

## Annotation to agenda Item 4.8(a): AMSA III(A) Addressing Marine Infrastructure

Arctic Marine Shipping Assessment (AMSA) Report Recommendation III(A) provides:

That the Arctic states should recognize that improvements in Arctic marine infrastructure are needed to enhance safety and environmental protection in support of sustainable development. Examples of infrastructure where critical improvements are needed include: ice navigation training; navigational charts; communications systems; port services, including reception facilities for ship-generated waste; accurate and timely ice information (ice centers); places of refuge; and icebreakers to assist in response. \(^1\)

## Recommendations for the attention of the PAME I-2013 Meeting

Marine operations are a crucial factor affecting the future health and sustainability of the Arctic marine environment and in turn, would benefit from a better understanding of the risks of operating in the Arctic environment. The following U.S. recommendations identify several possible options and approaches for improving the provision of ice services and products in the Arctic for marine operations and other purposes:

- 1. Currently, there are many different organizations addressing the provision of ice services and products. To leverage limited resources and prevent or mitigate any overlap or duplication of effort, thought should be given to a one-time workshop or setting up a series of meetings under the auspices of the appropriate organization(s) for interested entities willing to work together and share information on the development and maintenance of Arctic ice products and services. Such a workshop or meetings could serve as a catalyst for future partnerships.
- 2. PAME should invite a representative of WMO/JCOMM and/or WMO ECPORs to a future PAME meeting to learn more about their efforts, initiatives, programs and projects for providing Arctic maritime safety service information and products (weather, ocean and sea ice), including the Global Integrated Polar Prediction System (GIPPS).
- 3. PAME should explore creation of a web page with links to Arctic state national ice services and other select ice products, services and information, including those made available by, or as a result of collaboration with, local and indigenous peoples.
- 4. PAME should encourage research and development that will lead to increased frequency, accuracy, and comprehensiveness of Arctic ice information and forecast product and service delivery.

<sup>&</sup>lt;sup>1</sup> Protection of the Arctic Marine Environment Working Group, *Arctic Marine Shipping Assessment 2009 Report* at 26, 92, 154, ARCTIC COUNCIL (April 2009), *available at* <a href="http://www.pame.is/amsa-2009-report">http://www.pame.is/amsa-2009-report</a> [hereinafter AMSA Report].

5. PAME should encourage Permanent Participants to identify approaches for strengthening existing and building new relationships with national ice services and for offering indigenous Arctic sea ice knowledge and experience to marine operators and others.