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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 toDocument 111-E** |
|  | **29 October 2023** |
|  | **Original: Chinese** |
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| China (People's Republic of) |
| Proposals for the work of the Conference |
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| 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

Five methods are considered to address this agenda item:

– Method A: NOC.

– Method B: This method, which provides general common elements required to be complemented with Methods B1, B2, B3 or B4, proposes to add a new allocation to the aeronautical mobile-satellite (R) service (AMS(R)S) in the frequency band 117.975-137 MHz, or part thereof, limited to non-geostationary-satellite systems and to internationally standardized aeronautical systems. This method is not an independent and standalone method as such and thus should be considered together with Methods B1, B2, B3 or B4.

• Method B1 contains elements of Method B, and proposes a new allocation in the range 117.975-137 MHz with the addition of a power flux-density (pfd) limit, on AMS(R)S space stations unwanted emissions falling above 137 MHz, in order to ensure protection of adjacent band services above 137 MHz. Method B1 also proposes coordination for coexistence between AMS(R)S and other primary in-band services according to RR No. **9.11A** with a coordination threshold proposed in Annex 1 of RR Appendix **5**.

• Method B2 contains elements of Method B, and proposes that systems operating under an allocation to the AMS(R)S be subject to the application of regulatory and technical measures to ensure compatibility with existing systems operating under an allocation to a different service in co-frequency bands and in the adjacent bands.

• Method B3 contains elements of Method B, and proposes the specific range 117.975-136.8 MHz for the new AMS(R)S allocation, with the application of RR No. **9.11A** coordination procedure and of a new resolution providing additional elements on the AMS(R)S regulatory framework.

• Method B4 contains elements of Method B, and proposes to add an AMS(R)S allocation in the frequency band 117.975-136 MHz. Furthermore, RR No. **9.11A** applies to protect and not adversely affect assignments to stations of the aeronautical mobile (R) service in frequency range 117.975-137 MHz. Its usage shall be limited to systems that operate and are planned in accordance with recognized international aeronautical standards.

Proposal

China supports Method A (NOC). However, if the existing service is fully protected and no constraint will be imposed on its future development, and if issues on compatibility and inconsistencies with adjacent frequency bands are properly addressed and resolved in this conference, this Administration may consider using Method B after necessary modifications and improvements are done on this method. The modification of footnotes RR Nos. **5.A17** and **5.D17** are proposed to ensure the protection of the existing service operating in frequency band 117.975-137 MHz and its adjacent band.

ARTICLE 5

Frequency allocations

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

ADD CHN/111A7/1#1594

5.A17 The use of the frequency band 117.975-137 MHz by the aeronautical mobile-satellite (R) service is subject to coordination under No. **9.11A**. The coordination threshold in terms of the power flux-density levels on the Earth’s surface over the territory of a country in application of No. **9.11A** for space stations in the aeronautical mobile-satellite (R) service, shall be −150 dB(W/(m2 · 4 kHz)) and within 480 km of a country’s border. This use is also limited to non‑geostationary-satellite systems and internationally standardized aeronautical systems.     (WRC‑23)

**Reasons:** The protection of existing services operating in the frequency band 117.975-137 MHz should be ensured.

ADD CHN/111A7/2#1602

5.D17 In the frequency band 117.975-137 MHz, systems operating in the aeronautical mobile-satellite (R) service shall ensure that their maximum level of their unwanted emissions in adjacent band 137-138 MHz does not exceed the following maximum levels of pfd at the Earth’s surface:

 −211.93 dB(W/(m2 ⸱ Hz)) 0.001% of the time to protect the space research service;

 −179.93 dB(W/(m2 ⸱ kHz)) 1% of the time to protect the space operation service;

 −146.93 dB(W/(m2 ⸱ 150 kHz)) 20% of the time and −132.93 dB(W/(m2 · 150 kHz))0.0013% of the time to protect the meteorological-satellite service.     (WRC‑23)

**Reasons:** The protection of the space research service, space operation service and meteorological-satellite service should be ensured. The modification is to update the pfd value per draft new Report ITU-R M.[SPACE-VHF].

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