Subject: SHN, TOPIC: LRIT , Batch- 55th ,  Nautical

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# Vessel tracking globally with LRIT – How it works

#### EMSA explains Long Range Identification and Tracking

The long range identification and tracking (LRIT) system for ships aims to enhance security for government authorities. The [**European Maritime Safety Agency (EMSA)**](http://emsa.europa.eu/)has produced a leaflet in order to understand LRIT and its potential benefits for maritime safety, marine environment protection, as well as search and rescue operations.

## ****International LRIT System****

LRIT provides ship identity and current location information in sufficient time for a government to evaluate the security risk posed by a ship off its coast and to respond to reduce the risk if necessary.

An antenna mounted on the monkey island which emits signals in continuous process and that signal( lat. /Long. /Course/speed ) are being received by the receiver unit at land based where about the ship is in the world.

Mandatory: keep the power-switch – ON , continuously, failure to do that signal transmission will be cut-off, automatically .

An active and accurate long range identification and tracking system also has potential benefits in terms of maritime safety, marine environment protection, and maritime search and rescue. Accurate information on the location of the ship in distress, as well as ships in the vicinity that could lend assistance, reduces response time, supporting timely rescues and minimising pollution.

The LRIT system was set up under the auspices of the International Maritime Organisation (IMO).

It aims to provide a global system for the identification and tracking of ships.The LRIT system is mandatory for all passenger ships, high speed craft, mobile offshore drilling units and cargo ships of over 300 gross tonnes, and has been in force since July 2009.

The system specifies that flag States should ensure that a ship transmits a minimum of four positions per day (once every 6 hours). LRIT information is stored and available for those users entitled to access it.

**LRIT users include the following:**

**Flag States** may request information on the location of their vessels around the world

**Coastal States** may request information on ships up to 1 000 nautical miles from their coasts irrespective of their flag

**Port States** may request information on those ships that have declared one of their ports as destination, irrespective of their location or flag

**Search and rescue authorities**.

The international LRIT system receives, stores and disseminates LRIT information on behalf of all SOLAS Contracting Governments (Convention of Safety of Life at Sea - 1974 SOLAS CONVENTION).

**Lesson – 02 ( Next)**

**Capt. Taimur , 31.03.2020**

**Marginal note on LRIT :Definitions**

* **1** **(1)** The following definitions apply in these Regulations.

***cargo vessel***( means a vessel that is not a passenger vessel and is of 300 gross tonnage or more. *bâtiment de charge*)

***international voyage***( means a voyage between a port in one country and a port in another country, but does not include a voyage solely on the Great Lakes, the St. Lawrence River and their connecting and tributary waters as far east as the lower exit of the St. Lambert Lock at Montréal. *voyage international*)

***LRIT equipment***( means information-transmitting equipment for the long-range identification and tracking of a vessel. *équipement LRIT*)

***LRIT information***( means the information referred to in section 5. *renseignements LRIT*)

***Minister***( means the Minister of Transport. *ministre*)

***passenger vessel***( means a vessel that carries more than 12 passengers. *bâtiment à passagers*)

***sea area A1***, ***sea area A2***, ***sea area A3*** and ***sea area A4***( have the meanings assigned by regulation 2.1 of Chapter IV of SOLAS. *zone océanique A1*, *zone océanique A2*, *zone océanique A3* et *zone océanique A4*)

***SOLAS*** ( means the International Convention for the Safety of Life at Sea, 1974, and the Protocol of 1988 relating to the Convention, as amended from time to time.*SOLAS*)

* **Marginal note:When vessel is constructed**

**(2)** For the purpose of these Regulations, a vessel is constructed on the earliest of

* + **(a)** the day on which its keel is laid,
  + **(b)** the day on which construction identifiable with a specific vessel begins, and
  + **(c)** the day on which assembly of the vessel reaches the lesser of 50 tonnes and 1% of the estimated mass of all structural material.

**Application**

**Marginal note:Cargo vessels and passenger vessels**

* **2** **(1)** These Regulations apply in respect of Canadian vessels everywhere if they
  + **(a)** are engaged on international voyages; and
  + **(b)** are cargo vessels or passenger vessels.
* **Marginal note:Exceptions**

**(2)** These Regulations do not apply in respect of

* + **(a)** pleasure craft; or
  + **(b)** government vessels.

**Compliance**

**Marginal note:Authorized representative**

**3** The authorized representative of a vessel shall ensure that the requirements of sections 4 to 10 are met.

**LRIT Equipment**

**Marginal note:Vessels to be fitted**

* **4** **(1)** Every vessel shall be fitted with LRIT equipment.
* **Marginal note:Exception — sea area A1**

**(2)** Subsection (1) does not apply in respect of a vessel that operates exclusively in sea area A1 if it is fitted with an automatic identification system that meets the requirements of and is operated in accordance with section 65 of the [*Navigation Safety Regulations*](https://laws-lois.justice.gc.ca/eng/regulations/SOR-2005-134).

**Marginal note:Automatic transmission**

**5** The LRIT equipment fitted on a vessel to meet the requirements of section 4 shall automatically transmit the following information:

* **(a)** the vessel’s identity;
* **(b)** the vessel’s position, particularly its latitude and longitude; and
* **(c)** the date and time of the transmission.

**Marginal note:Type approval or certification**

* **6** **(1)** The LRIT equipment fitted on a vessel to meet the requirements of section 4 shall be type-approved or certified by the Minister as meeting the performance standards and functional requirements set out in section 4 of the *Revised performance standards and functional requirements for the long-range identification and tracking of ships*, the annex to International Maritime Organization Resolution MSC.263(84), as amended from time to time.
* **Marginal note:Interpretation**

**(2)** For the purpose of interpreting section 4 of the annex referred to in subsection (1),

* + **(a)** “should” shall be read to mean “shall”; and
  + **(b)** “Administration” shall be read to mean “Minister”.

**Marginal note:Switching off equipment**

* **7** **(1)** The LRIT equipment fitted on a vessel to meet the requirements of section 4 shall be capable of being switched off on board.
* **Marginal note:Master**

**(2)** The vessel’s master may switch off the LRIT equipment

* + **(a)** when international agreements, rules or standards provide for the protection of navigational information; and
  + **(b)** in exceptional circumstances and for the shortest duration possible when the equipment’s operation is considered by the vessel’s master to compromise the safety or security of the vessel.
* **Marginal note:Informing authorities**

**(3)** If the master switches off the LRIT equipment in the case provided for by paragraph (2)(b), the master shall

* + **(a)** without delay inform a Marine Communications and Traffic Services Centre of the Canadian Coast Guard and, if the vessel is in the waters of a contracting government, the relevant maritime authority of that government; and
  + **(b)** make an entry, in the record of navigational activities and incidents maintained in accordance with section 85 of the [*Navigation Safety Regulations*](https://laws-lois.justice.gc.ca/eng/regulations/SOR-2005-134), setting out the reasons for the decision and indicating the period during which the equipment was switched off.

**Marginal note:Reducing frequency of or temporarily stopping transmission**

* **8** **(1)** The LRIT equipment fitted on a vessel to meet the requirements of section 4 shall be capable of
  + **(a)** being configured to transmit the LRIT information at a reduced frequency of once every 24 hours; and
  + **(b)** temporarily stopping the transmission of LRIT information.
* **Marginal note:Master**

**(2)** While a vessel is undergoing repairs, modifications or conversions in dry dock or in port or is laid up, the vessel’s master may, on his or her own initiative, and shall, if directed to do so by the Minister,

* + **(a)** reduce the frequency of the transmission of LRIT information to once every 24 hours; or
  + **(b)** temporarily stop the transmission of LRIT information.
* **Marginal note:Informing authorities**

**(3)** If the master reduces the frequency of or temporarily stops the transmission of LRIT information under subsection (2), the master shall

* + **(a)** without delay inform a Marine Communications and Traffic Services Centre of the Canadian Coast Guard and, if the vessel is in the waters of a contracting government, the relevant maritime authority of that government; and
  + **(b)** make an entry, in the record of navigational activities and incidents maintained in accordance with section 85 of the [*Navigation Safety Regulations*](https://laws-lois.justice.gc.ca/eng/regulations/SOR-2005-134), indicating the period during which the transmission of LRIT information was reduced in frequency or temporarily stopped, and whether or not the Minister directed the

**Marginal note:Failure of system**

**9** If the Minister or the Canadian Coast Guard informs the master of a vessel that any part of the system used to receive LRIT information from the vessel or to disseminate the information has failed, the master shall make an entry, in the record of navigational activities and incidents maintained in accordance with section 85 of the [*Navigation Safety Regulations*](https://laws-lois.justice.gc.ca/eng/regulations/SOR-2005-134), setting out the date and time the master was informed.