



MARITIME SAFETY COMMITTEE
83rd session
Agenda item 6

MSC 83/6/12
31 July 2007
Original: ENGLISH

LRIT-RELATED MATTERS

International LRIT Data Exchange and practical implementation of the full-featured International LRIT network

Submitted by the Russian Federation

SUMMARY

Executive summary: This document provides information on the offer of the Russian Federation regarding the International LRIT Data Exchange and practical implementation of the full-featured international LRIT network

Action to be taken: Paragraph 9

Related documents: MSC 82/24, section 8; COMSAR 11/18, section 14; MSC 83/6/1; and MSC 83/6/2

Background

1 One of the main elements of the future global LRIT network is the International Data Exchange (IDE). The overall reliability of the network, logic and algorithm of operation, and set of communication protocols used by every LRIT Data Centre (DC) are greatly dependent on the IDE functionality, reliability and principles of operation. This key element of the network has to be reasonably redundant as well as geographically distributed in the best case.

2 The latest meeting of the Intersessional MSC Working Group on LRIT (MCS/ISWG/LRIT 2) in July 2007, in our view, clearly demonstrated the tendency among the most of SOLAS Contracting Governments to build and operate their National LRIT Data Centres (NDCs). Most likely it may be a case when the LRIT international network will consist of several National, Regional and Co-operative LRIT Data Centres operating without an International LRIT Data Centre. To commence operations such a network (with a great number of DCs based on various operational systems and designed by different engineering teams) may be a very complicated practical task in terms of operations and maintenance. Presumably, the system will be unstable and will not justify the efforts and costs spent for its implementation.

Discussion

3 Taking into account the current situation with regard to LRIT implementation, as well as proposals to build and operate IDE on an interim basis until such time as there will be a viable alternative, it would be appropriate to consider the establishment of reserve (back-up) IDE to complement the main (interim) IDE. This technical decision makes the LRIT network reasonably redundant and geographically distributed. The reserve IDE can be installed in any convenient location, for example, in Russian Federation or Europe within the framework of existing infrastructure.

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4 The Russian Federation plans establishment of its NDC basing on the existing “Victoria” information system. This NDC will provide processing of data received from ships flying both Russian flag and other flags as well as support LRIT data exchange procedures.

5 If the idea of reserve (back-up) IDE will be supported, the Russian Federation is ready to consider the possibility of usage of Russian NDC and its equipment and infrastructure as a basis for such reserve IDE.

6 The final report of the *Ad Hoc* Working Group on Engineering Aspects of LRIT (*Ad Hoc* Engineering Group) sets the requirements describing in detail different technical, logical, billing aspects of the future LRIT network. All requirements are quite complicated and some of the aspects are not clear due to the absence of any practical testing.

7 Considering that the future LRIT network may consist of the number of DCs developed by different manufacturers it would be logical to use “step-by-step” policy in the LRIT network practical implementation and use IDE as ground element for prescription of the network communication protocols.

8 “Step-by-step” policy for the LRIT network implementation has to have the target to create the network compliant with IMO technical standard based on *Ad Hoc* Engineering Group studies. At the same time this approach will allow to add practically demanded features and delete practically not used or not executable features. The main proposed “stones” of such policy are as follows:

- .1 correction of communication protocols, IDE algorithms, billing procedures, LRIT Data Distribution Plan content and their interactions with other elements of the LRIT network subsequent to the first results of practical data exchange;
- .2 distribution of the technical standard to the DCs only after its thorough testing with participation of 2 to 3 acting DCs;
- .3 algorithm of the overall system operation should be simplified on the first stage and more complex features may be implemented sequentially on a step-by-step basis; and
- .4 IDE designer has to supply agent software to be installed on every DC (operating under common used operating systems: Win, UNIX, or Lunix).

Action requested of the Committee

9 The Committee is invited to decide and approve the following:

- .1 need for reserve (back-up) IDE establishment (paragraphs 3 to 5); and
- .2 expediency of “step-by-step” policy for smooth LRIT implementation and basic principles of such policy (paragraphs 7 and 8).