FF/2023

**INERNATIONAL CIVIL AVIATION ORGANIZATION**

**RLA/06/901**

# WORKSHOP/TRAINING ON "FREQUENCY FINDER 2023" APPLICATION

**(FF/2023)**

# SUMMARY OF ACTIVITIES

**(Lima, 29 May to 02 June 2023)**

# INDEX

# HISTORY OF THE WORKSHOP/TRAINING

## ii-1 GENERAL

The Workshop/Training on the "Frequency Finder 2023" application was held in Lima from May 29 to June 2, 2023, at the premises of the ICAO South American Regional Office.

## ii-2 OPENING

Mr. Francisco Almeida, CNS Regional Officer of the ICAO South American Regional Office, welcomed the participants and wished them success in the programmed activities.

## ii-3 WORKING LANGUAGES

The working languages of the workshop/training were Spanish and English (simultaneous interpretation). The documentation was presented in English.

## ii-4 ATTENDANCE

The workshop/training was attended by representatives from 14 States of the CAR and SAM Regions (Argentina, Bolivia, Brazil, Costa Rica, Cuba, Dominican Republic, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad & Tobago and Uruguay), 1 representative of COCESNA, and 2 ICAO Officers, for a total of 21 people. The list of participants appears on page iii-1.

Mr. Jonasson Loftur and Mrs. Mie Utsunomiya acted as instructors.

# LIST OF PARTICIPANTS

**ARGENTINA**
1. Andrés Espina

**BOLIVIA**
2. Iver Vargas

**BRAZIL**
3. Vahe Antoine Yaghdjian

**COSTA RICA**
4. Warren Quiros

**CUBA**
5. Lizet Toirac

**HONDURAS**
6. Alberto Zúñiga

**MEXICO**
7. Lino Páramo

**NICARAGUA**
8. Luis E. Alemán

**PANAMA**
9. Osvaldo Díaz
10. Raymundo Ledesma
11. Carlos Aparicio

**PARAGUAY**
12. Jhonny Colman

**PERU**
13. Kevin Loyo
14. Jorge Luis Díaz

**DOMINICAN REPUBLIC**
15. Félix Peralta

**TRINIDAD & TOBAGO**
16. Rupnarine Baboolal
17. Naresh Seeparsa

**URUGUAY**
18. Horacio Berretta

**COCESNA**
19. Rodolfo Rosales

**OACI / ICAO**
20. Francisco Almeida
21. Mayda Ávila

**ICAO INSTRUCTORS**
22. Mie Utsunomiya
23. Jonasson Loftur

**REGIONAL PROJECT RLA/06/901**

**WORKSHOP/TRAINING ON "FREQUENCY FINDER 2023" APPLICATION (FF/2023)**
(Lima, 29 May to 02 June 2023)

**TENTATIVE AGENDA**

| **HOUR (Local)** | **Monday** 29 May 2023 | **Tuesday** 30 May 2023 | **Wednesday** 31 May 2023 | **Thursday** 01 June 2023 | **Friday** 02 June 2023 |
|---|---|---|---|---|---|
| 09:00<br>09:30 | Opening | Handbook Volume II;<br>Frequency assignment planning criteria<br>(Handbook 2A) | Handbook Volume II;<br>Frequency assignment planning criteria<br>(Handbook 3A) | Using Frequency Finder:<br>other functions (FF5A)<br>*Exercise – export (submission)*<br>*Drill – undo submission* | The 5G issue<br><br>Future Work - CNS and Spectrum<br><br>SSR module (FF SSR 1A) |
| 09:30<br>10:35 | Installation of the FF run-time version | | | | |
| 10:30<br>11:00 | ***Pause*** | ***Pause*** | ***Pause*** | ***Pause*** | ***Pause*** |
| 11:00<br>12:30 | Handbook Volume II; General principles in planning the assignment of aeronautical frequencies (Handbook 1A) | Using Frequency Finder:<br>Compatibility Test;<br>Analyze detailed calculation results<br>(FF3A. Cont.)<br>*Exercise – results obtained* | Using Frequency Finder:<br>Add, modify or delete<br>(FF4A.Cont.)<br>*Exercise – ER service area* | - Current CAR/SAM frequency assignment (RO)<br>- Modification of the CAR/SAM frequency assignment | Discussions with the different States on issues related to the frequency assignment plan |
| 12:30<br>13:30 | ***Lunch break*** | ***Lunch break*** | ***Lunch break*** | ***Lunch break*** | ***Lunch break*** |
| 13:30<br>14:15 | Using Frequency Finder:<br>Integrity Check, COM3 List Query and Navigation<br>(FF2A) | Using Frequency Finder: Add, Modify, or Remove Frequency Assignments from the COM 3 List<br>(FF4A) | - Presentation of the specific use of COM frequencies in the CAR/SAM regions<br>- Coordination procedure in the CAR/SAM regionsInterregional coordination | NAV module (FF NAV 1A)<br>Update COM2 data | Closure and group photo |
| 14:15<br>14:30 | ***Pause*** | ***Pause*** | ***Pause*** | ***Pause*** | |
| 14:30<br>15:15 | Using Frequency Finder:<br>COM3 List Navigation Frequency test (FF3A)<br>*Exercise – Freq Test*<br>*Exercise – Compatibility* | Using Frequency Finder: Add, Modify, or Remove Frequency Assignments from the COM 3 List<br>(FF4A) | Update of information<br>COM3 List | WRC Process<br>WRC 23 Schedule | |

## TOPICS ADDRESSED

### *Frequency Finder Tool - Basic Features*

2.1 The Frequency Finder application was developed with FileMaker Pro Advanced. FileMaker is a cross-platform relational database application from Claris International, a subsidiary of Apple Inc. It integrates a database engine with a graphical user interface and security functionalities. Frequency Finder implements graphical interface with Google Earth.

2.2 Frequency assignment planning criteria are implemented according to the Handbook on Radio Frequency Spectrum Requirements for Civil Aviation Volume II (Doc 9718).

2.3 The 2023 version is available at the following link:

https://www.icao.int/safety/FSMP/Pages/Documents.aspx?RootFolder=%2Fsafety%2FFSMP%2FDocuments%2FFrequencyFinder&FolderCTID=0x012000B1461A5DA8C64241AA4DE4F91CB1D9AF&View=%7BE11C4C29%2DDDD83%2D4B87%2DAAAE%2D2330E3DE14D8%7D

2.4 The modules implemented in version 2023 are:

- VHF COM module; and
- VHF NAV module.

2.5 A stand-alone module for SSR II/SI code management is also available.

2.6 During the workshop/training the VHF COM and VHF NAV modules were discussed in more detail, consisting of the following items:

- Application installation;
- VHF COM module: COM 3 list, integrity check and query;
- Frequency test;
- Add, modify and delete frequency;
- Special functions, mapping and export;
- Radio frequency spectrum requirements for civil aviation Volume II (Doc 9718);
- VHF NAV module: COM 2 list and the same functionalities presented in the VHF COM module;
- SSR II/SI code module; and
- Future work related to the Frequency Finder.

### *Guidance from Regional Officers*

2.7 During the workshop/training, there was a session dedicated to the Regional Officers of the NACC and SAM Offices to coordinate with those present the steps to be taken for regional management of aeronautical frequencies in accordance with Decision GREPECAS/20-5 "*Creation of an Ad-hoc Group for the development of a regional project for the management of aeronautical frequencies*".

2.8 The workshop/training participants noted that the Ad-hoc Group met at the NACC Office from January 30 to February 3, 2023. The report of the Ad-hoc Group meeting can be found at the following link: https://www.icao.int/NACC/Pages/meetings-2023-afm.aspx.

2.9 The Ad-hoc Group has elaborated the proposal for a Regional Project for frequency management in the RAC/SAM Regions, which was approved during the eCRPP/5 Meeting. The GREPECAS Project will be addressed to:

a) provide guidance to CAR and SAM States to manage frequency allocation;
b) establish updated databases in both regions available to the States;
c) to establish more expeditious mechanisms for coordination and socialization of issues of interest in this area; and
d) develop mechanisms for frequency usage analysis for future aeronautical services

2.10 This workshop/training is one of the programmed activities of the GREPECAS Project for the regional CAR/SAM management of the aviation radio spectrum.

2.11 Due to the absence of several States at the workshop/training held at the SAM Office, the Regional Officers will need to provide trainings (online) so that all States have trained personnel to use the Frequency Finder application.

2.12 For an effective management required by the GREPECAS Project, it is necessary that all CAR/SAM States use the Frequency Finder 2023 application as the management tool for the frequencies currently listed in the COM 2 (NAV) and COM 3 (VHF COM) Lists.

2.13 The proposal is that, after training in the use of the Frequency Finder application, the CAR/SAM States update the information in the application's database, which will become the main source of consultation for the frequencies used and for analysis of new deployments or studies of potential interference between deployed services/stations.

2.14 The NACC and SAM Office will work directly with the States that did not attend the workshop, so that they can participate in the agreed activities and especially in updating their frequency list.

2.15 For the GREPECAS/21 Meeting, the Secretariat shall prepare a study note reporting the progress of the database update and present a proposal of conclusion for the adoption of the Frequency Finder as the common tool for frequency management in the CAR and SAM regions.

2.16 The proposal will include updating the procedure for the analysis and allocation of frequencies by States using the Frequency Finder and will eliminate the publication of frequencies in the COM 1, COM 2 and COM 3 Lists.

2.17 Finally, the Regional Officers summarized the approach to be adopted in the GREPECAS Project for regional CAR/SAM management of the aviation radio spectrum:

a) Update information on the allocation of aeronautical frequencies in the CAR/SAM regions by November 2023;
b) Establish/update the regional frequency assignment procedure;
c) Propose a regional training program for aeronautical frequency management;
d) Establish mechanisms for follow-up and evaluation of the issues of the World Radiocommunication Conference (WRC) of the International Telecommunication Union (ITU); and
e) Search for mechanisms that allow the application of the standardization of procedures.

***Other matters***

*The aeronautical frequency spectrum and World Radiocommunication Conferences*

2.18 The instructors gave a presentation on the importance of aeronautical frequency spectrum management and the direct relationship with the topics discussed at the World Radiocommunication Conferences of the International Telecommunication Union (ITU).

2.19 Likewise, the need for a rapprochement between the aeronautical authorities and the national authorities/agencies responsible for frequency spectrum management in each State was highlighted, in order to raise awareness and ensure the protection of aeronautical services, in accordance with the document circulated by ICAO entitled "ICAO Position for the 2023 World Radiocommunication Conference (WRC-23) of the International Telecommunication Union (ITU)".

*Support for the proposal presented by Brazil at the Meeting of the Inter-American Telecommunication Commission*

2.20 Regarding item 1.7 of the WRC-23 Agenda, Brazil has presented, at the CITEL meeting, a document based on the sharing and compatibility studies conducted by the WP 5B study group and on Method B1 of the CPM23-2 meeting, updating the results document (CITEL/GT/CMR-23/doc.066/22), supporting Method B1.

2.21 Method B1 proposes a new allocation in the band 117.975-137 MHz with the addition of a power flux density (PFD) limit, on unwanted emissions from AMS(R)S space stations falling above 137 MHz, 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 in accordance with RR No. 9.11A with a coordination threshold proposed in Annex 1 of RR Appendix 5.

2.22 Considering that this agenda item, if adopted by the ITU at WRC-23, will ensure increased safety, capacity and efficiency of air navigation, it is very important that CAR/SAM States support the ICAO position by allocating the 117.975 - 137 MHz band to Space-based VHF.

2.23 The representative of Brazil at the workshop/training has requested the support of the other participants to work together with the delegates of their States at WRC-23 to support the ICAO position regarding item 1.7 of the WRC-23 Agenda, in accordance with the proposal presented by Brazil at the CITEL meeting.

2.24 The representative of Brazil has also made himself available to provide further information as required.

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