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| CPG19-3 |
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| Subject:  | Draft CEPT Brief on WRC-19 Agenda Item 1.8 |
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| Summary:  |
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| Proposal: |
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DRAFT CEPT BRIEF ON AGENDA ITEM 1.8

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);

# ISSUE

Resolution 359 (WRC-15) also invites the WRC-19 to

consider the result of ITU Radiocommunication Sector (ITU-R) studies and take necessary actions, as appropriate, to support GMDSS modernization;

and consider regulatory provisions, if appropriate, based on the ITU-R studies, and taking into consideration the activities of IMO, related to the introduction of additional satellite systems into the GMDSS, including consideration of the MSS allocations used, while ensuring the protection of all incumbent services, including those in adjacent frequency bands, from harmful interference.

These two invites the WRC-19 has been identified for the CPM Report as two different issues

# Preliminary CEPT position

Issue A: modernisation of GMDSS

Position: [TBD]

Issue B: Regulatory action due to the introduction of additional satellite systems into the GMDSS by IMO

Position: [TBD]

# Background

There is a continuing need in the Global Maritime Distress and Safety System (GMDSS), on a global basis, for improved communications to enhance maritime capabilities. The International Maritime Organization (IMO) is considering the modernization of GMDSS and has received an application to recognize an existing satellite system (Iridium) as part of the GMDSS, and consequential regulatory actions may need to be considered. GMDSS satellite systems need to provide protection of incumbent services in accordance with the Radio Regulations, including those in adjacent frequency bands, from harmful interference, and such GMDSS satellite systems should operate within the interference environment of existing systems. This agenda item asks to conduct studies, considering Nos 4.6, 5.369 and 5.372 that provide information on the use of the frequency band 1 616-1 626.5 MHz (or parts thereof), the activities of IMO and the recognition of additional satellite systems for use in the GMDSS, including consideration of the 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 support GMDSS modernization.

In CEPT, ECC/DEC/(09)02 provides the necessary provisions for the harmonization of the frequency bands 1 610-1 626.5 MHz and 2 483.5-2 500 MHz for MSS systems.

# List of relevant documents

ITU-Documentation (Recommendations, Reports, other)

* Recommendation ITU-R RA.769-2: “Protection criteria used for radio astronomical measurements”
* Recommendation ITU-R RA.1513-1, “Levels of data loss to radio astronomy observations and percentage-of-time criteria resulting from degradation by interference for frequency bands allocated to the radio astronomy on a primary basis”

CEPT and/or ECC Documentation (Decisions, Recommendations, Reports)

* ECC Decision (09)02: “The harmonisation of the bands 1610-1626.5 MHz and 2483.5-2500 MHz for use by systems in the Mobile-Satellite Service” approved 26 June 2009, amended 02 November 2012
* ECC Report 171: “Impact of unwanted emissions of IRIDIUM satellites on radioastronomy operations in the band 1610.6-1613.8 MHz” Tallinn, October 2011
* ECC Report 226: “Unwanted emissions of IRIDIUM satellites in the band 1610.6-1613.8 MHz, monitoring campaign 2013” approved 30 January 2015

EU Documentation (Directives, Decisions, Recommendations, other), if applicable

# Actions to be taken

The following items have been identified to be studied for issue B under Resolution 359, within the CEPT

The use of an MSS allocation for GMDSS, which has a secondary status in the space to Earth direction.

Regulatory and compatibility issues related to protection of Radio Astronomy from GMDSS operating in an adjacent band.

Regulatory issues related to the operation of MSS systems which are not part of the GMDSS in the same band as GMDSS systems.

The radio regulatory conditions under which the non-GSO MSS systems would operate in the GMDSS.

The inconsistency and potential constraint of No 5.368.

The regulatory status of the non-GSO MSS system, and any potential adverse impact of any change to the regulatory status.

Identify the groups and organizations already active in this field.

IMO

ITU-R study groups WP5B, WP4C, WP7D

Consider contacting CEPT groups regarding required information and studies.

At the CPG PTC-2 meeting the contributed views on the topics mentioned above were merged into a possible CEPT contribution to the next WP4C meeting, subject to the approval of the CPG-19.

# Relevant information from outside CEPT (examples of these are below)

## European Union (date of proposal)

## Regional telecommunication organisations

APT (date of proposal)

ATU (date of proposal)

Arab Group (date of proposal)

CITEL (December 2016)

Preliminary Views

United States: With respect to Agenda Item 1.8, the United States supports 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, the U.S. supports appropriate modification of the Radio Regulations to provide for introducing additional satellite systems into the GMDSS.

RCC (September 16th, 2016)

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.

## International organisations

IATA (date of proposal)

ICAO (September 16)

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.

To ensure that any regulatory provisions in response to this agenda item do not adversely impact SARPS compliance of aeronautical mobile-satellite (route) service satellite systems.

IMO (August 16)

1. No substantive position has been developed with regard to GMDSS Modernization, awaiting the finalisation and approval of the Modernization Plan;
2. IMO invites ITU to take the appropriate regulatory measures to ensure full protection and availability of the frequency bands to be used by new recognised GMDSS satellite service providers for the provision of GMDSS services; and
3. IMO further invites ITU to resolve any issues under Resolution 359 (Rev.WRC‑15), in relation to the future operation of newly recognised GMDSS satellite service providers.

SFCG (date of proposal)

WMO and EUMETNET (date of proposal)

## Regional organisations

ESA (date of proposal)

Eurocontrol (date of proposal)

## OTHER INTERNATIONAL AND REGIONAL ORGANISATIONS

EBU (date of proposal)

GSMA (date of proposal)

CRAF (December 2016)

As stated in Resolution 359, the new GMDSS provider must provide protection of incumbent services in accordance with the Radio Regulations, including those in adjacent frequency bands, from harmful interference. CRAF supports the protection of the existing primary RAS allocation in the 1 610.6-1 613.8 MHz band. No changes to the RR should be made unless the RAS band is free from harmful interference and acceptable sharing and compatibility criteria are developed with the RAS.