

PAME II-2013

Agenda item 4.1(a)-Brief on IALA activities in the Arctic submitted by Gary Prosser, IALA Secretary General

Background

The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) is a non-profit, international technical association. Established in 1957, it enables marine aids to navigation authorities, manufacturers, consultants, and, scientific and training institutes from all parts of the world to exchange and compare their experiences, achievements, and technical and operational policies via participation in IALA Technical Committees. The Committees work to create IALA *Recommendations* and *Guidelines*, which are recognised worldwide as the international standards for the implementation and operation of aids to navigation. These standards help to ensure that the movements of vessels are safe, expeditious, cost effective and harmless to the environment.

IALA's scope and expertise extends to e-Navigation and Vessel Traffic Services. The IALA World-Wide Academy is an established arm of IALA and has responsibility for training and capacity building

The IALA Council comprising, twenty-two elected and two appointed Councilors who administer IALA and meet twice each year. Councilors are elected by the organisation during the General Assembly and are nominally the Heads of National Members in the country represented. General Assemblies are held every four years and Councilors hold their positions for the duration of the time between two General Assemblies.

IALA coordinates the technical aspects of its work by establishing formal technical committees and hosting a range of conferences, workshops and seminars. Formal committees are established when a subject relevant to the aims of IALA is considered to need on-going study or discussion by experts in a particular field. Committees may also be tasked with providing continuous monitoring of subjects that could influence the provision of aids to navigation in the future. Four committees are currently in operation. Each meets twice per year, usually at IALA headquarters, and managed by a chairman and vice-chairman. IALA Committees are very well represented with nominal attendance of between 70-120 delegates. The primary objective of the committees is to develop IALA guidance documents, manuals and recommendations. The documents are used by international navigation authorities and are the principal way in which IALA harmonises the establishment and operation of aids to navigation systems across the world. Specially targeted conferences; workshops, seminars and symposiums are also hosted on a regular basis across the globe.

IALA Committees

The Aids to Navigation Management (ANM) Committee deals with the management of aids to navigations services, with its focus being the development and review of issues such as channel design, correct use of aids-to-navigation, management of services relating to AIS networks, and the maritime buoyage system. The committee is also responsible for editing and reissuing every four years the IALA *Navguide* and IALA Questionnaire.

e-Navigation is a vision for the integration of existing and new navigational tools to enable the transmission, manipulation and display of navigational information in electronic form. The IALA e-Navigation [e-NAV] Committee addresses aspects of e-Navigation relating to aids to navigation and works closely with other international organisations, especially the IMO and IHO, to develop the concept of e-navigation.

The Vessel Traffic Service (VTS) Committee deals with all aspects of VTS, including the expanding role of vessel traffic monitoring in maritime safety, efficiency, environmental protection and security. The Committee also provides robust and timely guidance to those involved in VTS matters.

IALA's Engineering, Environmental and Preservation (EEP) Committee is responsible for the engineering, design, maintenance and conservation of aids to navigation and promotion of international research on issues such as light measurement and conspicuity. The committee also undertakes international research and development on human perception of light and colour, light measurement and conspicuity of marine signals.

Further information on the general activities of IALA during the period of 2012 can be found at:

<http://www.iala-aism.org/about/annualreport.html>

IALA activities in the Arctic

2010 IALA Resolution

All Arctic Council member governments and all governments with permanent observer status to the Arctic Council are members of IALA.

IALA is very much engaged with the challenges of safe navigation in Arctic waters. In 2010, delegates from Canada, Denmark, Norway, Russia, and the United States as well as the International Hydrographic Organization met at IALA headquarters in France to discuss the marking of polar traffic routes. As delegates from the five Arctic states and the chairs of IALA's technical committees presented their perspectives on the current challenges in the Arctic, several common themes emerged.

For example, several noted the need for a more reliable communication infrastructure in the Arctic, with the lack of full communications coverage in shipping areas and the need to provide effective warnings to mariners. IALA also noted that traditional physical aids to navigation would be “unrealistic” in certain Arctic waters, due to the remoteness and harsh environment of the region.

At the conclusion of the meeting, the delegates from the five circumpolar Arctic states and IALA adopted a resolution agreeing to strive for harmonisation of their approaches to the risks of navigating in Arctic waters. In doing so, the five nations expressed a desire to explore the potential of a common Arctic ship reporting and data sharing system approach to Arctic marine traffic awareness and monitoring, and a harmonised system of marine aids to navigation. This resolution was seen by the participating states, as a first step in developing a common approach to addressing “the risks inherent in the expansion of marine traffic” in the Arctic. As part of the resolution, IALA agreed to provide a forum for later discussions on navigation safety in the Arctic. It also resolved to support the nations in:

- enhancing marine traffic awareness;
- establishing ship reporting and data sharing systems;
- marking polar routes and development of virtual aids to navigation;
- application of risk management methodology; and
- discussing the importance of improving hydrographic services in the region.

IALA’s resolution was also forwarded to the IMO and the Arctic Council, and the states present agreed to meet annually through the IALA forum on Arctic navigation safety issues. While the subsequent meeting was scheduled for February 2011, the IALA forum on the Arctic has not yet reconvened due to a variety of reasons. IALA hopes that the important work commenced at this inaugural forum can be continued in the not too distant future. A number of the original forum participants have expressed the desire for IALA to reconvene this forum at the earliest possibility and IALA is aiming for this objective.

Other technical activities with an impact on Safety of Navigation in the Arctic

IALA Workshop on the Challenges of Providing AtoN Services in Polar Regions (Ilulissat, Greenland, September 30 to October 4, 2013)

IALA in association with the Danish Maritime Authority (DMA) is hosting a workshop in on the challenges of providing Aids to Navigation Services (AtoN) in Polar Regions in Ilulissat, Greenland. The workshop will cover subjects such as User requirements, AtoN site selection, AtoN construction, installation and maintenance, project planning and management, as well as the potential of e-Navigation in Polar Regions. This is the first workshop of this type conducted by IALA and initial registration is encouraging with planning underway for future events.

http://www.iala-aism.org/files/event_flyers/polar_workshop_flyer.pdf

IALA-NET

IALA-NET is a near real time maritime data exchange service, provided through the Internet. It has AIS data storage and statistics capability that offers a number of distinct opportunities for utilisation in the Arctic.

IALA-NET is a worldwide service available only to national competent authorities that provide maritime data from their area of responsibility in exchange for data from other participants. The service is intended to assist participating authorities in fulfilling their duties in relation to maritime safety, security, protection of the marine environment, and the efficiency of navigation. Participation in IALA-NET is free of charge.

Further information on IALA-NET can be found at <http://www.iala-aism.org/technical/ialanet.html>

IWRAP (IALA Integrated Waterway Risk Assessment Program)

IWRAP is a modeling tool useful for maritime risk assessment. IWRAP can estimate the frequency of collisions and groundings in a given waterway based on information about traffic volume/composition and route geometry. IWRAP has been utilized by National Authorities around the globe for critical waterway risk assessment and could also be utilized in the Arctic region. CO₂ emission calculations are also planned for the latest release of this tool.

http://www.iala-aism.org/wiki/iwrap/index.php/Main_Page

Comment

IALA regrets that it cannot attend the PAME II meeting at this time, to both express its great interest in this important work and also learn from the excellent line up of speakers and presentations.

IALA hopes that it maybe able to attend a future meeting of the PAME Working Group and elaborate further on IALA activities in the Arctic.