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DEVELOPMENT OF AN E-NAVIGATION STRATEGY

Long-Range Identification and Tracking (LRIT) of Ships

Submitted by the Comité International Radio-Maritime (CIRM)

SUMMARY

Executive summary: This document investigates the issues surrounding the billing and costing of LRIT services and suggests answers to the questions raised during the LRIT working group at MSC 82

Action to be taken: Paragraph 23

Related documents: MSC 82/8/6, MSC 82 report and MSC 82/WP.10

Introduction and Background

1 In its document MSC 82/8/6, CIRM asked the Committee in its eighty-second session to consider the crucial and complex question of communications billing for the long-range identification and tracking of ships (LRIT), and to decide accordingly.

2 During the Committee's eighty-second session, CIRM advised the Working Group on Engineering Aspects of LRIT that these costing and billing decisions should be carefully considered, as ill-considered decisions in this respect could have significant commercial implications and potentially have adverse effects on the viability and effectiveness of the LRIT system.

3 In its report to the Committee (MSC 82/WP.10), the Working Group on Engineering Aspects of LRIT identified a number of issues which that Working Group felt that the Committee should consider, including, although not limited to, those listed in MSC 82/WP.10, annex 2.

4 In its eighty-second session, the Committee also instructed the Intersessional *Ad Hoc* Working Group on Engineering Aspects of LRIT to prepare a technical costing and billing standard within the policy framework as decided by the Committee.

Policy Framework

5 At its eighty-first session, the Committee adopted amendments to the International Convention on the Safety of Life at Sea (SOLAS Convention). These amendments include revisions to Chapter V of the SOLAS Convention, on the Safety of Navigation, including a new regulation 19-1 on the Long-range identification and tracking of ships. Regulation V/19-1 will provide that:

11.1 Contracting Governments shall bear all costs associated with any long-range identification and tracking information they request and receive. Notwithstanding the provisions of paragraph 11.2, Contracting Governments shall not impose any charges on ships in relation to the long-range identification and tracking information they may seek to receive.

11.2 Unless the national legislation of the Administration provides otherwise, ships entitled to fly its flag shall not incur any charges for transmitting long-range identification and tracking information in compliance with the provisions of this regulation.

12 Notwithstanding the provisions of paragraph 8.1, the search and rescue services of Contracting Governments shall be entitled to receive, free of any charges, long-range identification and tracking information in relation to the search and rescue of persons in distress at sea.

6 At its eighty-first session, the Committee also adopted resolution MSC.210(81) on Performance standards and functional requirements for the long-range identification and tracking of ships. This resolution provides that:

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 to the parties concerned;

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:

.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;

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.

7 Resolution MSC.210(81) also provides that:

10.3 The LRIT International Data Exchange should:

- .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.*

Some Issues Identified by the Working Group (MSC 82/WP.10, annex 2)

8 The Working Group on Engineering Aspects of LRIT during the Committee's eighty-second session identified a number of questions arising from costs and billing which that Working Group believed needed to be addressed. There are numerous commercial vessel-tracking services already in operation, and it is likely that these will play a critical role in Contracting Governments' establishment of national and co-operative LRIT systems. Therefore, these questions relating to costs and billing are likely to have a direct impact on the establishment and viability of the international LRIT system. In this document, CIRM examines these questions.

International Data Centre Matters

9 Q1. Is it intended that a Contracting Government will pay per transaction?

A1. It has been established that the LRIT Data User, i.e. the Contracting Government, pays for the information that they request and receive. CIRM understands this to mean that a Contracting Government will have to pay for each LRIT data message that they request and receive. Every LRIT message will have a cost associated with it, including the operating costs of the LRIT system. The cost to the Contracting Government will reflect the number of messages requested by that Contracting Government over a given period of time. There are several ways in which this could be done and the billing framework should allow for this. These include strategies such as operating a combination of fixed fees and variable per-transaction fees, with the fixed fee to be charged in advance and the variable fee to be charged in arrears.

10 Q2. Does a Contracting Government which does not request the system have to pay anything, including the start up costs of the International Data Centre?

A2. Regulation V/19-1 states that all ships to which that regulation applies must transmit 4 position reports per day. Contracting Governments may opt to establish their own National Data Centre, or they may co-operate in a Regional or Co-operative Data Centre and will bear all, or a proportion if co-opting, of any associated costs. Those Contracting Governments not wishing to establish a Data Centre of any type must inform their ships that they will be reporting to the International Data Centre, and consequently CIRM does not envisage that they will bear any start up or operational costs.

- 11 Q4. How will a fair profit for the various commercial entities that will be providing services within the LRIT system (e.g. CSPs, ASPs and Data Centres) be determined?

A4. It is the view of CIRM that there should be fair and open competition with respect to the provision of the LRIT system, and as such it would be expected that providers compete at all levels including price (and therefore profit). In a free market society, a regulator should not artificially or arbitrarily set prices or profit margins.

- 12 Q5. Since SAR services do not pay for the LRIT information they request and receive, how will this be included in the overhead costs for the entire LRIT system?

A5. It is the understanding of CIRM that SAR services will be identified as a category of user and they will not be charged for the information they receive. It is expected that the associated costs will be regarded as operational and reflected in the costs borne by the other users (refer also to comment A1).

- 13 Q8. How will the costs of the LRIT Co-ordinator as well as the International Data Exchange and International Data Centre be funded?

A8. As stated in comments A1 and A2, it is assumed that the costs associated with LRIT system procurement, implementation and development, and operations including communications will be borne by the users. With respect to the costs associated with LRIT co-ordination it is the view of CIRM that this should be a matter between IMSO and the Committee, and at this stage feel it pertinent only to state that the cost of oversight to industry should be sensible, provide value for money, and be applied in a fair and reasonable way.

National Data Centre Matters

- 14 Q3. Can individual Contracting Governments profit by unilaterally setting prices for the provision of data?

A3. It is the view of CIRM that this is a matter between Contracting Governments and the Committee, and at this stage feel it pertinent only to state that in the interests of underwriting investments made in developing National LRIT DCs, Contracting Governments should not be precluded from unilaterally setting prices for the provision of data conditional upon that this is undertaken in a fair and reasonable way.

- 15 Q6. Will the cost per transaction be the same for all purchasers of LRIT information at a given data centre?

A6. It is the view of CIRM that Data Centres may operate using multiple CSPs and ASPs, and as such there will be a variation in LRIT data costs between these providers costs will be incurred at various points in the LRIT system, due to the number of component parts and their associated service providers. The relationship between a Contracting Government and its national data centre will be the subject of an agreement between those parties. The cost of information from that data centre to other LRIT users would be affected by comment A3 above, and could be affected by other factors. Policy relating to this matter should be determined between Contracting Governments and the Committee.

16 Q7. For Data Centres, who pays for position reports that are not requested?

A7. CIRM regards this question as a somewhat moot point given that Regulation V/19-1 states that all ships to which that regulation applies must transmit 4 position reports per day. Consequently, and as per A2, Contracting Governments having their own National Data Centre, or co-opting into a Regional or Co-operative Data Centre and will bear all, or a proportion if co-opting, of any associated costs (of obtaining the baseline 4 position reports per day). Those Contracting Governments with ships reporting to the International Data Centre will have no operational costs, with the associated costs being borne by the International LRIT system.

Additional Matters to be taken into Account

17 Typically, CSPs invoice their commercial clients monthly in arrears with a 30 day payment term, and similarly ASPs back-to-back this with their clients. Subsequently, the commercial exposure to the CSP/ASP is shared and approximately 60 days. Variable billing periods and extended payment terms are negotiated on a case-by-case basis; however this will rarely exceed a quarterly basis and 1 month term. A significant risk identified by CIRM relates to the likelihood that there will be incompatible and commercially untenable variations in billing periods and payment terms within the International LRIT system and across to the various external or domestic Data Centres. One possible risk-reduction strategy is to operate using a combination of fixed fee and per-transaction fee, then the fixed fee could be billed monthly in advance and the variable fee in arrears (refer also to comment A1).

18 CIRM understands that the LRIT Co-ordinator could be responsible for billing users of the International Data Centre, and for recovering payment. The International Data Exchange will compile statistics on LRIT information usage as supplied from the International Data Centre and as exchanged with other Data Centres (although it will not monitor the internal or domestic usage of these Data Centres). Subsequent to reconciliation, Contracting Governments will be billed/credited accordingly based upon the volume and cost of LRIT information they have used and they have supplied. The International LRIT system billing periods and payment terms, along with the reconciliation and non-payment policies will be required to be in place prior to any tender process in order for industry to effectively respond without unfair financial exposure and risk.

19 With respect to the external Data Centres, there will typically be a contract or similar agreement in place between the Contracting Government and the Data Centre provider governing the billing period and payment terms, and the price of baseline LRIT data provision (i.e. 4 position reports per day). Additional usage through on-demand/polling and increased automatic position reporting will be billed as per contract terms and conditions irrespective of internal usage or usage resulting from International Data Exchange requests.

Conclusions

20 CIRM does not believe that it is appropriate either for potential service providers, or for the Sub-Committee, to propose or to adopt a universal framework or standard for the calculation of billing for the costs associated with the LRIT system at this time, if at all. While various technical and legal matters need to be addressed in order to facilitate the implementation of the LRIT system, so there remain a number of issues to be decided which could in themselves affect the cost of the system, or any appropriate billing arrangements. At this time, however, it is appropriate to examine how costs may arise, and to describe those commercial arrangements which are often used for the calculation of charges and the collection of fees.

21 Any attempt at establishing a universal billing framework risks creating an excessively rigid structure which would not take into account the commercial needs of those participating in the system, whether they are service providers or LRIT Data Users. Costs will arise at a number of points within the LRIT system, because of the various components and participants in that system. These costs will contribute towards the amount which is charged for LRIT information, and each participant will need to recover the cost of providing their component or service. If the commercial risk of providing the component or service to the LRIT system is too high to be commercially acceptable, then potential service providers will be unable to offer these services.

22 An additional risk arises from uncertainty about the volume of traffic which will actually be paid for by Contracting Governments. All ships will be required to transmit their position 4 times each day. However, it is not certain that all of these messages will be paid for by Contracting Governments, and so the cost of some of these messages will become an “overhead” cost within the system. However, in order to reduce risk and uncertainty in this area, it would be helpful if Contracting Governments were able to indicate in advance their commitment to receiving and paying for these compulsory messages, and, if possible, to give an indication of whether they are able to estimate the volume of reports they believe that they may be likely to request in a given period or scenario.

Action Requested of the Sub-Committee

23 The Sub-Committee is invited to:

- .1 note the information and comments contained in this paper generally;
- .2 note that the adoption of a rigid cost and billing framework at this time could undermine the timely establishment of the LRIT system;
- .3 note the continuing work of the Intersessional *Ad Hoc* Working Group on Engineering Aspects of LRIT, and its continuing investigation of the complexities associated with the costs of, and billing within, the LRIT system; and
- .4 invite Contracting Governments, where they are able to do so, to indicate their commitment to receive the minimum number of 4 position reports per day from their ships, and to indicate whether they believe that they will be able to estimate an approximate volume of reports which they are likely to request in a particular period.