

International Civil Aviation Organization



ICAO

**Twenty Sixth Meeting of the Communications/
Navigation and Surveillance Sub-group (CNS SG/26) of
APANPIRG**

Video Tele-Conference, 5 – 9 September 2022

Agenda Item 5: Aeronautical Mobile Communications Service and Aeronautical electromagnetic spectrum utilization

5.1 Update on status of datalink applications and VHF capability sharing by States;

**CAAC'S SUPPORT
FOR THE ENHANCEMENT OF AEROMACS SARPS AND TECHNICAL MANUAL**

(Presented by China)

SUMMARY

This Working Paper presents the Civil Aviation Administration of China's (CAAC) support for the enhancement of AeroMACS SARPs and Technical Manual to be open to additional technologies, and expresses the planned activities in the next step.

1. INTRODUCTION

1.1 With the support of the Civil Aviation Administration of China (CAAC), the AeroMACS Forum presented a Working Paper in the 5th CP-DCIWG meeting (17-20 May 2022), proposing an initiative to revise the AeroMACS SARPs and Technical Manual (Doc 10044) to be less restrictive or specific to technology profiles like 802.16, so as to give the ecosystem the flexibility to provide AeroMACS services using any additional technology (e.g., LTE, 5G) that meets the minimum performance characteristics and capabilities of AeroMACS.

2. DISCUSSION

CAAC's continued support of the new-generation AeroMACS

2.1 The CAAC continues to support the development of the new-generation AeroMACS, and issued a roadmap for the application of the new-generation aeronautical broadband communications in Apr. 2021. The roadmap dictates the promotion of advanced technologies implementation within the AeroMACS dedicated spectrum 5091MHz-5150MHz.

2.2 The CAAC has already launched the research on the technical and test requirements of ground and airborne avionics facilities of the new-generation AeroMACS. In combination with the service type, spectrum, and chip, CAAC carried out the base station demand analysis, determined the

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new-generation AeroMACS implementation plan, and completed the prototype production. The airborne avionics implementation scheme of the new-generation AeroMACS has been studied, and relevant laboratory test has been carried out. The intent of this Working Paper is to reconfirm the CAAC's commitment to the promotion of the new-generation AeroMACS.

Proposed activities and time schedule

2.3 The AeroMACS Forum has already commenced the initial analysis on the required revisions of AeroMACS SARPs and Technical Manual to make them less restrictive or technology specific. The initial analysis shows that the AeroMACS SARPs revision can be the minimal as there are only two references to 802.16 to be addressed. A WP will be developed to outline the specific revisions.

2.4 The revision of the AeroMACS Technical Manual (Doc 10044) is expected to require more detailed effort as the specifications that may impact other technology profiles need to be carefully evaluated. A WP will be developed to involve the specific revisions.

2.5 The revisions of the AeroMACS SARPs and Technical Manual require harmonization with other industry organizations. The support and contributions for required revisions to relevant standards and specifications will be provided, including:

a) Promote and contribute to the revisions of MOPS/MASPS within RTCA/UEROCAE driven by technical manual revisions.

b) Promote and contribute to the revisions of ARINC 766 to open up to additional technologies.

2.6 For the aforementioned activities, the following schedule is given:

a) Propose a new Job-Card for the revision of AeroMACS SARPs by Oct. 2022.

b) Develop an initial WP draft outlining the specific revisions to the AeroMACS Technical Manual by Oct. 2022.

c) Finalize the WP draft of proposed revisions to the SARPs that is ready for submittal to the DCIWG by Dec. 2022.

d) Finalize the WP draft of proposed revisions to the technical manual that is ready for submittal to the DCIWG by Mar. 2023.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information presented in this Working Paper; and

b) support the enhancement of AeroMACS SARPs and Technical Manual in the CP meeting.
