



INTERNATIONAL CIVIL AVIATION ORGANIZATION

First Meeting of APIRG Infrastructure and Information Management Sub Group (IIM/SG/1)
(Nairobi, Kenya, 27-30 June 2017)

4.3 Aeronautical Communication Navigation Surveillance and Spectrum Infrastructure and Systems

4.3.7 Aeronautical Surveillance requirements in support to ATM

AFI aeronautical Surveillance requirements and deficiencies

(Presented by Secretariat)

Table with 1 column and 4 rows. Row 1: SUMMARY. Row 2: This paper presents the Aeronautical Surveillance requirements in support to Air Navigation Service provision. Action by the meeting is at paragraph 3:. Row 3: REFERENCE(S): Doc 9750, Global Air Navigation Plan; Doc 7474, Air Navigation Plan — Africa-Indian Ocean Region; Report of AFI/RAN 7th meeting; Report of Sp AFI/RAN 8 Meeting; Report on APIRG Meetings; Report on the meeting for the establishment of the APIRG IIM Sub Group. Row 4: Related ICAO Strategic Objective(s): A – Safety, B – Air Navigation Capacity and Efficiency, D – Economic Development of Air Transport, and E – Environmental Protection. Related ASBU KPIs & B0 Modules: All applicable to AIM, CNS and MET

1. INTRODUCTION

1.1 The Regional Air Navigation meetings in the AFI region in particular LIM AFI (COM RAC MET, Lomé 1988), 7th Meeting of the AFI/RAN have defined the surveillance requirements in support to Air Navigation Service.

1.2 The APIRG meetings held generally every 18 months regularly reviews the status of implementation of the Air Navigation Plan in the area of surveillance, identifies deficiencies related to aeronautical surveillance and accordingly updates the regional aeronautical surveillance strategy with regards to the ATM new requirements.

2 DISCUSSION

2.1 The Aeronautical surveillance requirements in support to Air Traffic Management defined by the AFI Regional Air Navigation 7th meeting (Abuja, Nigeria, 12-23 May 1997) were discussed in detail and the AFI Regional Plan. Operational and technical needs and performance were identified for Aeronautical surveillance Service.

2.2 Required Aeronautical surveillance facilities



The AFI/RAN 7<sup>th</sup> meeting identified the operational requirements for the surveillance of air traffic for En-route, Approach and Terminal areas as well as the followings sensors deemed to provide the service:

- a) Primary Surveillance Radar (**PSR**) and Secondary Surveillance Radar (**SSR**);
- b) Automatic Dependent Surveillance (**ADS**).

Taking due account of the evolving technology, APIRG considered Multilateration (**Mlat**) technics as candidate to provide aeronautical service in the AFI Region.

The AFI aeronautical surveillance plan was revised under **Recommendation 11/1- Amendment of the Air Navigation Plan, Part III-Aeronautical Surveillance Plan**.

### 2.3 Strategy for planning and implementation of Aeronautical surveillance systems in the AFI Region

The strategy for planning an implementation of aeronautical surveillance systems in the AFI Region was developed by the AFI Aeronautical Surveillance Task Force endorsed by the APIRG CNS/SG and approved by APIRG/18 under **Conclusion 18/34-AFI Surveillance Strategy**. This Strategy is presented at **Appendix A** to this working Paper

With the new projects approach adopted by APIRG, the CNS/SG and its Tasks Forces will be dissolved. The surveillance Project Team should therefore review the current surveillance strategy and update it with regard to the provision of the 5<sup>th</sup> Edition of the Global Air Navigation Plan (**GANP-Doc 9750**).

### 2.4 Air navigation deficiencies in the Surveillance field

Based on the Regional plan, AFI Administration/Organizations have been implementing surveillance systems. Based on the information available to the Secretariat, the current status of implementation of surveillance systems is attached at **Appendix B** to the working Paper that shows the deficiencies. The surveillance Project Team should be therefore tasked to update the status of implementation of surveillance systems in the region as well as the AFI surveillance strategy, develop and maintain a table of air navigation deficiencies in the surveillance field.

## 3 ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Take note of the information presented in this working paper, recalling the surveillance requirements to support the provision of Air Navigation Service;
- b) Identify additional requirements to be considered by the APIRG IIM Sub/Group ;
- c) Update the attached Strategy and status of implementation of surveillance systems in the AFI Region;
- d) Consider the Work done by the AFI Surveillance Implementation Task Force and agree on further planning and implementation actions to be conducted.



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