*International Civil Aviation Organization*

**NINETEENTH MEETING OF THE METEOROLOGY SUB-GROUP (MET SG/19) OF APANPIRG**

Bangkok, Thailand, 3 – 6 August 2015

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**Agenda Item 4: Planning and monitoring**

# REGIONAL PRIORITIES AND TARGETS

(Presented by the Secretariat)

**SUMMARY**

This paper presents an update on the regional priorities and targets for air navigation system implementation as adopted by APANPIRG.

Ref: MET SG/18 –WP/08

## 1. Introduction

1.1 In order to set regional priorities and targets for air navigation system implementation in line with the new version of the Global Air Navigation Plan (GANP) containing the Aviation System Block Upgrades (ASBUs) framework, APANPIRG/24, held in Bangkok from 24 to 26 June 2013, developed Conclusion 24/2 – *Establishing Regional Priorities and Targets*.

1.2 This paper presents an update on the APANPIRG regional priorities and targets for air navigation system implementation relevant to the activities of the MET SG.

## 2. Discussion

2.1 In response to APANPIRG Conclusion 24/2, the Chairpersons of the APANPIRG Sub-groups agreed that the following ASBU Modules should be included in the APAC regional priorities for air navigation system implementation:

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| 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) |

2.2 The Chairpersons noted further that the APAC Seamless ATM Plan, endorsed by APANPIRG/24, contained 42 ATM elements and each element was assigned priorities, including additional priority ATM elements such as civil-military coordination, which is not specifically

addressed in the ASBU Modules. After reviewing the 42 elements in the Seamless ATM Plan, the Chairpersons identified ten elements from the priority ASBU Modules (above), including civil-military coordination, as regional priorities for air navigation system implementation.

2.3 The Chairpersons considered that targets for the ten regional priority elements should coincide with the Phase 1 implementation of the 42 priority elements in the APAC Seamless ATM Plan, i.e. 12 November 2015. The Chairpersons noted that the targets are not a requirement but goal for Phase 1 implementation and considered that indicators of progress on the targets should be meaningful and collectable from Sates.

2.4 Subsequently, APANPIRG/25 reviewed and, following some revision, endorsed the ten regional priorities, targets and indicators for air navigation system implementation proposed by the Chairpersons of the APANPIRG Sub-Groups (APANPIRG Conclusion 25/2 – *APAC Regional Air Navigation Priorities and Targets*, refers).

2.5 A copy of the ten regional priorities, targets and indicators for air navigation system implementation developed by the Chairpersons of the APANPIRG Sub-Groups and endorsed by APANPIRG/25 is provided at the **Attachment** to this paper.

## 3. Action by the Meeting

3.1 The meeting is invited to note the information contained in this paper.

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**APPENDIX A** to the Report on Agenda Item 3.0

**APANPIRG Regional Priorities, Targets and Metrics**

| Priority | ASBU module or SeamlessElement | Targets | Target date (Seamless ATM Phase 1 Plan) | Metric |
|---|---|---|---|---|
| PBN | B0-APTA | 1. Approach: Where practicable, **all high- density aerodromes** with instrument runways serving aeroplanes should have precision approaches or APV or LNAV.<br><br>*Note 1: High density aerodrome is defined by Asia-Pacific Seamless ATM Plan as aerodromes with scheduled operations in excess of 100,000/year.*<br><br>*Note 2: the Asia/Pacific PBN Plan Version 3 required RNP APCH with Baro-VNAV or APV in 100% of instrument runways by 2016* | 12 November 2015 | % of **high density aerodromes** with precision approaches or APV or LNAV. |
| Network Operations | B0-NOPS | 2. **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.<br><br>*Note: **High Density FIRs are defined as:***<br>*a) South Asia: Delhi, Mumbai;*<br>*b) Southeast Asia: Bangkok, Hanoi, Ho Chi Minh, Jakarta, Kota Kinabalu, Manila, Sanya, Singapore, Vientiane; and*<br>*c) East Asia: Beijing, Fukuoka, Guangzhou, Hong Kong, Kunming, Incheon, Shanghai, Shenyang, Taibei, Wuhan.*<br>*[APANPIRG Conclusion 22/8 and 23/5 refer]* | 12 November 2015 | % of **High Density FIRs** supporting the busiest Asia/Pacific traffic flows and high density aerodromes using operational ATFM platforms incorporating CDM |
| Aeronautical Information Management | B0-DATM | 3. 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 |

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| Flight and Flow Information for a Collaborative Environment (FF-ICE) | B0-FICE | 4. 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 |
| Civil/Military | B0-FRTO | 5. 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 States in which FUA is implemented |
| Civil/Military | Strategic Civil Military coordination (Regional) | 6. 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 States which have established a national civil/military body that performs strategic civil-military coordination |
| Civil/Military | Tactical Civil Military coordination (Regional) | 7. Enhanced En-Route Trajectories: All States should ensure that formal civil military liaison for tactical response is established. | 12 November 2015 | % of States which have established a formal civil military liaison for tactical response |
| Ground Surveillance | B0-ASUR | 8. 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 where Category S airspace and Category T airspace supporting high density aerodromes are designated as ADS-B airspace |
| Ground Surveillance | B0-ASUR | 9. 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 in Category S airspace, and having data integrated into the ATC system situation display |

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|---|---|---|---|---|
| Trajectory-Based Operations-Data Link En-Route | B0-TBO | 10. Within Category R airspace, ADS-C surveillance and CPDLC should be enabled to support PBN-based separations. | 12 November 2015 | % of FIRs using data link applications to support PBN-based separations in Category R airspace |

Note 1: **high density aerodromes:** based on 2012 ICAO data, as per Seamless Plan v1.0, the 21 busiest Asia/Pacific aerodromes were:

- Australia (Sydney, Melbourne);
- China (Beijing, Shanghai Pudong and Hong Jiao, Guangzhou, Hong Kong, Xi'an, Shenzhen, Chengdu, Kunming);
- India (New Delhi, Mumbai);
- Indonesia (Jakarta);
- Japan (Haneda, Narita);
- Malaysia (Kuala Lumpur);
- Philippines (Manila);
- Republic of Korea (Incheon);
- Singapore (Changi); and
- Thailand (Suvarnabhumi).

*ICAO definition for Aerodrome traffic density included in Annex 14 is:*
*c) Heavy. Where the number of movements in the mean busy hour is of the order of 26 or more per runway or typically more than 35 total aerodrome movements.*
*Note 1.— The number of movements in the mean busy hour is the arithmetic mean over the year of the number of movements in the daily busiest hour.*
*Note 2.— Either a take-off or a landing constitutes a movement.*