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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 7 to Document 117-E** | |
|  | | **30 October 2023** | |
|  | | **Original: English** | |
|  | | | |
| Indonesia (Republic of) | | | |
| Proposals for the work of the conference | | | |
|  | | | |
| Agenda item 1.7 | | | |

1.7 to consider a new aeronautical mobile-satellite (R) service allocation in accordance with Resolution **428** **(WRC‑19)** for both the Earth-to-space and space-to-Earth directions of aeronautical VHF communications in all or part of the frequency band 117.975-137 MHz, while preventing any undue constraints on existing VHF systems operating in the aeronautical mobile (R) service, in the aeronautical radionavigation service, and in adjacent frequency bands;

Introduction

It is understood, that certain conditions and environments has to be considered carefully in order that equality treatments shall not derogate the sovereignty of neighbouring countries.

In this case, the geographic conditions between Indonesia and surrounding countries as an example, or countries surrounded by islands of another countries, has to be considered in the general regulations.

Indonesia supports Method B3 of the CPM Report to WRC-23, with the incorporation of certain elements from Method B1 (MOD Annex 1 § 1.1.4).

Proposals

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

MOD INS/117A7/1#1604

75.2-137.175 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 117.975-136.8 AERONAUTICAL MOBILE (R)  AERONAUTICAL MOBILE-SATELLITE (R) MOD 5.209 ADD 5.E117  5.111 5.200 5.201 5.202 | | |
| 136.8-137 AERONAUTICAL MOBILE (R)  5.200 5.202 | | |

MOD INS/117A7/2#1605

5.209 The use of the frequency band 117.975-136.8 MHz by the aeronautical mobile-satellite (R) service and of the frequency bands 137-138 MHz, 148-150.05 MHz, 399.9-400.05 MHz, 400.15-401 MHz, 454‑456 MHz and 459-460 MHz by the mobile-satellite service is limited to non‑geostationary-satellite systems.     (WRC‑23)

ADD INS/117A7/3#1606

5.E117 The use of the frequency band 117.975-136.8 MHz by the aeronautical mobile-satellite (R) service is subject to coordination under No.**9.11A**. Resolution **[A17-SATVHF B3] (WRC‑23)** applies.     (WRC‑23)

APPENDIX 5 (REV.WRC‑19)

Identification of administrations with which coordination is to be effected or  
agreement sought under the provisions of Article 9

ANNEX 1     (Rev.WRC‑19)

# 1 Coordination thresholds for sharing between MSS (space-to-Earth) and terrestrial services in the same frequency bands and between non‑GSO MSS feeder links (space-to-Earth) and terrestrial services in the same frequency bands and between RDSS (space-to-Earth) and terrestrial services in the same frequency bands     (WRC‑12)

MOD INS/117A7/4#1596

## 1.1 Below 1 GHz[[1]](#footnote-1)\*

1.1.1 In the bands 137-138 MHz and 400.15-401 MHz, coordination of a space station of the MSS (space-to-Earth) with respect to terrestrial services (except aeronautical mobile (OR) service networks operated by the administrations listed in Nos. **5.204** and **5.206** as of 1 November 1996) is required only if the pfd produced by this space station exceeds −125 dB(W/(m2 · 4 kHz)) at the Earth’s surface.

1.1.2 In the band 137-138 MHz, coordination of a space station of the MSS (space-to-Earth) with respect to the aeronautical mobile (OR) service is required only if the pfd produced by this space station at the Earth’s surface exceeds:

– −125 dB(W/(m2 · 4 kHz)) for networks for which complete Appendix **3**[[2]](#footnote-2)\*\* coordination information has been received by the Bureau prior to 1 November 1996;

– −140 dB(W/(m2 · 4 kHz)) for networks for which complete Appendix **4/S4/3**\*\* coordination information has been received by the Bureau after 1 November 1996 for the administrations referred to in § 1.1.1 above.

1.1.3 In the band 137-138 MHz, coordination is also required for a space station on a replacement satellite of a MSS network for which complete Appendix **3**\*\* coordination information has been received by the Bureau prior to 1 November 1996 and the pfd exceeds −125 dB(W/(m2 · 4 kHz)) at the Earth’s surface for the administrations referred to in § 1.1.1 above.

1.1.4 In the frequency band 117.975-138 MHz, coordination of a space station of the aeronautical mobile-satellite (R) service (space-to-Earth) with respect to the aeronautical mobile (R) service and the aeronautical mobile (OR) service is required only if the pfd produced by the space station exceeds −140 dB(W/(m2 · 4 kHz)) at the Earth’s surface and within 480 km from a country’s border.

Note: Element from this provision could be used to develop a potential new footnote.

ADD INS/117A7/5#1608

Draft new RESOLUTION [A17-SATVHF B3] (WRC‑23)

Use of the frequency band 117.975-136.8 MHz by  
the aeronautical mobile-satellite (R) service

The World Radiocommunication Conference (Dubai, 2023),

considering

*a)* that the optimization of air traffic management (ATM) over oceanic and remote areas necessitates appropriate aeronautical surveillance and communication means, in order to meet the required communication performance for reduced separation minima;

*b)* that WRC‑23 allocated the frequency band 117.975-136.8 MHz to the aeronautical mobile-satellite (R) service (AMS(R)S), limited to non-geostationary satellite systems that operate in accordance with recognized international aeronautical standards, and subject to No. **9.11A** coordination provisions;

*c)* that the allocation of the frequency band 117.975-136.8 MHz to the AMS(R)S) is intended for the relay via satellite of VHF communications under the AM(R)S, in order to complement terrestrial communication infrastructures when aircraft are operating in oceanic and remote areas;

*d)* that the VHF channels have become congested in some areas and the new AMS(R)S systems need to operate in such a manner as not to constrain existing systems, without modification to aircraft equipment,

noting

*a)* that there are Standards and Recommended Practices (SARPs) developed by the International Civil Aviation Organization (ICAO) detailing frequency assignment planning criteria for VHF air-ground communication systems;

*b)* that in accordance with ICAO SARPs the emergency channel (121.5 MHz) shall be used only for genuine emergency purposes, and where a requirement is established for the use of a frequency auxiliary to 121.5 MHz, the frequency 123.1 MHz shall be used;

*c)* that the frequency planning between stations operated under AM(R)S and aeronautical mobile (OR) service (AM(OR)S) in the frequency band 117.975-137 MHz is performed by competent aviation organizations under ICAO’s purview;

*d)* that the development of compatibility criteria between new AMS(R)S systems proposed for operations under *considering c)* and ICAO-standardized aeronautical systems in the frequency band 117.975-136.8 MHz is the responsibility of ICAO;

*e)* that ICAO frequency planning exercises between aeronautical systems in the frequency band 117.975-136.8 MHz will take into account the operational areas of AM(R)S/AM(OR)S aircraft stations and of AMS(R)S aircraft earth stations including where recording of frequency assignments in the Master International Frequency Register (MIFR) is not possible;

*f)* that feeder links of AMS(R)S systems may be accommodated in the fixed-satellite service,

recognizing

*a)* that the frequency band 117.975-137 MHz is allocated on a primary basis to the AM(R)S and is used by air-ground, air-air and ground-air systems operated in accordance with ICAO SARPs, providing critical voice and data communications for ATM on a global basis;

*b)* that under No. **5.200**, the frequency 121.5 MHz is the aeronautical emergency frequency and, where required, the frequency 123.1 MHz is the aeronautical frequency auxiliary to 121.5 MHz;

*c)* that under Nos. **5.201** and **5.202**, the frequency bands 132‑136 MHz and 136-137 MHz are also allocated in several countries to the aeronautical mobile (OR) service on a primary basis;

*d)* that coordination under No. **9.11A** applies for assignments of administrations wishing to operate AMS(R)S space stations or AMS(R)S aircraft earth stations in the frequency band 117.975-136.8 MHz;

*e)* that AMS(R)S space stations are subject to coordination under No. **9.14** with respect to AM(R)S stations in overlapping frequencies when in line of sight;

*f)* that AMS(R)S space stations are subject to coordination under No. **9.14** with respect to AM(OR)S stations in overlapping frequencies when the pfd threshold in Annex 1 to Appendix **5** is exceeded;

*g)* that AMS(R)S aircraft earth stations and AM(R)S/AM(OR)S aeronautical or aircraft stations are subject to coordination under Nos. **9.15** and No. **9.16** with respect to stations located in the respective coordination areas, using the predetermined coordination distances indicated in Table 10 of Appendix **7**, for which overlapping assignments are recorded in the MIFR;

*h)* that Annex 10 to the Convention on International Civil Aviation contains SARPs for safety aeronautical radionavigation and radiocommunication systems used by international civil aviation,

resolves

1 that the use of the frequency band 117.975-136.8 MHz by AMS(R)S shall be limited to ICAO-standardized aeronautical systems;

2 that until standards are developed within ICAO, administrations shall operate AMS(R)S stations only for experimentation purposes in cooperation with ICAO;

3 that use of the frequencies 121.5 MHz and 123.1 MHz referred to in *noting b)* for AMS(R)S shall require coordination on a worldwide basis under the overview of ICAO;

4 that the identification of channels for possible use by AMS(R)S shall:

– take into account the current operational deployment of stations operating in the AM(R)S;

– not adversely affect the potential modifications on the AM(R)S deployment when required;

– take into account *noting* *c)* to include the space component in the existing frequency management process in order to seek agreement for the coordination under No. **9.11A**,

invites the International Civil Aviation Organization

to develop SARPs for the AMS(R)S and work on frequency planning exercises between aeronautical systems in the frequency band 117.975-136.8 MHz, taking into account *considering c)* and *noting b)*,

instructs the Secretary-General

to bring this Resolution to the attention of ICAO.

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1. \* These provisions apply only to the MSS. [↑](#footnote-ref-1)
2. \*\* *Note by the Secretariat*: Edition of 1990, revised in 1994. [↑](#footnote-ref-2)