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RADIOCOMMUNICATIONS AND SEARCH AND RESCUE

Follow-up of the intersessional meetings of the Working Group on Engineering Aspects of LRIT - Recent developments and the possibility to establish a European LRIT data centre

Submitted by Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Malta, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and by the United Kingdom as well as by the European Commission

SUMMARY

Executive summary: This document highlights the possibility of the establishment of a Regional European LRIT data centre associating IMO Contracting Governments. It also provides comments and a proposal for the development of a set of implementation guidelines in the form of detailed interface specifications to be used by Contracting Governments when implementing National and Regional LRIT Data Centres.

Action to be taken: Paragraph 10

Related documents: MSC 82/8; MSC 82/8/1; COMSAR 10/16, resolution MSC.202(81); resolution MSC.211(81), paragraph 10; and resolution MSC.210(81)

1 This document is submitted in accordance with the provisions of paragraph 4.10.5 of the Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies, as amended (MSC/Circ.1099-MEPC/Circ.405) and comments on document MSC 82/8/1 on the effective implementation of SOLAS chapter XI-2 and the ISPS Code.

Background

2 The IMO Maritime Safety Committee (MSC) at its eighty-first session unanimously adopted amendments to SOLAS to make LRIT mandatory for passenger ships, cargo ships of 300 GT and upwards and mobile offshore drilling units. The requirements will be included in chapter V of SOLAS as Regulation 19-1. Performance standards are set out in resolution MSC.210(81) and arrangements for the timely establishment of the LRIT system is given in resolution MSC.211(81).

The IMO Contracting Governments agreed that LRIT Data Centres, other than the International LRIT Data Centre, should be in a position to start the integration of ships into the system as soon as possible after 1 July 2008, but not later than 1 October 2008. In order to achieve this, the Contracting Governments to SOLAS shall, in accordance with resolution MSC.211, commence populating the LRIT data distribution plan with data as from 1 January 2008.

Implementation of the LRIT SOLAS requirements

3 Contracting Governments are also invited to inform MSC 82 in November this year on progress on implementing the LRIT system.

The LRIT system initially put forward as a system for ship and port security has been adopted as an identification and tracking system for several purposes. The inclusion of the system in chapter V of SOLAS sends a clear message that the system shall also be used for safety in general, including SAR, and environmental protection. This is a development similar to the AIS that initially was a ship to ship anti-collision system.

4 Having regarded its wider application the co-sponsors of this document are investigating the technical possibility and merits of integrating the LRIT system within the European Community Vessel Traffic Monitoring system and Information System (VTMIS)¹.

The LRIT data centre could therefore be used by all ships flying the flag of a Member State of the European Community in accordance with the technical standards and technical requirements established by the IMO.

Follow-up of the intersessional meetings of the Working Group on Engineering Aspects of LRIT

5 Since MSC 81 an *ad hoc* Working Group on the Engineering Aspects of LRIT has been active preparing the technical standards that are necessary.

6 The Working Group was tasked to develop and submit to MSC 82 for approval:

- .1 technical specifications for the International LRIT Data Exchange;
- .2 technical specifications for the International LRIT Data Centre;
- .3 technical specifications for communications within the LRIT System network (i.e. between the LRIT Data Centres and International LRIT Data Exchange and with the LRIT Data Distribution Plan); and
- .4 protocols for the development testing of the LRIT System and for testing the integration into the system of new LRIT Data Centres.

The Group should also develop any related guidance which would assist the Organization in setting up and maintaining the LRIT Data Distribution Plan.

¹ Directive 2002/59/EC of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC. Published in the Official Journal of the European Communities L 208, p.10 of 5.8.2002 and can be retrieved from the Eurlex website <http://europa.eu.int/eur-lex/lex/en/index.htm>.

7 The report from the working group (MSC 82/8/1) identified an issue that does not fall within its Terms of Reference. The need to urgently address this at MSC 82 emerged. Participants were consequently invited to submit a proposal to MSC 82 requesting the consideration of the urgent development of a set of implementation guidelines.

The Working Group, in particular, underlined the interest of having a specific set of additional implementation guidelines in the form of detailed interface specifications to be used by Contracting Governments when implementing National and Regional LRIT Data Centres.

8 The purpose of such guidelines is to provide the Contracting Governments with guidance to support their development and implementation of the LRIT system.

9 The co-sponsors of this document propose that this guidance could at least cover the LRIT messaging, the LRIT network and Security and the Xml format definition including the Xml schema. A possible framework is proposed in the annex.

The full set of guidance should be developed and maintained by the LRIT Co-ordinator under the responsibility of the IMO. Once the guidance has been approved by the IMO, it should be available on request to all Contracting Governments planning to associate with an LRIT Data Centre other than the International LRIT Data Centre.

A periodic review of the guidance should be performed by the LRIT Co-ordinator with appropriate assistance requested through the IMO in order to update the system.

Action requested of the Committee

10 The Committee is invited to note the information provided in paragraph 4 and to consider the proposal to develop a set of implementation guidelines to be used by Contracting Governments when implementing National and Regional LRIT Data Centres. To this end COMSAR 11 could be requested to prepare a draft MSC circular based on the annex for adoption at MSC 83.

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ANNEX

LIST OF DELIVERABLES FOR THE LRIT SYSTEM

1 LRIT

This document shall help to understand the LRIT system implemented to enable the exchange of information between the Contracting Governments.

Structure of the document**Document overview:**

LRIT system overview: Data encoding, Global architecture, Network requirements, Security requirements

LRIT Functional services: Overview, Definition of actors, Definition of messages

LRIT Xml messages: Overview, Convention, Xml structure and Schema Definition, Validation of the Xml messages, Status codes and messages

LRIT request: Overview, Definition

LRIT response: Overview, Definition

LRIT Receipt: Overview

2 LRIT Network and Security Reference guide

This document shall provide a comprehensive description on the Network and Security features implemented in the LRIT system.

Structure of the document**Overview**

Introduction to the LRIT Network service: General description

Communication protocol strategy: Overview, Specific protocols, Introduction to SOAP

LRIT Security requirements: Introduction, Point to Point Data Security strategy, Virtual private Network, Digital certificate

LRIT Users, roles and Access rights

Using HTTPS: Overview

3 LRIT Test Plan

The Test Plan document shall provide to the Contracting Governments guidance for ensuring the compliance of their LRIT application with the system requirements. The document shall support the following objectives:

1. Identify the functional and non-functional requirements as targets for testing
2. Recommend and describe the testing strategies to be employed
3. Identify the required resources
4. Recommend and describe the test organization
5. Provide an approach to test and bug reporting
6. Present a list of test scenarios to execute

Structure of the document**Introduction**

Requirements for Test: Overview, Functional requirements

Test Strategy: Overview, Test tools

Test organization: Overview, Resources and steps, Test execution, Test reporting

Tests scenarios: Overview, Request, Receipt, Response, System Status.