



19th IALA Conference 2018, Incheon, Republic of Korea

Conference Summary

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 AtoN and VTS technology in the large **industrial exhibition**, where a record number of IALA Industrial Members exhibited.

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 (.mnrn) 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. The evolution of the existing AIS system into 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 entering service now and in future will need assured positioning and automatic compensation for GNSS outages or disruption. SBAS, 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 “one size fits all” tool, IALA’s risk management tool box has a set of proven,

widely-used assessment programs. If used correctly, they can greatly assist aids to navigation authorities to evaluate risk, and help coastal states to meet their international obligations.

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

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 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.