

ANNEX 13

RESOLUTION MSC.210(81)
(adopted on 19 May 2006)

**PERFORMANCE STANDARDS AND FUNCTIONAL REQUIREMENTS FOR THE
LONG-RANGE IDENTIFICATION AND TRACKING OF SHIPS**

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO resolution A.886(21) on Procedure for the adoption of, and amendments to, performance standards and technical specifications, by which the Assembly resolved that the function of adopting performance standards and technical specifications, as well as amendments thereto shall be performed by the Maritime Safety Committee,

RECALLING FURTHER the provisions of the new regulation V/19-1 of the International Convention for the Safety of Life at Sea, 1974, as amended (the Convention), relating to the long-range identification and tracking of ships,

RECOGNIZING the need to adopt appropriate performance standards and functional requirements on long-range identification and tracking of ships,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Radiocommunications, Search and Rescue, at its tenth session,

1. ADOPTS the Performance standards and functional requirements for the long-range identification and tracking of ships, set out in the Annex to the present resolution;
2. RECOMMENDS Contracting Governments to the Convention to ensure that:
 - .1 shipborne systems and equipment used to meet the requirements of regulation V/19-1 of the Convention conform to performance standards not inferior to those specified in the Annex to the present resolution;
 - .2 all Long-range identification and tracking (LRIT) Data Centres and the International LRIT Data Exchange conform to functional requirements not inferior to those specified in the Annex to the present resolution; and
 - .3 they promptly submit to the Organization and to the LRIT Data Centres the required information to enable the establishment and the continuous functioning of the LRIT system and that they update such information as and when changes occur;

3. AGREES to review and amend, in the light of experience gained as necessary, the Performance standards and functional requirements for the long-range identification and tracking of ships, set out in the Annex to the present resolution.

ANNEX

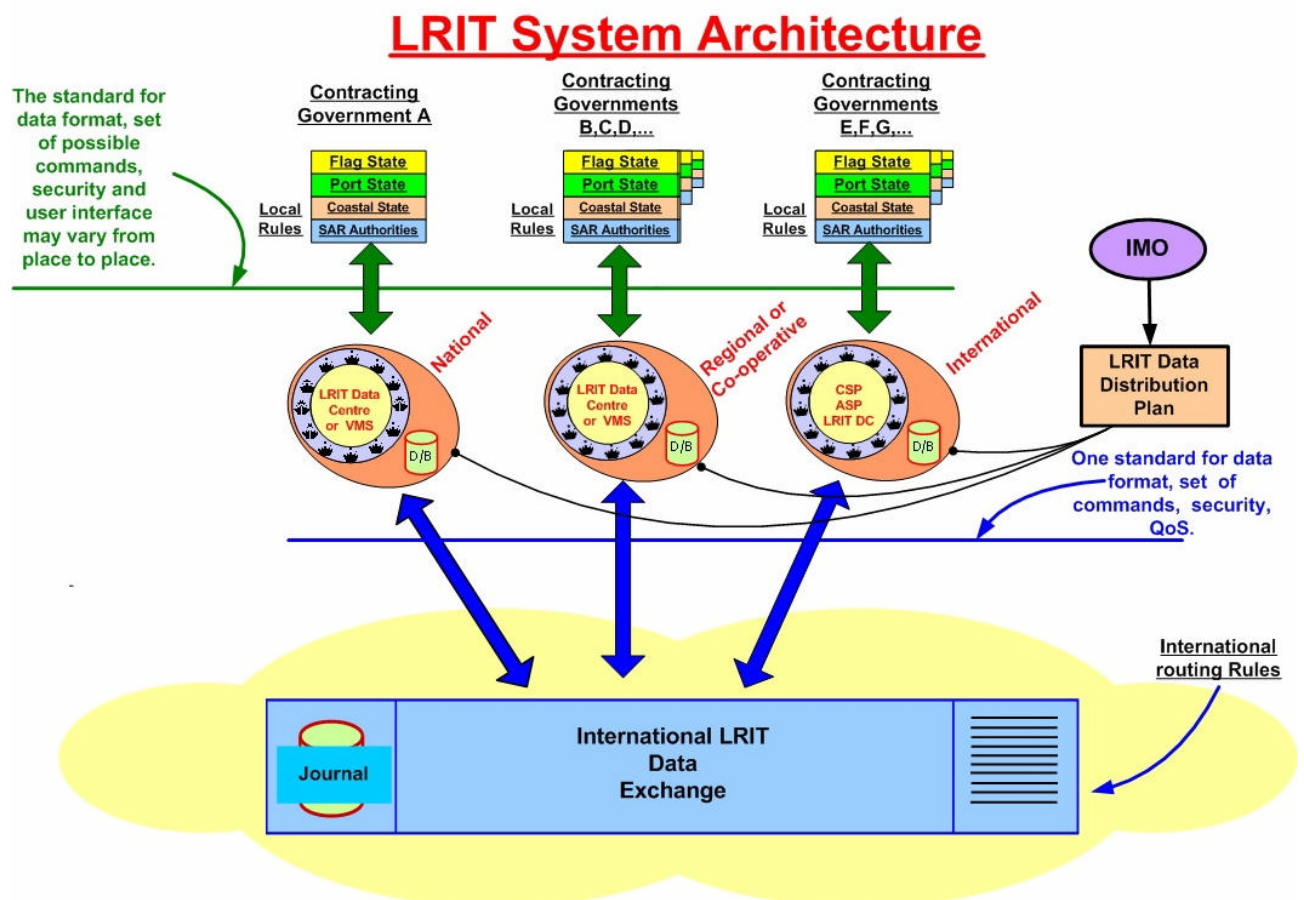
**PERFORMANCE STANDARDS AND FUNCTIONAL REQUIREMENTS FOR THE
LONG-RANGE IDENTIFICATION AND TRACKING OF SHIPS**

1 Overview

1.1 The Long-Range Identification and Tracking (LRIT) system provides for the global identification and tracking of ships.

1.2 The LRIT system consists of the shipborne 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. Certain aspects of the performance of the LRIT system are reviewed or audited by an LRIT Co-ordinator acting on behalf of all Contracting Governments. Figure 1 provides an illustration of the LRIT system architecture.

FIGURE 1



1.3 LRIT information is provided to Contracting Governments and Search and rescue services¹ entitled to receive the information, upon request, through a system of National, Regional, Co-operative and International LRIT Data Centres, using where necessary, the LRIT International Data Exchange.

1.4 Each Administration should provide to the LRIT Data Centre it has selected, a list of the ships entitled to fly its flag, which are required to transmit LRIT information, together with other salient details and should update, without undue delay, such lists as and when changes occur. Ships should only transmit the LRIT information to the LRIT Data Centre selected by their Administration.

1.5 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 are established in regulation V/19-1 of the 1974 SOLAS Convention.

2 Definitions

2.1 Unless expressly provided otherwise:

- .1 *Convention* means the International Convention for the Safety of Life at Sea, 1974, as amended.
- .2 *Regulation* means a regulation of the Convention.
- .3 *Chapter* means a chapter of the Convention.
- .4 *LRIT Data User* means a Contracting Government or a Search and rescue service which opts to receive the LRIT information it is entitled to.
- .5 *Committee* means the Maritime Safety Committee.
- .6 *High-speed craft* means a craft as defined in regulation X/1.3.
- .7 *Mobile offshore drilling unit* means a mobile offshore drilling unit as defined in regulation XI-2/1.1.5.
- .8 *Organization* means the International Maritime Organization.
- .9 *Vessel Monitoring System* means a system established by a Contracting Government or a group of Contracting Governments to monitor the movements of the ships entitled to fly its or their flag. A Vessel Monitoring System may also collect from the ships information specified by the Contracting Government(s) which has established it.
- .10 *LRIT information* means the information specified in regulation V/19-1.5.

¹ The term *search and rescue service* is defined in SOLAS regulation V/2.5 (see amendments to chapter V adopted on 20 May 2004, under cover of resolution MSC.153(78), which will enter into force on 1 July 2006).

2.2 The term “ship”, when used in the present Performance standards and functional requirements for long-range identification and tracking of ships (the Performance standards), includes mobile offshore drilling units and high-speed craft as specified in regulation V/19-1.4.1 and means a ship which is required to transmit LRIT information.

2.3 Terms not otherwise defined should have the same meaning as the meaning attributed to them in the Convention.

3 General provisions

3.1 It should be noted that regulation V/19-1.1 provides that:

Nothing in this regulation or the provisions performance standards and functional requirements adopted by the Organization in relation to the long-range identification and tracking of ships shall prejudice the rights, jurisdiction or obligations of States under international law, in particular, the legal regimes of the high seas, the exclusive economic zone, the contiguous zone, the territorial seas or the straits used for international navigation and archipelagic sea lanes.

3.2 In operating the LRIT system, recognition should be given to international conventions, agreements, rules or standards that provide for the protection of navigational information.

3.3 The present Performance standards should always be read together with regulation V/19-1.

4 Shipborne equipment

4.1 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 global maritime distress and safety system (GMDSS) and for electronic navigational aids, the shipborne equipment should comply with the following minimum requirements:

- .1 be capable of automatically and without human intervention on board the ship transmitting the ship’s LRIT information at 6-hour intervals to an LRIT Data Centre;
- .2 be capable of being configured remotely to transmit LRIT information at variable intervals;
- .3 be capable of transmitting LRIT information following receipt of polling commands;
- .4 interface directly to the shipborne global navigation satellite system equipment, or have internal positioning capability;
- .5 be supplied with energy from the main and emergency source of electrical power²; and

² 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 chapter IV. In such cases, the shipborne equipment should be provided with sources of energy as specified in regulation IV/13.

.6 be tested for electromagnetic compatibility taking into account the recommendations³ developed by the Organization.

4.2 In addition to the provisions specified in paragraph 4.1 above, the shipborne equipment should provide the functionality specified in table 1.

TABLE 1

DATA TO BE TRANSMITTED FROM THE SHIPBORNE EQUIPMENT

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

Notes: ⁽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 equipment so as to transmit at interval other than the preset ones.

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

⁽³⁾ All times should be indicated as Universal Co-ordinated Time (UTC).

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

³ Refer to the Assembly resolution A.813(19) on General requirements for electromagnetic compatibility of all electrical and electronic ship's equipment.

4.4 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.

5 Application Service Providers

5.1 Application Services Provider(s) (ASPs) providing services to:

- .1 a National LRIT Data Centre, should be recognized by the Contracting Government establishing the centre;
- .2 a Regional or a Co-operative LRIT Data Centre, should be recognized by the Contracting Governments establishing the centre. In such a case, the arrangements for recognizing the ASPs should be agreed amongst the Contracting Governments establishing the centre; and
- .3 an International LRIT Data Centre, should be recognized by the Committee.

5.2 Contracting Governments should provide to the Organization a list with the names and contact details of the ASPs they recognize together with any associated conditions of recognition and thereafter should, without undue delay, update the Organization as changes occur.

5.3 An ASP function should:

- .1 provide a communication protocol interface between the Communication Service Providers and the LRIT Data Centre to enable the following minimum functionality:
 - .1 remote integration of the shipborne equipment into an LRIT Data Centre;
 - .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 provide an integrated transaction management system for the monitoring of LRIT information throughput and routing; and
- .3 ensure that LRIT information is collected, stored and routed in a reliable and secure manner.

5.4 The ASP where used should add the data identified in table 2 to each transmission of LRIT information:

TABLE 2**DATA TO BE ADDED BY AN APPLICATION SERVICE PROVIDER
AND AT THE LRIT DATA CENTRE**

Parameters	Comments
Ship Identity ⁽¹⁾	The IMO ship identification number ⁽¹⁾ and MMSI for the ship.
Time Stamp 2	The date and time ⁽²⁾ the position report is received by the ASP (if used).
Time Stamp 3	The date and time ⁽²⁾ the position report is forwarded from the ASP (if used) to the appropriate LRIT Data Centre.
LRIT Data Centre Identifier	The identity of the LRIT Data Centre to be clearly indicated by a Unique Identifier.
Time Stamp 4	The date and time ⁽²⁾ the position report is received by the LRIT Data Centre.
Time Stamp 5	The date and time ⁽²⁾ the position report is forwarded from the LRIT Data Centre to an LRIT Data User.

Notes: ⁽¹⁾ See regulation XI-1/3 and Assembly resolution A.600(15) on IMO ship identification number scheme.

⁽²⁾ All times should be indicated as Universal Co-ordinated Time (UTC).

5.5 In addition to the provisions of paragraph 5.3, Administrations, Contracting Governments and the Committee may establish, in relation to the ASPs seeking their recognition, specific requirements as a condition of recognizing a particular ASP.

6 Communications Service Providers

6.1 Communications Service Providers (CSPs) provide services which link the various parts of the LRIT system using communications protocols in order to ensure the end-to-end secure transfer of the LRIT information. This requirement precludes the use of non-secure broadcast systems.

6.2 A CSP may also provide services as an ASP.

7 LRIT Data Centre

7.1 All LRIT Data Centres should:

- .1 establish and continuously maintain systems which ensure, at all times, that LRIT Data Users are only provided with the LRIT information they are entitled to receive as specified in regulation V/19-1;
- .2 collect LRIT information from ships instructed by their Administrations to transmit the LRIT information to the centre;

- .3 obtain, when requested to provide LRIT information transmitted by ships other than those which transmit the information to the centre, LRIT information from other LRIT Data Centres through the International LRIT Data Exchange;
- .4 make available, when requested to provide LRIT information transmitted by ships other than those which transmit the information to the centre, LRIT information transmitted to the centre to other LRIT Data Centres through the International LRIT Data Exchange;
- .5 execute requests received from LRIT Data Users for polling of LRIT information or for change(s) in the interval(s) of transmission of LRIT information by a ship or a group of ships transmitting the information to the centre;
- .6 relay, when required, requests received from LRIT Data Users through the International LRIT Data Exchange to the other LRIT Data Centres for polling of LRIT information or for change(s) in the interval(s) of transmission of LRIT information by a ship or a group of ships not transmitting the information to the centre;
- .7 execute requests received through the International LRIT Data Exchange from other LRIT Data Centres for polling of LRIT information or for change(s) in the interval(s) of transmission of LRIT information by a ship or a group of ships transmitting the information to the centre;
- .8 upon request disseminate to LRIT Data Users the LRIT information they are entitled to receive in accordance with the agreed arrangements and notify the LRIT Data User and the Administration when a particular ship stops transmitting LRIT information;
- .9 archive LRIT information from ships which transmit the information to the centre, for at least one year and until such time as the Committee reviews and accepts the annual report of the audit of its performance by the LRIT Co-ordinator. However, the archived LRIT information should provide a complete record of the activities of the centre between two consecutive annual audits of its performance;
- .10 for LRIT information archived within the last 4 days, send the LRIT information within 30 min of receiving a request;
- .11 for LRIT information archived between 4 and 30 days previously, send the LRIT information within 1 h of receiving a request;
- .12 for LRIT information archived more than 30 days previously, send the LRIT information within 5 days of receiving a request;
- .13 ensure using appropriate hardware and software, that LRIT information is backed-up at regular intervals, stored at suitable off-site location(s) and available as soon as possible in the event of disruption to ensure continuity of service;
- .14 maintain a record of the ships which transmit LRIT information to the centre including name of ship, IMO Ship identification number, call sign and Maritime Mobile Service Identity (MMSI);

- .15 use a standard protocol for communications with the International LRIT Data Exchange;
- .16 use a standard secure transmission method with the International LRIT Data Exchange;
- .17 use a secure authentication method with LRIT Data Users;
- .18 use a standard and expandable message format for communicating with the International LRIT Data Exchange;
- .19 use reliable connections (e.g. TCP) to ensure that the LRIT information is successfully received by the LRIT Data Centres; and
- .20 add the appropriate data identified in table 2 to each transmission of LRIT information collect by the centre.

7.2 The performance of all LRIT Data Centres should be audited by the LRIT Co-ordinator.

7.2.1 All LRIT Data Centres should co-operate and make available to the LRIT Co-ordinator the information required to enable the satisfactory completion of an audit of their performance.

7.3 Notwithstanding the provisions of paragraph 7.1, all LRIT Data Centres should provide to Search and rescue services (SAR services), LRIT information transmitted by all ships located within the geographic area specified by the SAR service requesting the information so as to permit the rapid identification of ships which may be called upon to provide assistance in relation to the search and rescue of persons in distress at sea. The LRIT information should be provided irrespective of the location of the geographic area and should be provided even if the geographic area is outside the search and rescue region associated with the SAR service requesting the information (regulation V/19-1.12 refers).

8 National, Regional and Co-operative LRIT Data Centres

8.1 A Contracting Government may establish a National LRIT Data Centre. A Contracting Government establishing such a centre should provide relevant details to the Organization and thereafter should, without undue delay, update the information provided as and when changes occur.

8.2 A group of Contracting Governments may establish either a Regional or a Co-operative LRIT Data Centre. The arrangements for establishing such a centre should be agreed amongst the Contracting Governments concerned. One of the Contracting Governments establishing such a centre should provide relevant details to the Organization and thereafter should, without undue delay, update the information provided as and when changes occur.

8.3 Upon request, National, Regional and Co-operative LRIT Data Centres may provide services to Contracting Governments other than those establishing the centre.

8.3.1 The arrangements for providing services should be agreed between the LRIT Data Centre and the Contracting Government requesting the provision of the services.

8.3.2 The Contracting Government establishing the National LRIT Data Centre or one of the Contracting Governments establishing the Regional or Co-operative LRIT Data Centre should, if the centre provides services to Contracting Governments other than those which established the centre, provide relevant details to the Organization and thereafter should, without undue delay, update the information provided as and when changes occur.

8.4 National, Regional and Co-operative LRIT Data Centres may also serve as a National, Regional or Co-operative Vessel Monitoring System (VMS) and may require, as VMS, the transmission from ships of additional information, or of information at different intervals, or of information from ships which are not required to transmit LRIT information. VMSs may also perform other functions.

8.4.1 If a National, Regional or Co-operative LRIT Data Centre collects additional information from ships, it should transmit only the required LRIT information to the other LRIT Data Centres through the International LRIT Data Exchange.

9 International LRIT Data Centre

9.1 An International LRIT Data Centre recognized by the Committee should be established.

9.2 Contracting Governments not participating in a National, Regional or Co-operative LRIT Data Centre, or Contracting Governments having an interest in the establishment of an International LRIT Data Centre should co-operate, under the co-ordination of the Committee, with a view to ensuring its establishment.

9.3 Ships, other than those which are required to transmit LRIT information to either a National, Regional or Co-operative LRIT Data Centre, should transmit the required LRIT information to the International LRIT Data Centre.

9.4 An International LRIT Data Centre may, upon request, collect additional information from ships entitled to fly the flag of an Administration on the basis of specific arrangements concluded with the Administration concerned.

10 International LRIT Data Exchange

10.1 An International LRIT Data Exchange recognized by the Committee should be established.

10.2 Contracting Governments should co-operate, under the co-ordination of the Committee, with a view to ensuring the establishment of the International LRIT Data Exchange.

10.3 The LRIT International Data Exchange should:

- .1 route LRIT information between LRIT Data Centres using the information provided in the LRIT Data Distribution Plan;
- .2 be connected to all LRIT Data Centres;
- .3 use a store and forward-buffer to ensure LRIT information is received;
- .4 automatically maintain journal(s) containing message header information only which may be used for:

- .1 invoicing functions and settlement of invoicing disputes; and
- .2 audit purposes;
- .5 archive journal(s), for at least one year and until such time as the Committee reviews and accepts the LRIT Co-ordinator's annual report of the audit of its performance. However, the archived journal(s) should provide a complete record of the activities of the exchange between two consecutive annual audits of its performance;
- .6 prepare, as necessary, performance related statistical information based on the information contained in the journal(s);
- .7 use a standard protocol for communications with LRIT Data Centres;
- .8 use a standard secure access method with the LRIT Data Centres;
- .9 use a standard and expandable message format for communicating with the LRIT Data Centres;
- .10 use reliable connections (e.g. TCP) to ensure that the LRIT information is successfully received by the LRIT Data Centres;
- .11 use agreed protocols to connect to LRIT Data Centres;
- .12 not archive LRIT information; and
- .13 have continuous access to current LRIT Data Distribution Plan.

11 LRIT Data Distribution Plan

11.1 The Organization should establish and maintain the LRIT Data Distribution Plan.

11.2 The LRIT Data Distribution Plan should include:

- .1 a list of Contracting Governments and Search and rescue services entitled to receive LRIT information, and their points of contact;
- .2 information on the boundaries of geographic areas within which each Contracting Government is entitled to receive LRIT information about ships in the area;
- .3 information on any standing orders given by a Contracting Government pursuant to paragraphs 16.1.2, 16.1.3 and/or 16.1.4;
- .4 information supplied by Administrations pursuant to the provisions of regulation V/19-1.8.1.4;
- .5 information supplied by Administrations pursuant to the provisions of regulation V/19-1.9.2;

- .6 a list of ports and port facilities together with the associated geographic co-ordinates (based on WGS 84 datum) located within the territory of each Contracting Government;
- .8 a list of the National, Regional, Co-operative and International LRIT Data Centre(s) and their points of contact; and
- .9 a record indicating which LRIT Data Centre is collecting and archiving LRIT information for each of the Contracting Governments.

12 LRIT system security

12.1 LRIT communications using land-line links should provide for data security using methods such as:

- .1 authorization: Access should only be granted to those who are authorized to see the specific LRIT information;
- .2 authentication: Any party exchanging information within the LRIT system should require authentication before exchanging information;
- .3 confidentiality: Parties running an application server should protect the confidentiality of the LRIT information to ensure that it is not disclosed to unauthorized recipients when it travels across the LRIT system; and
- .4 integrity: Parties exchanging LRIT information should ensure that the integrity of the LRIT information is guaranteed and that no data has been altered.

13 LRIT system performance

13.1 LRIT information should be available to an LRIT Data User within 15 min of the time it is transmitted by the ship.

13.2 On-demand LRIT information reports should be provided to an LRIT Data User within 30 min of the time the LRIT Data User requested the information.

13.3 The quality of service:

	<u>Number of delivered reports meeting latency requirements</u>	x 100%
	Total number of report requests	

should be:

- .1 95% of the time over any 24-hour period; and
- .2 99% over any 1 month.

14 LRIT Co-ordinator

14.1 The LRIT Co-ordinator should be appointed by the Committee.

14.2 The LRIT Co-ordinator should assist in the establishment of the International LRIT Data Centre and International LRIT Data Exchange by:

- .1 participating in the development of any required technical specifications taking into account the present Performance standard and any relevant decisions of the Committee;
- .2 issuing requests for the submission of proposals for the establishment and operation of the International LRIT Data Centre and International LRIT Data Exchange;
- .3 evaluating the management, operational, technical and financial aspects of the proposals received taking into account the present Performance standard and any other related decisions of the Committee and submitting its recommendations in this respect for consideration by the Committee; and
- .4 participating in the initial developmental testing of the LRIT system and reporting its findings in this respect for consideration by the Committee.

14.3 The LRIT Co-ordinator should perform the following administrative functions:

- .1 upon request, investigation of disputes and operational, technical and invoicing difficulties and make recommendations for their settlement to the parties concerned;
- .2 participation in the testing for the integration of new LRIT Data Centres into the LRIT system and providing relevant information to the Committee; and
- .3 participation in the testing of new or modified procedures or arrangements for communications between the International LRIT Data Exchange and the LRIT Data Centres and providing relevant information to the Committee.

14.4 The LRIT Co-ordinator should undertake a review of the performance of the LRIT system taking into account the provisions of regulation V/19-1, the present Performance standard and any related decisions of the Committee and should report its findings to the Committee at least annually. In this respect, the LRIT Co-ordinator should:

- .1 review the performance of Application Service Providers (or Communication Service Providers when they act as Application Services Providers) providing services to the International LRIT Data Centre;
- .2 audit the performance of all LRIT Data Centres based on archived information and their fee structures;
- .3 audit the performance of the International LRIT Data Exchange and its fee structure, if any; and
- .4 verify that Contracting Governments and Search and rescue services receive the LRIT information they have requested and are entitled to receive.

14.5 The LRIT Co-ordinator should, for the purpose of reviewing the performance of the LRIT system:

- .1 be given the required level of access, by the LRIT Data Centres and the International LRIT Data Exchange, to management, charging, technical and operational data;
- .2 collect and analyse samples of LRIT information provided to LRIT Data Users; and
- .3 collect and analyse statistics compiled by LRIT Data Centres and the International LRIT Data Exchange.

14.6 In addition to reporting to the Committee on the performance of the LRIT system including any identified non-conformities, the LRIT Co-ordinator may make recommendations to the Committee, based on an analysis of its findings, with a view to improving the efficiency, effectiveness and security of the LRIT system.

14.7 Neither the Organization nor any of the Contracting Governments should be responsible for making any direct payments to the LRIT Co-ordinator for the services it may provide. However, Contracting Governments may be required to pay fees to LRIT Data Centres for the LRIT information they request and receive which, for example, may contain elements to offset the costs associated with functions performed by the LRIT Co-ordinator. The LRIT Co-ordinator may recover its costs for the services it provides.

15 Administrations

15.1 Each Administration should decide to which LRIT Data Centre ships entitled to fly its flag are required to transmit LRIT information.

15.2 Each Administration should provide to the selected LRIT Data Centre the following information for each of the ships entitled to fly its flag which is required to transmit LRIT information:

- .1 name of ship;
- .2 IMO Ship identification number;
- .3 call sign; and
- .4 Maritime Mobile Service Identity.

15.3 Upon the transfer of the flag of a ship which is required to transmit LRIT information from another State, the Administration whose flag the ship is now entitled to fly should provide, without undue delay, to the selected LRIT Data Centre in addition to the information specified in paragraph 15.2 the following information:

- .1 the effective date and time (UTC) of transfer; and
- .2 the State whose flag the ship was formally entitled to fly, if known.

15.4 Administrations should, without undue delay, update the LRIT Data Centre as and when changes to the information they have provided under paragraphs 15.2 and 15.3 occur.

15.5 Upon the transfer of the flag of a ship which is required to transmit LRIT information to another State or when the ship is to be taken permanently out of service, the Contracting Government of the State whose flag the ship was entitled to fly hitherto should provide, without undue delay, to the LRIT Data Centre the following information:

- .1 name of ship;
- .2 IMO Ship identification number;
- .3 the effective date and time (UTC) of the transfer, or when the ship was, or will be, taken permanently out of service; and
- .4 the State to which the flag of the ship has been transferred, if known.

16 Contracting Governments

16.1 Each Contracting Government should:

- .1 obtain the LRIT information to which it is entitled to under the provisions of regulation V/19-1, and has requested, from the LRIT Data Centre designated under paragraph 15.1. Contracting Governments which have no ships entitled to fly their flag may receive the LRIT information they are entitled to under the provisions of regulation V/19-1 from any one of the LRIT Data Centres but should select one LRIT Data Centre from which they wish to receive the information;
- .2 if it wishes to receive LRIT information pursuant to the provisions of regulation V/19-1.8.1.1, indicate to the LRIT Data Centre the criteria for receiving such information. If so decided the Contracting Government may give the LRIT Data Centre a standing order regarding the criteria for receiving LRIT information;
- .3 if it wishes to receive LRIT information pursuant to the provisions of regulation V/19-1.8.1.2, indicate to the LRIT Data Centre the name and the IMO Ship identification number of the particular ship and either:
 - .1 the distance from its coast; or
 - .2 the distance from a port; or
 - .3 a point in time,

from when it requires the provision of LRIT information transmitted by the ship. If so decided the Contracting Government may give the LRIT Data Centre a standing order regarding the criteria for receiving LRIT information. If the standing order is a distance from a port, the Contracting Government also has to inform the centre of the name of the port each ship is proceeding to;

- .4 if it wishes to receive LRIT information pursuant to the provisions of regulation V/19-1.8.1.3, indicate the distance from its coast within which it requires the provision of LRIT information transmitted by ships. If so decided, the Contracting Government may give the LRIT Data Centre a standing order regarding the criteria for receiving LRIT information;
- .5 co-operate with a view of resolving any issues in connection with which flag a particular ship is entitled to fly; and
- .6 ensure either the destruction of all received LRIT information which is no longer in use or their archiving in a secure and protected manner.

17 Search and rescue services

17.1 Subject to the provisions of the national legislation of the Contracting Government concerned, search and rescue services should provide information when requested by the LRIT Co-ordinator to enable the holistic review of the performance of the LRIT system and for the investigation of any disputes.

17.2 Subject to the provisions of paragraph 7.3, search and rescue service when it wishes to receive LRIT information pursuant to the provisions of regulation V/19-1.12 should indicate to the LRIT Data Centre the criteria for receiving such information.
