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|  | ASIA-PACIFIC TELECOMMUNITY | **Document No:** |
| **The 5th Meeting of the APT Conference Preparatory****Group for WRC-19 (APG19-5)** | **APG19-5/OUT-41****(Rev.1)** |
| 31 July – 6 August 2019, Tokyo, Japan | 5 August 2019 |

Working Party 5

**APT VIEWS AND PRELIMINARY APT COMMON PROPOSAL**

**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**

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 (***Resolves 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 ***Resolves 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 ***Resolves 2****,* at the IMO’s Maritime Safety Committee (MSC) meeting in May 2018, it has formally recognised an additional satellite system as the new GMDSS satellite service provider.

To this effect there is a need that outstanding issues and concerns with respect to operational implementation should be addressed (see Section 5/1.8/3.2.1.1 in the CPM Report in this regards).

**1.1 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 groups. The ***Resolves 1*** is under review in WP 5B, and the ***Resolves 2*** is under review in WP 4C.

To satisfy ***Resolves 1***, three methods are described in section 5/1.8/4.1 of the CPM Report.

To satisfy ***Resolves 2***, four methods are described in section 5/1.8/4.2 of the CPM Report.

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

1) ***Resolves 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; or the revised version;
* 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; or the revised version;
* Report ITU-R M.2201: Utilization of the frequency band 495-505 kHz band by the maritime mobile service for the digital broadcasting of safety and security related information from shore-to-ships.

2) ***Resolves 2***:

* Recommendation ITU-R M.1184-3: 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;
* Recommendations ITU-R RA.1631-0: Reference radio astronomy antenna pattern to be used for compatibility analyses between non-GSO systems and radio astronomy service stations based on the epfd concept;
* Report ITU-R M.2369-0: Use of non-geostationary orbit mobile satellite systems to enhance maritime safety;
* Draft new Report ITU-R M.[GMDSS‑SATREG]-Introduction of additional mobile-satellite service systems into the GMDSS;
* Working document towards a preliminary draft new Report ITU-R M.[RAS‑COMPAT] - Unwanted emissions in the RAS band from space-to-Earth transmissions from MSS Satellites.

**2. Documents**

**2.1 Input Documents**

APG19-5/INP-20 (NZL), INP-27 (BGD), INP-39 (IRN), INP-46 (AUS), INP-53 (INS), INP-60 (SNG), INP-69 (CHN), INP-85 (J), INP-110 (MLA, THA), INP-121 (VTN), INP-131 (KOR), INP-136 (IND)

* 1. **Information Documents**

APG19-5/INF-02(ICAO), INF-15(ITU BR), INF-18 (CEPT), INF-19 (ATU), INF-20 (CITEL), INF-22 (RCC)

**3. Summary of discussions**

**3.1 Summary of APT Members’ views**

**3.1.1 New Zealand** - **Document APG19-5/INP-20**

New Zealand supports the Method A2 for issue A and the Method B1 for issue B. Details of the views are expressed in the input document APG 19-5/INP-20.

**3.1.2 Bangladesh** - **Document APG19-5/INP-27**

Bangladesh supports Method A2 for issue A. Details of the views are expressed in the input document APG 19-5/INP-27.

**3.1.3 Iran** - **Document APG19-5/INP-39**

Islamic Republic of Iran supports the Method A1(NOC) for issue A and the Method B3 or Method B4 option 2 for issue B. Details of the views are expressed in the input document APG 19-5/INP-39.

**3.1.4 Australia** - **Document APG19-5/INP-46**

Australia supports the Method A2 for issue A. Details of the views are expressed in the input document APG 19-5/INP-46.

**3.1.5 Indonesia** - **Document APG19-5/INP-53**

Indonesia supports the Method A2 for issue A and the Method B2(b) for issue B. Details of the views are expressed in the input document APG 19-5/INP-53.

**3.1.6 Singapore** - **Document APG19-5/INP-60**

Singapore supports the Method B1 for issue B. Details of the views are expressed in the input document APG 19-5/INP-60.

**3.1.7 China** - **Document APG19-5/INP-69**

China supports the Method A2 for issue A.

For issue B, considering that the secondary allocation is inconsistent with the safety-of-life aspect as required by the GMDSS, China supports new primary allocations in the band 1 621.35-1 626.5 MHz. To maintain the regulatory status without adding constraints with respect to the incumbent services and operating systems within the band and adjacent bands, China is of the views that the mobile earth stations of MMSS receiving in the band 1 621.35-1 626.5 MHz shall not claim protection from emissions of earth stations within the band 1 610-1 660.5 MHz.

Details of the views are expressed in the input document APG 19-5/INP-69.

**3.1.8 Japan** - **Document APG19-5/INP-85**

Japan supports the Method A2 for issue A. For the issue B, Japan prefers the Method B4 or B2(b). Details of the views are expressed in the input document APG 19-5/INP-85.

**3.1.9 Malaysia, Thailand** - **Document APG19-5/INP-110**

Malaysia and Thailand support the Method A2 for issue A. For issue B, Malaysia and Thailand support considering possible modifications to the provisions of the Radio Regulations to provide for additional satellite systems into the GMDSS. Details of the views are expressed in the input document APG 19-5/INP-110.

**3.1.10 Viet Nam** - **Document APG19-5/INP-121**

Viet Nam supports the Method A3 for issue A and the Method B2(b) for issue B. Details of the views are expressed in the input document APG 19-5/INP-121.

**3.1.11 Korea** - **Document APG19-5/INP-131**

The Republic of Korea supports the Method A2 for issue A and the Method B1 for issue B. Details of the views are expressed in the input document APG 19-5/INP-131.

**3.1.12 India** - **Document APG19-5/INP-136**

India supports the Method A1 for issue A. Details of the views are expressed in the input document APG 19-5/INP-136.

**3.2 Summary of issues raised during the meeting**

Regarding ***Resolves 1***,

APT Members support the Method A2 in the CPM Report to incorporate NAVDAT system. Some APT Members supported other Methods, but the final consensus was reached to support the Method A2.

Regarding ***Resolves 2***,

With Respect to selection of Method contained in the CPM Report to satisfy this Agenda Item, no Method was agreed on Issue B of Agenda Item 1.8 for the following reasons:

* Some APT Members are of the view that there is no need to directly or indirectly upgrade the MSS (space-to-Earth) allocation from secondary to primary;
* Some other APT Members support upgrading the MSS (space-to-Earth) relating to the allocation in the frequency band 1 621.35 ‑ 1 626.5 MHz to primary due to the fact that all services providing safety-of-life are of primary status and all services and frequency bands are primary allocations and ensure that the upgrading to primary status should not impose additional constrains to the emission of MSS and RDSS earth stations in the frequency band 1 610-1 626.5MHz for which complete coordination information has been received by the Radiocommunication Bureau before [DD.MM.YYYY].

**4. APT View(s)**

Regarding ***Resolves 1,***

APT Members support the Method A2 in the CPM Report.

APT Members support the incorporation of NAVDAT systems and NAVDAT frequencies, both in MF and HF as described in Recommendation ITU-R M.2010 and ITU-R M.2058.

APT Members are also of the view that:

* the existing frequencies used for NAVTEX should be retained and protected;
* the recognition of national NAVDAT frequencies in the bands 415-495 kHz and 505-526.5 kHz (505-510 kHz in Region 2) should not impose any additional constraints on existing services;
* the recognition of these MF NAVDAT and HF NAVDAT frequencies as GMDSS for inclusion into RR Appendix **15** would be considered at a future WRC after IMO concludes its work on the modernisation of the GMDSS.

Regarding ***Resolves 2***,

APT Members support the introduction of additional satellite systems to support GMDSS for enhancement of safety-of-life in accordance with the Resolution **359 (Rev.WRC-15)**, while protecting the services within the frequency band and the adjacent bands.

**5. Preliminary APT Common Proposals**



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