



**ORGANIZACION DE LOS ESTADOS AMERICANOS
ORGANIZATION OF AMERICAN STATES**

**Comisión Interamericana de Telecomunicaciones
Inter-American Telecommunication Commission**

**30 MEETING OF PERMANENT
CONSULTATIVE COMMITTEE II:
RADIOCOMMUNICATIONS
November 27 to December 1, 2017
Barranquilla, Colombia**

**OEA/Ser.L/XVII.4.2.30
CCP.II-RADIO-30/doc. 4356-1-8/17
29 November 2017
Original: English**

**AGENDA ITEM 1.8
PRELIMINARY VIEWS FOR WRC-19
(Item on the Agenda: 3.1 (SGT2A))
(Document submitted by the Coordinator)**

Formatted: Highlight

SGT2A – Radiolocation, Amateurs, Maritime & Aeronautical

Coordinator: Michael Razi (CAN)

Alternate Coordinator: Thomas vonDeak (USA)

Rapporteur Agenda Item: Donald Jansky (USA)

Alternate Rapporteur Agenda Item: Christopher Casarrubias (MEX)

Agenda item 1.8: *to consider possible regulatory actions to support Global Maritime Distress Safety Systems (GMDSS) modernization and to support the introduction of additional satellite systems into the GMDSS, in accordance with Resolution 359 (Rev.WRC-15);*

BACKGROUND

Resolution 359 (Rev. WRC-15) takes into consideration the activities of the International Maritime Organization (IMO) related to the GMDSS modernization (*See Resolves 1*) and the introduction of additional satellite systems into the Global Maritime Distress and Safety System (GMDSS) (*See Resolves 2*), and the consequential regulatory actions that may need to be considered in relation to these *Resolves*.

IMO has been advancing its studies on modernization of GMDSS and this information would be considered by ITU-R in development of any regulatory modifications that may be necessary in this regard.

This includes the activities of the IMO related to the introduction of additional satellite systems into the GMDSS, recognizing that IMO has received an application to recognize an existing satellite system as part of the GMDSS. Further, *resolves 2* of Resolution 359 (Rev.WRC-15) invites ITU-R to conduct studies, including consideration of the mobile-satellite service (MSS) allocations used and the potential impact of possible modifications to the provisions of the Radio Regulations on sharing and compatibility with other services and systems in the frequency band and adjacent frequency bands.

To date, only one mobile satellite system has been recognized by IMO for use in the GMDSS “system of systems”. Advances in communications technology, the maturity of commercial satellite operations, the introduction of competition into the satellite sector, and the deployment of non-geostationary satellite constellations have led the IMO to identify recognition of additional satellite systems to the GMDSS as an urgent work item.

IMO’s Maritime Safety Committee (MSC), at its ninety-second session (MSC 92), from 12 to 21 June 2013, considered the notification by the United States of the application of the Iridium mobile-satellite system for recognition and use in the GMDSS. The Committee, having noted that, in principle, there were no objections, agreed to refer the matter to the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) for evaluation. Following discussion at NCSR 1 (held from 30 June to 4 July 2014), MSC 94 (held from 17 to 21 November 2014) agreed that the International Mobile Satellite Organization (IMSO) should undertake the technical and operational assessment of the Iridium mobile satellite system and provide a technical and operational assessment report for consideration by the NCSR Sub-Committee.

IMSO submitted its report on the technical and operational assessment for consideration at NCSR 3 (held from 29 February to 4 March 2016). This Sub-Committee agreed that Iridium could be incorporated into the GMDSS subject to compliance with outstanding issues. The NCSR Sub-Committee invited the MSC to endorse this view, with the understanding that it, based on the evaluation reports from IMSO, would advise the Committee on final recognition, when the issues identified in the “comprehensive list of conditions” have been complied with. MSC 96 held in May 2016 has endorsed the list of conditions to be complied with by Iridium. This concluded a first stage review of Iridium's GMDSS application, IMO stating that approval (“recognition”) can be granted pending completion of certain conditions. Iridium is currently in the process of completing those remaining conditions, which include:

- Integration of Iridium system with RCCs and MSI providers;

- ship earth station terminals made available for demonstration of ship-to-shore, shore-to-ship, and ship-to-ship GMDSS communications in compliance with the comprehensive list of outstanding items;
- Complete demonstration of compliance with all outstanding items of the comprehensive list in Fall of 2017

In addition to the above activities at the IMO, ITU is required to study potential impact of the regulatory provisions of the Radio Regulations. For example, considering that **Appendix 15 (Rev. WRC-12)**¹ of the Radio Regulations lists the frequency bands identified for provision of GMDSS, introduction of an additional satellite systems to provide GMDSS would require that frequency bands used by that system (e.g. 1616 – 1626.5 MHz used on the Iridium satellite system) are included in **Appendix 15 (Rev. WRC-12)**.

In addition, the Resolution invites the WRC-19 to consider the studies undertaken as part of this agenda item and to take action in time for WRC-19. ITU-R WP 5B (WP 5B) and ITU-R WP 4C (WP 4C) have been involved in conducting such studies in support of Agenda Item 1.8.

ITU-R WP5B is the responsible working party for this agenda item and Working Parties 4C and 7D were designated as concerned groups for the work, and Working Parties 1A and 3M were identified as interested groups. WP 4C is tasked to provide appropriate CPM text including characteristics of mobile-satellite and aeronautical mobile-satellite (R) service systems operating in the frequency bands identified by WP 5B, and any applicable Reports and Recommendations.

Work on this matter is progressing in ITU-R WP 4C and 5B. The April 2017 meeting of WP 4C received a number of contributions on study of the above items, and outcome of these studies and discussions are captured in the Working Document towards Preliminary Draft New Report [GMDSS-SATREG]. Following Working Document are being developed:

- Working Document towards Preliminary Draft New Report [GMDSS-SATREG], addressing regulatory matters related to the identification of an additional satellite provider in the GMDSS (*see*, Document 4C/192 Annex 14);
- Working Document towards Preliminary Draft New Report [RAS-COMPAT], addressing protection of radio astronomy was carried further for development at future WP 4C meetings (*see*, Document 4C/192 Annex 15); and
- Working document towards preliminary draft CPM text for WRC-19 agenda item 1.8 (*see*, Document 4C/192 Annex 17).

It is important to note that identification of an additional GMDSS service provider would bring forward the following benefits to the maritime community:

- Covering the entire globe – including the critical Arctic and Antarctic (Polar) regions, which makes up Sea Area A4, where there is currently no GMDSS mobile satellite services available;
- Is an “always on” system as individual satellites pass overhead approximately every five to eight minutes depending on location. The movement of the satellites across the horizon provide the user with better look angles (i.e., ability to see the satellite) in rough seas, especially in northernmost and southernmost latitudes;

¹ **Appendix 15 (Rev. WRC-12)** is entitled “Frequencies for distress and safety communications for the Global Maritime Distress and Safety System (GMDSS)”.

- Will enable both voice and data GMDSS communications in a single, small form factor maritime mobile terminal, at a low cost (currently two mobile satellite system terminals may be required to meet operational and regulatory needs of the vessel (voice and data) at much greater cost);
- Provide an opportunity for a redundant communications platform for the maritime community in the event there is a catastrophic outage which disables part, or all, of other satellite-based GMDSS services
- Will provide for more efficient and comprehensive distress and safety communications by providing the Rescue Coordination Center with immediate voice communications capability, vessel identification, and a means to contact the vessel in distress;
- Will provide, for the first time, vessel owners with a choice of satellite-based GMDSS services, including choice of equipment with the state-of-the-art technology, new service offerings, and competitive pricing; and
- May be integrated with vessel “digital bridge” systems consolidating equipment and displays for the crew to monitor, while eliminating clutter on the bridge;

ISSUES

- What is the appropriate regulatory approach, including consequential modifications, to identify additional satellite systems to provide GMDSS?
- What sharing and compatibility studies may be required with other services and systems in the frequency band intended for GMDSS provision and adjacent frequency bands?

PRELIMINARY VIEW:

Canada, USA

With respect to Agenda Item 1.8, these Administrations support the activities of IMO related to the introduction of additional satellite systems into the GMDSS, as well as activities underway in the ITU-R. Based upon successful conclusion of these activities, these Administrations support appropriate modification of the Radio Regulations such as **Appendix 15**, to provide for introducing additional satellite systems into the GMDSS.
