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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 9 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 | | | |
|  | | | |
| Agenda item 1.9 | | | |

1.9 to review Appendix **27** of the Radio Regulations and consider appropriate regulatory actions and updates based on ITU‑R studies, in order to accommodate digital technologies for commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (R) service and ensure coexistence of current HF systems alongside modernized HF systems, in accordance with Resolution **429 (WRC‑19)**;

Introduction

The RCC Administrations do not object to accommodating wideband digital signals in the bands contained in RR Appendix 27 by including the relevant provisions of the Rules of Procedure and other necessary changes. Once these changes have been made, Resolution **429 (WRC-19)** should be suppressed.

Proposal

In order to satisfy WRC-23 agenda item 1.9, it is proposed to use the regulatory text in annex hereto.

APPENDIX 27 (REV.WRC‑19)[[1]](#footnote-1)\*

Frequency allotment Plan for the aeronautical mobile (R)  
service and related information

PART I – General provisions

Section II – Technical and operational principles used  
for the establishment of the Plan of allotment of frequencies  
in the aeronautical mobile (R) service

**A – Channel characteristics and utilization**

# 2 Frequencies allotted

ADD RCC/85A9/1

27/18A Individual contiguous or non-contiguous channels complying with the provisions of the Plan3 contained in this Appendix may be aggregated to provide wideband communication without changing the Plan of individual channels.

ADD RCC/85A9/2

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327/18A.1 In particular the provisions related to the protection (Part I, Section II B), to power limits (Nos. **27**/60 and **27**/61), to class of emissions (No. **27**/58), to out-of-band spectrum mask (No. **27**/74), to assigned frequency (No. **27**/75), and to channel spacing (No. **27**/11).

**C – Classes of emission and power**

# 1 Classes of emission

MOD RCC/85A9/3

## **27**/57 1.1 Telephony – amplitude modulation:

− double sideband A3E[[2]](#footnote-2)\*

− single sideband, full carrier H3E\*

− single sideband, suppressed carrier J3E, J2E, J7E, J9E

MOD RCC/85A9/4

## 1.2 Telegraphy and data transmission

MOD RCC/85A9/5#1637

**27**/58 1.2.1 Amplitude modulation:

− telegraphy without the use of a modulating audio frequency (by on‑off keying) A1A, A1B[[3]](#footnote-3)\*\*

– telegraphy by the on-off keying of an amplitude modulating audio frequency or audio frequencies or by the on-off keying of the modulated emission and including selective calling, single sideband, full carrier H2B

– multichannel voice frequency telegraphy, single sideband, suppressed carrier J7A

– telegraphy or data transmissions using any other single sideband, suppressed carrier modulation, under the condition that the reference frequency of the concerned transmission corresponds to the list of carrier (reference) frequencies (No. **27**/18) and its occupied bandwidth does not exceed the upper limit of J3E emissions (No. **27**/12), i.e. 2 800 Hz for each individual channel J2B, J2D, J7B, J7D, J9B, J9D

# 2 Power

MOD RCC/85A9/6

27/60 2.1 Unless otherwise specified in Part II of this Appendix, the peak envelope powers supplied to the antenna transmission line shall not exceed the maximum values indicated in the Table below; the corresponding peak effective radiated powers being assumed to be equal to two-thirds of these values.

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| Class of emission | Stations | Maximum peak envelope power | |
| H2B, J3E, J7A, J2E, J7E, J9E, J2B, J2D, J7D, J9B, J9D,  A3E\*, H3E\* (100% modulation) | Aeronautical stations Aircraft stations | 6 kW 400 W | |
| Other emissions such as A1A, A1B, F1B | Aeronautical stations Aircraft stations | 1.5 kW 100 W | |
| \* A3E and H3E to be used only on 3 023 kHz and 5 680 kHz. | | | |

SUP RCC/85A9/7

RESOLUTION 429 (WRC-19)

Consideration of regulatory provisions for updating Appendix 27 of the Radio Regulations in support of aeronautical HF modernization

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1. [↑](#footnote-ref-1)
2. \* A3E and H3E to be used only on 3 023 kHz and 5 680 kHz. [↑](#footnote-ref-2)
3. \*\* A1A, A1B and F1B are permitted provided they do not cause harmful interference to the classes of emission H2B, J3E, J2E, J7E, J9E, J7A, J2B, J2D, J7B, J7D, J9B, and J9D. In addition, AlA, A1B and FlB emissions shall be in accordance with the provisions in Nos. **27**/70 to **27**/74 and care should be taken to place these emissions at or near the centre of the channel. However, a modulating audio frequency is permitted with single sideband transmitters, where the carrier is suppressed in accordance with No. **27**/69. [↑](#footnote-ref-3)