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| A close up of a sign  Description automatically generated | **World Radiocommunication Conference (WRC-23) Dubai, 20 November - 15 December 2023** | |  |
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| PLENARY MEETING | | **Addendum 11 to Document 85-E** | |
|  | | **22 October 2023** | |
|  | | **Original: Russian** | |
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| Regional Commonwealth in the field of Communications Common Proposals | | | |
| proposals for the work of the conference | | | |
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| Agenda item 1.11 | | | |

1.11to consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System (GMDSS) and the implementation of e‑navigation, in accordance with Resolution **361 (Rev.WRC‑19)**;

Introduction

The RCC Administrations support the application of Method A of the CPM Report to resolve Issue A, on global maritime distress and safety system modernization.

Method A:

− The deletion of NBDP for distress and safety communications from GMDSS;

− The implementation of an automatic connection system (ACS) on frequencies in MF and HF bands;

− The introduction of the NAVDAT frequencies in MF and HF bands in RR Appendix 15;

− The elimination of exclusive use of the frequency band 1 645.5−1 646.5 MHz by satellite emergency position-indicating radio beacons (EPIRB). For the use of the frequency band 1 645.5−1 646.5 MHz by satellite EPIRBs, it is necessary to modify RR No. **5.375** and Table 15-2 of RR Appendix **15** such that the frequency band 1 645.5−1 646.5 MHz is no longer limited to use exclusively by satellite EPIRBs and would be available for use for the GMDSS and, on a non-priority basis, for general maritime radiocommunications.

The RCC Administrations support the application of Method B of the CPM Report to resolve Issue B, on e-navigation. Method B is the only method that does not foresee any modification of RR Article 5, given that:

− Previous WRCs have identified the frequency bands to be utilized for VDES and NAVDAT systems, which can both support e-navigation;

− Satellite networks which would support e-navigation already have their allocation identified in the Radio Regulations;

− E-navigation is not part of the GMDSS.

The RCC Administrations support the application of Method C4 of the CPM Report to resolve Issue C, on introduction of additional satellite systems into the global maritime distress and safety system. This method allows for the application of RR No. **4.10** to GMDSS satellite networks and at the same time shall provide protection for GLONASS receivers.

### Method C4 Issue C

– The addition of all or part of the frequency band 1 614.4225-1 621.35 MHz and all or part of the frequency band 2 483.59-2 500 MHz to Table 15-2 of RR Appendix **15**, as well as provisions RR No. **33.50** and RR No. **33.53** of RR Article **33**, in order to support the requirement of safety of life aspects by the GMDSS and implement applicable provisions of RR;

– the modification of RR No. **5.368** to apply RR No. **4.10** in all or part of the frequency band 1 614.4225-1 621.35 MHz to GMDSS stations operating in MMSS (Earth-to-space);

– the suppression of Resolution **361 (Rev.WRC-19)**.

Proposals

In order to satisfy WRC-23 agenda item 1.11 with respect to Issues A, B and C, it is proposed to use the regulatory text in annex hereto.

Issue A

RCC/85A11/1

In order to satisfy WRC-19 agenda item 1.11 with respect to Issue A, it is proposed to use the regulatory text contained in the CPM Report.

Issue B

NOC RCC/85A11/2

ARTICLE 5

Frequency allocations

Issue C

NOC RCC/85A11/3

5.364 The use of the band 1 610-1 626.5 MHz by the mobile-satellite service (Earth-to-space) and by the radiodetermination-satellite service (Earth‑to‑space) is subject to coordination under No. **9.11A**. A mobile earth station operating in either of the services in this band shall not produce a peak e.i.r.p. density in excess of ‑15 dB(W/4 kHz) in the part of the band used by systems operating in accordance with the provisions of No. **5.366** (to which No. **4.10** applies), unless otherwise agreed by the affected administrations. In the part of the band where such systems are not operating, the mean e.i.r.p. density of a mobile earth station shall not exceed –3 dB(W/4 kHz). Stations of the mobile-satellite service shall not claim protection from stations in the aeronautical radionavigation service, stations operating in accordance with the provisions of No. **5.366** and stations in the fixed service operating in accordance with the provisions of No. **5.359**. Administrations responsible for the coordination of mobile-satellite networks shall make all practicable efforts to ensure protection of stations operating in accordance with the provisions of No. **5.366**.

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5.368 The provisions of No. **4.10** do not apply with respect to the radiodetermination-satellite and mobile-satellite services in the frequency band 1 610-1 626.5 MHz. However, No. **4.10** applies in the frequency band 1 610-1 626.5 MHz with respect to the aeronautical radionavigation-satellite service when operating in accordance with No.**5.366**, the aeronautical mobile satellite (R) service when operating in accordance with No. **5.367**, and in the frequency bands 1 614.4225-1 621.35 MHz (Earth-to-space) and 1 621.35‑1 626.5 MHz with respect to the maritime mobile-satellite service when used for GMDSS.     (WRC‑23)

**Reasons:** RR No. **4.10** applies to MMSS (Earth-to-space) in all of the frequency band 1 614.4225-1 621.35 MHz for GMDSS providing safety services.

ARTICLE 33

Operational procedures for urgency and safety communications in  
the global maritime distress and safety system (GMDSS)

Section V − Transmission of maritime safety information2

33.49 E − Maritime safety information via satellite

MOD RCC/85A11/5#1797

33.50 § 26 Maritime safety information may be transmitted via satellite in the maritime mobile-satellite service using the frequency bands 1 530-1 545 MHz, 1 621.35-1 626.5 MHz and 2 483.59-2 500 MHz (see Appendix 15).     (WRC‑23)

**Reasons:** To include the frequency band 2 483.59-2 500 MHz (space-to-Earth) as being available for transmitting maritime safety information via satellite.

Section VII − Use of other frequencies for safety     (WRC‑07)

MOD RCC/85A11/6#1798

33.53 § 28 Radiocommunications for safety purposes concerning ship reporting communications, communications relating to the navigation, movements and needs of ships and weather observation messages may be conducted on any appropriate communications frequency, including those used for public correspondence. In terrestrial systems, the frequency bands 415-535 kHz (see Article **52**), 1 606.5-4 000 kHz (see Article **52**), 4 000-27 500 kHz (see Appendix **17**) and 156‑174 MHz (see Appendix **18**) are used for this function. In the maritime mobile-satellite service, frequencies in the frequency bands 1 530-1 544 MHz, 1 614.4225-1 621.35 MHz (Earth-to-space), 1 621.35‑1 626.5 MHz, 1 626.5-1 645.5 MHz and 2 483.59-2 500 MHz (space-to-Earth) are used for this function as well as for distress alerting purposes (see No. **32.2**).     (WRC‑23)

**Reasons:** To apply RR No. **33.53** to all of the frequency band 1 614.4225-1 621.35 MHz (Earth-to-space), and all of the frequency band 2 483.59-2 500 MHz (space-to-Earth) for use by mobile-satellite service systems approved by the International Maritime Organization to participate in the Global Maritime Safety and Distress System.

APPENDIX 15 (REV.WRC‑19)

Frequencies for distress and safety communications for the Global  
Maritime Distress and Safety System

MOD RCC/85A11/7#1799

TABLE 15-2     (WRC‑23)

Frequencies above 30 MHz (VHF/UHF)

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| Frequency (MHz) | Description of usage | Notes |
| \*121.5 | AERO-SAR | The aeronautical emergency frequency 121.5 MHz is used for the purposes of distress and urgency for radiotelephony by stations of the aeronautical mobile service using frequencies in the frequency band between 117.975 MHz and 137 MHz. This frequency may also be used for these purposes by survival craft stations. Use of the frequency 121.5 MHz by emergency position-indicating radio beacons shall be in accordance with Recommendation ITU‑R M.690‑3.  Mobile stations of the maritime mobile service may communicate with stations of the aeronautical mobile service on the aeronautical emergency frequency 121.5 MHz for the purposes of distress and urgency only, and on the aeronautical auxiliary frequency 123.1 MHz for coordinated search and rescue operations, using class A3E emissions for both frequencies (see also Nos. **5.111** and **5.200**). They shall then comply with any special arrangement between governments concerned by which the aeronautical mobile service is regulated. |
| 123.1 | AERO-SAR | The aeronautical auxiliary frequency 123.1 MHz, which is auxiliary to the aeronautical emergency frequency 121.5 MHz, is for use by stations of the aeronautical mobile service and by other mobile and land stations engaged in coordinated search and rescue operations (see also No. **5.200**).  Mobile stations of the maritime mobile service may communicate with stations of the aeronautical mobile service on the aeronautical emergency frequency 121.5 MHz for the purposes of distress and urgency only, and on the aeronautical auxiliary frequency 123.1 MHz for coordinated search and rescue operations, using class A3E emissions for both frequencies (see also Nos. **5.111** and **5.200**). They shall then comply with any special arrangement between governments concerned by which the aeronautical mobile service is regulated. |
| 156.3 | VHF-CH06 | The frequency 156.3 MHz may be used for communication between ship stations and aircraft stations engaged in coordinated search and rescue operations. It may also be used by aircraft stations to communicate with ship stations for other safety purposes (see also Note *f* ) in Appendix **18**). |
| \*156.525 | VHF-CH70 | The frequency 156.525 MHz is used in the maritime mobile service for distress and safety calls using digital selective calling (see also Nos. **4.9**, **5.227**, **30.2** and **30.3**). |
| 156.650 | VHF-CH13 | The frequency 156.650 MHz is used for ship-to-ship communications relating to the safety of navigation in accordance with Note*k*) in Appendix **18**. |
| \*156.8 | VHF-CH16 | The frequency 156.8 MHz is used for distress and safety communications by radiotelephony. Additionally, the frequency 156.8 MHz may be used by aircraft stations for safety purposes only. |
| \*161.975 | AIS-SART VHF CH AIS 1 | AIS 1 is used for AIS search and rescue transmitters (AIS-SART) for use in search and rescue operations. |
| \*162.025 | AIS-SART VHF CH AIS 2 | AIS 2 is used for AIS search and rescue transmitters (AIS-SART) for use in search and rescue operations. |

TABLE 15-2 (*end*)     (WRC‑23)

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| Frequency (MHz) | Description of usage | Notes |
| \*406-406.1 | 406-EPIRB | This frequency band is used exclusively by satellite emergency position-indicating radio beacons in the Earth-to-space direction (see No. **5.266**). |
| 1 530-1 544 | SAT-COM | In addition to its availability for routine non-safety purposes, the band 1 530‑1 544 MHz is used for distress and safety purposes in the space-to-Earth direction in the maritime mobile-satellite service. GMDSS distress, urgency and safety communications have priority in this band (see No. **5.353A**). |
| \*1 544-1 545 | D&S-OPS | Use of the band 1 544-1 545 MHz (space-to-Earth) is limited to distress and safety operations (see No. **5.356**), including feeder links of satellites needed to relay the emissions of satellite emergency position-indicating radio beacons to earth stations and narrow-band (space-to-Earth) links from space stations to mobile stations. |
| 1 614.4225-1 621.35 | SAT-COM | In addition to its availability for routine non-safety purposes, the frequency band 1 614.4225-1 621.35 MHz is used for distress and safety purposes in the Earth-to-space direction in the maritime mobile-satellite service. GMDSS distress, urgency and safety communications have priority in this band over non-safety communication within the same satellite system. |
| 1 621.35-1 626.5 | SAT-COM | In addition to its availability for routine non-safety purposes, the frequency band 1 621.35-1 626.5 MHz is used for distress and safety purposes in the Earth-to-space and space-to-Earth directions in the maritime mobile-satellite service. GMDSS distress, urgency and safety communications have priority in this band over non-safety communications within the same satellite system.     (WRC‑19) |
| 1 626.5-1 645.5 | SAT-COM | In addition to its availability for routine non-safety purposes, the band 1 626.5‑1 645.5 MHz is used for distress and safety purposes in the Earth-to-space direction in the maritime mobile-satellite service. GMDSS distress, urgency and safety communications have priority in this band (see No. **5.353A**). |
| \*1 645.5-1 646.5 | D&S-OPS | Use of the band 1 645.5-1 646.5 MHz (Earth-to-space) is limited to distress and safety operations (see No. **5.375**). |
| 2 483.59-2 500 | SAT-COM | In addition to its availability for routine non-safety purposes, the frequency band 2 483.59-2 500 MHz is used for distress and safety purposes in the space-to-Earth direction in the maritime mobile-satellite service. GMDSS distress, urgency and safety communications have priority in this band over non-safety communication within the same satellite system. |
| 9 200-9 500 | SARTS | This frequency band is used by radar transponders to facilitate search and rescue. |
| **Legend**:  **AERO-SAR**     These aeronautical carrier (reference) frequencies may be used for distress and safety purposes by mobile stations engaged in coordinated search and rescue operations.  **D&S-OPS**     The use of these bands is limited to distress and safety operations of satellite emergency position-indicating radio beacons (EPIRBs).  **SAT-COM**     These frequency bands are available for distress and safety purposes in the maritime mobile-satellite service (see Notes).  **VHF-CH#**     These VHF frequencies are used for distress and safety purposes. The channel number (CH#) refers to the VHF channel as listed in Appendix **18**, which should also be consulted.  **AIS**    These frequencies are used by automatic identification systems (AIS), which should operate in accordance with the most recent version of Recommendation ITU‑R M.1371.     (WRC‑07)  \* Except as provided in these Regulations, any emission capable of causing harmful interference to distress, alarm, urgency or safety communications on the frequencies denoted by an asterisk (\*) is prohibited. Any emission causing harmful interference to distress and safety communications on any of the discrete frequencies identified in this Appendix is prohibited.     (WRC‑07) | | |

**Reasons:** To add all of the frequency band 1 614.4225-1 621.35 MHz in the Earth-to-space direction and all of the frequency band 2 483.59-2 500 MHz in the space-to-Earth direction as being available for distress and safety communications for the Global Maritime Distress and Safety System (GMDSS).

SUP RCC/85A11/8

RESOLUTION 361 (REV.WRC‑19)

Consideration of possible regulatory actions to support modernization of the Global Maritime Distress and Safety System and   
the implementation of e‑navigation

**Reasons:** It is proposed to supress this resolution given the finalization of the studies on WRC-23 agenda item 1.11 covered by *resolves* 3.

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