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| **The 2nd Meeting of the APT Conference Preparatory Group for WRC-19 (APG19-2)** | **APG19-2/OUT-16** |
| 17 – 21 July 2017, Bali, Republic of Indonesia | **21 July 2017** |

Working Party 5

**PRELIMINARY VIEWs on WRC-19 agenda item 1.8**

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

**1. Background**

**1.1 Introduction**

The Global Maritime Distress and Safety System (GMDSS) was adopted as part of the 1988 Amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS). It was fully implemented in 1999. It has served the mariner and the maritime industry well since its inception, but some of the GMDSS technologies used have not reached their full potential, and some GMDSS functions could be performed by more modern technologies. The plan for modernization of the GMDSS was adopted by the Maritime Safety Committee of the IMO on June 2017. The GMDSS modernization plan consists of various components which could be part of the GMDSS, among them some items are identified in relation to the studies on Agenda Item 1.8 for the WRC-19, such as additional satellite service in GMDSS, VDES, NAVDAT and HF communications.

The Resolution 359 invites the WRC-19 to take necessary actions to support GMDSS modernization (Resolve 1) and to consider regulatory provisions related to the introduction of additional satellite system into the GMDSS while ensuring the protection of all incumbent services from harmful interferences (Resolve 2).

In relation to Resolve 1, the NAVDAT on 500 kHz has been covered by WRC-12, however, the NAVDAT using HF which is described in the Recommendation ITU-R M.2058-0 has not yet been addressed.

In relation to Resolve 2, the IMO is considering incorporation of additional satellite systems into the GMDSS. For the recognition and inclusion of additional satellite service into the GMDSS, draft amendment to the SOLAS regulation was reviewed by the IMO on June 2017.

**1.2 Progress of ITU-R studies**

The WP 5B is the responsible group for Agenda Item 1.8, and the WP 4C and 7D are concerned group. The resolve 1 is under review in WP 5B, and the Resolve 2 is under review in WP 4C.

In relation to Resolve 1, the WP 5B prepared some contents of a preliminary draft CPM text based on some input documents on NAVDAT. However, it was not reached to the unanimous consensus. The WP 5B also prepared a preliminary draft revision of Recommendation ITU-R M.2010.

In relation to resolve 2, the WP 4C initiated the development of the working document towards a preliminary draft new Report ITU-R M.[GMDSS-SATREG] and ITU-R M.[RAS-COMPAT] including regulatory and compatibility issues related to protection of Radio Astronomy from GMDSS operating in an adjacent band.

**1.3 List of relevant ITU-R Recommendations and Reports**

1) Resolve 1:

* Recommendation ITU-R M.2010-0: Characteristics of a digital system, named Navigational Data for broadcasting maritime safety and security related information from shore-to-ship in the 500kHz band
* Recommendation ITU-R M.2058-0: Characteristics of a digital system, named Navigational Data for broadcasting maritime safety and security related information from shore-to-ship in the maritime HF frequency band
* Report ITU-R M.2201: Utilization of the 495-505kHz band by the maritime mobile service for the digital broadcasting of safety and security related information from shore-to-ships.

2) Resolve 2:

* Recommendation ITU-R M.1184-2: Technical characteristics of mobile satellite systems in the frequency bands below 3 GHz for use in developing criteria for sharing between the mobile-satellite service (MSS) and other services
* Recommendation ITU-R M.1188-1: Impact of propagation on the design of non-GSO mobile-satellite systems not employing satellite diversity which provide service to handheld equipment
* Recommendation ITU-R M.1583-1: Interference calculations between non-geostationary mobile-satellite service or radionavigation-satellite service systems and radio astronomy telescope sites
* Report ITU-R M.23269-0: Use of non-geostationary orbit mobile satellite systems to enhance maritime safety.

**2. Documents**

**2.1 Input Documents**

* + - Documents APG19-2/INP-12 (Republic of Korea)
    - Documents APG19-2/INP-24 (New Zealand)
    - Documents APG19-2/INP-32 (Australia)
    - Documents APG19-2/INP-43 (Indonesia, Republic of)
    - Documents APG19-2/INP-48 (Socialist Republic of Viet Nam)
    - Documents APG19-2/INP-53 (People’s Republic of China)
    - Documents APG19-2/INP-59 (Japan)

**2.2 Information Documents**

* Documents APG19-2/INF-01 (ASMG),
* Documents APG19-2/INF-02 (ICAO),
* Documents APG19-2/INF-04 (CITEL),
* Documents APG19-2/INF-05 (RCC),
* Documents APG19-2/INF-07 (ATU) ,
* Documents APG19-2/INF-14 (CEPT)

**3. Summary of Discussions**

**3.1 Summary of Members’ view**

**3.1.1 Korea (Republic of)**

The Republic of Korea supports the ITU-R studies on possible regulatory actions for GMDSS modernization to enhance maritime capabilities. The Republic of Korea also supports the ITU-R studies on sharing and compatibility with other services in the frequency bands and adjacent frequency bands to provide protection of incumbent services from harmful interference by additional GMDSS satellite systems.

**3.1.2 New Zealand**

New Zealand supports the ITU-R studies undertaken in accordance with Resolution **359 (Rev. WRC-15)**. New Zealand could support the consideration of regulatory changes for an additional satellite system into the GMDSS, if this satellite system meets all the necessary requirements as prescribed and approved by the IMO, in order to allow competition and diversity in the GMDSS satellite space.

**3.1.3 Australia**

Australia supports the modernisation of the GMDSS and the introduction of additional satellite systems into the GMDSS, noting that under the *resolves to invite ITU-R* of Resolution **359 (Rev.WRC-15)** studies need to take into consideration the activities of IMO:

* as well as information and requirements provided by IMO, in order to determine the regulatory provisions to support GMDSS modernization, and
* the recognition of additional satellite systems for use in the GMDSS, 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.

The latter point will need to ensure the protection of radio astronomy in adjacent bands.

**3.1.4 Indonesia (Republic of)**

Indonesia supports that activities of IMO, as well as activities underway in the ITU-R., Indonesia supports appropriate modification of the Radio Regulations to provide for introducing additional satellite systems into the GMDSS.

**3.1.5 Viet Nam (Socialist Republic of)**

Viet Nam Administration supports the activities of ITU-R and IMO which are related to the modernization of GMDSS and the introduction of additional satellite systems into the GMDSS.

In regarding the modification of the Radio Regulations under WRC-19 Agenda Item 1.8, this Administration is of the view that:

* IMO positions on this issue should be taken into consideration,
* Gaps/weakness in functioning of current GMDSS shall be clearly identified and filling up these gaps must be prioritized while considering GMDSS modernization,
* Existing allocations and systems should be protected.

***Issue A***

* Support to consider the incorporation of NAVDAT systems and NAVDAT frequencies, both MF and HF as described in M.2010 and M.2058, into GMDSS. In this scene, modification of Appendix 15 and Appendix 17 to the Radio Regulation and transition period for NAVDAT implementation are needed.

***Issue B***

* Satellite systems recognized by IMO for use in the GMDSS would be considered,
* The introduction of additional satellite systems must not impact existing services and systems,
* An appropriate transition period for implementation of new on-board satellite terminals should be consider carefully.

**3.1.6 China (People’s Republic of)**

***Resolve1***

China supports the studies in accordance with ITU-R Resolution **359 (Rev.WRC-15)**;

China supports the regulatory and spectrum consideration on both the MF and HF NAVDAT, as the potential applications in the GMDSS Modernization, included in this Agenda Item.

***Resolve2***

China is of the view that:

- The frequency allocation table of RR article 5 should not be modified.

- The new frequency allocation in the Appendix **15** for the additional GMDSS satellite provider should be the primary allocations for MSS.

**3.1.7 Japan**

Japan supports ITU-R studies for GMDSS modernization such as introduction of NAVDAT system. Japan is of the view that it is expected to take into account not only 500 kHz NAVDAT system but also HF bands. The frequencies 424, 490, 518 and 4209.5 kHz which are currently identified for NAVTEX for use by GMDSS need to be retained (resolves 1).

Japan supports ITU-R studies for introduction of additional satellite systems. Japan believes that additional GMDSS satellite providers will be profitable for seafarers (resolves 2).

**3.2 Key points raised during the meeting**

None

**4. APT Preliminary View(s)**

APT Members support the ITU-R studies on possible regulatory actions for GMDSS modernization to enhance maritime capabilities and the studies on sharing and compatibility with other services in the frequency bands and adjacent frequency bands under study and to ensure possible modification to the Radio Regulations to protect services to which the frequency bands are currently allocated without any constraints by additional GMDSS satellite systems, in accordance with the Resolution **359 (Rev. WRC-15)**.

Regarding resolve 1, APT Members support the incorporation of NAVDAT systems and NAVDAT frequencies, both MF and HF as described in Recommendation ITU-R M.2010 and ITU-R M.2058, into GMDSS. The existing frequencies used for NAVTEX should be retained

Regarding resolve 2, APT Members support the followings:

- The introduction of modifications to the Radio Regulations to provide for additional satellite systems should not have any impact on the existing services within the frequency band and the adjacent bands under study;

**5. Other Views**

Some APT members have the view that the listed frequencies of the additional GMDSS satellite provider in the Appendix 15 should be on primary basis

**6. Views from Other Organisations**

**6.1 ASMG**

Due to the need for modern communications systems in the field of global maritime distress and safety services (GMDSS) in accordance with Resolution 359 (REV.WRC 15), and due to its important contribution to maritime safety, ASMG supports:

* the consideration of possible regulatory actions to support the modernization of (GMDSS).
* the introduction of additional satellite systems in the GMDSS system while ensuring compatibility and interconnection among the new and the current systems.
* following-up studies to be undertaken by ITU-R on the protection of frequency bands being used in the future.

**6.2 ICAO**

To ensure that any change to the regulatory provisions and spectrum allocations resulting from this agenda item do not adversely impact on the capability of search and rescue aircraft to effectively communicate with vessels during disaster relief operations.

**6.3 CITEL**

**CAN, 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.

**6.4 RCC**

The RCC Administrations consider that the IMO position should be taken into account in regard to the GMDSS modernization, including the introduction of the IMO-recognized additional satellite systems, when developing relevant regulatory actions to support such modernization considering protection of existing services and systems.

**6.5 ATU**

No preliminary position on this agenda item yet.

**6.6 CEPT**

None.

**7. Issues for Consideration at Next APG Meeting**

APT Members are encouraged to contribute their views, taking into accounts the ITU-R studies and APT preliminary views and submit contributions to the next APG meeting (APG19-3).

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