



INTERNATIONAL ASSOCIATION OF MARINE AIDS TO NAVIGATION AND LIGHTHOUSE AUTHORITIES

1st Meeting of the Arctic Marine Shipping Best Practices Information Forum

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My background





About IALA

International Association of Marine Aids to Navigation and Lighthouse Authorities



The Maritime Buoyage Agreement

IALA A and IALA B

During the IALA conference in November 1980 two navigation marking systems, ie the System A (red colour for the left hand of the ship) and the System B (red colour for the right hand of the ship), were combined into one - the IALA System.



Headquarters

St. Germain-en-Laye, near Paris, is the home base of IALA providing:

- Offices of the permanent secretariat and
- IT-equipped meeting rooms for technical committees, workshops and seminars





Aids to Navigation

IALA Constitution Art. 1

“A device, system or service, external to vessels, designed and operated to enhance safe and efficient navigation of individual vessels and/or vessel traffic”





Strategic Vision and Goals for 2026

Goal 1

Ensure that aids to navigation systems and related services, including e-Navigation, Vessel Traffic Services, and emerging technologies, are harmonized through international cooperation and the provision of standards.

Goal 2

All coastal states have contributed to an efficient global network of aids to navigation and services for the safety of navigation, through capacity building and the sharing of expertise.





Four Types of Membership

- 84 National Members (Coastal States)
- 60 Associated Members
- 139 Industrial Members
- 47 Honorary Members





Publications

Main result of the Committees work

- **Standards** which can be referred to directly in IMO and other Conventions and national maritime laws
 - **Recommendations** advise what should be done
 - **Guidelines** advise how to implement the recommendations as “best practice”
 - **Manuals** (NAVGUIDE; MBS; VTS Guide; IALA Dictionary)
 - **Model courses** which provide guidance on the training of VTS personnel; Aids to Navigation Managers and Aids to Navigation Technicians.
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The Committees

The “Power House” of IALA

- AtoN Requirements and Management (ARM)
- Engineering and Sustainability (ENG)
- Vessel Traffic Services (VTS)
- e-Navigation (ENAV)





The World-Wide Academy

Training and capacity building



The World-Wide Academy

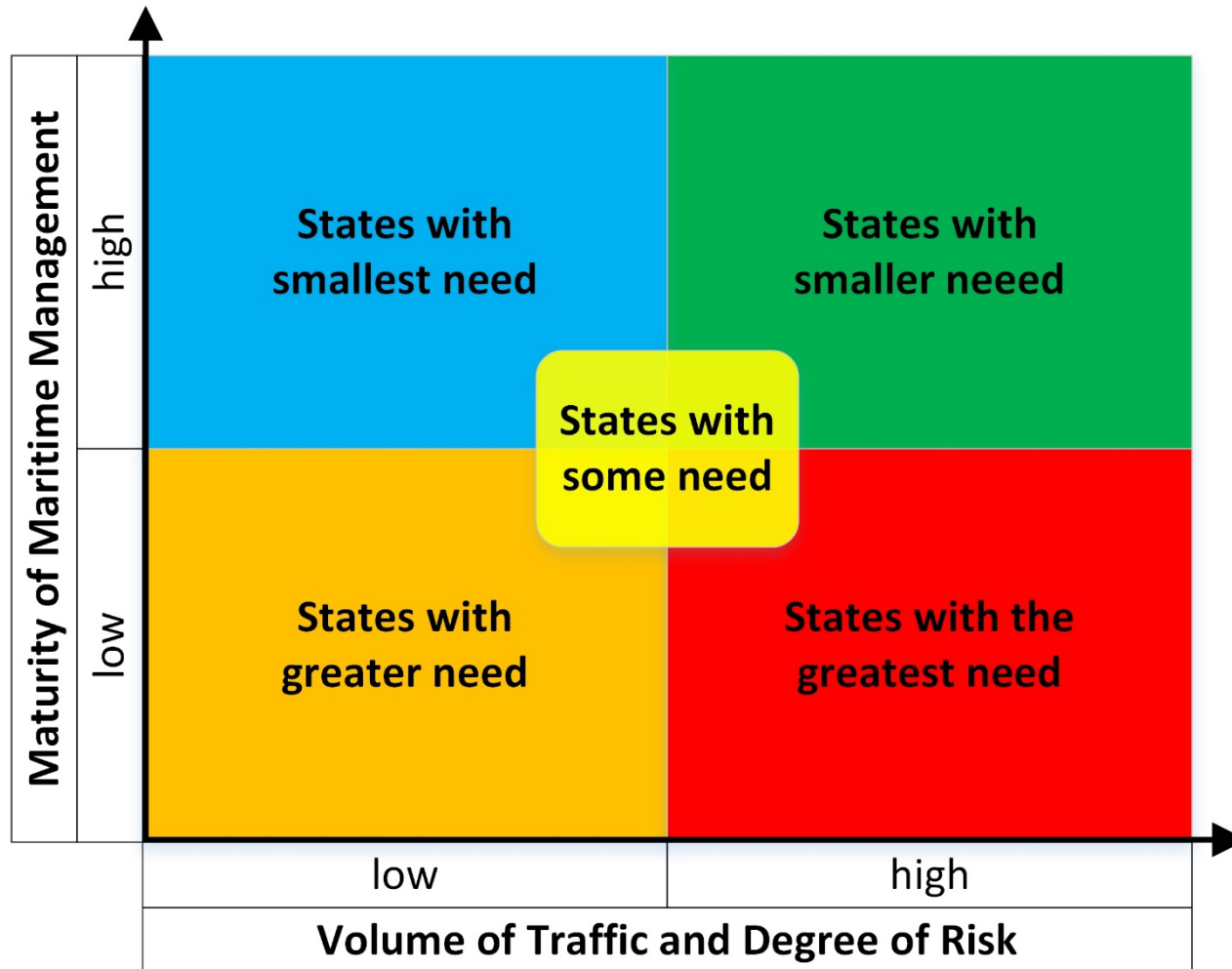
The vehicle by which IALA delivers training and capacity building

- Started in January 2012
- Independently funded
- Focused on Strategic Goal 2
- Facilitates both AtoN and VTS training
- Develops capacity building in 5 key regions





Assessment of Need - 154 Coastal States



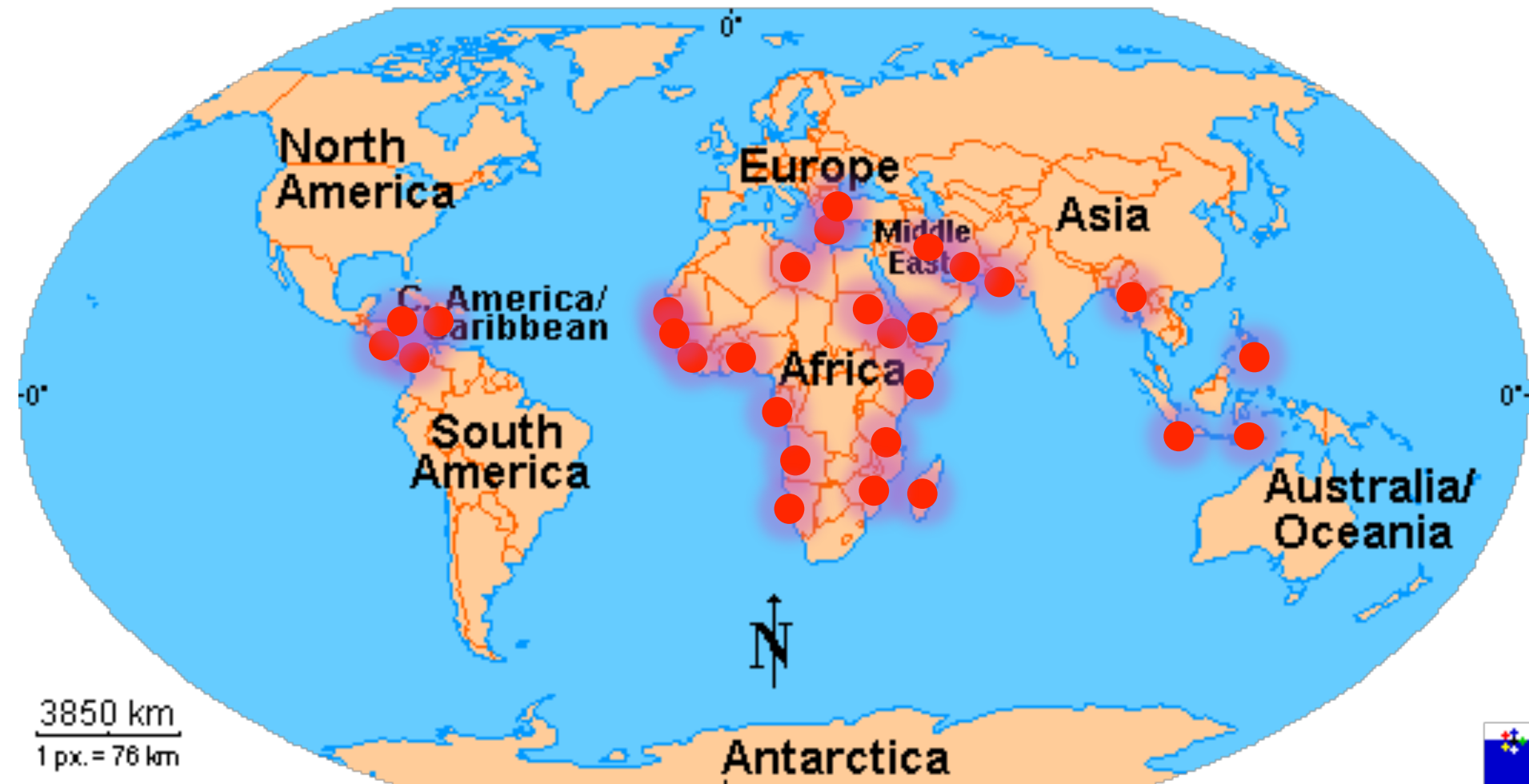


States in need (2017)

	Continental Regions					
Degree of Need	Africa	Europe	Asia	Pacific	Americas	Total
Smallest need	1	12	7	1	6	27
Smaller need	10	16	13	8	13	60
Some need	5	2	3	2	5	18
Greater need	7	1	2	5	7	22
Greatest Need	15	2	7	0	4	28



Those in greatest need





Activities

in the Arctic/Polar Region

Support to the Forum



2010 resolution (IMO MSC 87/INF.15)

The Arctic IALA **Members** should:

- Initiate the establishment of a common Arctic ship reporting and data sharing system;
 - Develop a common approach to marine traffic awareness and monitoring;
 - Move towards a single, harmonized system of marine aids to navigation; and
 - Anticipate and mitigate risk to maritime traffic and the marine environment.
-



2010 resolution (IMO MSC 87/INF.15)

IALA should support the members in relation to:

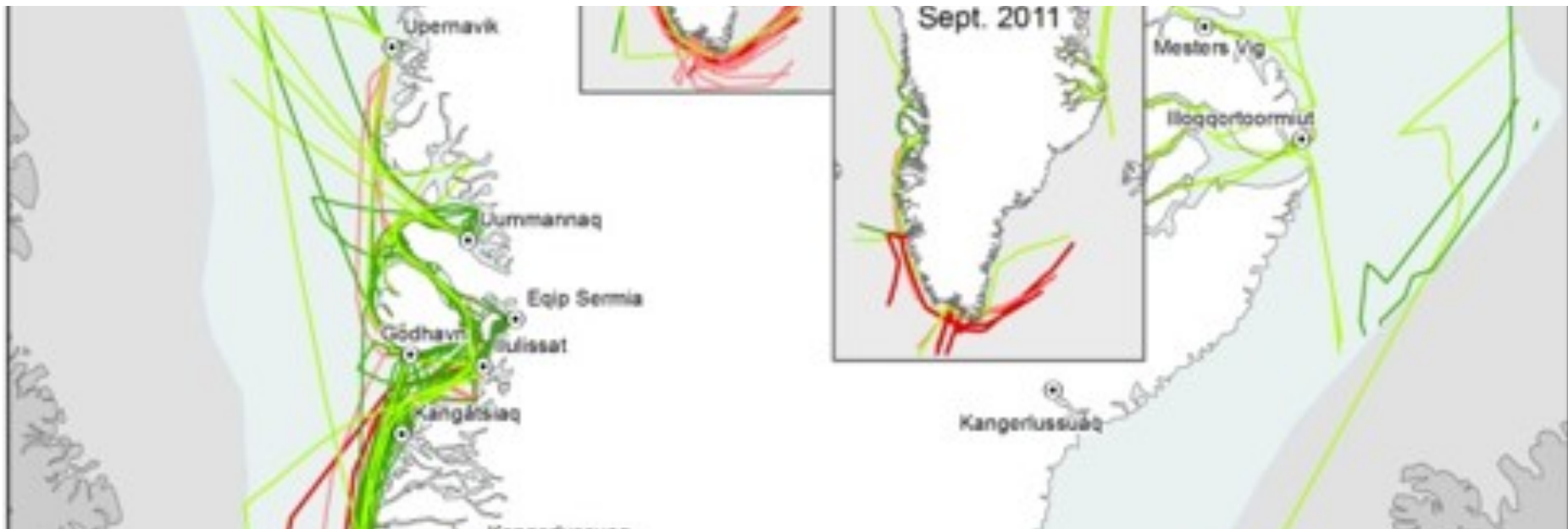
- Enhancing marine traffic awareness and providing a forum for those establishing ship reporting and data sharing systems;
 - the marking of polar routes and development of virtual aids to navigation;
 - the application of risk management methodology; and
 - the importance of improving hydrographic service in the region.
-

Risk to Navigation



Guideline on Risk Management (1018)

- How to measure traffic volume?
- How to quantify risks?
- Likelihood and Impact





Marine Aids to Navigation - 1

The challenges of Providing AtoN Services in Polar Regions (Guideline 1108)

- Result of a workshop in Ilulissat, Greenland in 2013
- Covers: User requirements, Construction, Installation and maintenance, planning and management and potential of e-navigation.





Marine Aids to Navigation - 2

Recommendation on Virtual AtoN (O-143)

Can be used to mark hazards when physical AtoN is not possible



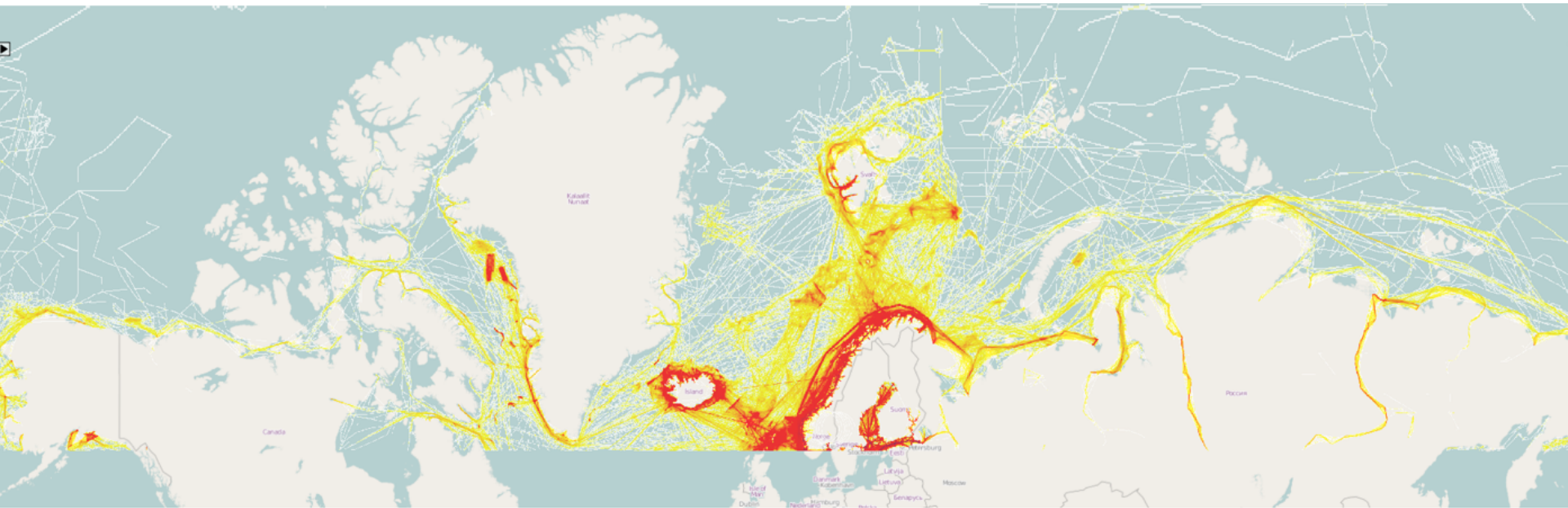


Vessel Tracking

Recommendation on Maritime Data Sharing (E-142)

IALA-NET is a near real time maritime data exchange service, provided through the Internet. It has AIS data storage and statistics capability.

It is a worldwide service available only to national competent authorities who 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.





Development of data communications

VHF Data Exchange System (VDES) Overview (Guideline 1117)

VDES two main goals:

- Protect the AIS basic functions
- Enhance maritime communication applications, based on robust and efficient digital transmission at a much higher rate (also in Arctic region)

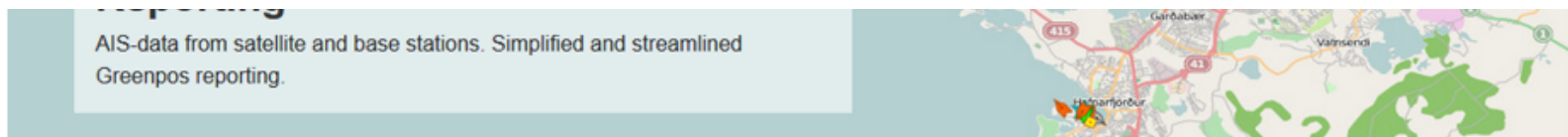




E-Navigation projects and testbeds

Planning and reporting of e-Navigation testbeds (1107)

- The design of testbeds
- The reporting of testbed results



Welcome to ArcticWeb

An effort from Danish Maritime Authority to improve maritime safety in the Arctic region. ArcticWeb serves as a single access point to safety related information, provides streamlined reporting and allows for voluntary coordinated voyage through sharing of positions and planned routes. Ships in the area and their organizations may request access via the button below.

[Request Access](#)







The Forum

Some thoughts



The Forum

PAME has decided to establish a Forum to **increase awareness of the Polar Code**. The Forum will facilitate the **compilation, exchange and public sharing** of associated information and best practices, including with respect to the inputs identified in paragraph 14. This compilation, exchange and public sharing of information will assist all **those involved in the decision-making processes** in relation to Arctic marine operations under the Polar Code.

To achieve this objective, PAME will establish and maintain a **publicly accessible web portal** that will link to and make this information available in one place.





The Polar Code

SOLAS – Ships engaged on International Voyages

Main Challenges:

- General (Polar Ship Certificate)
 - Polar Water Operational Manual (PWOM)
 - Ship Construction
 - Subdivision and Stability
 - Watertight and Weathertight Integrity
 - Machinery Installations
 - Fire Safety/Protection
 - Life-Saving Appliances and Arrangements
 - Safety of Navigation
 - Communication
 - Voyage Planning
 - Manning and Training
-

Those involved in the decision-making processes...



The stakeholders.

- National Authorities
- International Organizations
- Mariners
 - SOLAS – transport
 - Cruise Ships
 - Non-SOLAS/Leisure





QUESTIONS?