International Civil Aviation Organization **12 Mar 2026**

REPORT

FREQUENCY SPECTRUM MANAGEMENT PANEL (FSMP)

Twenty Second Working Group Meeting

Dakar, Senegal, 02-13 March 2026

WORKING GROUP REPORT

1. AGENDA ITEM 1 - OPENING AND WORKING ARRANGEMENTS

1.1.1. The 22nd working group meeting of the Frequency Spectrum Management Panel (FSMP-WG/22) was held from 2 to 13 March 2026. This meeting was held in person at the ICAO Western and Central African (WACAF) Office in Dakar, Senegal, with a partial hybrid capability meeting broadcasting for the registered remote participants.

1.1.2. Mr. Andrew Roy, the Chairperson of the FSMP and the rapporteur of FSMP-WG/22, opened the meeting. Mr. Christian Fleury was the Vice-Chairperson of the FSMP. Ms. Mie Utsunomiya, technical officer (TO) CNS, ICAO Headquarters, acted as Secretary. She was assisted by Ms. Sandrine Gnassou, Regional Officer CNS of the WACAF Office, by Mr. Harvey Lekamisy, Regional Officer CNS of ESAF Office and by Ms. Natalia Robles Lopez, TO CNS of ICAO Headquarters.

1.1.3. Mr. Roy welcomed the group and provided introductory remarks and meeting information. He expressed appreciations to participants for their active contributions to the FSMP-WG/22 meeting and to the regional participants as well as to WACAF office for hosting the meeting. The meeting was held in English. After the opening of the meeting the agenda was approved by the group. The agenda is contained in **Appendix A**.

1.1.4. WP11 discussed the advantages and disadvantages of all FSMP panel and working group documents being restricted to registered and accepted individuals, whereas previously all documents were freely accessible (with the exception of a few restricted documents). In discussion of the paper, multiple views were expressed on how best to allow accessible material while still maintaining the needed protections for non-agreed or draft material that could be misunderstood external to ICAO membership about its status. It was agreed to apply the following process to the next meeting and assess its success:

- All WP and IP templates to add on the first page:
    - A suitable disclaimer clarifying the status of the material (i.e. not a formal position of ICAO until agreed)

- A formal status option for the paper to be restricted or public, to be selected by the author (noting that the paper will default to restricted if the author does not express a preference).

- Add a disclaimer to the FSMP website for the papers submitted are not a formal position of ICAO until agreed by the meeting and formally published.

- A request may be made in the meeting to the author of a contribution to change the status of the paper (public to restricted, or the reverse), but the ultimate decision will be with the author of the contribution.

1.2. Agenda review and document attribution

1.2.1. The list of papers submitted for consideration by FSMP-WG/22 is contained in **Appendix B**. The list of participants is provided in **Appendix C**.

1.2.2. The material in this report is organized by meeting agenda item number and does not necessarily reflect the order of discussions. Actions captured during discussions are shown in **Appendix D**, together with the status of prior-meeting(s) actions.

1.2.3. Before the main session of FSMP WG/22, a regional workshop was held for the ICAO AFI States. The Workshop briefed on the status of the current ICAO position and work for the ITU-R WRC-27. A summary report of the Workshop is included in **Appendix E**.

1.2.4. IP03 provided an information on the FSMP open website, the FSMP restricted website, and the member/advisor list available on the FSMP website, asking members to check the list and provide updates to the Secretary. The meeting appreciated the material and noted the guidance.

1.3. Status of tasks identified on Job Cards

1.3.1. No material was presented for this item.

1.4. FSMP timeline for activities

1.4.1. A timeline of the current major work products of the FSMP was reviewed, including VHF SATCOM SARPS, ICAO position for WRC-27, Radio Altimeter SARPS, and the ICAO Doc. 9718 updates (refer to WP04). WP04 also highlighted the potential global CNSS event in October 2026 and encouraged active participation from members and advisors. The ICAO Secretariat will send an invitation letter suggesting the participation of FSMP members in the event.

1.5. Reports from related meetings

1.5.1. WP04 provided updates from the Panel Secretary on the actions from Assembly 42, and participation in the relevant FSMP activities. During the discussion, it was suggested that summary documents on the ICAO WRC position would increase understanding and potential support in ICAO Member States. **ACTION 22-01** was created to seek future inputs for one-page briefings on WRC-27 agenda items that ICAO could use to supplement the ICAO position document.

2. AGENDA ITEM 2 - SECRETARIAT UPDATES ON ICAO POSITION FOR WRC-27

– FSMP.002.02

2.1.1. WP10, WP25, and WP29 proposed modifications to the ICAO WRC-27 position. After discussion and a drafting session in the meeting, **Flimsy08** contained an updated proposal, yet to be agreed by the meeting as a formal output, that would form a basis for discussions at the next FSMP meeting. It was noted that an updates to the ICAO WRC-27 position would need to be agreed and finalized by the FSMP WG/24 Meeting.

2.1.2. In support of a potential future agenda item, WP12 proposed examining the potential replacement of RR No. 9.21 by RR No. 9.11A for AMS(R)S in the frequency bands 5 000 – 5 030 MHz and 5 091 – 5 150 MHz, to facilitate the deployment of AMS(R)S applications in these frequency bands. The meeting was generally supportive of the idea, but first asked the Secretariat inform both the RPAS and CP panels for a wider view within ICAO of the proposal in WP12 on a future agenda item for C-band UAS C2 links using AMS(R)S **(ACTION22-02).**

3. DEVELOPMENT OF MATERIAL FOR ITU-R STUDIES – FSMP.003.02

3.1. Material for WRC-27 agenda items

3.1.1. IP10 summarized of the outcomes of the ITU-R WP4C meeting on WRC-27 AI 1.11 and 1.13, explaining some of potential concerns and unknowns. It was intended to support administrations who could not attend the relevant ITU-R meetings, identifying some of the potential risks to aviation. The meeting appreciated the material and asked States to carefully monitor the discussion at WP4C.

3.1.2. IP12 analysed some military waveforms that could be proposed for the modernization of Aeronautical Mobile Off-Route Service (AM(OR)S) HF communications, and in particular for wideband communication, as part of WRC-27 AI 1.9. The analysis shows graphically how these waveforms could affect adjacent 3 kHz channels in the AM(OR)S/AM(R)S HF bands noting the concern that more assignments may be needed to aggregate channels than expected. The meeting appreciated the material and noted the paper.

3.2. Non-WRC material for the ITU

3.2.1. No material was received for this item.

4. AGENDA ITEM 4 – RADIO ALTIMETER ISSUES FSMP.006.02

4.1. 4a - Radio altimeter technical and policy developments

4.1.1. WP05, WP20, and WP24 were discussed at the same time given their related content:

4.1.1.1. WP05 explained how the response from States to the risk of harmful interference from 5G Mobile Telephony Networks has varied. Some States have implemented zones around aerodromes where transmissions from these networks were limited or prohibited. These States faced strong opposition from the powerful and influential lobby of the International Mobile Telephony (IMT) industry. It was proposed the FSMP to discuss the need and feasibility of a potential update to Annex 14 to provide a regulatory basis for the judicious implementation of protection or coordination zones around aerodromes.

4.1.1.2. WP20 addressed the appropriate operational reference framework for compatibility studies between aircraft radio altimeters and IMT base station emitters. It clarifies the intended role of ICAO Annex 14 in defining Obstacle Limitation Surfaces (OLS) and demonstrates why Minimum Separation Distance (MSD), derived from aircraft performance under degraded conditions for both nominal and off-nominal operations, provides a more appropriate safety-aligned reference for such assessments.

4.1.1.3. WP24 proposed that ICAO begin considering giving guidance to States on how compatibility with Radio Altimeters and 5G should be considered. Included was a framework for a methodology for defining safeguarding measures to protect Radio Altimeters. The attached material was proposed as a preliminary framework with some elements pre-populated and presented to facilitate future contributions.

4.1.1.4. There was an extensive discussion on how such information could and should be represented in ICAO documentation, including options such as Annex 10 Vol. I, Annex 14, a new ICAO circular, and/or a technical manual. To progress the work, an action was taken **(ACTION22-03)** to task the existing CG-RA group with assessing what ICAO documentation would be best to support both current and future radio altimeter designs, and what type of information should be created for each document (i.e. a framework of content). The CG-RA would also look to progress the Annex 10, Vol. V material for the radio altimeter. The results of this work would then be reported back to the FSMP WG/23 meeting for further consideration. Additionally, the membership was encouraged to meet informally to consider how appropriate aviation operational scenarios could be supported at the ITU-R.

4.1.2. IP06 shared updates related to draft FAA requirements and guidance in the United States for interference tolerant radio altimeter systems. IP14 then also provided some external perspectives on the FAA Notice of Proposed Rulemaking. There was a short discussion with several questions raised on the material. After the discussion, the meeting agreed to note the paper.

4.1.3. IP15 provided a report on the difference in base station signal characteristics of Sub-6 band 5G mobile communication systems around and above Sendai International Airport and Sendai City between December 2024 and January 2026. The base station signal strength between 3.5 - 4.1 GHz and 4.5 - 4.6 GHz, which are close to the radio altimeter frequency band currently operated in Japan was measured again using a 5G NR signal analyzer. The results confirmed that signal strength in the sky, including approach and takeoff phase, are increased by approximately 10 dB compared to one year ago. As a result, the amount of base station signal strength exceeds the ITM value has increased. The paper received several questions and there was a discussion on the report signal levels and comparisons to other national 5G deployments. The meeting very much appreciated the information, and asked to be updated on the outcomes nationally and if any more testing was conducted between 5G and radio altimeters.

4.2. 4b - Development of radio altimeter Annex 10, Vol. V PfA and associated material

4.2.1. WP22 provided an initial proposal on the SARPs framework for radar altimeter RF characteristics. It sought feedback on what additional content is needed for the SARPs development. There was an extensive discussion on the papers and the topics raised, including antenna performance, transmitter emissions bounding, the relevance and level of detail for potential operational scenarios, details behind the proposed interference tolerance calculations, the applicability data and status, and other details. The Annex to

the WP was created as a unagreed draft (**Flimsy06**) with an action **(ACTION 22-04)** to seek contributions to the draft radio altimeter SARPs at future meetings to develop the material further, and any considerations that might be required for a technical manual to support the work. Additionally, and action was created **(ACTION 22-05)** for the secretariat to speak with the other relevant panels to assess which panel might be responsible for a new radio altimeter technical manual if it was needed.

5. AGENDA ITEM 5 - AERONAUTICAL BAND PLANNING – FSMP.005.03

5.1. 5a - 108 – 137 MHz band planning

5.1.1. No items were presented for this topic.

5.2. 5b - 960 – 1215 MHz band planning

5.2.1. No items were presented for this topic.

5.3. 5c - 5000 – 5150 MHz band planning

5.3.1. WP16 discussed the United States policy on unmanned aircraft systems use of command and control links in the 5030-5091 MHz band (AM(R)S/AMS(R)S), and the development of a Dynamic Frequency Management System that will assign the frequencies for those operations. The meeting appreciated the material and noted the paper.

5.4. 5d - Development of SB-VHF Annex 10, Vol. V PfA and associated material

5.4.1. WP14 summarized the progress of Satellite Based VHF Correspondence Group (SB-VHF) activities since FSMP/WG21 in October 2025. The main achievements of SB-VHF include developments of Space-based VHF SARPs PfA for Annex 10 Vol V, including 'Validation Report' and 'Impact Assessment and Implementation Plan' documents (included in WP28, WP 21, and WP13 respectively). Additionally IP01, IP04, and IP07 were also discussed for the other SB-VHF documentation not under the FSMP's direct purview.

5.4.1.1. WP21 presented the progress in developing the Space-Based VHF SARPs Validation Report from the SB-VHF CG to support Annex 10 Vol III and Annex 10 Vol V Proposals for Amendment (PfA) for Space-Based VHF.

5.4.1.2. WP28 presented the proposed Vol. V PfA for SB-VHF, included the most recent updates by the CG on: common signalling channels for VDL, interference to adjacent AM(R)S channels, and the assignment of Space-based VHF channels.

5.4.1.3. WP13 presented the progress the Space-Based VHF Correspondence Group (SB-VHF CG) and Project Team Space-Based VHF (PT-SBV) in developing the Space-Based VHF Impact Assessment and Implementation Plan to support Annex 10 Vol III and Vol V Proposal for Amendment (PfA) for Space-Based VHF.

5.4.1.4. IP01 contained responses from CP-DCIWG to the FSMP provided comments on the PfA to Annex 10, Volume III related to Space-Based VHF. It was followed up by a presentation on IP04 presents the work to date of the Project Team – Space-Based VHF (PT-SBV), working under the Communications Panel – Data Communications Infrastructure Working Group (CP-DCIWG) (PT-SBV) as it relates to updates of

Annex 10, and the developed PfA to ICAO Annex 10 Vol III, to support Space-based VHF.

5.4.1.5. IP07 Provided a copy of the current draft of the Doc 10228 - Manual on the Space-Based VHF Communications System.

5.4.1.6. As a result of the discussions, the meeting discussed the SB-VHF Vol. V PfA, and endorsed text in **Flimsy01** as the FSMP WG recommendation to the CP-DCIWG for panel level approval. Recommendations for the text of SB-VHF the impact assessment and implementation plan and a section of the Vol. III PfA text were approved in **Flimsy03, and Flimsy05** respectively, noting that the text was still subject to review at both PT-SBV and CP-DCIWG.

5.4.2. WP02 provided the ongoing status of the meetings held with the ICAO Regional Offices (ROs) regarding the draft coordination mechanism for space-based VHF frequencies. The final version of the coordination mechanism is expected to be implemented in the future Frequency Finder Tool. The WP also presented a draft regional and inter-regional coordination procedure for frequency identification. An updated draft will be presented to FSMP at future meetings as discussions continue. There was a discussion on the proposed processes, including how they would relate to the regional agreements planned for SB-VHF coordination. Noting there was ongoing engagement directly with States to seek further input, the FSMP members were encouraged to provide additional feedback and input to the CG-SBV on the processes, how they might be incorporated into Doc 9718, and also any functionality suggestions to implement SB-VHF into the new Frequency Finder tool.

5.4.3. IP08 provided information on one potential space-based VHF system for the reference of the panel and working group. In the brief presentation, the material was noted.

5.4.4. IP09 presented on the availability of Frequencies for SB-VHF in the SAM Region. It was noted that numerous frequencies appeared to be an option across the SAM region, though it was suggested that additional work on potential co-site interference between aircraft on adjacent channels may be needed. The meeting appreciated the material and noted it.

5.5. Development of LDACS Annex 10, Vol. V PfA and associated material

5.5.1. WP19 presented the progress of the LDACS inter-panel task force. Since FSMP-WG21, the work of the IPTF has mainly focused on the finalization of the LDACS-DME test plan (released on Dec 2025) and on the resolution of comments on Annex 10 Vol V and Annex 10 Vol III. As the responsible panel for Annex 10 Vol V, the FSMP was requested to review the proposed version of Annex 10 Vol V, in order to provide feedback to DCIWG as part of the LDACS SARPs package approval process. In discussing the responsible group for the Doc 9718 Vol II frequency planning, it was suggested that the LDACS IPTF would likely provide the best outcome for the work. However it was noted that several risks were evident at this time, noting that such work would require volunteers to support to ensure it was completed. After discussions, including a late addition addressing potential UAT interference, **Flimsy10~~XX~~** was completed and agreed as the FSMP Vol. V PfA to be approved at the upcoming CP-DCIWG.

6. AGENDA ITEM 6 – INTERFERENCE FROM NON-AERONAUTICAL SOURCES

6.1.1. IP05 provided information on the EUROCAE organized GNSS resilience workshops inviting leaders of working groups including relevant RTCA Special Committees leaders.

In addition, TAC members, EASA, EUROCONTROL, FAA, DG MOVE, EUSPA were invited in order to identify any gaps and ensure consistency between Standardization Working Group activities. There were many questions on the topic given the recent levels of GNSS jamming and spoofing seen by the aviation industry. The meeting appreciated the paper, and it was noted while requesting further updates on the work in the future.

6.1.2. IP11 examined the complexities of modelling 5G Active Antenna System (AAS) antenna patterns in the unwanted-emissions domain. AAS modelling choices directly and significantly affect compatibility assessments for ICAO-protected systems. However, many of the assumptions currently used in studies rely on modelling approaches that may not be fully validated, as AAS behaviours in the unwanted-emissions domain continue to evolve. These uncertainties directly influence regulatory outcomes, highlighting the need for more consistent and bounded modelling practices by recommending radiated unwanted power limits rather than conducted. Several questions were received, and it was noted the large potential variance in antenna characteristics that might make compatibility assessments in the AAS unwanted domain inaccurate if based only on conducted emission limits. The meeting noted the material.

7. AGENDA ITEM 7 – REVISION OF ICAO FREQUENCY SPECTRUM HANDBOOK (DOC 9718)

7.1. Update of Volume I

7.1.1. No items were presented for this topic.

7.2. Update of Volume II

7.2.1. No items were presented for this topic.

7.3. Long-term restructuring of Doc 9718

7.3.1. WP26 proposed that ICAO develop and maintain an Aircraft-side Scenario Library (scenario families + parameter dictionary + FSMP-approved bounded ranges) for use in sharing and compatibility studies involving onboard radio systems. The Library would be attached to the Handbook on Radio Frequency Spectrum Requirements for Civil Aviation and provided as a stable reference to relevant study activities within ITU Radiocommunication Sector (ITU-R) (including ITU-R Working Party 5B as appropriate). Recognizing the need, the WP26 was passed to the CG-Handbook group for further consideration and development options, noting that engagement would be needed with the operational panels to validate any work.

8. AGENDA ITEM 8 – ANY OTHER BUSINESS

8.1.1. WP03 was a Liaison Statement (LS) from the CEPT Working Group Spectrum Engineering (WG SE). The LS reports that coexistence studies are underway in Project Team SE24 (Work Item SE24_79) concerning new and revised Ultra-Wideband (UWB) applications in the 8.5–10.6 GHz band, which is extensively used by aeronautical systems, including potential in-cabin UWB devices. There were several concerns raised on the topic, noting the airborne weather radar in 9.3-9.5 GHz and other ARNS systems in the 9 GHz band, noting that there was also potential UWB changes in the USA and both the direct interference potential, and also the general raising of the noise floor. **ACTION22-06** was created to seek technical inputs at the next meeting to assist in developing an ICAO response to the CEPT studies on UWB in the 8.5–10.6 GHz band. Additionally, the

meeting membership was encouraged to send the needed aviation spectrum experts, including the airborne weather radar manufacturers, to participate in the CEPT meeting.

8.1.2. WP08 shared operators' feedback on their experiences with co-channel VHF air-to-air interference and the practical actions pilots take to ensure acceptable voice quality. The meeting discussed the implications for current VHF planning criteria, for both current terrestrial and future SB-VHF. Further contributions were invited on the topic to further support specific values that may be used.

8.1.3. WP15 sought clarification on the existing provision ITU RR 5.475 in the current spectrum regulatory framework that applies in X-Band between 9 200 – 9 500 MHz band for system operating under the existing Aeronautical Radionavigation service. In considering the questions raised, the meeting suggested several options to initially pursue a better understand the radio regulation footnotes cited and any potential risks of seeking a change to them. Once these were better understood, then it was requested an update be provided to the FSMP at a future meeting for potential further action.

8.1.4. WP18 highlighted the current misalignment between ICAO WAIC SARPs and the draft revision direction of ITU-R M.2085. It clarified why changes to M.2085 (radio-altimeter protection) should not be interpreted as changing the WAIC I/S protection criteria in ITU-R M.2067; and proposed a harmonization approach by clarifying the meaning of the I/S 'S' term and expressing the I/S criterion as equivalent reference interference thresholds derived from those study assumptions. The meeting suggested that the material should first be considered in future FSMP meetings for an eventual Doc 9718 update (including a new WAIC characteritics section) to provide some material at the ICAO level. Once this was mature, then FSMP could further consider engagement with the ITU to clarify WAIC operation.

8.1.5. IP02 was a request from the AAM Study Group to provide comments on the AAM Vision Documents. The FSMP members/advisors were invited to review Appendix A of this IP and provide any comments using Appendix B of the IP by 13 March 2026. Noting that individual comments were being requested by the secretariat, the meeting used the extra time it had to review the comments received already and consolidated into an FSMP membership view. These are include in **Flimsy09~~XX~~**.

8.1.6. IP13 provides a summary of the selected spectrum related standards activities under development at RTCA and EUROCAE. The meeting raised several questions on the presentation, including the related LDACS development work. The material was noted, with a request to continue the regular updates from the SDOs.

8.2. 8a - Hybrid COommunications Network (HYCON)/Hyperconnected ATM (HCATM)/Connected Aircraft (CA)

8.2.1. All the Hybrid COommunications Network (HYCON)/Hyperconnected ATM (HCATM)/Connected Aircraft (CA) papers were introduced first:

8.2.1.1. WP06 explained how the definition of flight regularity messages in Annex 10, Volume 2, 4.4.1.1.5 is intentionally broad and allows large volumes of data to be carried over AMRS frequencies, even though these messages carry a priority indicator. In certain regions, the high and steadily increasing volume of these messages is creating a problem for the efficient operation of CPDLC Datalink services. This trend is only expected to outstrip the capacity that planned future safety systems are able to provide over AM(R)S and AMS(R)S frequencies. The paper thus considers that one way to counter this trend

is to consider amending the Annex 10 definition of flight regularity message category by repurposing some of the definitions.

8.2.1.2. WP07 shared operators' feedback derived from the IATA survey on future aviation communications within the context of the HYCON concept. As the HYCON concept remains in the early stage of development and is not yet mature or widely understood within the airline community, the survey results should be interpreted as exploratory and intended primarily to inform ongoing research and concept development. In addition, the paper outlined the civil aviation communications domain beyond 2035, the 'C' in CNS (Communications, Navigation and Surveillance).

8.2.1.3. WP09 proposed that the HYCON spectrum policy should define the Minimum safety services required to ensure the continuity, safety, and resilience of flight operation. As HYCON aims to leverage multiple communication technologies and service providers with non-safety spectrum, understanding the baseline network with safety spectrum that must be guaranteed for ensuring the vital safety of flight operations in the event of a communication failure or unacceptable delay of commercial links.

8.2.1.4. WP23 was withdrawn by the author.

8.2.1.5. WP27 examines the integration of commercial terrestrial and satellite networks into a Hybrid Communications Network (HYCON) to support aeronautical communications, including ATC voice and ATS data. While commercial networks may provide coverage, capacity, redundancy, and economic benefits, they are not, by default, designed or regulated to meet the same safety-of-life requirements associated with protected aeronautical CNS. Commercial networks should therefore not be treated as equivalent to protected aeronautical CNS or qualified safety-of-life links unless aviation-grade performance and governance are demonstrated. The paper proposed a set of principles to enable appropriate use of commercial networks while preserving safety and spectrum integrity.

8.2.2. After all the HYCON related working papers were introduced then a general discussion occurred on the topic. The following aspects were raised:

8.2.2.1. During the meeting, a draft copy of the CP-DCIWG job card for HYCON was received and posted for information as **Flimsy04**. Subsequently, **Action22-XX** was assigned, requesting members and advisors to provide comments on the draft CP-DCIWG job card in response to the inter-panel coordination request within 2 weeks after the FSMP WG/22 meeting.

8.2.2.2. There was a recognition that the latest material on the concept development was not available to the meeting, including if such usage would include UAS C2 functions or any nav/sur functions, the effect on existing aviation safety networks (VDL, etc.), and if studies have been conducted etc. **ACTION 22-07** requested the Secretariat send the specific questions raised in **Flimsy07** to the CP-DCIWG and ATMRPP**.** Ideally any responses to these questions would be provided well in advance of the FSMP WG/23 meeting to allow for consideration by the FSMP membership.

8.2.2.3. **ACTION22-08** was created for HYCON spectrum policy recommendations to be submitted to FSMP-WG/23 to ensure an informed decision at that meeting based upon **Flimsy22-XX**.

8.3. 8b - UAS

8.3.1. WP01 contained the RPAS Panel's formal reply regarding the DAA technical parameters, inviting the meeting to take note of the information contained in the WP and to utilize them in conducting the technical assessment.

8.3.2. WP17 discussed the initial responses from the Remotely Piloted Aircraft Systems Panel (RPASP) pertaining to which frequency bands are being considered for non-cooperative DAA systems.

8.3.3. Both WP01 and WP17 were discussed together, considering the proposed DAA characteristics with the suggested use of DAA in range of aviation frequency bands. Given the status of the potential bands, and also the related material in WP15, the meeting agreed that further work was needed to assess if suitability of each frequency band (noting that the technical characteristics were not formal standards, only manufacturer specific details). Therefore, it was agreed to request additional contributions on how Doc 9718 could be further updated in the DAA guidance section, considering what may be potential global DAA allocations, the need for confirmation that each of the proposed allocations is suitable, and that such DAA systems would be compatible with the existing aviation systems in those bands **(ACTION22-09)**

9. MEETING CLOSE

9.1. Meeting Report

9.1.1. The meeting reviewed and approved the meeting report, requesting that any additional changes be sent to the Secretariat by the 12 April 2026.

9.2. Action Item Review

9.2.1. At the end of the meeting, the FSMP action item list was updated and included as **Appendix D** to this report.

9.3. Future meetings timetable

9.3.1. FSMP-WG/23 is scheduled for 31 August – 11 September 2026 at the ICAO SAM office in Lima, Peru. The meeting will include a Workshop which will be held the first two days inviting States in NAC/CAR/SAM regions. For planning purposes, FSMP-WG/24 is tentatively planned for January/February 2027 (25 Jan- 5 Feb or 1 Feb -12 Feb) in ICAO HQ, Montreal Canada. It was agreed that the broadcast functionality would continue at the next meeting, with a nominated day being allocated to allow only IPs to be briefed remoted by those wishing to use such a feature.

9.3.2. The meeting agreed that papers for FSMP-WG/23 are due 23:59 Montreal Time (ET), Monday, 24 August 2026 (the week before the meeting). In exceptional circumstances, a framework detailing at minimum the paper summary and introduction will be provided by the due date, with the full paper provided no later than one workday before the start of the meeting. Any papers received after this deadline will not be accepted unless agreed by the meeting on the first day. No papers received after the first day of the meeting will be accepted. It was suggested that the ICAO invitation letter for FSMP meeting be sent to the states at least 60 days in advance.

APPENDICES

Appendix A – Agenda

Appendix B – List of Working Papers, Information Papers and Flimsies

Appendix C – List of Participants

Appendix D – Action Item List

Appendix E – Report for WRC-27 Prep Workshop for AFI States

APPENDIX A

TWENTY SECOND WORKING GROUP MEETING OF THE FREQUENCY SPECTRUM MANAGEMENT PANEL (FSMP-WG/22) (Dakar, Senegal, 02-13 March 2026)[1]

Agenda Item 1 — Opening and Working Arrangements
- a) Agenda review and document attribution WP11, IP03
- b) Status of tasks identified on Job Cards
- c) FSMP timeline for activities
- d) Reports from related meetings WP04

Agenda Item 2 — ICAO position for WRC-27 – FSMP.002.02 WP10, 12, 25, 29

Agenda Item 3 — Development of Material for ITU-R Studies – FSMP.003.02
- a) Material for WRC-27 agenda items IP10, 12
- b) Non-WRC material for the ITU

Agenda Item 4 — Radio Altimeters – FSMP.006.02
- a) Radio altimeter technical and policy developments WP05, 20, 24 IP06, 14, 15
- b) Development of radio altimeter Annex 10, Vol. V PfA and associated material WP22

Agenda Item 5 — Aeronautical Band Planning – FSMP.005.03
- a) 108 – 137 MHz
- b) 960 – 1215 MHz
- c) 5000 – 5150 MHz WP~~12,~~ 16
- d) Development of SB-VHF Annex 10, Vol. V PfA and associated material WP02, 13, 14, 21, 28 IP01, 04, 07, 08, 09
- e) Development of LDACS Annex 10, Vol. V PfA and associated material WP 19

Agenda Item 6 — Interference from Non-Aeronautical Sources – FSMP.004.03 IP05, 11

Agenda Item 7 — ICAO Frequency Spectrum Handbook (Doc 9718) – FSMP.001.02 & FSMP.005.03
- a) Update of Doc 9718 Volume I
- b) Update of Doc 9718 Volume II
- c) Long-term restructuring of Doc 9718 WP26

Agenda Item 8 — Any Other Business WP03, 08, 15, 18 IP02, 13
- a) Hybrid COommunications Network (HYCON)/Hyperconnected ATM (HCATM)/Connected Aircraft (CA) WP06, 07, 09, 23, 27
- b) UAS WP01, 17

Agenda Item 9 — Meeting close
- a) Meeting report
- b) Action item review
- c) Future meetings timetable

[1] This meeting includes the AFI preparatory workshop for the ITU WRC-27

APPENDIX B

List of Papers

All papers are available on closed website.

List of Working Papers

Topic	Presented by	Agenda item
FSMP-WG22_WP01_Responses from RPASP regarding DAA technical para.pdf	Secretary	8b
FSMP-WG22_WP02_Regional_Inter Regional coordination updates - Space based VHF_final.pdf	Secretary	5d
FSMP-WG22_WP03_ECC SE24 LS to ICAO regaridng UWB extension 8.5 to 10.6 GHz.pdf	Secretary	8
FSMP-WG22_WP04.0_Secretary Updates for FSMP_Feb 2026.pdf	Secretary	1d
FSMP-WG22_WP04.1_Appendix A_Global updates - Frequency Spectrum Management - Feb 2026.pdf	Secretary	1d
FSMP-WG22_WP05-Annex 14 Update.doc	John Micallef	4a
FSMP-WG22_WP06-Flight regularity messages.doc	John Micallef	8a
FSMP-WG22_WP07-IATA_Future Aircraft Communications.doc	Khaled Eltanany	8a
FSMP-WG22_WP08-IATA_VHF air-to-air Interference.doc	Khaled Eltanany	8
FSMP-WG22_WP09_Idea for HYCON consideration_0218.doc	Katsuyuki Arakawa	8a
FSMP-WG22_WP10.0_French-proposal-to-amend-ICAO-Draft-Position-to-WRC-27 V2.doc	Christian Fleury	2
FSMP-WG22_WP10.1_French-proposal-to-amend-ICAO-Draft-Position-to-WRC-27 V2_AnnexA.docx	Christian Fleury	2
FSMP-WG22_WP11_Restricted acces of the FSMP documents.doc	Christian Fleury	1a
FSMP-WG22_WP12_Coordination_procedure_for_AMSRS.doc	Mathieu Hussong	2
FSMP-WG22_WP13.0_Space-Based VHF SARPs Impact Assessment and Implementation Plan.docx	Manuel Garcia	5d
FSMP-WG22_WP13.1_Space-Based VHF SARPs Impact Assessment and Implementation Plan_Attachment_clean.docx	Manuel Garcia	5d
FSMP-WG22_WP13.2_Space-Based VHF SARPs Impact Assessment and Implementation Plan_Attachment2_change_control.docx	Manuel Garcia	5d
FSMP-WG22_WP14_Report from SB-VHF_CG_v2.docx	Manuel Garcia	5d
FSMP-WG22_WP15_X-band Spectrum regulation clarification.doc	Laurent Azoulai	8
FSMP-WG22_WP16_C2 Link Rules Feb 19.docx	Taylor King	5c
FSMP-WG22_WP17_DAA Potential Operational Bands Feb 19.docx	Taylor King	8b
FSMP-WG22_WP18_WAIC M.2085 Harmonization Feb 16.docx	Chris Tourigny	8
FSMP-WG22_WP19.0_LDACS_v2.docx	Guillaume Novella	5e
FSMP-WG22_WP19.1_LDACS_Annex1.docx	Guillaume Novella	5e
FSMP-WG22_WP19.2_LDACS_SARPs_vol_III_for_SP_Annex2.docx	Guillaume Novella	5e
FSMP-WG22_WP20-IATA_AI 1.7 Operational Scenarios.doc	Khaled Eltanany	4a
FSMP-WG22_WP21.0_Space-Based VHF SARPs Validation Report.docx	Jose Luis Chinchilla	5d
FSMP-WG22_WP21.1_SB-VHF SARPs Validation Report_v7.1.docx	Jose Luis Chinchilla	5d
FSMP-WG22_WP21.2_ECHOES VHF Payload Qualification Summary Report v.02_clean.pdf	Jose Luis Chinchilla	5d
FSMP-WG22_WP21.3_ECHOES VHF Operational Exercises Outcomes Summary Report v.02_clean.pdf	Jose Luis Chinchilla	5d
FSMP-WG22_WP21.4_Sky6 VHF Testing for Validation Report.pdf	Jose Luis Chinchilla	5d

FSMP-WG22_WP22_RA SARPs Framework Proposal.docx	Andrew Roy	4b
FSMP-WG22_WP24_RA Guidance.docx	Andrew Roy	4a
FSMP-WG22_WP25_ICAO position for WRC-27_NAV CANADA.docx	Abed Ferr	2
FSMP-WG22_WP26_Scenario Library for Sharing and Compatibility Studies.doc	Abed Ferr	7c
FSMP-WG22_WP27_HYCON Considerations Feb 23-2026_v02.doc	Abed Ferr	8a
FSMP-WG22_WP28.0_Annex 10 Vol 5 PfA.docx	Manuel Garcia	5d
FSMP-WG22_WP28.1_Annex 10 Vol 5 PfA.docx	Manuel Garcia	5d
FSMP-WG22-WP29_ICAO Position Update.docx	Matt Colbert	2

List of Information Papers

Topic	Presented by	Agenda item
FSMP-WG22_IP01.0_Response from CP-DCIWG_SB-VHF PfA to A10 V3.pdf	Secretary	5d
FSMP-WG22_IP01.1_Response from CP-DCIWG SB VHF Annex10 V3 PfA Comments Rev05.xlsx	Secretary	5d
FSMP-WG22_IP02.0_Inter-Panel coordination reqeuest from AAM SG.pdf	Secretary	8
FSMP-WG22_IP02.1_Appendix A_ICAO_AAM_Vision 17_December_2025_v.0.7.pdf	Secretary	8
FSMP-WG22_IP02.2_Appendix B_Comment Matrix_VISION.xlsx	Secretary	8
FSMP-WG22_IP02.3_Appendix C_AAM_Workshop slides.pdf	Secretary	8
FSMP-WG22_IP03_Information on the FSMP Websites.doc	Secretary	1a
FSMP-WG22_IP04.0_Annex 10 Vol 3 PfAs.docx	Matt Colbert	5d
FSMP-WG22_IP04.1_Annex 10 Vol 3 PfA.docx	Matt Colbert	5d
FSMP-WG22_IP05_EUROCAE GNSS Resilience Workshop outcomes.docx	Laurent Azoulai	6
FSMP-WG22_IP06_Radio Altimeter Feb 17.docx	Miles Bellman	4a
FSMP-WG22_IP07.0_Doc 10228 SB-VHF Manual.doc	Chris Tourigny	5d
FSMP-WG22_IP07.1_Doc 10228 SB-VHF Manual_Annex A.docx	Chris Tourigny	5d
FSMP-WG22_IP08_Skykraft_Constellation_Update.docx	Matt Colbert	5d
FSMP-WG22_IP09_Frequencies Availability for SB-VHF in the SAM Region_v2.docx	Vahe Yaghdjian	5d
FSMP-WG22_IP10_Summary of the Outcomes of the WP4C meeting on WRC-27 AI 1.11 REV2.docx	Vahe Yaghdjian	3a
FSMP-WG22_IP11_AAS Unwanted Emissions_v3	Andrew Roy	6
FSMP-WG22_IP12_Potential use of military standards for WBHF communication.doc	Abed Ferr	3a
FSMP-WG22_IP13_Status of RTCA and EUROCAE Spectrum Work.docx	Rebecca Morrison Mark Watson	8
FSMP-WG22_IP14.0_Notice of Proposed Rulemaking NPRM FAA-2025-5666_v2.doc	Josep Giné	4a
FSMP-WG22_IP14.1_Notice of Proposed Rulemaking NPRM FAA-2025-5666_Atachment_v2.pdf	Josep Giné	4a
FSMP-WG22_IP15_Evaluation_of_differences_in_base-station_signal_characteristics_of_sub-6_GHz_band_5G_mobile_communication_systems_rev1.pdf	Katsuyuki Arakawa	4a

List of Flimsies

Topic	Agenda item
FSMP-WG22_Flimsy01-WP28.1_Annex 10 Vol 5 PfA_Rev2	5d
FSMP-WG22_Flimsy02-WP28.0_Annex 10 Vol 5 PfA.docx	5d
FSMP-WG22_Flimsy03-WP13.1_Space-Based VHF SARPs Impact Assessment and Implementation Plan_Attachment_Rev1.docx	5d
FSMP-WG22_Flimsy04_HyCON_CP-DCIWG Draft job card.docx	8a
FSMP-WG22_Flimsy05-Mod proposal 15.3.5.2-IP04.docx	5d
FSMP-WG22_Flimsy06-WP22_RA SARPs Framework.docx	4b
FSMP-WG22_Flimsy07-HYCON Questions Rev1.docx	8a
FSMP-WG22_Flimsy08-ICAO Position Updates Clean.docx	2
FSMP-WG22_Flimsy08-ICAO Position Updates Redline.docx	2
FSMP-WG22_Flimsy09-AAMSG-VISION_Comment Matrix_VISION_FSMP rev3_final.xlsx	8
FSMP-WG22_Flimsy10-LDACS_Annex10VolV_clean_after_FSMP.docx	5e

APPENDIX C

TWENTY SECOND WORKING GROUP MEETING OF THE FREQUENCY SPECTRUM MANAGEMENT PANEL
(*Dakar, Senegal, 02-13 March 2026)*

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APPENDIX D

ACTION ITEM LIST

Number	Description	Actionee	Due Date	Status
19-05	Provide results of airborne weather radar testing as soon as feasible, and ideally by end of Q3 2024 given the ongoing international and national work in nearby frequency bands. FSMP chair to advise on specifics with RTCA/ EUROCAE	RTCA/EUROCAE/ FSMP Chair	End of Q3 2025	FSMP WG/21 CLOSED – See FSMP WG/22 IP13
20-11	Provide Flimsy02 on DAA requirements to the RPASP for feedback to FSMP	Secretariat	FSMP WG/23 at the latest	ONGOING – CLOSED, see ACTION22-09.
20-12	Based on FSMP WG/20 **Flimsy**11 on spectrum updates in the ICAO GANP: Provide FSMP comments to the GANP study group and provide any feedback to the next FSMP meeting.	Secretariat	FSMP WG/21	ONGOING – CLOSED, GANP study group had already began by FSMP WG/22.
20-13	Based on FSMP WG/20 **Flimsy**13 on spectrum updates in the ICAO ASBU: Provide feedback at the next FSMP on the text in the CNS chapter of the ASBU section of GANP.	FSMP Membership	FSMP WG/23	ONGOING – No updates received as of WG/22

Number	Description	Actionee	Due Date	Status
21-01	Seek further inputs and suggestion on how to address the questions in the WG/21 Flimsy01 to consider to aviation spectrum support to the ITU-R. This includes any views on the proposed method to answer some of those questions.	FSMP	FSMP WG/23	ONGOING – No updates received as of WG/22
21-03	To request manufacturers (ICCAIA) and operators (IATA) seek input from their members for any additional details that may further inform the technical material for VHF voice planning in WG/21 WP06.	ICCAIA and IATA	FSMP WG/22	FSMP WG/22 CLOSED – See WG/22 WP08
21-04	Request that any other ACAS interference reports as described in WG/21 WP02 be submitted to the FSMP for compilation before sending to the SP.	FSMP	FSMP WG/23	ONGOING – No updates received as of WG/22
21-05	Consider possible options for aviation spectrum monitoring guidance that the FSMP may want to consider at future meeting.	FSMP	FSMP WG/23	ONGOING – No updates received as of WG/22
21-06	To compile the small UAS description material WP16, IP12, and IP13 and send it to the AAM SG for comments back to FSMP-WG/22	Secretariat	FSMP WG/23	ONGOING – No updates received as of WG/22

Number	Description	Actionee	Due Date	Status
21-07	Seek further inputs on the different HYCON spectrum policy options at future FSMP meetings based on Flimsy02. To frame discussions, an initial question was asked for input - What are the requirements that define the types of aviation messages or functions that are safety?	FSMP	WG/22	FSMP WG/22 CLOSED – See updated Action 22-XX
21-08	Request airframers and equipment OEMs clarify how they are attempting to minimize the amount of data being generated by newer airframes as discussed in FSMP-WG/21 WP25	ICCAIA	FSMP WG/23	ONGOING – No updates received as of WG/22
22-01	Seek future inputs for one-page briefings on WRC-27 agenda items that ICAO could use to supplement the ICAO position document	FSMP Membership	FSMP WG/23	
22-02	Inform both the RPAS panel and CP-DCIWG for a wider view within ICAO of the proposal in WG/22-WP12 on a future agenda item for C-band UAS C2 links using AMS(R)S	Secretariat	FSMP WG/23	

Number	Description	Actionee	Due Date	Status
22-03	Task the existing CG-RA group with assessing what ICAO documentation would be best to support both current and future radio altimeter designs. The CG-RA would also look to progress the Annex 10, Vol. V material for the radio altimeter. The results of this work would then be reported back to the FSMP WG/23 meeting for further consideration	CG-RA	FSMP WG/23	
22-04	To seek further contributions to the draft radio altimeter SARPs **(Flimsy06)** at future meetings to develop the material further, and any considerations that might be required for a technical manual to support the work	FSMP Membership	FSMP WG/23	
22-05	Secretariat to speak with the other relevant panels to assess which panel might be responsible for a new radio altimeter technical manual if it was needed	Secretariat	FSMP WG/23	
22-06	Seek technical inputs at the next meeting to assist in developing an ICAO response to the CEPT studies on UWB in the 8.5–10.6 GHz band	FSMP Membership	FSMP WG/23	

Number	Description	Actionee	Due Date	Status
22-07	Send the questions raised in **Flimsy07** to the CP-DCIWG and ATMRPP. Ideally any responses to these questions would be provided well in advance of the FSMP WG/23 meeting to allow for consideration by the FSMP membership	Secretariat	FSMP WG/23	
22-08	HYCON spectrum policy recommendations to be submitted to FSMP-WG/23 to ensure an informed decision at that meeting		FSMP WG/23	
22-09	Request for additional contributions on how Doc 9718 could be further updated in the DAA guidance section, considering what may be potential global DAA allocations, the need for confirmation that each of the proposed allocations is suitable, and that such DAA systems would be compatible with the existing aviation systems in those bands	FSMP Members	FSMP WG/24	

APPENDIX E

Appendix E –

Report for WRC-27 Prep Workshop for AFI States