



**REPUBLIC OF  
THE MARSHALL ISLANDS**

**OFFICE OF THE  
MARITIME ADMINISTRATOR**

Marine Guideline

No. 2-11-6

6/08

**TO: ALL SHIPOWNERS, OPERATORS, MASTERS AND OFFICERS OF MERCHANT SHIPS, AND RECOGNIZED ORGANIZATIONS**

**SUBJECT: Survey and Certification of Compliance of Shipborne Equipment with the LRIT Requirements.**

- Reference:**
- a. **IMO Resolution MSC.202(81), Adoption of Amendments to the SOLAS, 1974 as amended**
  - b. **IMO Resolution MSC.210(81), Performance Standards and Functional Requirements for the Long-Range Identification and Tracking of Ships**
  - c. **IMO Resolution MSC.211(81), Arrangements for the Timely Establishment of the Long-Range Identification and Tracking System**
  - d. **IMO Resolution MSC.263(84), Revised Performance Standards and Functional Requirements for the Long-Range Identification and Tracking of Ships, May 2008**
  - e. **MSC.1/Circ.1257, Guidance on the Survey and Certification of Compliance of Ships with the Requirement to Transmit LRIT Information, May 2008**
  - f. **Marine Notice 2-011-25, LRIT**
  - g. **Marine Guideline 2-11-4, LRIT**

**PURPOSE:**

This Marine Guideline is intended to bring to the attention of shipowners, ship operators, shipmasters and all other parties concerned, IMO Resolution MSC.202(81) that established the SOLAS ChV/19-1 Long-Range Identification and Tracking (LRIT) regulation which entered into force on 1 January 2008 with the commencement of initial phased implementation and compliance on 31 December 2008.

It also provides guidance in relation to the survey and certification of the ships entitled to fly the Marshall Islands flag with the obligation to transmit LRIT information.

In addition, this Guideline provides salient information which would enable Companies operating ships which are required to comply with the obligation to transmit LRIT information to ensure the survey and certification of their compliance in a timely manner.

**APPLICABILITY:**

Resolution MSC.202(81) is an amendment to Chapter V (Navigation) of the SOLAS Convention, which establishes the obligations of ships to transmit LRIT information and the rights and obligations of Contracting Governments and of Search and Rescue services to receive LRIT information in a new SOLAS regulation V/19-1.

Subject to the provisions of the following paragraphs below, SOLAS regulation V/19-1, the new amendment, shall apply to the following types of ships engaged on international voyages:

- passenger ships, including high-speed passenger craft;
- cargo ships, including high-speed craft, of 300 gross tonnage<sup>1</sup> and upwards; and
- self-propelled mobile offshore drilling units, not on location.

The term “ship,” when used in the following paragraphs includes the passenger and cargo ships, the high-speed craft and the mobile offshore drilling units that are subject to the provisions of this SOLAS regulation.

## **REQUIREMENTS:**

**1.0** All ships operating in Sea Area A3 will require compliant shipborne equipment (the “terminal”). Ships operating in near-coastal Sea Area A2 not fitted with Inmarsat C GMDSS will be required to fit a compliant terminal. Ships operating in polar Sea Area A4 above 70 degrees latitude will require a non-Inmarsat terminal that operates in conjunction with a low-earth orbit Communication Service Provider (CSP) approved by the Administration in conjunction with its appointed Application Service Provider (ASP). Those ships operating exclusively in coastal Sea Area A1 and fitted with an Automatic Identification System (AIS) will be exempt.

**2.0** Immediate compliance with the regulation shall apply to ships constructed on or after 31 December 2008. A phased approach to the implementation of the regulation for ships constructed before 31 December 2008 operating in Sea Areas A1, A2 and A3 will allow for compliance not later than the first radio survey after 31 December 2008. In the case of ships operating in Sea Area A4 compliance shall not be later than the first radio survey after 1 July 2009; however, these ships must comply with the requirements of existing ships while operating in Sea Areas A1, A2 and A3.

### **3.0 Type Approved Shipborne Equipment**

**3.1** SOLAS regulation V/19-1.6 specifies that the shipborne equipment to be used to transmit LRIT information (shipborne equipment) shall be of a type approved by the Administration or a recognized organization on its behalf.

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<sup>1</sup> The gross tonnage to be used for determining whether a cargo ship or high-speed craft is required to comply with the provisions of SOLAS regulation V/19-1 shall be that determined under the provisions of the International Convention on Tonnage Measurement of Ships, 1969 irrespective of the date on which the ship or high-speed craft has been or is being constructed.

- 3.2 Compliance of the shipborne equipment with the requirements of SOLAS regulation V/19-1.6 may be demonstrated by the equipment being:
- .1 of a type approved in accordance with the provisions of SOLAS regulation V/19.1 and section 4 of the Revised Performance Standards; or
  - .2 certified as meeting the requirements of SOLAS regulation IV/14, and satisfactorily completing a conformance test in accordance with the procedures and provisions set out in Appendix 1 of MSC.1/Circ.1257; or
  - .3 certified 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 a conformance test in accordance with the procedures and provisions set out in Appendix 1 of MSC.1/Circ.1257.
- 3.3 Existing shipborne terminals should not have to undergo a separate process of regulatory type approval using IEC standards, etc. such as that required for GMDSS equipment. Compliance with the requirements of SOLAS regulation V/19-1.6 in relation to the type approval of shipboard equipment may be demonstrated by conducting a conformance test in accordance with the provisions and procedures set out in Appendix 1 of MSC.1/Circ.1257 and by demonstrating performance of the shipborne equipment which meets the acceptance criteria within the range of the tolerances set out in that Appendix 1.
- 3.4 Existing Inmarsat C GMDSS equipment will in most cases be technically compliant. However, full compliance with the Performance Standards and Functional Requirements requires that the correct operational procedures are followed on board the vessel. Shipowners are advised to regularly check that they have the latest Marshall Islands Marine Guidelines in this respect.

#### **4.0 Flag Administration Obligations**

- 4.1 It is the responsibility of the Flag Administration to implement LRIT. Different flags may adopt slightly different LRIT implementation strategies. However, it is now certain that Inmarsat C will be specified as the main LRIT communication system of choice, as the majority of ships required to comply with the regulation are already fitted with compatible Inmarsat C GMDSS and Mini-C type SSAS systems. By adopting this strategy, no major hardware investment should be required on the part of most shipowners.
- 4.2 The Administration is imposing voluntary compliance in advance of the 31 December 2008 compliance date in order to fully test its National Data Centre (NDC) and all of the shipborne equipment nominated by shipowners to be used. It is expected that the NDC will be integrated with the International Data Exchange (IDE) by 1 July 2008 and will begin sharing information with other test Data Centres (DCs).

## **5.0 DC Administrator/ASP Obligations**

- 5.1 Pole Star Space Applications Limited (Pole Star) as an Administration recognized ASP has undertaken in general the following tasks; integration of ship equipment into the Marshall Islands NDC, initial terminal compliance testing and certification in conjunction with the shipowner (or nominated regulatory representatives), management of the NDC, connection of the NDC to the wider international LRIT network via the IDE, and coordination of DC-to-DC billing arrangements.
- 5.2 Specific ASP functions detailed in Resolution MSC.263(84), paragraph 5.3, are to provide:
- .1 a communication protocol interface between the Communication Service Providers (CSPs) and the Marshall Islands NDC to enable the following minimum functionality:
    - .1 remote integration of the shipborne equipment into the LRIT DC;
    - .2 automatic configuration of transmission of LRIT information;
    - .3 automatic modification of the interval of transmission of LRIT information;
    - .4 automatic suspension of transmission of LRIT information;
    - .5 on demand transmission of LRIT information; and
    - .6 automatic recovery and management of transmission of LRIT information;
  - .2 an integrated transaction management system for the monitoring of LRIT information throughput and routing; and
  - .3 to ensure that LRIT information is collected, stored and routed in a reliable and secure manner.

## **6.0 Shipowner Obligations**

- 6.1 It is the responsibility of the shipowner to ensure provision of a compliant terminal which should 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).
- 6.2 The shipowner, however, should be aware that there is a 20-25% probability of existing Inmarsat C GMDSS terminals not conforming to the Performance Standards and Functional Requirements for a range of operational, physical and technical reasons, including: uncontrolled in-port log-off and/or power-down procedures, poor antenna mounting location, satellite line-of-sight blockage by the ship's superstructure, interference from the ship's radar, external wide-area radio interference in certain locations, and most crucially inability to meet these requirements due to out-of-date software and/or unsupported hardware, all as experienced and disclosed in Marine Guideline 2-11-4.

- 6.3 Terminals must be capable of being controlled and programmed by the Administration's NDC Administrator/ASP, and because of the serious consequences of non-compliance it is important that equipment performance is as reliable as possible.
- 6.4 The terminal must be capable of being configured to transmit the following minimum information set in an Automatic Position Report (APR):
- The identity of the ship,
  - The position of the ship, and
  - The date and time of the position.
- 6.5 In addition, the terminal must be able to respond to polling for an on-demand position report and be able to immediately respond to instructions to modify the APR interval to a frequency of a maximum of one every 15 minutes. APRs will be transmitted at a minimum four (4) times per day to the Marshall Islands LRIT NDC.
- 6.6 The most reliable and appropriate solution to ensure full compliance is to use a terminal that is designed to be "always on" and not capable of being reconfigured or disabled on board the vessel, and as far as is possible not affected by competing functions such as email/messaging communications. Consequently Pole Star and the Administration recommend the use of an integrated Inmarsat Mini-C transceiver as the optimum terminal solution.

## **7.0 Ship Security Alert Systems (SSAS)**

The Administration agrees with the industry view that SSASs, with their primary purpose being that of SOLAS ChXI-2 Security, should not, as far as possible, be used for other regulatory purposes, i.e. SOLAS ChV Safety. The rationale for this view is due to the nature of SSAS operation. The most effective and reliable systems are designed as a "closed system," such as Pole Star's Inmarsat D+ based DSAS/DSAS-L and Alert products that provide a totally secure system with its programming and data use exclusively under the control of the associated Company Security Officer. In contrast, because the LRIT equipment must be remotely controlled and programmed by the Administration's ASP, the system must be an "open system." For all the above reasons the Administration can not approve 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 for this very reason.

## **8.0 Terminal Compliance Testing**

- 8.1 Pursuant to the provisions of paragraph 6.1-6.3 of MSC.1/Circ.1257 regarding guidance on the survey and certification of compliance of ships with the requirement to transmit LRIT information, Pole Star and Transas Telematics Limited (Transas), both UK companies and leading providers of satellite tracking services, have been appointed to act on behalf of the Republic of the Marshall Islands and the Administration as authorized testing ASPs.

- 8.2 Both Pole Star and Transas have certified and the Administration has determined that their LRIT Conformance Test Service fully complies with the shipborne equipment testing requirements, procedures and tolerances detailed in Appendix 1 of MSC.1/Circ.1257 and that they have in place the infrastructure to manage the anticipated demand including the ASP IT infrastructure and pre-sales, customer and technical support services necessary. Thus, they have been given full authority to undertake shipborne equipment testing and subsequent issuance of Conformance Test Reports.
- 8.3 The terminal compliance testing program lasts for 30 hours from operational activation and concludes with the issuance of a formal LRIT Conformance Test Report, a sample copy of which is in Annex 1. This report must remain with the ship's documents until such time as there may be an equipment change, in which case, the LRIT Conformance Test must be repeated and the LRIT Conformance Test Report renewed.
- 8.4 In the event that the compliance testing has determined that the nominated terminal(s) are non-compliant, the testing ASP shall at the request of the shipowner provide a quotation for a compliant terminal and if required arrange for the necessary activation, delivery and installation via its global network of agents.
- 8.5 Pole Star's Fleet Management product is a system that has the same compliance and performance requirements as those of LRIT. Therefore, for their Fleet Management customers, LRIT compliance testing is straightforward and requires only that a specific testing procedure is followed. Other shipowners wishing to test their terminal compliance, by using their Fleet Management product on a trial basis, should contact Pole Star.
- 8.6 To discuss your LRIT requirements further and to ensure your shipborne equipment compliance, shipowners are advised to note the contact details for Mr. Julian Longson ([longson@purplefinder.com](mailto:longson@purplefinder.com)) in Annex 2 and the contact details for Mr. Paul Morter ([paul.morter@transastelematics.com](mailto:paul.morter@transastelematics.com)) in Annex 3.
- 8.7 Shipowners are advised to test their nominated terminals with Pole Star or Transas as soon as possible and to make arrangements with an ASP not later than 1 August 2008.

## **9.0 Conformance Testing**

- 9.1 The conformance test has been designed to demonstrate compliance of the shipborne equipment with the functional requirements of SOLAS V/19-1.5 and of section 4 of the Performance Standards.
- 9.2 For ships constructed on or after 31 December 2008, the shipborne equipment conformance test should be:
- .1 conducted after the completion of the initial survey of the radio installation in accordance with the provisions of SOLAS regulation I/7(a)(i) or I/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 issue of a Passenger Ship Safety Certificate, a Cargo Ship Safety Certificate or a Cargo Ship Safety Radio Certificate, as the case may be; and

- .2 satisfactorily completed prior to the issue of a Passenger Ship Safety Certificate, a Cargo Ship Safety Certificate or a Cargo Ship Safety Equipment Certificate, as the case may be.
- 9.3 For ships constructed before 31 December 2008, the shipborne equipment conformance test should be:
  - .1 conducted as soon as possible but at least within a period of three months prior to the date on which a ship would need to demonstrate compliance with the requirements of SOLAS regulation V/19-1; and
  - .2 satisfactorily completed prior to the record of equipment associated with the Passenger Ship Safety Certificate, the Cargo Ship Safety Certificate or a Cargo Ship Safety Equipment Certificate, as the case may be, is amended to document compliance with the requirements relating to the LRIT system.
- 9.4 On satisfactory completion of a shipborne equipment conformance test, the ASP conducting the test will issue a Conformance Test Report in accordance with the model set out in Annex 1. The original Conformance Test Report shall be placed on board and remain with the ship's documents with copies provided to the ship's Designated Person Ashore (DPA) and the Administration for record keeping and database entry.

## **10.0 Ship Safety Radio Survey and Certification**

- 10.1 Ship Safety Radio surveys undertaken from 31 December 2008 onwards will include a terminal compliance check before renewal or endorsement of the relevant Safety Radio Certificate and amendment of the associated record of equipment.
- 10.2 Prior to the issue or endorsement of a Passenger Ship Safety Certificate, a Cargo Ship Safety Certificate or a Cargo Ship Safety Equipment Certificate following an initial, renewal or annual survey, as the case may be, or the amendment of the associated record of equipment, the Administration or Recognized Organization acting on behalf of the Administration will:
  - .1 examine the Conformance Test Report and ascertain whether it is still valid;
  - .2 obtain information confirming that the shipborne equipment is transmitting LRIT information to the ASP through which the LRIT information transmitted by the ship will be provided to the Marshall Islands NDC;
  - .3 verify compliance of the ship with any requirements of SOLAS regulation V/19-1 and of section 4 of the Performance standards which are not reported as having been examined during the conformance test;
  - .4 consider any shipborne equipment which forms part of a radio installation which is already certified or is to be certified as meeting the requirements of SOLAS chapter IV and qualifying for the issue or endorsement of a Passenger Ship Safety Certificate, a Cargo Ship Safety Certificate or a Cargo Ship Safety Radio Certificate

following an initial, renewal or annual survey, as the case may be, as meeting requirements of section 4 of the Performance standards as far as the salient aspects of resolutions A.694 (17) and A.813 (19); and

- .5 ascertain whether the Passenger Ship Safety Certificate, a Cargo Ship Safety Certificate or a Cargo Ship Safety Radio Certificate is valid or that the survey of the radio installation has been satisfactorily completed and the related certificate will be issued, renewed or endorsed as the case may be.
- 10.3 As the Mobile Offshore Drilling Unit Safety Certificate and the Mobile Offshore Drilling Unit Safety Certificate, 1989 are not accompanied by a record of equipment, such self-propelled mobile offshore drilling units when not on location will be considered as meeting the requirements when:
- .1 the provisions of sections 3 and 8 are met;
  - .2 there is on board a valid certificate issued under the Marshall Islands Mobile Offshore Drilling Unit Code in the case of units constructed prior to 31 December 1981, or a valid Mobile Offshore Drilling Unit Safety Certificate, 1979 or a valid Mobile Offshore Drilling Unit Safety Certificate, 1989; and
  - .3 there is on board a valid Conformance Test Report.
- 10.4 During any subsequent annual or renewal survey following the initial certification of compliance of a ship with the requirements of SOLAS regulation V/19.1, the related safety certificate should be endorsed or issued, as the case may be, provided the Conformance Test Report is still valid taking into account the provisions of following section 11.

#### **11.0 Transfer of Flag**

- 11.1 When a ship is transferred to the flag of another Contracting Government, the Conformance Test Report will be considered as remaining valid if the ASP which conducted the conformance test is also either a recognized ASP or an authorized testing ASP by the Contracting Government to whose flag the ship is transferring.
- 11.2 In cases where the ship is transferring to the Marshall Islands flag and the original testing ASP concerned was Pole Star or Transas, the Conformance Test Report will be re-issued by the ASP concerned on behalf of the Administration indicating the new particulars of the ship but without re-testing or altering the date of completion of the original conformance test.

11.3 In cases where the Conformance Test Report is deemed to be no longer valid due to non-recognition of the original issuing ASP by this Administration, a new conformance test must be conducted by Pole Star as the Administration's recognized ASP accompanied by the issuance of a new Conformance Test Report, prior to an RO issuing the applicable safety equipment certificate.

## **12.0 Inquiries**

All parties are requested to communicate with the Administration concerning any clarifications, concerns or problems that may arise. It is the goal and intent of this Administration to facilitate the implementation, integration and compliance of all ships in the Marshall Islands flag subject to the new SOLAS ChV/19-1 regulation in whatever manner that it can without interruption to ship operations.



ANNEX 1

REPUBLIC OF THE MARSHALL ISLANDS

Office of the Maritime Administrator

CONFORMANCE TEST REPORT

issued on the authority of the Maritime Administrator on [date]
by [entity]

on behalf of the Government of the Republic of the Marshall Islands

Table with 2 columns and 10 rows containing fields: Name of ship, Port of registry, Distinctive number or letters, IMO Number, Maritime Mobile Service Identity, Gross tonnage, Sea areas in which the ship is certified to operate, Date of last survey of the radio installation, Application Service Provider conducting the test.

THIS IS TO CERTIFY that a conformance test has been conducted in accordance with the provisions of MSC.1/Circ.1257 on Guidance on the survey and certification of compliance of ships with the requirement to transmit LRIT information and the shipborne equipment specified below has been:

- 1. found to perform within the tolerances of the acceptance criteria stated in the aforesaid circular; and
2. set, at the end of the conformance test to transmit LRIT information at \_\_\_\_\_ hour interval.

Details of the shipborne equipment used to transmit LRIT information (e.g., maker model, serial number and shipborne equipment identifier):

Empty rectangular box for providing details of shipborne equipment.

The results of the conformance test are recorded in the attached annex.

The conformance test was satisfactorily completed on \_\_\_\_\_  
*(date of completion of testing)*

Issued at \_\_\_\_\_ on \_\_\_\_\_  
*(place of issue)* *(date of issue)*

\_\_\_\_\_  
*(name and signature of authorized person issuing the report)*

ANNEX

Conformance Test Results

*to be developed on the basis of Table 2 of Appendix 1 of MSC.1/Circ.1257*

<b>CTN</b>	<b>Test requirement</b>	<b>Results</b>

ANNEX 2



REPUBLIC OF THE MARSHALL ISLANDS

Office of the Maritime Administrator

**AUTHORIZED TESTING APPLICATION SERVICE PROVIDER (ASP)  
APPOINTMENT**

In accordance with MSC.1/Circ.1257

THIS IS TO CERTIFY that with respect to the SOLAS V/19-1 Long-Range Identification regulation, Pole Star Space Applications Limited has been appointed as an authorized testing ASP on behalf of this Administration. The authorized testing ASP hereby has full authority to undertake shipborne equipment testing and subsequent issuance of a Conformance Test Report.

Name of ASP:	Pole Star Space Applications Limited
Address:	Suite 301-303, Whiteleys Centre, Queensway, London W2 4YN UK
Telephone:	+44 (0)20 7313 7400
Fax:	+44 (0)20 7313 7401
Email:	shipinfo@lrit.com
Web:	http://lrit.com

Issued by the Maritime Administrator (the Administration) on behalf of the Government of the Republic of the Marshall Islands.

Dated this 27th of May, 2008.

Signed \_\_\_\_\_

Deputy Commissioner of Maritime Affairs  
Republic of the Marshall Islands



ANNEX 3



REPUBLIC OF THE MARSHALL ISLANDS

Office of the Maritime Administrator

**AUTHORIZED TESTING APPLICATION SERVICE PROVIDER (ASP)  
APPOINTMENT**

In accordance with MSC.1/Circ.1257

THIS IS TO CERTIFY that with respect to the SOLAS V/19-1 Long-Range Identification regulation, Transas Telematics Limited has been appointed as an authorized testing ASP on behalf of this Administration. The authorized testing ASP hereby has full authority to undertake shipborne equipment testing and subsequent issuance of a Conformance Test Report.

Name of ASP:	Transas Telematics Limited
Address:	4 Compass Point, Ensign Way, Hamble, Southampton S031 4RA UK
Telephone:	+44 (0)23 8045 8544
Fax:	+44 (0)23 8045 8733
Email:	info@transastelematics.com
Web:	www.transas.com/telematics

Issued by the Maritime Administrator (the Administration) on behalf of the Government of the Republic of the Marshall Islands.

Dated this 27th of May, 2008.

Signed \_\_\_\_\_

Deputy Commissioner of Maritime Affairs  
Republic of the Marshall Islands

