Subject

Implementation of Long Range Identification and Tracking of Ships (LRIT)

ClassNK
Technical Information

No. TEC-0750
Date 8 October 2008

To whom it may concern

The SOLAS regulation V/19-1 Long Range Identification and Tracking of Ships (LRIT) is applied to ships on or after 1 January 2009. This Technical information is intended to provide requirements in respect to an implementation of LRIT shipborne equipment.

1. Application ships
   New amendment shall be applied to the following types of ships engaged on international voyages:
   (1) Cargo ships, including high-speed craft, of 300GT and upwards;
   (2) Passenger ships, including high-speed passenger craft; and
   (3) Self propelled mobile offshore drilling units, not on location.
2. Application date
   Ships shall be fitted with a system to automatically transmit LRIT information as follows:
   (1) ships constructed on or after 31 December 2008: on the date of completion;
   (2) ships constructed before 31 December 2008 and certified for operations in sea areas A1 and A2, and sea areas A1, A2 and A3: not later than the first survey of the radio installation after 31 December 2008;
   (3) ships constructed before 31 December 2008 and certified for operations in sea areas A1, A2, A3 and A4: not later than the first survey of the radio installation after 1 July 2009. However, these ships shall comply with the provisions of subparagraph (2) above whilst they operate within sea areas A1, A2 and A3; and
   (4) ships, irrespective of the date of construction, fitted with an AIS, and operated exclusively within sea area A1 shall not be required to comply with the provisions of this regulation.
3. LRIT information
   (1) Reports to be transmitted from the shipborne equipment:
      (i) Pre-scheduled position reports: (Pre-scheduled position reports means transmission of LRIT information at the preset transmit interval.);
      (ii) On-demand position reports: (On-demand report means transmission of LRIT information as a result of either receipt of polling command or of remote configuration of the equipment so as to transmit at interval other than the preset ones.);

(To be continued)

(iii) The shipborne equipment should be set to automatically transmit the ship's LRIT information at 6-hour intervals to the LRIT data centre identified by the Administration, unless the LRIT data user requesting the provision of LRIT information specifies a more frequent transmission interval.

(2) Data to be transmitted from the shipborne equipment

Ships shall automatically and without human intervention on board the ship transmit the following LRIT information:

(i) the identity of the ship (IMO Number and Ship's name);

(ii) the position of the ship (Lat. and Long.); and

(iii) the date and time of the position provided.

4. LRIT shipborne equipment

(1) LRIT shipborne equipment should transmit the LRIT information using a communication system which provides coverage in all areas where the ship operates.

(2) LRIT shipborne equipment interfaces directly to the shipborne global navigation satellite system equipment, or have internal positioning capability.

(3) LRIT shipborne equipment should be supplied with energy from the main and the emergency source of electrical power. If ships use any of the radio communication equipment provided for compliance with the provisions of SOLAS Ch. IV., the shipborne equipment should additionally be provided with the reserve source of energy.

(4) LRIT shipborne equipment shall conform to performance standards and functional requirements not inferior to those adopted by IMO.

(5) LRIT shipborne equipment shall be of a type approved by the Administration.

(6) LRIT shipborne equipment shall be certified by the Administration as meeting the requirement of SOLAS IV/14 and satisfactorily completing a conformance test in accordance with the procedures and provisions set out in paragraph 5 below (Conformance test).

(7) The following Inmarsat-C and Inmarsat-Mini-C are presently considered as LRIT shipborne equipment available on ships of sea areas A1+A2 and sea areas A1+A2+A3.

(i) Inmarsat-C type-approved in accordance with IMO performance standards both for GMDSS and LRIT.
JRC JUE-85, FURUNO FELCOM-15

(ii) Inmarsat-Mini-C type-approved in accordance with IMO performance standards for LRIT.
JRC JUE-95LT, FURUNO FELCOM-16

(iii) Existing Inmarsat-C used for GMDSS additionally installed with LRIT software.
Successful completion of conformance test is essential.
JRC JUE-75C (produced on or after 2000) FURUNO FELCOM-12, TOKIMEC TT-3000SSA (Mini-C)

(iv) Existing Inmarsat-C which was not complied with the requirements of LRIT
JRC JUE-75A, FURUNO FELCOM-10, TOKIMEC(ANRITSU) RSS403

(v) For Inmarsat-C and Inmarsat-Mini-C other than the specified above, please ascertain its conformity to the requirements of LRIT shipborne equipment with the manufacturer.

(To be continued)

(8) Inmarsat-D+ needs approval of the Administration. Please ask Pole Star Space Applications Ltd about the details. Combined use of Inmarsat-D+ for LRIT with SSAS is not advisable. Insufficient height of an antenna of LRIT shipborne equipment may cause failing in the conformance test.
(9) Please pay attention to information provided from Flag Administrations on type-approval of LRIT shipborne equipment.
(10) LRIT shipborne equipment available for sea area A4 is under research.
(11) Where Inmarsat-C is replaced or Min-C for LRIT is newly installed, the antenna of the shipborne equipment should be located on the highest position and have not an effect from other Inmarsat antenna on board the ship.

5. Conformance test
(1) The conformance test should be conducted either by a recognized ASP or by an authorized testing ASP (Application Service Provider).
(2) The test is estimated to last for 30 hours from operational activation depending on the following guidelines.
(i) shipborne equipment regulatory requirements testing matrix,
(ii) shipborne equipment test requirements, procedures and acceptance criteria, and
(iii) shipborne equipment performance acceptance criteria and tolerances.
(3) On satisfactory completion of the conformance tests, the ASP conducting the test should issue a Conformance test report on behalf of the Administration.
(4) The conformance test should be conducted within a period of three months prior to the date on which a ship would need to demonstrate compliance with the requirements of regulation V/19-1.
(5) Authorized testing ASPs assigned by the Flag State Authority
Pole Star Space Applications Ltd (UK) (Bahamas, Bahrain, Hong Kong, Marshall Isl.)
Transas Telematics Ltd (UK) (Bahamas, Bahrain, Hong Kong, Marshall Isl.)
Securewest International Incorporated (U.S.A.) (Bahamas)
Fulcrum Maritime Services Ltd. (UK) (Bahamas)
China Transportation & Telecommunication Centre (HK) (Hong Kong)
(i) Please apply for conformance test to ASP or through Accounting Authorities for ship's radio communication in accordance with information from the Administration.
(ii) Please pay attention on information provided from the Administration.
(6) Recognized ASP
Under research. They will be registered with IMO's list.
(7) National Data Center
Under research. They will be registered with IMO's list.

6. Survey for LRIT shipborne equipment
(1) A periodical or occasional SE survey is carried out at the same time of a periodical SR survey after 31 December 2008 for ascertainment of the followings.
(i) Proper operation with appropriate power supply and GPS connection if an external GPS receiver is required.
(ii) Compliance with IMO requirements for LRIT shipborne equipment.

(To be continued)

(iii) A Conformance Test Report received from Testing ASP.

(2) After satisfactory completion of the SE survey, the SE certificate is issued with a Form-E added with LRIT.

(3) Details of the survey may be revised.

7. Flag States information

Bahamas	B111 (08/8/12) and B116 (08/9/16)
Bahrain	Marine Notice: 1/2008
Belize	Merchant Shipping Notice MSN-0036
Liberia	Marine Operations Note 01/2008 (08/6/20) 03/2008 (08/8/15)
Marshall Island	Marine Guideline No. 2-11-6
Hong Kong	MP/N 523/2/5 (08/9/24)

8. Others

Further information on LRIT will be informed on Internet ClassNK Homepage (http://www.classnk.or.jp).

For any questions about the above, please contact:

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