INTERNATIONAL CIVIL AVIATION ORGANIZATION

**AERONAUTICAL SURVEILLANCE IMPLEMENTATION TASK FORCE
SECOND MEETING
(AS/I/TF/2)**
(Dakar, Senegal, 22-24 June 2011)

Agenda Item 6: Updating the draft strategy and the implementation plan of AFI Aeronautical Surveillance

DRAF AFI AERONAUTICAL SURVEILLANCE IMPLEMENTATION STRATEGY

(Presented by the Secretariat)

SUMMARY
This working paper presents to the Task Force, for further review and refinements, the draft AFI Aeronautical Surveillance Implementation Strategy, as prepared by the First Meeting of the Aeronautical Surveillance Implementation Task Force (AS/I/TF/1), endorsed by the Third Meeting of the CNS Sub-group (CNS/SG/3) and submitted to APIRG/17.
Action by the meeting is at paragraph 3.
References :   [1] – Report of the CNS/SG/3 Meeting (Principal reference)   [2] – Report of the CNS/SG/2 Meeting   [3] – Report of the APIRG/17 Meeting   [4] – Report of the ICAO Special AFI RAN Meeting (2008) (Doc 9930)   [5] – Annex 10 *to the Convention on International Civil Aviation, Volume 4*   *Note: References [1], [2], [3] and [4] can be downloaded from: **http://www.icao.int**.*
Related ICAO Strategic Objectives: A and C.

1. INTRODUCTION

1.1.   Under its Agenda Item 3.3, the Seventh Meeting of the APIRG (APIRG/17) (Ouagadougou, 2-6 August 2010) reviewed the report of the Third Meeting of the Communications, Navigation and Surveillance Sub-group (CNS/SG/3) on the Draft Aeronautical Surveillance Implementation Strategy as developed by the First Meeting of the AFI Surveillance Implementation Task Force (AS/I/TF/1).

2. DISCUSSION

2.1   The initial Draft Aeronautical Surveillance Implementation Strategy developed by the First Meeting of the AFI Surveillance Implementation Task Force (AS/I/TF/1), was to be reviewed and finalized two working groups (en-route operations and terminal/aerodrome operations) lead by ASECNA and Seychelles as team leaders. This assignment could not be completed before APIRG/17 meeting in August 2010. Therefore, based on the status report presented to APIRG/17, the following decision was formulated:

DECISION 17/32:   DEVELOPMENT OF AFI SURVEILLANCE STRATEGY

That, in order to finalize the development of AFI Surveillance Strategy, the Terms of Reference, work programme and composition of the AFI Surveillance Task Force be amended as shown in Appendix 3.3D to *the* report.

2.2   **Appendix** to this paper contains a revised Draft AFI Surveillance Implementation Strategy presented to APIRG/17, for consideration by the Task Force.

2.3   Furthermore, mindful of APIRG Conclusion 13/77, APIRG/17 urged States to submit the following data concerning their managed aerodromes and terminal areas (TMAs) to facilitate the work on their categorization:

> 1. **Aerodromes**: for each aerodrome:
> • Total annual number of movements for each of the following types of
> • Traffic: commercial, military and general aviation
> • IFR and VFR traffic numbers.
>
> 2. **TMAs**: for each TMA:
> • Number of civil and military airports within the TMA
> • Total annual number of movements at each type of airport
> • Vertical and lateral limits of the TMA
> • IFR and VFR traffic numbers
> • Restricted, prohibited and danger areas.

3.   ACTION BY APIRG

3.1   The meeting is invited to:

> a) Review, amend as necessary, and endorse the revised draft AFI Surveillance Strategy contained in **Appendix XX** as a basis, and provide further guidance as required, for consideration by CNS/SG/4; and
>
> b) Request States that have not yet done so, to provide the data concerning their managed aerodromes and terminal areas (TMAs) in order to facilitate the work on their categorization, in accordance with APIRG Conclusion 13/77.

— E N D —

APPENDIX A

DRAFT INITIAL AFI SURVEILLANCE PLAN IN SUPPORT OF PBN IMPLEMENTATION

EN ROUTE OPERATIONS

Airspace		PBN Navigation specifications	Short term (2008-2012)	Mid- term (2013-2016)	Long term (2017 and beyond)
En route oceanic		RNP10, RNP4	ADS-C	ADS-C	ADS-C
En route remote continental		RNP10, RNP4	ADS-C	ADS-C	ADS-C
En route continental		RNAV5, RNAV1	ADS-C	ADS-C ADS-B/MLAT	ADS-C ADS-B/MLAT

DRAFT INITIAL AFI SURVEILLANCE PLAN IN SUPPORT OF PBN IMPLEMENTATION

TERMINAL OPERATIONS

Airspace		PBN Navigation specifications	Short term (2008-2012)	Mid- term (2013-2016)	Long term (2017 and beyond)
Terminal arrival/ departure	TMA Type 3	RNAV1 in a surveillance environment	PSR where justified SSR where implemented	PSR where justified SSR where implemented ADS-B/MLAT	Reduced number of SSRs ADS-B/MLAT
	TMA Type 2	RNAV1 in a surveillance environment	PSR where justified SSR where implemented	PSR where justified SSR where implemented ADS-B/MLAT	Reduced number of SSRs ADS-B/MLAT
	TMA Type 1	Basic RNP1 in a non-surveillance environment	Voice reporting	Voice reporting	Voice reporting

DRAFT INITIAL AERONAUTICAL SURVEILLANCE PLAN IN SUPPORT OF PBN IMPLEMENTATION

APPROACH OPERATIONS

Airspace		PBN Navigation specifications	Short term (2008-2012)	Mid- term (2013-2016)	Long term (2017 and beyond)
Approach	Aerodrome Type 3	RNP APCH with baro-VNAV or RNP AR APCH if required	PSR where justified SSR where implemented	PSR where justified SSR where implemented ADS-B/MLAT	Reduced number of SSRs ADS-B/MLAT
	Aerodrome Type 2	RNP APCH with baro-VNAV or RNP AR APCH if required	PSR where justified SSR **where implemented**	PSR where justified SSR where implemented ADS-B/MLAT	Reduced number of SSRs ADS-B/MLAT
	Aerodrome Type 1	*RNP APCH with baro-VNAV or RNP AR APCH if required*	Voice reporting	Voice reporting	Voice reporting

Note: *The AFI CNS/ATM Plan (AFI Doc 003) defines three types of terminal airspaces based on the traffic density and the complexity of the traffic pattern:*

a)   TMA Type 1:   characterized by multiple airports within the single TMA, a complex traffic pattern and a high density traffic;

b)   TMA Type 2:   characterized by multiple airports within the TMA, a complex traffic pattern and a medium density traffic; and

c)   TMA Type 3:   low density traffic TMA's.

Likewise, three types of aerodromes are defined based on traffic density (high, medium and low).

The TMA's and aerodromes of the AFI Region will be type-designated by the AFI Planning and Implementation Regional Group (APIRG) based on the proposals by provider and user States and organizations concerned.