III(B) project (Possible hazards for engines and fuels systems using heavy fuel oil in cold climates) at the PAME I-2016 meeting.

PAME invites Member Governments to submit recent information on accidents involving commercial fishing vessels in Arctic waters as defined by the Polar Code.

PAME invites the USA and Canada to submit, as appropriate, a brief report on relevant developments (if any) at the IMO with respect to a proposed Phase II of the Polar Code.

PAME encourages all States and the affected maritime community to effectively implement the Polar Code on a timely basis.

3) AMSA I(D) – Strengthening Passenger Ship Safety

PAME invites Canada, USA and Norway to submit a paper identifying potential specific Arctic Marine Tourism Project (AMTP) follow-up activities for consideration at PAME I-2016.

PAME invites Member Governments to submit papers to PAME I-2016 that: i) describe safety incidents within Arctic waters subject to their jurisdiction involving private pleasure craft that

have necessitated a response by a third party; and ii) identify potential speakers who could make a presentation at a future PAME meeting on this topic.

4) AMSA II(A) – Survey of Arctic Indigenous Marine Use

PAME thanks AIA's Jim Gamble for his update on the "Arctic Marine Indigenous Use Mapping: Tools for Communities" project, and notes the agreement of cooperation between AIA and the Korea Maritime Institute on the project.

PAME requests the Secretariat invite a representative of ICC-Canada to make a presentation to PAME I-2016 on "The Sea Ice Never Stops: Circumpolar Inuit Reflections on Sea Ice Use and Shipping in Inuit Nunaat".

5) AMSA II(B) – Engagement with Arctic Communities

Refer to RoDs for agenda item 5 on the MEMA Project

6) AMSA II(D) – Specially Designated Arctic Marine Areas

Taking into account the AMSA II C report and the Arctic EBSA's identified in 2014 by the Convention on Biological Diversity (CBD), PAME invites AMAP and CAFF to denote areas within the high seas area of the Central Arctic Ocean particularly vulnerable to international shipping activities.

PAME thanks Norway for its update on the status of current ship traffic in the high seas areas of the Central Arctic Ocean and invites Norway to provide a similar update to PAME II-2016.

PAME decides to continue the work of the Regional Reception Facilities Plan (RRFP) Correspondence Group (CG) in consideration of the group's report to PAME II-2015. The project co-leads will provide a further progress report to PAME I-2016. The final draft deliverable document will be completed by the end of 2016 and submitted to PAME I-2017.

7) AMSA II(E) – Protection from Invasive Species

PAME requests the Secretariat to contact the CAFF Secretariat and the ICES Secretariat to identify possible topics of information exchange and collaboration on aquatic invasive species in the Arctic marine environment.

PAME invites Member Governments to submit papers to PAME I-2016 on how, within Arctic waters subject to their jurisdiction they:

> *i) regulate ship ballast water;*
>
> *ii) are implementing the IMO's 2011 Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species (Resolution MEPC.207/62, 15 July 2011);*
>
> *iii) are implementing the IPIECA/OGP Alien Invasive Species and the Oil and Gas Industry: Guidance for Prevention and Management (2010); and*
>
> *iv) are applying any innovative measures to address the threats posed by aquatic invasive species.*

PAME invites the USA to submit a paper to PAME I-2016 on Hazard Analysis and Critical Control Points (HACCP) planning as a management tool that provides a structured method to

identify risks and focus procedures in natural resource pathways activities to avoid and/or mitigate the unintended spread of aquatic invasive species.

8) AMSA II(F) – Oil Spill Prevention

PAME identified its contributions to the draft TFOPP implementation matrix prepared by EPPR. PAME requests the Secretariat to forward the PAME entries to EPPR, to follow-up on further matrix development, and to keep PAMEs Oil and Gas Contact Group and the Shipping Expert Group informed.

9) AMSA II(G) – Addressing Impacts on Marine Mammals

PAME thanks Geneviève Desportes, General Secretary, the North Atlantic Marine Mammal Commission (NAMMCO) for her presentation on its Arctic relevant programs and activities.

PAME requests the Secretariat to invite a representative of the International Whaling Commission (IWC) to make a presentation to PAME I-2016 on its Arctic relevant programs and activities.

10) AMSA II(H) – Reducing Air Emissions

PAME invites Arctic stakeholders to augment the consolidated bibliography of ship air emission publications posted to the PAME website by submitting any new updates to the USA.

PAME requests the Secretariat to reach out to the Task Force on Black Carbon and Methane to seek clarification on the scope of the inventory.

PAME invites Norway to submit an update to PAME I-2016 on IMO's work with respect to black carbon.

11) AMSA III(A) – Addressing the Infrastructure Deficit

PAME invites Member Governments and Arctic stakeholders to strengthen and expand terrestrial AIS networks where appropriate and feasible in order to support safety of navigation, risk reduction, search and rescue, and incident response.

12) AMSA III(B) – Arctic Marine Traffic Systems

PAME requests the Member Government AIS technical experts to develop intersessionally and submit to PAME I-2016 a revised Arctic Shipping Traffic Data (ASTD) draft project plan, (including scalable cost options and potential elements of data sharing agreements), taking into account the guidance provided during PAME II-2015. The USA will serve as the Member Government lead for this initiative.

13) AMSA III(D) – Investing in Hydrographic, Meteorological and Oceanographic Data

PAME invites the USA to take the lead in reviewing the 1st World Ocean Assessment after its publication, and submit a paper to PAME I-2016 or PAME II-2016 on the WOA's overall utility as a reference document for PAME's work with ideas and suggestions for how existing or proposed PAME projects might benefit from and take into account the WOA report information on the Arctic Ocean.

14) Other Items

PAME thanks Justin (Jong Deog) Kim, Director General of Strategy Research Division, Korea Maritime Institute, for his presentation to the Shipping Expert Group on ROK's interests in Arctic shipping and welcomes ROKs ongoing engagement in PAME as an Observer State.]

PAME requests the Secretariat to invite another Observer State to make a presentation on its Arctic shipping interests to the Shipping Expert Group at PAME I-2016.

PAME invites the USA and Canada to submit a paper to PAME I-2016 that proposes criteria for prioritizing PAME shipping related projects.

Follow up on the 2009 Arctic Offshore Oil and Gas Guidelines (Agenda item 5)

Meaningful Engagement of Arctic Indigenous Peoples and Local Communities in Marine Activities project (MEMA):

PAME welcomes the progress report on the MEMA project. The project team includes members of the Oil and Gas Contact Group, Shipping Expert Group and Marine Protected Area Expert Group and is co-led by the U.S., Canada, Aleut International Association, Saami Council and Inuit Circumpolar Council.

The next steps include:

1) analyze the information in the database.

2) hold a half day consultation/outreach meeting in Anchorage October 19, 2015.

3) prepare a narrative summary of the analysis.

4) hold a workshop on Best Practices for engagement in conjunction with PAME I 2016 or possibly with SDWG I 2016.

5) prepare a workshop summary,

6) write main findings and conclusions.

To achieve these steps, PAME noted the efforts by the project team which is actively exploring a few possible options for securing assistance. This includes a volunteer or contract professional analyst/writer/facilitator and/or assistance from the Social, Economic and Cultural Expert Group of the SDWG. It was suggested that the PAME Chair will communicate with the SDWG Chair to explore a possible collaborative arrangement.

Selected Updates of the AOOGG 2009 and Response to AMSP Strategic Actions and TFOPP Framework

- ***Meaningful Engagement of Indigenous People:*** *The group discussed the possibility of using the outcome of MEMA to decide whether to update the AOOGG 2009 Guidance noting that it would be responsive to AMSP Strategic Action 7.4.1.*
- ***Environmental Impact Assessment:*** *The group discussed the possibility of updating guidance on EIAs noting that it would be responsive to the AMSP Strategic Actions 7.1.3; 7.2.2; 7.2.3; 7.3.1 and TFOPP Framework Initiative 1.5.1.*
- ***Operating Practices****: The group discussed the possibility of updating of sections (6.1) Waste Management, (6.2) Use and Discharge of Chemicals, and (6.3) Emissions to Air*

noting that it would be responsive to the AMSP Strategic Actions 7.3.3; 7.3.6; 7.3.7; 7.3.9; 7.3.10, and TFOPP Framework Initiatives 2.1, 2.2 and 2.3.

- *The Oil and Gas Contact Group will correspond on these items and draft a concept paper on each for discussion at the PAME I 2016 meeting.*
- *The Oil and Gas Contact Group will develop a table of recommendations from the AOOGG 2009 and Systems Safety Management and Safety Culture reports for review and consideration by the group as an implementation follow-up matrix or a tracking tool.*

Arctic Offshore Oil and Gas Regulatory Resource (AOOGRR)

- *The PAME Secretariat requested member states to review their web-links in the redesigned AOOGRR and supply updated information for the website by 20th of January, 2016.*

PAME Secretariat to approach the Arctic Council Secretariat to seek funding for Russian Translation of the AOOGG 2009 and the AOOGG: Systems Safety Management and Safety Culture Report.

Framework for a Pan-Arctic Network of Marine Protected Areas (MPAs) (Agenda item 6)

PAME notes the status update on the inventory mapping of existing Arctic MPAs project (joint effort by the PAME and CAFF and Secretariat) and requests the PAME Secretariat to respond to questions raised by some countries on the letter sent out on 14th of August.

PAME further noted that due to questions and clarifications requested by some countries, the timeline below may need to be modified to take into account additional time needed by countries to provide the data requested.

2015

- *30 Sept: Countries to respond to the letter of 14th of August, based upon clarifications provided by the Secretariat.*
- *Nov: Combine reviewed data into one Database*
- *Nov-Dec: Prepare 1 draft report on marine protected areas indicator*

2016

- *Jan 2016: draft indicator report for review*
- *Feb–Mar 2016: Approval of indicator report*
- *Mar 2016: Release dataset and indicator report*

PAME thanks the United States for its workshop proposal in support of PAME's project on "Linking area-based conservation measures to categories of Arctic marine biodiversity", noting that the United States will inform PAME when it receives notification regarding funding from internal processes and will continue to work with the MPA expert group on its implementation, as appropriate.

PAME thanks the United States for its draft proposal to hold a workshop during the forum portion of the International Union for the Conservation of Nature (IUCN) World

Conservation Congress (September 2016 in Honolulu, Hawaii, USA). The United States requests the Secretariat to circulate the draft proposal to Heads of Delegation, seeking the following by October 1: additional comments and support to submit the proposal to the World Conservation Congress for consideration; consideration by States regarding their participation; and co-sponsorship by other States in its submission.

PAME thanks Darius Campbell, the OSPAR Secretariat, for its informative presentation with respect to work on MPAs and welcomes continued collaboration and communication to share information and lessons learned.

PAME requests the Secretariat to send a letter to the other Arctic Council working groups inviting them to nominate experts for the joint MPA expert group.

Ecosystem Approach to Management (Agenda item 7)

PAME welcomes the progress report on the work of the Ecosystem Approach expert group (EA-EG) describing work over the last 6 months according to the agreed work plan for 2015-2017 time period.

*PAME welcomes the report from the **5th EA workshop on "Methodology and status of development of ecological (quality) objectives for Arctic Large Marine Ecosystems"** that was held in Bergen, Norway, 26-27 May 2015. PAME notes the background document on objectives, included as Annex III of the workshop report, and welcomes the further development of this document as the basis for the report "Status of Setting Ecological Objectives in the Arctic" to be delivered in spring 2016. Arctic States, PPs and observers are invited to contribute more information to be used in this report, according to the recommendations from the workshop.*

*PAME welcomes the report from the joint **ICES/AMAP/CAFF/PAME Workshop on Integrated Ecosystem Assessment (IEA) for the Arctic Ocean** (WKICA) that met in Bergen, Norway, 28–29 May 2015. PAME notes the conclusion of the workshop that ICES should establish a working group on Integrated Ecosystem Assessment (IEA) for the central Arctic Ocean (WGICA) and welcomes such an initiative by ICES. PAME agrees to take part through the EA-EG in a joint WG with ICES from the Arctic Council.*

PAME welcomes the information provided on the outcome of the Third Meeting of Scientific Experts on Fish Stocks in the Central Arctic Ocean and notes its relevance to the work of a new ICES Working Group on Integrated Ecosystem Assessment of the Central Arctic Ocean (ICES/WGICA).

PAME welcomes the initial plan for an international conference on implementation of the EA for Arctic LMEs and agrees to the next step which is to establish a planning group to prepare a detailed program for the conference. Venue and time will also need to be identified (tentatively Fairbanks, Alaska, in August 2016).

Follow-up/Implementation of the AMSP 2015-2025 (Agenda item 8)

PAME welcomes the work on the 1st draft proposal and roadmap to prepare AMSP implementation plan and welcomes close involvement of other Arctic Council working groups in this process and agree to the next steps proposed, noting that this may need to be modified based

on discussions with the other working groups at the ½ day consultation venue on the 19th of Oct., back-to-back with the upcoming SAO meeting 20-22 Oct in Anchorage, Alaska.

Comments are due on the 1st draft roadmap and timeline of the AMSP implementation by 2nd of October as per the timeline presented to PAME.

PAME is requested to provide comments to the 1st draft AMSP communication Plan by 15th of October based on outlined content. The aim is to agree to the final version of the communication plan at the PAME I-2016 meeting.

Task Force on Arctic Marine Cooperation (TFAMC), PAMEs Role (Agenda item 9)

PAME thanks the United States for the overall information on the mandate of the TFAMC and agrees to the content and focus of the PAME presentation as proposed by the PAME Chair at the 1st meeting of the TFAMC 21-22 September in Oslo.

PAME Administration Next Meeting

The Meeting invites PAME delegations to include shipping, oil and gas, ecosystem and MPA experts in their delegations to the PAME I-2016 meeting.

The Meeting requests the PAME Chair to present status and progress to the upcoming SAO meeting 20-22 October 2015 on the PAME deliverables of cross-cutting nature as requested by the U.S. Chairmanship, in addition to a 2-pager PAME progress report, i.e.:

- *Meaningful Engagement of Arctic Indigenous Peoples and Local communities in Marine Activities (MEMA) project (is both of subject and working group cross-cutting nature)*
- *Ecosystem-based Approach to marine management (relevance to the joint EA expert group membership that includes membership from other AC working groups working on marine-related issues). This has also a direct relevance and follow-up to EBM in the Iqaluit Declaration.*
- *Arctic Council Arctic Marine Strategic Plan 2015-2025: developing an implementation plan and coordination with other working groups in this regard (i.e. Planning of workshops/consultation venues etc.).*
- *Implementation of the MPA Framework (as a part of the working groups joint session discussions and outcomes).*

PAME thanks the PAME expert groups for their excellent work, both intersessionally and during the meeting.

The location of the next PAME Meeting will be in Feb 2016 (1st week of Feb preferred), time and venue TBD. Full consideration should be given to the need for scheduling the next PAME meeting back-to-back with the TFAMC meeting i.e. preferably convene PAME I-2016 from Mon – Wed follow by a 2 day meeting of the TFAMC from Thu-Fri.