



### Byte size

**Requirement:** The means of transmitting LRIT data to national or commercial data centres

#### Inmarsat C / Mini C

- Fulfills LRIT data reporting criteria
- Automated report sending
- An industry standard, proven in its field
- Will ensure that LRIT-compliant vessels are able to trade freely
- Contributes to the management of the LRIT framework, to bolster maritime security and safety



**T**he International Maritime Organization's (IMO) requirements for the Long Range Identification and Tracking (LRIT) of ships is nearly upon the maritime community, with both the IMO and US government insistent on the inflexibility of the 31 December 2008 deadline. As of their first radio surveys after this date, vessels will be required to demonstrate that they possess onboard equipment capable of meeting the LRIT criteria - most commonly, Inmarsat C and Mini C terminals, widely recognised as an industry standard.

On paper, the LRIT compliance process looks well and good - after all, if shipowners and operators need only wait until their first safety radio surveys of 2009, why worry about seeking compliance until the time comes? However, a number of regulatory experts have expressed the concern that this attitude may be bordering on the complacent - among them, Brian Mullan, Inmarsat's head of maritime safety. Given the depth of Inmarsat's involvement with the IMO, with the satcoms specialist having taken part in every LRIT meeting along the way, Mullan's words are certainly worth heeding.

"Although the IMO regulations allow ships until the time of their first radio survey after 31 December 2008 to comply, the reality is likely to be that many must comply as from 31 December 2008," Mullan argues. "Despite some calls for delay, the IMO has remained resolute in maintaining the start date for LRIT, and the US has already passing a Rule Making that is based on the agreed date.

"This means that any ship wishing to trade with the US after 31 December 2008 will have to meet the functional requirements of LRIT."



# No time to lose

The window for LRIT compliance is closing, but there are concerns that some shipowners are leaving this process to the last minute



Ships that fail to comply with the LRIT requirements as of 31 December 2008 may be barred from entering US ports under the jurisdiction of the USCG

### Addressing security fears

If the genesis of the LRIT requirements can be attributed to a fixed incident, it is probably the terrorist bombing of the naval vessel *USS Cole* in October 2000. Although the extremity of this attack was eclipsed the following year by the tragic events of September 11 2001, the *USS Cole* incident provided a stark warning to the shipping community, regarding the gaping holes that then riddled the industry's security arrangements.

Just as 9/11 prompted a major security re-think across business and industrial sectors worldwide, so too the maritime community began to ask itself some hard-hitting questions. By its very nature, shipping constitutes an international, high-value venture, leaving it

vulnerable to all sorts of infiltration and attack. The shipping world was left in no doubt that just one successful terrorist action against a vessel or port had the potential to severely disrupt international trade and plunge otherwise reputable and financially robust shipping lines into recession.

The IMO's response was to push forward the International Ship and Port Facility Security (ISPS) Code, which made mandatory the creation of ship and port facility security plans, in an attempt to cover the chinks in the industry's armour.

The bulk of the ISPS Code regulations came into force in July 2004, but Regulation 10, which urged the creation of a global LRIT network for ships, was ratified in May 2006.

## The compliance process

The IMO's LRIT requirements apply to all vessels of and above 300 gross tons (gt), as well as mobile offshore drilling units.

By now, most flag states should have decided on the data centre to which their vessels must report. This can be a national data centre (NDC) within their country, or else the flag state can outsource this responsibility to a commercial entity. Companies such as Pole Star and Transas Telematics are just two of those currently fulfilling the role in this latter category. The flag state will then advise all vessels flying its flag of the data centre to which they must report.

Flag states can also appoint multiple testing authorities, meaning that shipowners whose fleets span several flags are still able to undergo LRIT testing, in a coordinated manner.

On behalf of the flag state, LRIT application service providers (ASPs) then sign agreements with the relevant shipowners, and will arrange to carry out testing, and provide advice on how to achieve compliance, aboard the owners' vessels.

The IMO appointed the International Mobile Satellite Organisation (IMSO) as LRIT coordinator, and this body will audit the system.

## "Some may be thinking, 'Our fleet doesn't trade with the US, so why should we worry?' However, trade patterns change"

This year has seen the LRIT network switched on, and the IMO has already provided its Data Distribution Plan, which has been drawn up to ensure that LRIT data is only sent to those states authorised to receive it. Additionally, the US is hosting, for the first two years of LRIT operation, the International Data Exchange, developed to serve as a gateway for all LRIT data flow between users.

### Guarding the bottom line

The question that concerns experts such as Mullan, however, is whether the shipping industry will be ready to comply with the LRIT regulations in due time. It is hardly a secret that many shipowners and managers are not particular fans of increased regulation, and some may even view LRIT compliance as 'another necessary evil', set to consume their time and energy. Perhaps, Mullan explains, such industry players would be a little more concerned if they realised the detrimental effects that non-compliance may have on their bottom lines, should they enter 2009 not having taken action.

"Shipowners may face enormous difficulties in trading if they are not LRIT-compliant," Mullan tells *Via Inmarsat*. "It is difficult to know whether port states and coast guard authorities will provide any leeway to non-compliant vessels. Some shipowners may be thinking that it is only the US Coast Guard [USCG] that will be stringent, but this may not be the case.

"Also, some may be thinking, 'Our fleet doesn't trade with the US anyway, so why should we worry?'. However, trade patterns change, and shipowners never know when they may have to place their vessels on an alternative route. Even if you own 12 vessels, and just one of these is non-compliant, you may find your fleet being tarred with the same brush. This is not just limited to port calls - it could also apply if a vessel is going into drydock."

### Any chance of a break?

Whether the USCG provides leeway to non-compliant vessels after 31 December 2008, or clamps down hard on these ships and denies them entry, is a moot point. *Via Inmarsat* was unable to ascertain a definite answer when it contacted the USCG. However, shipowners should look back to the 2004 introduction of the ISPS Code, when uncertified vessel crews took their shore leave between four walls, flanked by armed guards, if they believe the US authorities will prove a push over. In any case, the official line is that the USCG requires 96 hours prior notice of arrival, and it is unlikely that this body will be keen to hear excuses from shipping companies which have blatantly booked their port calls in advance, aware that their own vessels fail to meet the requirements.

Mullan's view is echoed by Julie Lithgow, community shipping advisor at Pole Star, which is currently acting as a data centre (see box, left) for the Marshall Islands (whose fleet was declared fully LRIT-compliant in August this year), Australia, Canada, the Isle of Man, the Cayman Islands and the Faroe Islands. Pole Star is also enacting the role of application service provider (ASP) for 12 flags.

"We are conducting LRIT testing for the equipment aboard approximately 40,000 vessels, and, of these, we expect 20 to 30 per

## Stand-alone solution



Thrane & Thrane has launched a new piece of hardware, based on Inmarsat Mini C technology and aimed specifically at those shipowners and managers who may be racing to meet the deadline for LRIT compliance.

The group's new Sailor TT-3000 LRIT transceiver is being marketed as a stand-alone solution for vessel owners whose onboard Inmarsat C and Mini C terminals may not meet the LRIT test requirements. Test failures may be due to the age of the equipment, or because the manufacturer of an existing installation no longer supports that particular model, for example.

Alternatively, some shipowners may not wish to use their Inmarsat C terminals for the purpose of full-time LRIT reporting, allowing the transceiver to bear the brunt of this work.

Henrik Dyrholm, market manager for LRIT at Thrane & Thrane, says: "We aim to help many of the currently non-compliant vessels by providing a low-cost, easy to install LRIT solution." The Sailor TT-3000 LRIT transceiver currently retails at Euro 1,775 (US\$2,665), excluding VAT, for a model with a 20m cable. [Thrane & Thrane www.thrane.com](http://www.thrane.com)

cent to fail," says Lithgow. "On average, testing takes between 30 to 48 hours per vessel, so if you have a large fleet, this isn't something you should be leaving until the last minute. The risk is, if you are on your way to the US, and your Inmarsat C or Mini C terminal cuts out, you could effectively find yourself unable to call at any US port.

"It's fine to rely on the fact that the IMO regulations state that your vessel need only be LRIT-compliant as of the first safety radio survey after the 31 December 2008 deadline. But what if your next survey is scheduled for December 2009? This would mean a whole year of problems attempting to access certain ports."

### Clean bill of health

In many ways, the current situation is reminiscent of the months surrounding the introduction of the ISPS Code. Back then, many shipping companies found themselves engaging in a mad scramble for ISPS Code compliance, as the realisation dawned that they could lose out on serious trading opportunities as a result of their slowness to act.

It is worth noting, though, that the potential for a backlog of test procedures is not only evident across the shipowner and operator segments. Europe, which constitutes 27 flag states, has been slow to respond to the call for ratification, and has found itself playing catch-up in the second half of this year.



**"LRIT will help to eliminate the 'good guys' from coastal or port states' inquiries"**

Again, there is little indication of how various port states will react to the LRIT requirements next year. For instance, the Port of Athens played host to a number of cruise ships during the August 2004 Olympic Games. Technically, though, the port itself was not ISPS Code-compliant at the time - meaning that a port state would have been perfectly within its right to deny these vessels entry, after checking the compliance of the last 10 ports visited by said ships.

What is for sure is that the best thing shipowners can do is get their LRIT compliance sorted as soon as possible, in order to guarantee freedom of movement for their fleets. To put it bluntly, as long as you have a clean bill of health, you can leave the ratifying states to develop their own timelines for LRIT introduction, safe in the knowledge that your fleet meets the expected criteria.

### Cost issues

Some may have been scared off by the IMO's declaration that shipowners are responsible for bringing their vessels into compliance. However, it is worth noting that the costs of LRIT data transmissions are to be covered by the IMO member states. Lithgow adds: "The IMO didn't specify that the LRIT framework

should rely solely on Inmarsat C and Mini C terminals, but it has made life easier for shipowners by recognising the ability of these terminals to fulfill the role of LRIT transceiver.

"Most vessels are equipped with these terminals anyway, as they are mandatory as Ship Security Alert Systems on deep sea-going ships, and, as yet, there is no equivalent Iridium service capable of handling LRIT data reporting."

"If handled and managed properly, there is still time to meet the requirements and comply," says Mullan, "but it does depend on shipping companies commencing their LRIT testing now. The ASPs are able to test several ships parallel to each other, and there have been some individual shipping companies getting their entire fleet tested simultaneously."

### Seeing who's who

Aside from commercial considerations, there is also reason to be optimistic about the safety and security aspects which the LRIT network is expected to offer to the industry as a whole.

Mullan concludes: "If coastal or port states deem any vessel worthy of investigation, even if the ship happens to be passing within 1,000 nautical miles of their coastlines, with no intention of calling, LRIT will help to eliminate the 'good guys' from their inquiries. This will have tremendous benefits in keeping the sea lanes safe from terrorist and pirate attacks."

The capabilities of Inmarsat C and Mini C have made it possible for the IMO to address the gaps in the maritime industry's security defences. If you have already achieved LRIT compliance for your fleet, you now have the means of keeping the authorities alert to your vessels' positions and situations, and the ability to trade freely, as a recognised, identifiable fleet.

If not, then it is certainly time to get moving and arrange for the ASPs to begin testing on your vessels. As Mullan has highlighted, there is still time to complete the process - but the sooner this is done, the better for all concerned.

Working in tandem with each other, shipowners and flag states can ensure that LRIT functions adequately as a means of bolstering



the overall security of the world's ports and sea lanes. The process will require effort on all sides! 📍

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