



NAURU

MARITIME ADMINISTRATION

LONG RANGE IDENTIFICATION AND TRACKING OF SHIPS (LRIT) (NMA_C6.2018.Rev.0)

PURPOSE:

To provide relevant information and guidance on the requirements of LRIT in accordance with SOLAS as amended, Chapter V, Regulation 19-1 (Regulation) which entered into force on 1 January 2008.

REFERENCE:

- a) IMO Resolution MSC.202(81), Adoption of Amendments to the SOLAS as amended, Chapter V, Regulation 19-1
- b) IMO Resolution MSC.211(81), Arrangements for the Timely Establishment of the Long-Range Identification and Tracking System
- c) IMO Resolution MSC.263(84), Revised Performance Standards and Functional Requirements for the Long-Range Identification and Tracking of Ships, 16 May 2008
- d) Resolution MSC.216(82), Amendments to the Record of Equipment
- e) IMO Resolution A.694(17) on Recommendations on General Requirements for Shipborne Radio Equipment forming part of the Global Maritime Distress and Safety System (GMDSS) and for Electronic Navigational Aids
- f) IMO Resolution A.813(19) on General requirements for electromagnetic compatibility of all electrical and electronic ship's equipment
- g) MSC.1/Circ.1295, Guidance in Relation to Certain Types of Ships which are Required to Transmit LRIT Information on Exemptions and Equivalents and on Certain Operational Matters, 8 December 2008
- h) MSC.1/Circ.1296 revised to Circ.1307, as may be amended, Guidance on the Survey and Certification of Compliance of Ships with the Requirement to Transmit LRIT Information, 9 June 2009
- i) MSC.1/Circ.1298, Guidance on the Implementation of the LRIT System, 8 December 2008
- j) GMDSS.1/Circ.21, Master Plan of Shore-Based Facilities for the Global Maritime Distress and Safety System (GMDSS Master Plan)

DEFINITIONS:

The following abbreviations stand for:

- "AIS" – Automatic Identification System
- "ASP" – Application Service Provider
- "CSO" – Company Security Officer
- "CSP" – Communication Service Provider
- "CSSC" – Cargo Ship Safety Certificate
- "CSSEC" – Cargo Ship Safety Equipment Certificate
- "CSSRC" – Cargo Ship Safety Radio Certificate
- "CTR" – Conformance Test Report
- "DC" – Data Centre
- "DPA" – Designated Person Ashore
- "FPSO" – Floating Production, Storage, and Offloading Unit
- "FSU" – Floating Storage Unit
- "GMDSS" – Global Maritime Distress and Safety System

- “GT” – Gross Tonnage in accordance to ITC 69
- “HCSC” – High-Speed Craft Safety Certificate
- “IMO” – International Maritime Organization
- “IMSO” – International Maritime Satellite Organization
- “ITC 69” – International Convention on the Tonnage Measurement of Ships, 1969
- “LRIT” – Long Range Identification and Tracking of Ships
- “MMSI” – Maritime Mobile Service Identity
- “MODU” – Mobile Offshore Drilling Unit
- “OSV” – Offshore Supply Vessel
- “PSC” – Port State Control
- “PSSC” – Passenger Ship Safety Certificate
- “RO” – Recognized Organization as defined by IMO Resolution A.789(19)
- “SAR” – Search and Rescue
- “SOLAS” – International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended
- “SPS” – Special Purpose Ships
- “SPS 2008” – Code of Safety for Special Purpose Ships, 2008, Annex to IMO Resolution MSC.266(84)
- “SSAS” – Ship Security Alert System
- “VMS” – Vessel Monitoring System

The following terms shall mean:

- a) “Administration” shall mean the Nauru Maritime Administration;
- b) “Regulation” – SOLAS Chapter V Reg. 19-1 as established by IMO Resolution MSC.202(81) unless otherwise specified
- c) “Ship” – when used throughout this Shipping Circular shall include all the ship types mentioned under the section on “APPLICATION” below

APPLICATION:

- 1) The Regulation established by IMO Resolution MSC.202(81) requires ships to transmit LRIT information and establishes the rights and obligations of Contracting Governments and of SAR services to receive LRIT information.
- 2) LRIT applies to the following vessels engaged in international voyages:
 - a) passenger ships, including high-speed passenger craft, of any GT;
 - b) cargo ships, including high-speed craft, of 300 GT and upwards;
 - c) self-propelled MODUs not on location; and
 - d) in accordance with SOLAS Chapter V Reg. 1.4, this Regulation shall also apply to commercial yachts of 300 GT and upwards.
- 3) A rigidly connected composite unit of a pushing vessel and associated pushed vessel, when designed as a dedicated and integrated tug and barge (ITB) combination, shall be regarded as a single ship for the purpose of this Regulation.

GENERAL REQUIREMENTS:

- 1) The following Ships shall comply with the Regulations:
 - a) Ships operating in Sea Areas A1 + A2 or A1 + A2 + A3 (as defined in SOLAS Chapter IV, Regulations 2.1.12, 2.1.13 and 2.1.14 respectively).

- b) Ships operating exclusively in Sea Area A4 (as defined in SOLAS Chapter IV, Regulations 2.1.15). However, if the ship is also operating in A1 + A2 + A3, then Section A.1.1 would apply in those areas.
- 2) Ships operating exclusively in Sea Area A1 (as defined in SOLAS Chapter IV Reg. 2.1.12) and fitted with an AIS are exempted from LRIT and generally no exemption certification is required. However, for ship owners / operators with PSC concerns, the Administration will consider, upon request, the issuance of a letter attesting the exemption for the ship operating exclusively within Sea Area A1.

SEA AREAS OF OPERATION:

- 1) Refer to the GMDSS Master Plan Annexes 2, 3 and 4 for detailed descriptions of sea areas.
- 2) Shipowners are to ensure that their shipborne equipment is LRIT compliant and capable of transmitting LRIT information in accordance to the requirements of MSC.263(84) and MSC.1/Circ.1296.
- 3) Ships operating in polar sea area A4 above 70 degrees latitude require a non-Inmarsat terminal that operates in conjunction with a low-earth orbit CSP system approved by the Administration in conjunction with its appointed ASP. An example of an acceptable system is the Iridium system.

LRIT CONFORMANCE TESTING:

- 1) LRIT conformance testing of shipborne terminals is mandatory in accordance with MSC.1/Circ.1307.
- 2) The shipborne terminal LRIT conformance test shall be:
 - a) conducted after the completion of the initial survey of the radio installation in accordance with the provisions of SOLAS Chapter I Regulation 7(a)(i) or 9(a)(i), as the case may be, provided such survey has indicated that, as far as the radio installation is concerned, the ship meets the related requirements for the issuance of a PSSC, a HCSC, a CSSEC or a CSSC as the case may be; and
 - b) satisfactorily completed prior to the issuance of a PSSC, a HCSC, a CSSEC or a CSSC, as the case may be, endorsed to document compliance with the requirements relating to the LRIT system.

AUTHORISED LRIT CONFORMANCE TEST ASPs:

- 1) The following ASPs have been deemed that their LRIT Conformance Test Services fully comply with the shipborne terminal testing requirements, procedures and tolerances detailed in Appendix 1 of MSC.1/Circ.1307 and that they have in place the infrastructure to manage the anticipated demand including the ASP IT infrastructure, customer and technical support services necessary, and as such have been appointed and authorized by this Administration to undertake shipborne terminal testing and subsequent issuance of LRIT CTRs on behalf of Nauru:
 - a) MCS (FE) Pte Ltd (MCS) at (lrit@maritimechain.com); and
 - b) Pole Star Space Applications Limited at (lrittesting@polestarglobal.com)
- 2) Shipowners and operators of Ships are advised to test their nominated terminals with the above ASP as soon as possible.

LRIT CONFORMANCE TEST REPORT (CTR):

- 1) The LRIT conformance test has been designed to demonstrate compliance of the shipborne terminal with the functional requirements of SOLAS Chapter V Reg. 19-1.5 and of Section 4 of the Performance Standards. The terminal compliance testing program may last from 30 to 48 hours from operational activation.
- 2) Upon satisfactory completion of a shipborne terminal conformance test, the ASP conducting the test shall issue a LRIT CTR to the ship.
- 3) The original LRIT CTR shall be placed on board with copies provided to the ship's DPA and the Administration for record keeping and database entry.
- 4) The LRIT CTR must remain with the ship's documents for as long as the shipborne terminal is deemed compliant because it does not expire until such time as there may be reason to require the LRIT conformance test to be repeated and the LRIT CTR reissued. Such an occasion may be the result of, but may not be limited to, terminal upgrading or replacement; transfer of a terminal from one ship to another; changes in ship ownership, ship management, port of registry, Data Centre and/or ASP.

EXCEPTIONS (MSC.1/Circ.1295):

- 1) FPSO and FSU
 - a) FPSOs and FSUs *not propelled by mechanical means* are not required to transmit LRIT information when on location or in transit under tow on an international voyage.
 - b) FPSOs and FSUs propelled by mechanical means of 300 GT and above fitted with AIS and operating exclusively within Sea Area A1, are not required to transmit LRIT information when in transit and engaged on international voyages.
 - c) FPSOs and FSUs propelled by mechanical means and constructed before 31 December 2008, in case they are not required to comply with the provisions of SOLAS Chapter IV, are required to transmit LRIT information in accordance with the provisions of SOLAS Chapter V, Regulation 19-1 as from 31 December 2009, if not excepted otherwise under MSC.1/Circ.1295.
- 2) OSV
 - a) OSV means a vessel which is primarily engaged in the transport of stores, materials and equipment to offshore installations and which is designed with accommodation and bridge erections in the forward part of the vessel and an exposed cargo deck in the after part for the handling of cargo at sea in accordance with the Guidelines for the design and construction of offshore supply vessels, 2006, adopted by resolution MSC.235(82).
 - b) OSVs of 300 GT and above when engaged on international voyages fitted with AIS and operating exclusively within Sea Area A1 are not required to transmit LRIT information.
 - c) OSVs constructed before 31 December 2008, in case they are not required to comply with the provisions of SOLAS Chapter IV, are required to transmit LRIT information in accordance with the provisions of SOLAS Chapter V, Regulation 19-1 as from 31 December 2009, if not excepted otherwise under MSC.1/Circ.1295.

3) SPS

- a) SPS means a mechanically self-propelled ship which by reason of its function carries on board more than 12 special personnel as defined in paragraph 1.3.11 of the SPS 2008 Code, adopted by resolution MSC.266(84).
- b) SPSs of 300 GT and above when engaged on international voyages fitted with AIS and operating exclusively within Sea Area A1, are not be required to transmit LRIT information.
- c) SPSs of GT 300 and above but less than 500, in case they are not required to comply with the provisions of SOLAS Chapter IV, are required to transmit LRIT information in accordance with the provisions of SOLAS Chapter V, Regulation 19-1 as from 31 December 2009, if not excepted otherwise under MSC.1/Circ.1295.

4) Resolution A.494(XII) Ships

- a) An A.494(XII) ship means a ship the keel of which was laid before 18 July 1994 and which in accordance with the interim scheme for tonnage measurement for certain ships," was allowed to use the gross tonnage determined in accordance with national tonnage rules in determining whether it is required to comply with the provisions of SOLAS Chapter IV.
- b) A.494(XII) ships when engaged on international voyages fitted with AIS and operating exclusively within Sea Area A1, are not be required to transmit LRIT information.
- c) A.494(XII) ships of gross tonnage 300 and above but less than 500, in case they are not required to comply with the provisions of SOLAS Chapter IV, are required to transmit LRIT information in accordance with the provisions of SOLAS Chapter V, Regulation 19-1 as from 31 December 2009, if not excepted otherwise under MSC.1/Circ.1295.

5) Fishing Vessels

- a) Fishing vessel means a decked vessel for the time being used or intended to be used commercially for catching fish or other living resources of the sea, and is described in the register and on the Certificate of Registry as a fishing vessel.
- b) In accordance to SOLAS Chapter V Reg. 1.4, fishing vessels are not required to comply to LRIT due to the presence of VMS by environmental and fishery regulatory organisations.

6) Contracting Government Jurisdictions

FPSOs and FSUs, irrespective of whether they are propelled by mechanical means or not, OSVs, SPSs, A.494(XII) ships, fishing vessels and commercial yachts operating within areas under the jurisdiction of a Contracting Government or of a State which is not a Contracting Government must transmit LRIT information if the Contracting Government or the State in whose jurisdiction they operate requires so.

EXEMPTIONS / EQUIVALENTS:

The provisions of this section apply to all ships, including FPSOs, FSUs, OSVs, SPSs, A.494(XII) ships and yachts, that are required to transmit LRIT information. Any reference to a ship below should be considered as including all the aforesaid.

1) General

- a) Although the provisions of SOLAS Chapter V, Regulation 19-1 do not include any expressed provisions which allow or enable the Administration to grant exemptions from, or equivalents to, the requirement to transmit LRIT information, when such exemptions or equivalents are warranted, the Administration may consider invoking, in lieu, the provisions of SOLAS Chapter V, Regulation 3.2 when considering or granting any exemptions or equivalents to the provisions of SOLAS Chapter V, Regulation 19-1.
- b) The Administration may consider granting to individual ships exemptions or equivalents of a partial or conditional nature, when any such ship is engaged on a voyage where the maximum distance of the ship from the shore, the length and nature of the voyage, the absence of general navigational hazards, and other conditions affecting safety are such as to render the full application of SOLAS Chapter V unreasonable or unnecessary, taking into account the effect such exemptions and equivalents may have upon the safety of all other ships.
- c) In such cases, the Administration shall be adhering to the provisions of SOLAS Chapter V, Regulation 3.3 which requires the submission to the International Maritime Organization (IMO) a report summarizing all new exemptions and equivalents granted under SOLAS Chapter V, Regulation 3.2 giving the reasons for granting such exemptions and equivalents.
- d) The Administration, when invoking the provisions of SOLAS Chapter V, Regulation 3.2, shall be taking, in addition to what is expressly stipulated in the aforesaid regulation, the effect such exemptions or equivalents may have on measures established by the IMO with a view to enhancing maritime security and may consult with the Contracting Government(s) within whose jurisdiction the port(s) or place(s) to which the ship is proceeding to is/are located and with the Contracting Government(s) of the coast of which the ship might be navigating.
- e) Notwithstanding any additional conditions which the Administration may stipulate when granting exemptions or equivalents from the requirement to transmit LRIT information, the ship concerned shall be required, in lieu of transmitting LRIT information, to either:
 - i) provide a copy of the voyage or passage plan (refer to resolution A.893(21) on Guidelines for voyage planning) for the specific voyage to the Contracting Government within whose jurisdiction the port or place to which the ship is proceeding is located and to the Contracting Governments of the coast(s) of which the ship might be navigating and any changes thereto; or
 - ii) report its positions at regular intervals, to be determined by the Administration taking into account the specific voyage or passage plan, to the aforesaid Contracting Governments, if provided with the means for doing so.

2) Specific Cases for Exemption

- a) Ships which are not normally engaged on international voyages but which, in exceptional circumstances, are required to undertake a single international voyage may be exempted from the requirement to transmit LRIT information, pursuant to the provisions of SOLAS Chapter I, Regulation 4(a), exemptions from the requirements of SOLAS Chapter IV, Regulations 7 to 11 (Radio Equipment Requirements General and for Sea Areas A1, A2, A3, A4 and combinations thereof) for a single voyage.
- b) Ships fitted with AIS and operating exclusively within Sea Area A1, may, for the purpose of employment in another sea area, undertake a single voyage outside Sea Area A1 during the

course of which it may be exempted by the Administration from the requirement to transmit LRIT information.

- c) Ships which may be granted, pursuant to the provisions of SOLAS Chapter IV, Regulations 3.1 and 3.2.2, exemptions from the requirements of SOLAS Chapter IV, Regulations 7 to 11 for a single voyage and not fitted with radio-communication or other shipborne equipment which may be used to transmit LRIT information, may be exempted from the requirement to transmit LRIT information during the course of such single voyages.
- d) A Ship experiencing terminal transmission failure should immediately notify the Administration and include their status in the advance Notice of Arrival (NOA) to port States. Reports of its position at regular intervals, to be determined by the Administration and the port State, should be made to the aforesaid port State authority, if provided with the means for doing so.

OPERATIONAL PROCEDURES REQUIRING AUTHORISATION FROM THE ADMINISTRATION:

- 1) Masters of Nauru registered vessels shall request without undue delay authorization from the Administration to reduce or terminate the transmission of LRIT information before doing so. The Administration shall issue instructions to the master as to whether he/she is granted authorization and, if so, under what circumstances and how they are to reduce, pursuant to the provisions of paragraph 4.4.1 of the Revised Performance Standards, the frequency of transmission of LRIT information or to temporarily stop the transmission of such information.
- 2) Masters shall make an entry in the record of navigational activities and incidents maintained in accordance with SOLAS, Chapter V, Regulation 28 indicating the dates and times between which:
 - a) the shipborne equipment is authorized to be switched off or the distribution of LRIT information ceased, where international agreements, rules or standards provide for the protection of navigational information (SOLAS Chapter V, Regulation 19-1.7.1); and
 - b) the frequency of transmission of LRIT information is authorized to be reduced or temporarily stopped, for example, when a ship is, undergoing repairs, modifications or conversions in dry-dock, standing by in port for extended periods awaiting berth or charter orders or is going into a hot lay-up or cold lay-up for a long period (refer to paragraph 4.4.1 of the Revised Performance Standards).
- 3) In addition, the master of a ship undergoing repairs, modifications or conversions in dry-dock, standing by in port for extended periods awaiting berth or charter orders or is going into a hot lay-up or cold lay-up for an extended period of time, taking into account the instructions of the Administration, shall inform the authorities of the Contracting Government within whose territory or jurisdiction the ship is located of the need to reduce the frequency of or temporarily stop the transmission of LRIT information. Permission from the local authority to do so shall be obtained in advance as may be required before doing so.

TYPE APPROVED SHIPBORNE TERMINAL:

- 1) SOLAS Chapter V, Regulation 19-1.6 specifies that the shipborne terminal elected to be used to transmit LRIT information shall be of a type approved by the Administration or a RO on its behalf.
- 2) Compliance with SOLAS Chapter V, Regulation 19-1.6 may be demonstrated by the terminal being:

- a) of a type approved by the Administration in accordance with the provisions of SOLAS Chapter V, Regulation 19.1 and Section 4 of the Revised Performance Standards; or
 - b) of a type approved by the Administration as meeting the requirements of SOLAS Chapter IV, Regulation 14, and satisfactorily completing an LRIT conformance test in accordance with the procedures and provisions set out in Appendix 1 of MSC.1/Circ.1307; or
 - c) of a type certified by the Administration as meeting the requirements of IEC 60945 (2002-08) and IEC 60945 Corr.1 (2008-04) on Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results, and satisfactorily completing an LRIT conformance test in accordance with the procedures and provisions set out in Appendix 1 of MSC.1/Circ.1307; or
 - d) of a type certified by the Administration as meeting the requirements of the provisions of SOLAS Chapter XI-2, Regulation 6; and one (1) of the following, whichever appropriately applies:
 - i) resolution MSC.136(76) on Performance Standards for a ship security alert system; or
 - ii) resolution MSC.147(77) on Adoption of the Revised Performance Standards for a ship security alert system.
- 3) Existing shipborne terminals should not have to undergo a separate process of regulatory type approval using International Electro-technical (IEC) standards, etc. such as that required for GMDSS terminals. Compliance with the requirements of SOLAS Chapter V, Regulation 19-1.6 in relation to the type approval of shipboard terminal may be demonstrated by conducting an LRIT conformance test in accordance with the provisions and procedures set out in Appendix 1 of MSC.1/Circ.1307 and by demonstrating performance of the shipborne terminal which meets the acceptance criteria within the range of the tolerances set out in that Appendix 1.

SHIPBORNE TERMINAL REQUIREMENTS:

- 1) The shipborne terminal shall provide the functionality specified in the Table below.

| Parameter | Data to be transmitted from the shipborne terminal |
|-------------------------------|--|
| Shipborne Terminal Identifier | The identifier used by the shipborne terminal. |
| Positional Data | <p>The GNSS position (latitude and longitude) of the ship (based on the WGS84 datum).</p> <p>Position: The terminal should be capable of transmitting the GNSS position (latitude and longitude) of the ship (based on WGS84 datum) as prescribed by SOLAS Chapter V, Regulation 19-1, without human interaction on board the ship.</p> <p>On-demand⁽¹⁾ position reports: The terminal should be capable of responding to a request to transmit LRIT information on demand without human interaction on board the ship, irrespective of where the ship is located.</p> <p>Pre-scheduled⁽²⁾ position reports: The terminal should be capable of being remotely configured to transmit LRIT information at intervals ranging from a minimum of 15 minutes to periods of 6 hours to the LRIT Data Centre, irrespective of where the ship is located and without human interaction on board the ship.</p> |
| Time Stamp 1 | The date and time⁽³⁾ associated with the GNSS position: The terminal should be capable of transmitting the time associated with the GNSS position with each transmission of LRIT information. |

Notes to Table 1:

⁽¹⁾ On-demand position reports means transmission of LRIT information as a result of either receipt of polling command or of remote configuration of the terminal so as to transmit at interval other than the preset ones.

⁽²⁾ Pre-scheduled position reports means transmission of LRIT information at the preset transmission intervals.

⁽³⁾ All times should be indicated as UTC.

- 2) In addition to the general requirements contained in Assembly resolution A.694(17) on “Recommendations on General Requirements for Shipborne Radio Equipment forming part of the GMDSS and for Electronic Navigational Aids”, and the provisions specified in Table above, the shipborne terminal should comply with the following minimum requirements:
 - a) be capable of being controlled and programmed by the Administration’s ASP;
 - b) be capable of transmitting LRIT information following receipt of polling commands;
 - c) interface directly to the shipborne Global Navigation Satellite System (GNSS) equipment, or have internal positioning capability;
 - d) be supplied with energy from the main and emergency source of electrical power⁽⁵⁾; and
 - e) be tested for electromagnetic compatibility taking into account the recommendations⁽⁶⁾ developed by the IMO.

Notes:

⁽⁵⁾ This provision should not apply to ships using for the transmission of LRIT information any of the radio communication equipment provided for compliance with the provisions of SOLAS Chapter IV. In such cases, the shipborne equipment should be provided with sources of energy as specified in SOLAS Chapter IV, Regulation 13.

⁽⁶⁾ Refer to the Assembly resolution A.813(19) on general requirements for electromagnetic compatibility of all electrical and electronic ship’s equipment.

- 3) The shipborne terminal shall be set to automatically transmit the ship’s LRIT information at 6-hour intervals, unless an authorized LRIT Data User requesting the provision of LRIT information specifies a more frequent transmission interval.

SHIP SECURITY ALERT SYSTEMS (SSASs):

- 1) The Administration agrees with the industry view that SSASs, with their primary purpose being that of SOLAS Chapter XI-2, Regulation 6 Security, should not, as far as possible, be used for other regulatory purposes, i.e. SOLAS Chapter V Safety. The rationale for this view is due to the nature of SSAS operation. The most effective and reliable SSASs are designed as a “closed system” that provide a totally secure system with its programming and data use exclusively under the control of the associated equipment supplier and the CSO. In contrast, because the LRIT terminal must be remotely controlled and programmed by the Administration’s ASP, the system must be an “open system.”
- 2) For all the above reasons the Administration does not recommend the use of any Inmarsat D+ based SSAS equipment for LRIT compliance. However, an integrated Inmarsat Mini-C SSAS, whilst not the optimum design for an SSAS due to its “open system” design, is acceptable for LRIT use for this very reason.

DUPLICATE EQUIPMENT:

- 1) Ships engaged on international voyages in Sea Areas A1, A2 and A3 or A1, A2, A3 and A4, which are using, for the purpose of transmitting LRIT information, the radiocommunication equipment fitted on board for the purpose of complying with the requirements of Chapter IV and which, for the purpose of complying with the requirements of SOLAS Chapter IV, Regulation 15.6 in relation to availability, are provided with duplicated equipment, shall use only one of the terminals as the primary terminal for LRIT.
- 2) A duplicate terminal “may” be tested for compliance and used by the shipowner as a ready backup should the primary terminal develop problems.

OBLIGATIONS OF SHIP OWNER:

- 1) It is the responsibility of the shipowner to ensure provision of a compliant terminal which shall be of a type approved by the Administration and conform to the Performance Standards and Functional Requirements adopted by the IMO as defined in Resolution MSC.210(81).
- 2) Existing Inmarsat-C GMDSS terminals will in most cases be type approved. However, the shipowner should be aware that there is a 20-25% probability that existing Inmarsat-C GMDSS terminals will not conform to the Performance Standards and Functional Requirements for a range of operational, physical and technical reasons, including:
 - a) uncontrolled in-port log-off and/or power-down procedures;
 - b) poor antenna mounting location;
 - c) satellite line-of-sight blockage by the ship's superstructure;
 - d) interference from the ship's radar;
 - e) external wide-area radio interference in certain locations; and
 - f) most crucially the inability to meet these requirements due to out-of-date software and/or unsupported hardware.
- 3) Terminal performance shall be as reliable as possible because of the serious consequences of non-compliance. The most reliable and appropriate measures to take to ensure full terminal compliance are to:
 - a) verify with the ASP the compliance capabilities of the make and model of the shipborne terminal elected to be used for LRIT information transmission;
 - b) use a terminal that is designed to **"always be on"** and not capable of being reconfigured or disabled on board the vessel;
 - c) prevent, to the extent possible, interference by competing functions such as email, messaging or Enhanced Group Calling (EGC), communications; and/or
 - d) use an integrated Inmarsat Mini-C transceiver as the optimum terminal solution.

CHANGE OF FLAG:

- 1) Validity of LRIT CTR
 - a) When a ship is transferring flag to Nauru which has an LRIT CTR, the CTR shall be considered as remaining valid if the ASP which conducted the last conformance test is one recognized by this Administration. However, the LRIT CTR must be re-issued by the ASP concerned on behalf of the Administration indicating the new particulars of the ship but without requiring re-testing or altering the date of completion of the original conformance test.
 - b) In cases where the LRIT CTR is deemed to be no longer valid due to non-recognition by this Administration of the original issuing ASP and a new LRIT conformance test must be conducted, this new LRIT conformance test must be conducted by the recognized ASP and accompanied by the issuance of a new LRIT CTR, prior to a RO issuing the applicable Full Term Safety Certificate. In such instances, the Administration shall assess each situation on a case-by-case basis to provide approval for extension where deemed appropriate.
- 2) De-commissioning/Re-commissioning Satellite Provider Services

When a ship enters or leaves the Flag, as part of the transfer process there is always a de-commissioning and re-commissioning of satellite provider services for GMDSS and other communications arrangements. Upon completion, this is an indicator to the Administration that

Flag change is technically accomplished. Furthermore, it must be expected that ship's name, Flag designation, Primary and Secondary LRIT system identifiers/serial numbers and LRIT active/inactive status has been changed with a change of ownership and management. It is essential that these commercial details be completed in a timely manner to accomplish or maintain compliance with the requirement to transmit LRIT information at the time that Flag change occurs.

For further assistance, please do not hesitate to contact the Administration at: flag@naurumaritime.com.

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