

The 19th IALA Conference
Incheon, Republic of Korea
26 May to 2 June 2018

More than 500 delegates attended the 19th IALA Conference which was held in the port city of Incheon, Republic of Korea, from 26 May to 2 June 2018.

A total of 94 technical presentations were made in 13 technical sessions and two special sessions over four days, and Conference participants were able to see and discuss the latest developments in aids to navigation and VTS technology in the large industrial exhibition, where a record number of IALA Industrial Members exhibited.

Handling of digital information

The Conference had a strong focus on the development and exchange of maritime digital information to improve the safety and efficiency of maritime transport. It heard that the use of Maritime Resource Names (.mrn) will be needed for the development of globally-harmonised data models to enable implementation of digital maritime services under the IMO e-Navigation Strategic Implementation Plan.

Evolution of the existing AIS system into the VHF Data Exchange System (VDES) was highlighted by a number of presenters as important for secure and reliable digital communications, together with other commercial satellite and terrestrial communications services.

There were presentations also, on the practical use of existing public terrestrial systems for providing safety information to fishing vessels and leisure craft. Cyber security risks in data transfer will continue to grow, and cyber security precautions will remain vital.

Shore authorities in Europe explained how they share AIS data to support maritime domain awareness, and how they are developing traffic management concepts to improve transport chain efficiency.

Effective and unambiguous VTS communications will require common phraseology, procedures and technology for voice communications, and harmonised data models and communications channels for digital information exchange.

Revision of IMO Resolution A.857(20) (*Guidelines on Vessel Traffic Services*) will be necessary for this harmonisation and for a common global understanding and implementation of modern VTS services.

In the sessions on Positioning, Navigation and Timing (PNT) the importance of resilient was underscored. Resilient PNT is vital for electronic navigation and underpins a variety of safety-related services. A mix of dissimilar systems is required to achieve resilient PNT and candidate technologies were explored.

Autonomous vessels considered

Autonomous vessels entering service now and in the future will need assured positioning and automatic compensation for GNSS outages or disruption. Satellite-based augmentation system (SBAS), (Ranging) R-Mode, radar positioning and eLoran are electronic systems likely to be used to help achieve the necessary resilience, but there is still no global consensus on a coordinated approach for the maritime world.

The growing use of risk assessment by shore authorities to aid safe navigation was noted. While there is no single comprehensive tool, IALA's risk management tool box has a set of proven, widely-used assessment programmes. If used correctly, they can greatly assist aids to navigation authorities to evaluate risk, and to help coastal states to meet their international obligations.

Traditional visual aids to navigation remain essential in waterways. Increasingly such aids are being supplemented by virtual electronic aids for navigation and for emergencies or disasters. The conference heard of recent changes to IALA Recommendations for visual aids to navigation, of technical developments for practical installation, operation, and maintenance. These conclusions were supported by results of user consultation.

Lighthouse heritage

Helped by many IALA members contributing display material and artefacts, an extensive exhibition of lighthouse heritage supplemented the technical sessions and industrial exhibition, tracing the development of lighthouses and lighthouse life.

A national painting competition produced a wonderful array of award-winning paintings from schools across Korea. This exhibition was supported by a special Conference session of the preservation and complementary use of historic lighthouses and their real estate. Presentations explored the cultural, technological, architectural and financial benefits gained from an active heritage programme.

The IALA Council

Incidentally, the new IALA Council (*pictured*) elected in Incheon is represented by the principal aids to navigation authorities of each of: Australia, Brazil, Canada, Chile, China, Denmark, Finland, France, Germany, India, Italy, Japan,

Korea, Malaysia, The Kingdom of Morocco, Norway, Singapore, South Africa, Spain, Sweden, The Netherlands, Turkey, The United Kingdom and The United States of America.