



INTERNATIONAL CIVIL AVIATION ORGANIZATION
Western and Central African Office
Workshop on the Interconnection of Aeronautical Surveillance Systems
(Dakar, 14 – 16 April 2014)

Agenda Item 5: Interconnection of Aeronautical surveillance systems in the AFI Region

Regional commitment for the interconnection of aeronautical surveillance systems

(Presented by the Secretariat)

Summary

This Working Paper presents the brief summary on the AFI Regional commitment for the interconnection of aeronautical surveillance systems

Action by the meeting is at Paragraph 3.

Reference

Report on the nineteenth of APIRG 16 to 19 meetings.

Related ICAO Strategic Objectives: A: Safety; B: Air Navigation Capacity and Efficiency

Related ASBU Bloc 0 Modules, Performance Improvement Area:

PIA 2 - Globally Interoperable Systems and Data: BO FICE

PIA 3 - Optimum Capacity and Flexible Flights: BO ASEP; BO ASUR; BO OPFL; BO SNET

PIA4 - Efficient Flight Path: BO TBO

1. INTRODUCTION

The interconnection of surveillance systems in the AFI Region should be conducted based on regional arrangements agreed during the AFI Planning and Implementation Regional Group (APIRG) meetings.

Since APIRG 13 meeting regional commitments have related to the implementation of an integrated surveillance system in the AFI Region have been taken.

2. 2 DISCUSSION

2.1 The **APIRG 16** meeting held in Rubavu, Rwanda, 19-23 November 2007, called upon AFI air navigation service providers (ANSPs) to adopt a collective approach and speak in a single voice on issues of common interest related to the implementation of CNS elements of the CNS/ATM systems (such as service level agreements with ATN service providers, system availability, etc.) in order to facilitate the implementation of a **coordinated and effective CNS infrastructure**. The following Conclusion was formulated accordingly:

CONCLUSION 16/31: COLLECTIVE APPROACH FOR THE MANAGEMENT OF CNS/ATM SYSTEM ELEMENTS

That the air navigation service providers (ANSPs) adopt a collective approach and speak in a single voice on issues of common interest related to the implementation of CNS elements of the CNS/ATM systems (such as service level agreements with ATN service providers, system availability, etc.).

2.2 The **APIRG 18** meeting held in Kampala, Uganda, 27-30 March 2012 approved the AFI Surveillance Strategy under conclusion 18/34 which reads as follows:

CONCLUSION 18/34: AFI SURVEILLANCE STRATEGY

That the AFI States adopt and implement the Surveillance Implementation Strategy shown at Appendix 3.4L to this report.

The meeting also discussed the need for neighboring States/ACCs to **exchange surveillance data to enhance aeronautical surveillance in the region** and to implement a monitoring system to address reported problems. These issues were included in the future work programme of the CNS Sub-group's Task Force on aeronautical surveillance.

2.3 The **APIRG 19** meeting held in Dakar, Senegal 28 – 31 October 2013 reviewed the status of implementation of surveillance systems and related projects. It was reported that besides the various Secondary surveillance Radar (**SSR**) implemented in the Region thirteen (**13**) AFI States¹ have implemented automatic dependent surveillance–contract (**ADS-C**) procedures, and that nine (9) other States have plans to implement the same in 2014 and 2015, in order to enhance situational awareness in oceanic and remote continental airspace.

The meeting further noted that ATS air-ground data link applications supporting surveillance service were being implemented without proper coordination of systems performance monitoring and reporting of anomalies. Based on experience gained in the South Atlantic (SAT) area, the Group identified the need to explore the establishment of a Data Link Central Monitoring Agency (**DL/CMA**) for data link applications in the AFI Region.

The following conclusion was formulated:

DRAFT CONCLUSION 19/30: ESTABLISHMENT OF A DATA LINK CENTRAL MONITORING AND REPORTING AGENCY (DL/CMRA)

That:

The ICAO Regional Offices explore with States and relevant organizations the available options for the establishment of a Data Link Central Monitoring and Reporting Agency (DL/CMRA) to ensure effective operation, monitoring and reporting of ATS data link applications in the AFI Region.

The meeting was provided with the summary of the report on the Third meeting of the AFI Surveillance Implementation Task Force in light of the technology Roadmap developed by the 12th Air Navigation Conference, and incorporated in the Global Air Navigation Plan. It noted the potential benefits of the emerging space-based ADS-B technology for the AFI Region.

The meeting was apprised of ongoing implementation of ADSB by States/Organization and successful trials ADS-B such as those conducted in the Indian Ocean Region by ASECNA in cooperation with airspace users, and of the plans of Air Traffic and Navigation Services (ATNS) of South Africa to conduct similar trials on ADS-B and Multilateration.

The meeting commended such initiatives and encouraged States to pursue the implementation of aeronautical surveillance requirements in accordance with the regional strategy adopted by the APIRG. In so doing, they should give due consideration to interoperability criteria to achieve an integrated surveillance system and seamless ATM operation within the areas of routing identified in the region.

¹ ADS-C procedures are operational in Accra, Antananarivo, Brazzaville, Dakar Terrestrial, Dakar Oceanic, Johannesburg, Mauritius, Ndjamena, Niamey, Sal Oceanic, and Seychelles flight information regions.

The meeting acknowledged that the implementation of an integrated surveillance system meeting interoperability requirements could be facilitated with the support from regional/sub-regional economic integration institutions and formulated conclusion 19/31

DRAFT CONCLUSION 19/31: INTEROPERABILITY OF AFI AERONAUTICAL SURVEILLANCE SYSTEMS

That, in order to enable seamless ATM operation within the AFI Region:

- a) **States and service providers take the necessary steps to ensure interoperability of the existing aeronautical surveillance systems and facilitate surveillance data sharing;**
- b) **AFCAC be requested to support the development of an integrated surveillance systems for continuous provision of aeronautical surveillance services the areas of routing identified by the APIRG; and**
- c) **ICAO continue to assist AFI States' initiatives towards the implementation of an integrated aeronautical surveillance system, through seminars, workshops and technical coordination meetings**

3. ACTION TO BE TAKEN BY THE MEETING

The meeting is invited to:

- a) Take note of the above information.
- b) Recommend the appropriate actions aiming to ensuring the effective implementation of the above conclusions.