

Anonymity no longer an option

Aline de Bievre - Wednesday 9 January 2008

TWENTY-FIVE years ago, an ambitious 'concerted action research' project of European countries with Atlantic and Mediterranean coasts concerning shore-based marine navigation aid systems focused on possible improvements to vessel traffic services in ports and waterways.

The 'driver' of the project, which also explored the feasibility of a regionally integrated maritime information system capable of 'over-the-horizon' vessel identification and tracking, was a shared concern over safety at sea, efficiency of traffic and protection of the environment. In today's jargon, 'maritime domain awareness' is the preferred term and has caught on also in a maritime security context.

It was the late Lord Donaldson of Lymington who, in his inquiry into the grounding of the tanker Braer off the Shetland Islands in 1993, arguably won the case for piercing the anonymity traditionally enjoyed by ships at sea. He urged the International Maritime Organization to introduce a mandatory automatic identification system capable of reporting a ship's identity and position to shore-based authorities, without the need for crew involvement and independently of any external means of surveillance.

The AIS shipborne carriage requirement that was eventually adopted under the Safety Of Life At Sea Convention is specifically designed to enhance shore-based VTS and to enable ships to interact for collision avoidance purposes. However, as it rests on a VHF broadcasting capability, its range is typically limited to 30-50 nautical miles.

In response to the September 11 terrorist attacks, the IMO adopted a resolution on the urgent need to develop a secure long-range identification and tracking system with global reach (there will be no interface between LRIT and AIS, which is an open system).

Significantly, safety and environmental protection have since been endorsed by the IMO's maritime safety committee as attractive, additional, functions of the global LRIT system that is envisaged for — compulsory — security and search and rescue purposes under new Regulation V/19-1 of the Solas Convention.

Today, LRIT is no longer regarded as rocket science. Global satellite navigation system equipment, such as Inmarsat-C, is widely available onboard ship. Vessels can also use their ship security alert system to transmit the Solas-required LRIT information (a shipborne SSA has been compulsory since July 1, 2004).

The establishment of a worldwide LRIT system is also unproblematic from the technology viewpoint. However, there needs to be a political meeting of minds. This is where the real challenge lies for the IMO in the coming year.

Regulation V/19-1 entered into force on January 1. The IMO agreed that the global LRIT system must be up and running by December 30 this year.

The cost of the system will fall on the Solas contracting party requesting the LRIT information, except when the request is made to help search and rescue services. However, there is never to be a charge on ships.

The broadest participation possible of countries around the world will be a critical factor in keeping costs down.

Internationally trading passengershops, cargoshops of 300 gt and upwards, and mobile offshore drilling units will be required to transmit automatically (at six-hourly intervals) the required LRIT information, which concerns their identity and real-time position anywhere in the world if the information is requested by the flag state.

For coastal states the permitted range to receive this information about foreign-flagged ships is 1,000 nm.

Authorised access to information, authentication of any party exchanging information, and data confidentiality and integrity are all sensitive issues that have been addressed already in the IMO-agreed, and mandatory, performance standards for LRIT.

The task of verifying the legitimacy of requests for LRIT information and subsequently to route the requested data to legitimate parties falls on the international LRIT data exchange centre. The IDE is the absolutely critical element of the global LRIT system.

It is a hallmark of the 'IMO spirit' that the maritime safety committee was able to agree to the contingency offer of the United States to host, build and operate the IDE on an interim basis.

But its decision not to give the go-ahead to the establishment of an international LRIT data centre that would receive and store ships' reports was unfortunate.

It is not all doom and gloom, however. Reportedly, there are now more encouraging signs emerging that Solas contracting parties are gearing up to establish their own national data centres or to engage with other contracting states for the purpose of establishing co-operative or regional data centres that could also serve safety and environmental monitoring purposes.

It is possible that the IMO, through its technical co-operation programme, will be able to provide assistance in this respect.

It is also possible that the decentralised approach will help to create the necessary confidence, and mutual trust, for the eventual establishment of a proper international data centre. In particular, smaller states or states without large fleets, developing countries and countries in unstable regions may well need to depend on an IDC in order to meet their Solas obligations.

Another positive development concerns the ongoing efforts of the International Association of Marine Aids to Navigation and Lighthouse Authorities to develop user-oriented requirements for e-navigation.

For the shore-based element of e-navigation, in particular, LRIT is quite important, not least in terms of its potential to enhance domain awareness on the part of the competent shore-based authorities with respect to all manner of human activities affecting safety, efficiency, the environment and security in their area of interest.

A host of outstanding technical matters have yet to be addressed by an IMO ad hoc group later this month so that final decisions may be taken by the maritime safety committee in May. The time pressure is extreme, however.

The maritime community also should say a prayer or two for the tiny secretariat of the International Maritime Satellite Organisation, which is working flat out on essential matters of an organisational as well as technical nature.

IMSO volunteered to take on the role of LRIT co-ordinator with responsibility for an annual performance review and certain system auditing functions. It already has a proven track record as the public oversight body for the IMO's global maritime distress and safety system.

Provided it can count on the full co-operation of all IMSO members and Solas contracting parties, the chances are that a workable LRIT system will be delivered by the year end.