

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Fourth Meeting of the APIRG Airspace and Aerodrome Operations Sub-Group
(AAO SG/4), Virtual Meeting, 16 to 18 August 2021

Agenda Item 3 **Planning and Implementation**

Agenda Item 3.1: **Airspace (Safety, Capacity and Efficiency) projects.**

**STATUS REPORT ON THE IMPLEMENTATION OF FREE ROUTE AIRSPACE (FRA)
WITHIN THE CONTINENTAL AFI AIRSPACE.**

(Presented by ICAO AFI FRA PMT)

SUMMARY

The paper provides a status report on the work of the FRA PMT. In line with **ASBU B1-FRTO** module and **APIRG 22 Conclusion 22/36**, a project management team with AFI States experts was established in order to facilitate the implementation of Free Route Airspace (FRA) concept into the national airspace design of selected States.

To draw more benefits on the FRA concept at this time when COVID-19 has negatively affected the aviation industry, a harmonized and an AFI region-wide implementation is needed.

Action required is as per paragraph 3

REFERENCE(S):

GANP

Report of APIRG 22

Related ICAO Strategic Objective(s):

A: Safety – Enhance Global Civil Aviation Safety; B: Air Navigation Capacity and Efficiency; C: Economic Development of Air Transport; E: Environment Protection.

1. INTRODUCTION

1.1. Free Route Airspace FRA is “A specified airspace within **which users may freely plan a route between a defined entry point and a defined exit point**, with the possibility to route via intermediate (published or unpublished) waypoints, **without reference to the ATS route network**, subject to airspace availability. Within this airspace, **flights remain subject to air traffic control.**”

1.2. The implementation of FRA in AFI will be a step-by-step process starting with plannable direct route publications to be regularly updated by ANSPs.

1.3. The FRA concept will allow operators to choose direct trajectories within airspaces based only on entry/exit points with fewer limitations such as intermediate points for avoiding restricted or dangerous airspaces.

2. DISCUSSION

2.1 In order to have a harmonized implantation of FRA, as well as help all players have common understanding of the concept it was import to develop a Concept of Operations (CONOPS) and a GAP analysis tool to assess the readiness of CNS infrastructure and ATM capacity to implement FRA.

2.2 For AFI States to be able to incorporate the FRA concept in their national airspace organisation and air traffic management master plans, the AFI Free Route Airspace Project Management Team (FRA PMT) has developed the first edition of the FRA Concept of operations (AFI FRA CONOPS) which will enable safer and harmonized implementation.

2.3 Since FRA will require enabling CNS infrastructure as well as ATM system enhancement, the AFI FRA PMT has developed a gap analysis checklist for AFI States/ANSPs in order to assess their capacity to implement FRA more effectively.

2.4 Knowing the prevailing conditions and requirements for the implementation of FRA will help to define how the AFI region will fill the gaps for the operationalization of the FRA concept through an agreed roadmap. It is therefore important for States that have not already done so to complete and submit the Gap Analysis forms in **Appendix V** by 30 September 2021.

2.4.1 The GAP analysis checklist will provide an overall picture of possible challenges to be addressed during implementation such as:

- i.) ACC CNS/ATM supporting equipment in terms of availability, continuity and integrity, etc.
- ii.) Conflict harder to detect; for example, crossing-points are no longer fixed-points or published route intersections defined by 5LNCs or NAVAIDS but at any crossing point defined by its coordinates.
- iii.) Need for enhanced coordination between ANSPs for FRA beyond the FIR boundaries; enhanced civil military coordination, etc.
- iv.) Appropriate changes to Airspace design concept (entry/exit/intermediate waypoints) and ATS Letters of Procedures updates.
- v.) Dedicated training on the new operational issues (conflict detection, coordination, procedures, etc.)

2.5 The wider the area within which the FRA is deployed in AFI region, the more the benefits that users will draw from implementing FRA.

3. ACTION BY THE MEETING

3.1 The meeting is invited to urge the AFI States:

- a) To adopt the FRA concept and the AFI FRA CONOPS;
- b) That have not already done so, to complete the FRA Gap Analysis checklist in **Appendix V** and forward to ICAO by 30 September 2021.

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