

## **Long Range Identification and Tracking**

**All SOLAS vessels must be LRIT capable by 31<sup>st</sup> December 2008**

### **Are you ready for LRIT?**

The International Maritime Organization (IMO) has adopted an amendment to Chapter V of the International Convention for the Safety of Life at Sea 1974 (SOLAS), which introduces new mandatory position reporting obligations for SOLAS ships. It is called Long Range Identification and Tracking (LRIT) and requires vessels to automatically transmit identity and position with date/time at 6-hour intervals.

LRIT came into force on January 1st 2008 with compliance required by 31st December 2008. Vessels required to comply are:

- Passenger ships, including high-speed craft
- Cargo ships, including high-speed craft, of 300 gross tonnage and upwards
- Mobile offshore drilling units.

LRIT promises to provide a much clearer picture of merchant shipping activity to key stakeholders as we continue on the relentless drive towards complete eNavigation. The system has the potential to increase safety and security and by giving Port States early indication of a vessel's position and route details, it could even provide a more seamless experience from deep sea, to coastal passage and port approach right up to dockside.

This improvement in navigation and logistical capabilities may not require any significant investment from shipowners or operators as the majority of affected vessels already comply with LRIT performance standards, they may just not know it...

### **LRIT On board**

Inmarsat C has been chosen as the main LRIT data transmission platform. This system is already used by merchant and fishing vessels for tracking by a vessel's owner/operator. It has proven its capabilities in safety and security applications with extensive use for both GMDSS and Ship Safety Alert System (SSAS) and is in fact the only satellite system allowed for GMDSS use.

The majority of vessels already have the tools on board to comply with LRIT. However, GMDSS and SSAS terminals will have to meet a certain performance standard to be suitable for LRIT use. Ship LRIT equipment must be capable of being configured to transmit the following minimum information in an Automatically Generated Position Report (APR):

- Ship identity
- Ship position
- Date and time of the position.

Ship LRIT equipment must also be able to respond to requests from member states and LRIT data centres for immediate position reports and be able to change the time interval between reports to a maximum frequency of every 15 minutes.

As there is no type approval process or any other formal certification, it is left to the flag state administration to test and certify LRIT terminals for their given flag. This is done in relation to the stringent LRIT performance standard set by IMO. This is done remotely and will in most cases only require the ship owner / operator to supply Inmarsat C information upon request.

## Testing

Most existing Inmarsat C terminals, including the entire Thrane & Thrane mini-C range, are capable of providing the required LRIT information although a certain percentage will not be suitable unless updates are applied. It is possible that a specific configuration or minor installation problems can affect a terminal's ability to transmit the LRIT signals, or even be updated to transmit the signal. So considering the high penalties for LRIT non-compliance, which could be tens of thousands of dollars per day in some cases, it is vital for vessel's to start preparing for the **31<sup>st</sup> December 2008 LRIT** deadline immediately.

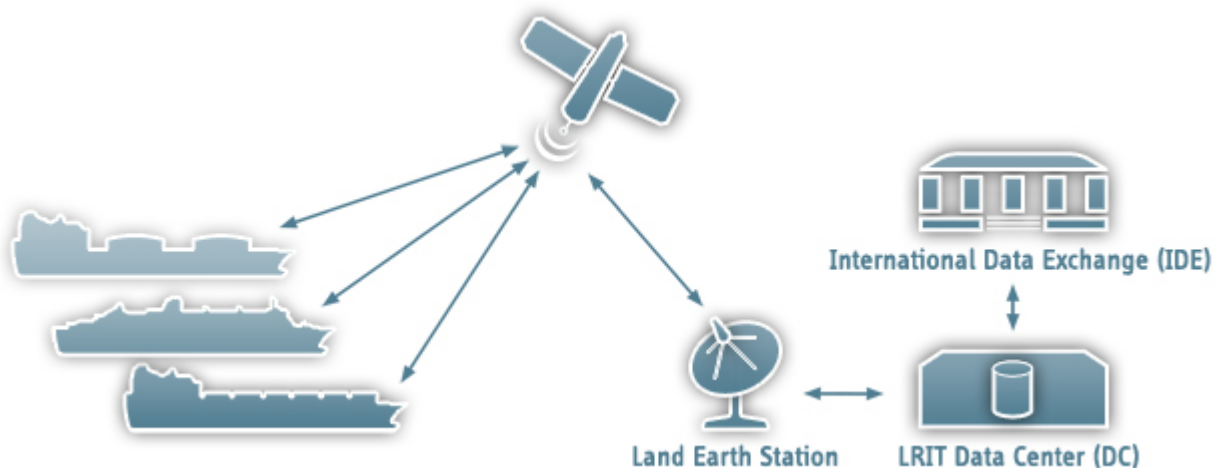
There is currently no testing of a vessel's terminals offered by the authorities. In order to assist our customers in preparing for LRIT Thrane & Thrane now offers a unique service that provides any owner or operator of SAILOR equipment suited for LRIT, with a remote test of existing equipment to determine if it meets the LRIT performance standard.

## Standalone Terminal

Although existing SAILOR SSAS, GMDSS and mini-C [make links to each area as above] terminals should indeed be capable of transmitting LRIT signals, for reasons such as redundancy, maintenance and operational efficiency, some vessels may wish to install a standalone LRIT terminal. To accommodate this need Thrane & Thrane has introduced the SAILOR TT-3000 LRIT stand-alone solution, which is available now.

## The LRIT System

The LRIT system (IMO Performance Standards for LRIT (MSC.210(81))) consists of the ship borne LRIT information transmitting equipment, the Communication Service Provider(s), the Application Service Provider(s), the LRIT Data Centre(s), including any related Vessel Monitoring System(s), the LRIT Data Distribution Plan and the International LRIT Data Exchange. LRIT data will be sent via satellite to a network of National, Regional, Co-operative and International LRIT Data Centres. Position reports will be made available (to purchase) via an International Data Exchange (IDE) to member states and other stakeholders when a vessel is within 1000 nautical miles of that state's coastline.



Every flag state will be responsible for its own vessel's LRIT data through National LRIT Data Centres. This ensures the security of a vessel's information in that the data will only be viewed by organisations that have a valid reason to do so.

Thrane & Thrane has played a key role in developing the LRIT architecture and is offering a solution to Flag States to initiate and manage National LRIT Data Centres.