Fifty Years of IALA

On 1st July 2007, the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) celebrated the 50th anniversary of its formation.

The origins of IALA can be traced back to 1889, when the French Lighthouse Authority organized a conference on maritime works. Over the decades that followed, it became increasingly evident that those responsible for the provision of marine aids to navigation ought to meet regularly to share experiences and keep up-to-date with rapid advances in technology. Conferences continued to be held until 1955, when delegates were presented with a formal proposal to establish a permanent secretariat, which would work towards the harmonization of marine aids to navigation systems globally. Thus IALA was born.

Today, over 200 organisations from 80 countries are members of IALA, each contributing to ensuring that the movements of vessels around the world are safe and efficient.

MAJOR ACHIEVEMENTS

Over the years, IALA has embarked on several ambitious projects. Some of the major achievements of IALA are listed below

IALA Maritime Buoyage System

In the late 1970s, it was IALA that pioneered efforts towards the harmonization of over thirty disparate buoyage systems that were in use around the world.

This was a major achievement for the global maritime community. The IALA Maritime Buoyage System (MBS) has provided a high degree of certainty to the mariner and aids to navigation service providers. The MBS has since been adopted by the International Maritime Organization.

Vessel Traffic Services

Vessel Traffic Services (VTS) provide information, navigation and traffic organisation services to vessels in port and harbours and their approaches. This involves a range of techniques and procedures, aimed at preventing accidents, with the wider aim to improve safety and to expedite shipping movements.
IALA has been at the forefront of providing advice to the maritime community in the implementation of Vessel Traffic Service (VTS) and training of VTS personnel. Model courses for VTS Operators have been yet another stand-out achievement of IALA. These have also been adopted by IMO. The organization continues to lead the way in the development of every aspect of VTS - operational, technical and matters relating to personnel and their training.

**Differential GNSS**
In the mid-1990s, IALA led the development of guidance on the provision of Differential GNSS (DGNSS) radiobeacon services, performance and monitoring requirements and vulnerability and mitigation measures.

More recently, members have been offered guidance on the recapitalisation of their DGNSS service.

**Automatic Identification System (AIS)**
IALA has led the evolution of AIS, being the organization that sponsored and coordinated the development of the system.

At the request of several emerging AIS equipment manufacturers, and working closely with IMO and other international organizations, IALA acted as a catalyst for manufacturers and maritime administrations to agree on a single standard for AIS stations, both on board ships and ashore.

Since then, IALA has led the development of both technical and operational documentation, working closely with ITU, IEC and IMO, and offering guidance on the use of AIS, both as a data broadcast system and as an aid to navigation.

**Engineering and management**
IALA has supported its membership in implementing advances in engineering and innovations in the management of aids to navigation.

IALA members have studied and introduced solar power, alternative energy sources, new light sources (such as LED), automation and remote control and monitoring. All these advances have enabled the maritime community to benefit from increased efficiencies and cost savings.
Over time, synthetic materials have become a viable alternative to steel in buoy construction; historic light vessels have been replaced by large buoys, where practicable. Maintenance has been revolutionized, with remote monitoring and longer time intervals between maintenance visits.

IALA has seen its members rationalise their fleet of service craft, and implement modern day management practices. Extensive work has been implemented on risk management techniques.

**e-Navigation**
This new holistic concept is being developed in the international arena. IMO is leading the initiative and organisations such as IALA and IHO have been invited to participate. e-Navigation is the transmission, manipulation and presentation of navigation information in electronic formats. It will take into account of every modern electronic navigation aid, with the overall aim to enhance navigational safety and reduce the burden on the navigator. New technologies will be incorporated and integrated, to ensure accurate, secure and cost-effective systems with the potential to provide global coverage for vessels of all classes.

**The Future**
In the near future, IALA will focus on electronic navigation, vessel traffic monitoring initiatives, training of aids to navigation personnel, risk management, quality assurance, and the use of simulation for aids to navigation planning.

There are moves towards more vessel traffic management initiatives and a global need for more “domain awareness” – that is, information on the identity and movement of surface craft in one’s area of responsibility. With the advent of Long Range Identification and Tracking (LRIT), the availability of AIS data and initiatives to share vessel traffic information on a regional basis, the monitoring of, and interaction with, vessels has become a more widespread activity. And IALA has been an active participant every step of the way.

There is much more work to be done on harmonization. With the support of its vast membership, IALA is, and will continue to be, a dynamic and proactive organisation. It will aim to foster the safe and efficient movement of vessels, in manner that is inclusive, cooperative and one that has the best interests of the mariner. Cooperating with other international organisations, for example IMO, IHO, ITU and IEC, IALA
will continue to deliver the twin objectives of safe and efficient navigation.