



International Civil Aviation Organization

**The Ninth Meeting of the Asia/Pacific Aeronautical Information Services –
Aeronautical Information Management Implementation Task Force (AAITF/9)**

Pattaya, Thailand, 24 – 27 June 2014

Agenda Item 2: Review Outcomes of Related Meetings

RELATED MEETING OUTCOMES

(Presented by the Secretariat)

SUMMARY

This paper presents information on Asia/Pacific Region meeting outcomes related to Aeronautical Information Services (AIS) and Aeronautical Information Management (AIM)

1. INTRODUCTION

1.1 The Fourth Meeting of the ICAO Asia/Pacific Seamless ATM Planning Group (APSAPG/4) was held in Hong Kong, China, from 3 to 7 June 2013.

1.2 The Twenty-fourth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/24) was held in Bangkok, Thailand, from 24 to 26 June 2013.

1.3 The 50th Conference of Directors General of Civil Aviation of the Asia and Pacific Regions was held in Bangkok, Thailand, from 1 to 4 July 2013.

1.4 A Meeting of the Chairpersons of APANPIRG Sub-Groups was held in Hong Kong, China on 16 and 17 January 2014

2. DISCUSSION

APSAPG/4

2.1 APSAPG/4 agreed on the final draft version of the Asia/Pacific Seamless ATM Plan, to be presented for endorsement by APANPIRG/24 in June 2013. The Seamless Plan included two performance objectives, expected to be implemented in two phases:

- Preferred Aerodrome/Airspace and Route Specifications (PARS) Phases I and II;
- Preferred ATM Service Levels (PASL) Phases I and II;
- PARS and PASL Phase I expected to be implemented by 12 November 2015;

- PARS and PASL Phase II expected to be implemented by 8 November 2018.

2.2 Included in PARS and PASL Phase 1 were the following items that are of most direct interest to AAITF:

- 7.1 All high density international aerodromes (100,000 scheduled movements per annum or more) should:
- b) have appropriate ATM coordination (including meetings and agreements) related to:
 - airport development and maintenance planning
 - coordination with local authorities regarding environmental, noise abatement, and obstacles;
 - ATM/PBN procedures for the aerodrome;
- 7.3 CCO and CDO operations should be considered for implementation at all high density international aerodromes after analysis, based on a performance-based approach (ASBU Priority 2).
- 7.4 All international high density aerodromes should have RNAV 1 (ATS surveillance environment) or RNP 1 (ATS surveillance and non-ATS surveillance environments) SID/STAR.
- 7.5 Where practicable, all high density aerodromes with instrument runways serving aeroplanes should have (ASBU Priority 2):
- a) precision approaches; or
 - b) Approaches with Vertical Guidance (APV), either RNP APCH with Barometric Vertical Navigation (Baro-VNAV) or augmented GNSS (SBAS or GBAS); or
 - c) If an APV is not practical, straight-in RNP APCH with Lateral Navigation (LNAV).
- 7.9 All ATS routes should be designated with a navigation performance specification to define the CNS/ATM operational environment. The ATS route navigation performance specification selected should be harmonised and utilise the least stringent requirement needed to support the intended operation. When obstacle clearance or ATC separation requirements demand, a more stringent navigation specification may be selected. ATS routes should be established in accordance with the following PBN specifications:
- Category R airspace – **RNP 4, RNP 10** (RNAV 10) (other acceptable navigation specifications – RNP 2 oceanic); and
 - Category S airspace – **RNAV 2** or **RNP 2** (other acceptable navigation specifications – RNAV 5).

Note 1: RNP 2 is expected to be utilised before Phase 2, when the RNP 2 instrument procedure design, ATC separation standards and operational approval are in place.

Note 2: within Category R airspace, transition to RNP 4 or RNP 2 oceanic specifications is recommended at the earliest opportunity. RNP 2 oceanic requires dual independent installations, plus CPDLC and ADS-C

7.28 Harmonization of upper airspace classification should be as follows:

- a) Category R¹ controlled airspace– **Class A**; and
- b) Category S controlled airspace– **Class A**, or if there are high level general aviation or military VFR operations: **Class B** or **C**.

APANPIRG/24

2.3 In reviewing the status of implementation of APANPIRG/23 Conclusions and Decisions, the meeting urged States who are yet to develop their basic AIS to AIM Transition plans that identified target completion dates of transition elements in the AIS to AIM Roadmap to put in more efforts and resources.

2.4 The meeting was informed that ICAO was planning to introduce regional “performance dashboard” homepages for public websites of the ICAO Regional Offices. These dashboards would illustrate the regional implementation status of air navigation systems. This new interactive online system would be in place for Africa in August 2013 and for the remaining regions in March 2014, and would be updated semi-annually. Regional Performance Dashboards may be viewed at <http://www.icao.int/safety/Pages/Regional-Targets.aspx>.

2.5 The meeting was further informed that the objective of the planned Global Air Navigation Report was to assist PIRGs and States in understanding which areas require special attention to effectively improve air navigation performance and evaluate progress across different ICAO regions, as well as to highlight success stories. The outcomes reflected in the report could also help to identify annual tactical adjustment priorities for regional work programs, as well as informing longer term policy adjustment.

2.6 The Global Air Navigation Report would consist of qualitative and quantitative information covering key performance areas of air navigation systems. It would cover, inter alia, global air navigation challenges and implementation progress of selected ASBU Block 0 modules, including AIM. The meeting agreed to assign the task of performance measurement within the APANPIRG mechanism to the existing sub-groups.

2.7 The first edition of the Global Air Navigation Report may be viewed at http://www.icao.int/airnavigation/Documents/ICAO_AN%20Report_EN_final_30042014.pdf.

2.8 The Meeting supported the plan for an online Regional Performance Dashboard in March 2014 and annual Global Air Navigation Report in April 2014, and adopted the following Conclusion;

¹ The Seamless ATM Plan categorises airspace by reference to its CNS (Communications, Navigation and Surveillance) capability as:

- a) Category R: remote en-route airspace within Air Traffic Services (ATS) communications and surveillance coverage dependent on a third-party Communication Service Provider (CSP); or
- b) Category S: serviced (or potentially serviced) en-route airspace – by direct (not dependent on a CSP) ATS communications and surveillance; or
- c) Category T: terminal operations serviced by direct ATS communications and surveillance.

Conclusion 24/3 — Regional and Global Air Navigation Reporting

That States:

- a. *support the plan for an online Regional Performance Dashboard in March 2014 and annual Global Air Navigation Report in April 2014*
- b. *provide requisite information to the ICAO Regional Office, Bangkok to demonstrate operational improvements; and*
- c. *establish, if not yet done so, a performance measurement strategy that comprises of data compilation, processing, storage and reporting for the identified regional performance metrics for the air navigation system.*

2.9 Noting that ICAO had developed the fourth edition of the Global Air Navigation Plan (GANP), incorporating the Aviation system Block Upgrades (ASBU) framework, and further noting that all ASBU modules may not be applicable to all States or Regions, the meeting agreed that implementation priorities for Air Traffic Management (ATM) enhancements would vary between regions as each has different operational environments and traffic volumes. The PIRG RASG Global coordination meeting held in March 2013 had requested PIRGS to establish regional priorities and set targets, and report to ICAO by May 2014. APANPIRG/24 therefore adopted the following Conclusion:

Conclusion 24/2 — Establishing Regional Priorities and Targets

That, following the PIRG- RASG Global Coordination meeting held in March 2013 APANPIRG/24 invited the Chairpersons of ATM, RASMAG, CNS, and MET sub groups to establish regional priorities and targets for the APAC Region in alignment with the GANP and APAC Seamless ATM Plan by December 2013 in order to facilitate submission to ICAO by May 2014.

2.10 The final draft version of the Asia/Pacific Seamless ATM Plan was presented to the meeting, and APANPIRG adopted the following Conclusions and Decisions:

Conclusion 24/54: Asia/Pacific Seamless ATM Plan

*That, the Asia/Pacific Seamless ATM Plan Version 1.0 attached as **Appendix B to the Report on Agenda Item 3.6** be endorsed, and made available on the ICAO Asia/Pacific Regional Office web site.*

Conclusion 24/55: State Seamless ATM Planning

That, given the urgency and priority of Seamless ATM planning for the Asia/Pacific as acknowledged by the 46th Conference of Directors General of Civil Aviation (DGCA, Osaka, Japan, 12-16 October 2009) and APANPIRG/22 (05-09 September 2011), States should be urged to:

- a) *review Version 1.0 of the Asia/Pacific Seamless ATM Plan and utilise the Plan to develop planning for State implementation of applicable Seamless ATM elements;*
- b) *ensure relevant decision-makers are briefed on the Seamless ATM Plan;*
- c) *submit the first Regional Seamless ATM Reporting Form to the ICAO Regional Office by 01 March 2014; and*

- d) *where possible, participate and contribute to Seamless ATM system collaborative training and research initiatives.*

Decision 24/56: Seamless ATM Seminars/Workshops

That, ICAO be urged to facilitate Asia/Pacific Seamless ATM Planning and Implementation Seminars/ Workshops for Asia/Pacific and trans-regional States.

2.11 The Secretariat had developed draft Seamless ATM Implementation Guidance which provided a basic process with customized steps for each PARS/PASL element and derived from this a State Seamless ATM Plan Template. The material was designed to assist States, but was not mandatory in nature.

2.12 A Regional Seamless ATM Reporting Form had also been drafted, and it was noted that the regional implementation reporting under the Seamless Plan was not intended to replace the Air Navigation Reporting Form (ANRF), and had quite a different function as it was focused on change management aspects of specific Seamless ATM elements, many of which were not in the ASBU.

2.13 The following are available on the ICAO Asia/Pacific Regional Office website at <http://www.icao.int/APAC/Pages/edocs.aspx>:

- Asia/Pacific Seamless ATM Plan
- Seamless ATM Implementation Guidance Draft
- State Seamless ATM Implementation Plan Template
- Regional Seamless ATM Reporting Form
- Template for Comments – Implementation guidance

50th DGCA Conference

2.14 The conference discussed the status of transition from Aeronautical Information Service (AIS) to Aeronautical Information Management (AIM) in the Asia/Pacific Region, the critical importance of AIS/AIM to flight safety and air traffic management, and the Region's poor performance in AIM implementation. It was noted that Air Navigation Deficiencies will be raised against unimplemented AIS-AIM Transition Steps.

2.15 The Conference noted the continuing problem of significant Aeronautical Information Publication (AIP) changes being promulgated without appropriate quality control and with lead-times not complying with ICAO Standards. The secretariat informed the Conference of its proposed strategy of providing details of non-compliance issues to APANPIRG and future Conference meetings. The ICAO Regional Office requested that States include AIM staff at the earliest stages of change management planning process that affect AIM.

2.16 The Conference agreed to the following action item:

Action Item 50/13

Recognizing the Region's overall performance in AIS – AIM Transition, and the critical importance of AIS/AIM to flight safety and air traffic management, the Conference:

- a) *urged States to promote the profile and awareness of AIS/AIM within their States and ANSPs, and commit the necessary direction and resources to ensure compliance with ICAO Annex 15 and implementation of AIS – AIM Roadmap Transition Steps.*
- b) *Urged States to note the APANPIRG Conclusion 23/8¹ and take necessary action to address the causes of non-compliance with the ICAO AIRAC Requirements.*

Meeting of APANPIRG Sub-Groups Chairs

2.17 The PIRGs and RASGs Global Coordination Meeting was held in Montreal on 19 March 2013, under the Chairmanship of the President of the ICAO Council. An outcome of the meeting was the request that the Chairs of PIRGs establish regional priorities and targets for air navigation by May 2014, consistent with the framework defined in of ICAO Doc 9750 *Global Air Navigation Plan* (GANP, including *Aviation System Block Upgrades – ASBU*) and Doc 10004 *Global Aviation Safety Plan*.

2.18 APANPIRG/24 subsequently agreed to the following Conclusion:

Conclusion 24/2 — Establishing Regional Priorities and Targets

That, following the PIRG - RASG Global Coordination meeting held in March 2013 APANPIRG/24 invited the Chairpersons of ATM, RASMAG, CNS, and MET sub groups to establish regional priorities and targets for the APAC Region in alignment with the GANP and APAC Seamless ATM Plan by December 2013 in order to facilitate submission to ICAO by May 2014.

¹ APANPIRG/23, (Bangkok, Thailand, 10 to 14 September 2012), agreed to the following Conclusion:

Conclusion 23/8 – Annex 15 Promulgation Requirements Compliance

That, States should be urged to recognise the importance of Annex 15 compliance in respect of aeronautical data affected by major projects, by:

- a) *establishing formal coordination between change originators and Aeronautical Information Service (AIS) units to ensure appropriate planning and that promulgation requirements were taken into account; and*
- b) *creating a mechanism to allow AIS personnel to decline requests that did not comply with Annex 15, except for urgent corrections, emergencies, and matters of national security.*

2.19 A number of teleconferences of the APANPIRG Sub-Group Chairs (including the Co-Chairs of the dissolved Asia/Pacific Seamless ATM Planning Group) and ICAO Secretariat were subsequently held. During these it was agreed that the following ASBU modules should be included in the Asia/Pacific Region's priorities:

- B0-APTA - Performance Based Navigation (PBN) – Terminal
- B0-NOPS - Air Traffic Flow Management /A-CDM
- B0-DATM - Aeronautical Information Management
- B0-FICE - ATS Inter-facility Data Communication (AIDC)
- B0-FRTO - Flexible Use Airspace
- B0-ASUR – Surveillance
- B0-TBO - Data link (ADS-C and CPDLC)

2.20 The final Sub-Group Chairs' meeting, held face-to-face in Hong Kong China in January 2014, noted that the Asia/Pacific Seamless ATM Plan, endorsed by APANPIRG/24, contained 42 seamless ATM elements and that each element was assigned a priority. The Sub-Group Chairs reviewed these elements, and identified 10 as regional priorities for implementation. **Attachment A** lists the 10 regional priorities. The following are of most significance to AAITF:

- B0 – APTA – Performance Based Navigation (PBN) – Terminal
 - *Where practicable, all high density aerodromes with instrument runways serving aeroplanes should have precision approaches or Approach with Vertical Guidance (APV) or Lateral Navigation (LNAV) (Seamless ATM Plan, expected implementation November 2015)*
- B0 – DATM – Aeronautical Information Management
 - *ATM systems should be supported by digitally-based AIM systems through implementation of Phase 1 and 2 of the AIS-AIM Roadmap (Seamless ATM Plan, expected implementation November 2015)*

3 ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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Regional Priorities agreed 30-10-13 by Chairpersons of APANPIRG SGs and ICAO Secretariat	Highest Priority Regional Targets As agreed 16-01-14 by Chairpersons of APANPIRG SGs and ICAO Secretariat	Respective B0 module	Regional Reporting Form Item #
APV (B0-APTA)	1. <u>Approach</u> : Where practicable, all high density aerodromes with instrument runways serving aeroplanes should have precision approaches or APV or LNAV.	B0-APTA	110
ATFM/A-CDM (B0-NOPS)	2. <u>Network Operations</u> : All High Density FIRs supporting the busiest Asia/Pacific traffic flows and high density aerodromes should implement ATFM incorporating CDM using operational ATFM platform/s.	B0-NOPS	80
AIM (B0-DATM)	3. <u>Aeronautical Information Management</u> : ATM systems should be supported by digitally-based AIM systems through implementation of Phase 1 and 2 of the AIS-AIM Roadmap	B0-DATM	300
AIDC (B0-FICE)	4. <u>System Wide Information Management</u> : All States between ATC units where transfers of control are conducted have implemented the messages ABI, EST, ACP, TOC, AOC as far as practicable.	B0-FICE	220
FUA (B0-FRTO)	5. <u>Civil/Military- Enhanced En-Route Trajectories</u> : All States should ensure that SUA are regularly reviewed by the appropriate Airspace Authority to assess the effect on civil air traffic and the activities affecting the airspace.	B0-FRTO	360
	6. <u>Civil/Military- Enhanced En-Route Trajectories</u> : All States should ensure that a national civil/military body coordinating strategic civil-military activities is established.	Regional	370
	7. <u>Civil/Military- Enhanced En-Route Trajectories</u> : All States should ensure that formal civil military liaison for tactical response is established.	Regional	380
Surveillance (B0-ASUR)	8. <u>Ground Surveillance</u> : All FIRs with airspace supporting high density aerodromes have Category S upper controlled airspace and Category T airspace designated as non-exclusive or exclusive as appropriate requiring operation of ADS-B.	B0-ASUR	180
	9. <u>Ground Surveillance</u> : All States should implement ATS surveillance using ADS-B, MLAT or radar for Category S airspace as far as practicable, with data integrated into the ATC system situation display.	B0-ASUR	270
Data-link ADS-C and CPDLC (B0-TBO)	10. <u>Trajectory-Based Operations-Data Link En-Route</u> : All FIRs utilise ADS-C and CPDLC to provide service within all category R airspace.	B0-TBO	280