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|  | ASIA-PACIFIC TELECOMMUNITY | Document No: |
| **The 2nd Meeting of the APT Conference Preparatory Group for WRC-23 (APG23-2)** | **APG23-2/INF-16** |
| 19 – 23 April 2021, Virtual/Online Meeting | 23 March 2021 |

Chairman, DG on AI 1.11

**brief on wrc-23 agenda item 1.11**

(Note: *This brief was developed for information purpose only. It does not necessarily express the view of APG-23*)

**Agenda Item 1.11:**

*To consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of e-navigation, in accordance with Resolution* ***361 (Rev.WRC-19)***

**Relevant Resolutions and Responsible/Contributing ITU-R Groups**

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| Resolution **361 (Rev.WRC-19)**  Consideration of possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of  e-navigation | *resolves to invite the 2023 World Radiocommunication Conference*  1 to consider possible regulatory actions, based on the ITU Radiocommunication Sector (ITU-R) studies, taking into consideration the activities of IMO, as well as information and requirements provided by IMO, to support GMDSS modernization;  2 to consider possible regulatory actions, including spectrum allocations based on the ITU Radiocommunication Sector (ITU-R) studies, for the maritime mobile service, supporting e-navigation;  3 to consider regulatory provisions, if any, based on the results of ITU-R studies, referred to in invites ITU-R below, to support the introduction of additional satellite systems into the GMDSS,  *invites ITU-R*  to conduct studies taking into consideration the activities of IMO and other relevant international organizations, in order to determine spectrum needs and regulatory actions to support GMDSS modernization and the implementation of e-navigation, including the introduction of additional satellite systems into the GMDSS,  *instructs the Secretary-General*  to bring this Resolution to the attention of IMO and other international and regional organizations concerned. |

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| **Responsible group** | **Contributing group** |
| **WP 5B** | **WP 4C and WP 7D  (WP 4C responsible for developing**  **studies and draft CPM text on resolves 3 and sending this to WP 5B**) |

**1. Background Information**

Resolution **361 (Rev.WRC-19)** through the section *resolves to invite the 2023 World Radiocommunication Conference* identifies three topics which are studied and solved independently.

**Issue A (*resolves 1*): GMDSS modernization**

This topic is the continuation of the agenda item 1.8, Issue A of WRC-19. The   
modernization of GMDSS, for which the work is undertaken by IMO was not finalized at the   
time of WRC-19. That Conference has solely been able to take some preliminary decision   
regarding the NAVDAT in the MF and HF bands. In 2022, IMO will adopt amendments to the 1974 SOLAS Convention chapters III and IV, together with related and consequential   
amendments to existing instruments other than SOLAS. These amendments will enter into   
force in 2024 and conclude the modernization of the GMDSS.

**Issue B (*resolves 2*): E-navigation**

The e-navigation is a concept under study at IMO since 2005. The definition of   
e-navigation is given by IMO:

“E-navigation is the harmonized collection, integration, exchange, presentation and   
analysis of marine information on board and ashore by electronic means to enhance   
berth to berth navigation and related services for safety and security at sea and protection of the marine environment.”

**Issue C (*resolves 3*): Introduction of additional satellite systems into the GMDSS**

Resolves 3 of Resolution **361 (Rev.WRC-19)** “to consider regulatory provisions, if   
any, based on the results of ITU-R studies, to support the introduction of additional satellite   
systems into the GMDSS”.

IMO is evaluating an application to recognize the existing geostationary-satellite system as a new GMDSS satellite provider. The space section of the additional GSO system consists of 5 GSO satellites and the service links use the primary MSS allocation in the bands 1 610-1 626.5 MHz (Earth-to-space) and 2 483.5-2 500 MHz (space-to-Earth). The introduction of additional GSO MSS systems to the GMDSS may require the ITU to consider updates to the Radio Regulations to ensure suitable identification and protection of such frequencies.

* Which regional organization initiated this Agenda Item

APT, ASMG, CEPT and CITEL supported inclusion this agenda item for the WRC-23.

* Other relevant information for understanding of the Agenda Item

**Issue C:**

* + Incumbent services in the service links of the additional GSO system

| **(part of) Frequency Band(s) of Interested** | **Incumbent services** |
| --- | --- |
| 1 610-1 626.5 MHz | MOBILE-SATELLITE (E-s),  MARITIME MOBILE-SATELLITE (E-s), (s-E),  AERONAUTICAL MOBILE-SATELLITE (R),  mobile-satellite service (s-E) |
| AERONAUTICAL RADIONAVIGATION |
| RADIO ASTRONOMY |
| RADIODETERMINATION-SATELLITE (E-s),  radiodetermination-satellite (E-s) |
| 2 483-2 500 MHz | MOBILE-SATELLITE (s-E) |
| RADIOLOCATION,  radiolocation |
| RADIODETERMINATION-SATELLITE (E-s),  radiodetermination-satellite (E-s) |

* List of relevant ITU-R Reports/Recommendations, APT Reports/Recommendations   
  and ongoing studies, e.g. working documents from ITU-R and/or AWG
  + Working Document towards a preliminary draft new Report ITU-R M.[ADD\_GSO\_GMDSS] - Introduction of additional GSO MSS systems into the GMDSS
  + 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 and other services

**2. Information on on-going ITU-R Study**

* What documents are being developed by the responsible group: Revising the existing   
  ITU-R Report(s), ITU-R Recommendation(s) or developing a PDNR or a working   
  document

**Issue B:**

* + Study the spectrum needs for e-navigation.

**Issue C:**

* + Developing the Working Document towards a preliminary draft new Report ITU-R M.[ADD\_GSO\_GMDSS] - Introduction of additional GSO MSS systems into the GMDSS
* Contentious issues in ITU-R meeting (list all issues up in the beginning and then update(removal or addition) later stage)

**Issue C:**

* + Reviewing the regulatory provisions in the bands 1 610 -1 626.5 MHz and 2 483.5-2 500 MHz.
  + Collecting system characteristics and coordination status information relevant to   
    the additional satellite network into the GMDSS.
* Hyperlink to the relevant part of the webpage of [ITU-R Preparatory Studies for WRC-23](https://www.itu.int/en/ITU-R/study-groups/rcpm/Pages/wrc-23-studies.aspx)
  + [Annex 8 and 9](https://www.itu.int/md/R19-WP5B-C-0225/en) to the Report on the twenty-fifth meeting of Working Party 5B   
    (e-Meeting, 9-20 November 2020)
  + [Annex 8, 12 and 13](https://www.itu.int/md/R19-WP4C-C-0162/en) to the Report on the meeting of Working Party 4C (Virtual   
    Meeting, 15-19 February 2021)

**3. Position of the Regional Group**

* ATU

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* ASMG

Follow and support the studies.

(as of July 2020)

* CEPT

**Issue A: Modernization of GMDSS** CEPT supports the possible regulatory actions needed to implement the GMDSS   
modernisation in the Radio Regulation based on decisions to be taken in IMO. **Issue B: e-navigation** CEPT supports, based on decisions to be taken in IMO, the possible regulatory   
actions needed to implement the e-navigation in the Radio Regulation, if appropriate.

**Issue C: Regulatory action due to the introduction of additional satellite   
systems into the GMDSS by IMO** CEPT supports regulatory actions to introduce an additional satellite system into the GMDSS, based on decisions to be taken in IMO.

(as of December 2020)

* CITEL

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* RCC

The position is under development. (as of 4 September 2020)

**4. Position of International Organizations**

* 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, including helicopters, to effectively communicate with vessels during disaster-relief operations.

To ensure that any regulatory provisions in response to this agenda item do not adversely affect compliance of aeronautical mobile-satellite (route) service systems with international standards and recommended practices and procedures established in accordance with the Convention on International Civil Aviation.

(as of **12** March 2021 )

* IMO

To support the introduction of additional satellite systems into the GMDSS and to safeguard the availability and protection of the spectrum used by GMDSS satellite service providers.

To confirm the ITU satellite coordination status of potential additional GMDSS satellite providers.

(as of 13 October 2020)

* WMO

(no position for this agenda item)

* IARU R3

(no position for this agenda item)