



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**TWENTY FIFTH MEETING OF THE
ASIA/PACIFIC AIR NAVIGATION PLANNING AND
IMPLEMENTATION REGIONAL GROUP (APANPIRG/25)**

Kuala Lumpur, Malaysia, 8 – 11 September 2014

Agenda Item 3: Performance Framework for Regional Air Navigation Planning and Implementation
3.0: Regional and National Performance Framework
REGIONAL PRIORITIES AND TARGETS

(Presented by the Secretariat)

SUMMARY

This paper presents the proposed regional priorities and targets that were developed at the meeting of APANPIRG Sub Group Chairpersons and the dissolved APASPG Chairs held in Hong Kong China on 16 – 17 January 2014. The proposed regional priorities and targets were also reviewed by the AOP WP/2, CNS SG/18 and ATM SG/2 meetings. The results of review by these groups are included in this paper for consideration by APANPIRG. Action by the meeting is at Section 3.

Strategic Objectives:

- A: **Safety** – Enhance global civil aviation safety
- B: **Air Navigation Capacity and Efficiency**—Increase the capacity and improve the efficiency of the global aviation system
- E: **Environmental Protection** — minimize the adverse environment effects of civil aviation activities.

1. INTRODUCTION

1.1 The PIRGs and RASG Global Coordination Meeting was held in Montreal on 19 March 2013, under the Chairmanship of the President of the ICAO Council. The Objective of this Coordination Meeting was to exchange views on the readiness of PIRGs to set regional priorities and targets in line with the new version of the Global Air Navigation Plan (GANP) containing the Aviation System Block Upgrades (ASBUs) framework. The Global Coordination Meeting requested the Chairs of PIRGs to establish regional priorities and targets for air navigation by May 2014 consistent with GANP/GASP framework.

1.2 APANPIRG/24, held in Bangkok on 24 – 26 June 2013 developed Conclusion 24/2, the text of which is reproduced below.

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.

1.3 Following Conclusion 24/2, teleconferences with Chairpersons of the APANPIRG Sub Groups and the ICAO Secretariat were held three times on 13 September, 30 October and 13 December 2013. Co-Chairs of the dissolved Seamless ATM Planning Group were also invited to attend the teleconferences. One face-to-face meeting was held in Hong Kong, China on 16 – 17 January 2014.

1.4 The ICAO Regional Office in State Letter (AN 3/3-AP079/14 (AGA) dated 30 May 2014) circulated the proposed APAC Regional Priorities and Targets for information.

2. DISCUSSION

2.1 Priorities

2.1.1 The Chairpersons recalled that the Seamless ATM Plan spelt out the 6 regional ASBU priorities which are aligned to GANP, and APANPIRG/24 had endorsed the 6 ASBU modules as priority implementation for the APAC Region. The Chairpersons also recalled that APANPIRG/24 agreed that implementation of priorities for ATM enhancements would vary between regions as each region has different operational environments, traffic volumes, air navigation infrastructure, etc. and therefore the prioritization exercise could be done by individual States and regionally by the PIRGs.

2.1.2 In accordance with Assembly/37 Resolution and regional needs, the Chairpersons agreed to include implementation of PBN in Terminal airspace in the APAC priorities. The Chairpersons also agreed at teleconferences in 2013 that the following implementation items should be the APAC Regional 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 of Airspace
- B0-ASUR - Surveillance
- B0-TBO - Data link (ADS-C and CPDLC)

2.1.3 The Chairpersons considered at the meeting in January 2014 further development of regional priorities and targets. The Chairpersons noted that the Seamless ATM Plan, endorsed by APANPIRG/24 contained 42 seamless ATM elements, and each element was assigned priorities. After reviewing the 42 seamless ATM elements in the Plan, the Chairpersons identified ten elements as regional priority implementation.

2.2 Targets

2.2.1 The Seamless ATM Plan contains 42 ATM elements that are expected to be implemented by 12 November 2015 (Phase 1) and by 08 November 2018 (Phase 2), or as soon as possible thereafter. Since the ten regional priority elements have been selected from 42 ATM implementation elements, it was considered that targets for the ten regional priority elements should coincide with the Phase 1 implementation, i.e. 12 November 2015. The Chairperson noted that the targets are not a requirement but goal for Phase 1 implementation.

2.3 Indicators

2.3.1 The Chairpersons considered that indicators that measure progress against the targets should be meaningful and collectable from States, and developed indicators for the ten priority

elements. In order to align with indicators at other Regions and to take into consideration the global harmonization, slight necessary changes have been made to the indicators developed by the Chairpersons at the January 2014 meeting to align them with other ICAO Regions.

2.3.2 Regional Priorities, Targets and Indicators developed by the Chairpersons with slight changes made after the Chairpersons meeting are at **Appendix A** to this paper.

2.4 The Regional Priorities, Targets and Indicators were reviewed by the AOP WG/2, held on 3-5 June, CNS SG/18, held on 21-25 July and ATM SG/2 Meetings held on 4-8 August 2014. The result of deliberations by these contributory bodies is as follows:

2.4.1 Outcome of AOP WG/2 meeting:

2.4.1.1 The AOPWG/2 meeting noted that the Asia/Pacific Seamless ATM Plan incorporated the Block Zero ('0') ASBU elements that are now part of the Global Air Navigation Plan (Doc 9750) and that APANPIRG/24 in conclusion 24/54 endorsed the *Asia/Pacific Seamless ATM Plan Version 1.0*. The meeting also noted that Regional priorities and targets, along with the supporting Air Navigation Reporting Forms, will be proposed for endorsement at the APANPIRG/25

2.4.2 Outcome of CNS SG/18 meeting:

2.4.2.1 While noting priorities and targets, the meeting identified that some indicators were not synchronized fully with their targets. The meeting was informed that such non-synchronization came about from the need to align indicators with those of other ICAO regions for comparison purpose, while keeping specific regional targets adopted by APANPIRG/24 as part of the Asia/Pacific Seamless ATM Plan. It was understood that some revisions of the targets, perhaps on a regular basis, may be agreed in the future. As such, the targets and associated completion dates were left untouched while the meeting's comments such as non-synchronisation of indicators and targets, etc. were recorded in a new column titled "Review by CNS SG/18" as shown in **Appendix B** to this paper.

2.4.2.2 The framework of implementation was also discussed for the CNS-related targets and is recorded in the new column "Framework of implementation". Concerning the AIDC target, the meeting opined that the proposed AIDC Task Force could also support the implementation of AIDC target through its task (c), while focusing on its tasks (a) and (b) on a short term action plan to solve the safety problems raised by RASMAG/19 meeting. Concerning B0-ASUR and B0-TBO, the meeting opined that the implementation bodies already exist, but their TORs should be reviewed against the targets and changed as necessary to make sure they could support effective implementation.

2.4.2.3 As a result of discussion, CNS SG/18 recommended the regional priorities and targets to APANPIRG for adoption and subsequent submission to ICAO Headquarters with following Draft Conclusion:

Draft Conclusion 18/2 - Regional Priorities and Targets

That, Regional Priorities and Targets contained in **Appendix B** be adopted and submitted to ICAO Headquarters.

2.4.3 Outcome of ATM SG/2 meeting:

2.4.3.1 Regarding the Regional Priorities and Targets, the ATM/SG endorsed CNS/SG Draft Conclusion 18/2.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in Appendix A;
- b) review the ten regional priorities, targets and indicators including those proposed implementation framework and comments provided in Appendix B;
- c) consider adoption of the following Draft Conclusion formulated by CNS SG/18 (Draft Conclusion 18/2):

Draft Conclusion 25/xx – Regional Priorities and Targets

That, Regional Priorities and Targets contained in **Appendix A** be endorsed by APANPIRG and submitted to ICAO Headquarters.

Appendix A

Proposed APANPIRG Regional Priority and Targets

Respective B0 module /Regional item	Proposed Regional Priorities and Targets as agreed on 16-01-2014 by Chairpersons of APANPIRG SGs and APSAPG	Target date (Seamless ATM Phase 1 Plan)	Indicators (measure progress against the target)
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.	12 November 2015	% of international aerodromes having at least one runway end provided with APV Baro-VNAV or LPV procedures
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.	12 November 2015	% of FIRs within which all ACCs utilize ATFM systems
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	12 November 2015	% of Phase 1 and 2 AIS-AIM elements completed
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.	12 November 2015	% of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC / OLDI with neighbouring ACCs
B0-FRTO	5. <u>Civil/Military</u> - Enhanced En-Route Trajectories: 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.	12 November 2015	% of FIRs in which FUA is implemented
Strategic Civil Military coordination (Regional)	6. <u>Civil/Military</u> - Enhanced En-Route Trajectories: All States should ensure that a national civil/military body coordinating strategic civil-military activities is established.	12 November 2015	% of FIRs within which all ACCs utilise FUA techniques for operation of SUA with strategic civil/military liaison capability

Tactical Civil Military coordination (Regional)	7. <u>Civil/Military</u> - Enhanced En-Route Trajectories: All States should ensure that formal civil military liaison for tactical response is established.	12 November 2015	% of FIRs within which all ACCs utilise FUA techniques for operation of SUA with tactical civil/military liaison capability
B0-ASUR	8. <u>Ground Surveillance</u> : All Category S upper controlled airspace and Category T airspace supporting high density aerodromes should be designated as non-exclusive or exclusive as appropriate ADS-B airspace requiring operation of ADS-B.	12 November 2015	% of FIRs with ATS surveillance using ADS-B or SSR or MLAT where ATS surveillance is possible
B0-ASUR	9. <u>Ground Surveillance</u> : ADS-B or MLAT or radar surveillance systems should be used to provide coverage of all Category S-capable airspace as far as practicable, with data integrated into operational ATC aircraft situation displays.	12 November 2015	% of ACCs with ATS Surveillance using ADS-B, MLAT or radar where ATS surveillance is possible and having data integrated into the ATC system situation display
B0-TBO	10. <u>Trajectory-Based Operations-Data Link En-Route</u> : Within Category R airspace, ADS-C surveillance and CPDLC should be enabled to support PBN-based separations.	12 November 2015	% of FIRs utilising data link en-route in applicable airspace

Note:

- High density aerodromes- 100,000 scheduled movements per annum or more.
- High Density FIRs- as per Seamless ATM plan v1.0, supporting the busiest Asia/Pacific traffic flows (APANPIRG Conclusion 22/8 and 23/5 refer):
 - a) South Asia: Delhi, Mumbai;
 - b) Southeast Asia: Bangkok, Hanoi, Ho Chi Minh, Jakarta, Kota Kinabalu, Manila, Sanya, Singapore, Vientiane; and
 - c) East Asia: Beijing, Fukuoka, Guangzhou, Hong Kong, Kunming, Incheon, Shanghai, Shenyang, Taipei, Wuhan.

Appendix B

Respective B0 module /Regional item	Proposed Regional Priorities and Targets as agreed on 16-01-2014 by Chairpersons of APANPIRG SGs and APSAPG	Target date (Seamless ATM Phase 1 Plan)	Indicators (measure progress against the target)	Implementation framework	Review by CNS SG/18
B0-APTA	<p>1. <u>Approach</u>: Where practicable, all high density aerodromes with instrument runways serving aeroplanes should have precision approaches or APV or LNAV.</p>	12 November 2015	% of international aerodromes having at least one runway end provided with APV Baro-VNAV or LPV procedures	PBN ICG, subject to conclusion by APANPIRG	Discrepancy between the indicator and target. Indicator should measure a % of high density aerodromes. CNS SG understands that this discrepancy comes from the need to globally harmonize indicators through the different ICAO regions
B0-NOPS	<p>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.</p>	12 November 2015	% of FIRs within which all ACCs utilize ATFM systems		Discrepancy between the indicator and target. Indicator should measure a % of high density FIRs. CNS SG understands that this discrepancy comes from the need to globally harmonize indicators through the different ICAO regions

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	12 November 2015	% of Phase 1 and 2 AIS-AIM elements completed		
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.	12 November 2015	% of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC / OLDI with neighbouring ACCs	AIDC TF CNS SG proposes draft TOR	
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.	12 November 2015	% of FIRs in which FUA is implemented		
Strategic Civil Military coordination (Regional)	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.	12 November 2015	% of FIRs within which all ACCs utilise FUA techniques for operation of SUA with strategic civil/military liaison capability		

<p>Tactical Civil Military coordination (Regional)</p>	<p>7. <u>Civil/Military-Enhanced En-Route Trajectories</u>: All States should ensure that formal civil military liaison for tactical response is established.</p>	<p>12 November 2015</p>	<p>% of FIRs within which all ACCs utilise FUA techniques for operation of SUA with tactical civil/military liaison capability</p>		
<p>B0-ASUR</p>	<p>8. <u>Ground Surveillance</u>: All Category S upper controlled airspace and Category T airspace supporting high density aerodromes should be designated as non-exclusive or exclusive as appropriate ADS-B airspace requiring operation of ADS-B.</p>	<p>12 November 2015</p>	<p>% of FIRs with ATS surveillance using ADS-B or SSR or MLAT where ATS surveillance is possible</p>	<p>ADS-B SITF TOR should be checked</p>	<p>Discrepancy between the indicator and target. Indicator should measure % of non-exclusive or exclusive as appropriate ADS-B airspace. CNS SG understands that this discrepancy comes from the need to globally harmonize indicators through the different ICAO regions.</p>
<p>B0-ASUR</p>	<p>9. <u>Ground Surveillance</u>: ADS-B or MLAT or radar surveillance systems should be used to provide coverage of all Category S-capable airspace as far as practicable, with data integrated into operational ATC aircraft situation displays.</p>	<p>12 November 2015</p>	<p>% of ACCs with ATS Surveillance using ADS-B, MLAT or radar where ATS surveillance is possible and having data integrated into the ATC system situation display</p>	<p>ADS-B SITF TOR should be checked</p>	

<p>B0-TBO</p>	<p>10. <u>Trajectory-Based Operations-Data Link En-Route:</u> Within Category R airspace, ADS-C surveillance and CPDLC should be enabled to support PBN-based separations.</p>	<p>12 November 2015</p>	<p>% of FIRs utilising data link en-route in applicable airspace</p>	<p>FIT Asia TOR should be checked</p>	
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