



International Civil Aviation Organization

**The Second Meeting of the APANPIRG ATM Sub-Group  
(ATM /SG/2)**

Hong Kong, China, 4-8 August 2014

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**Agenda Item 2: Review of APANPIRG Meeting and DGCA Conference**

**ASIA/PACIFIC AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL  
GROUP OUTCOMES**

(Presented by the Secretariat)

**SUMMARY**

This paper presents information (excerpts) relevant to the ATM Sub-group from the Twenty Second Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/24, Bangkok, Thailand, 24 to 26 June 2013).

**1. INTRODUCTION**

1.1 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.

1.2 The meeting was attended by 122 participants from 22 States, two Special Administrative Regions of China and four International Organizations (CANSO, IATA, IFALPA and SITA). APANPIRG/24 agreed to 45 Conclusions and 14 Decisions.

**2. DISCUSSION**

Follow-up of Twelfth Air Navigation Conference (AN-Conf/12) Recommendations

2.1 APANPIRG noted that the Twelfth Air Navigation Conference (AN-Conf/12, Montréal, 19 to 30 November 2012) dealt with six Agenda Items, and made fifty-six recommendations (These would be further discussed in WP03 (*APANPIRG Follow-up on AN- Conf-12 Recommendations*)).

Regional Air Navigation Priorities and Targets

2.2 To support a globally harmonized air navigation system, APANPIRG/24 noted that ICAO had developed the fourth edition of the Global Air Navigation Plan (GANP) that contained the Aviation System Block Upgrades (ASBUs). This was part of the regional and national performance framework, which would be further discussed in WP06 (*Seamless ATM Reporting and Monitoring*) and WP07 (*Asia/Pacific Priorities and Targets*).

Agenda Item 3.1 – First Meeting of the Aerodrome Operations Working Group

2.3 APANPIRG/24 outcomes related to the First Meeting of the APANPIRG Aerodromes Operations and Planning Working Group (AOPWG/1, Bangkok, Thailand, 21 to 23 May 2013), including Conclusions 24/6 to 24/9 were as follows.

2.4 APANPIRG/24 noted that ICAO's Pavement Sub Group is working on the recommendations developed by the Pavement Design Workshop and decided to refer the matter to ICAO HQ as proposed by AOPWG/1. APANPIRG adopted the following Conclusion:

***Conclusion 24/6 – Airfield Pavement***

*That, ICAO be invited to provide the definition of 'unrestricted operations' in the ACN-PCN guidance material and the level of traffic for operation of an aircraft to be considered as overload or normal.*

2.5 APANPIRG/24 recognized the importance of establishing Runway Safety Teams as a means for improving runway safety and adopted the following Conclusion:

***Conclusion 24/7 - Establishment of Runway Safety Team at Airports***

*That, States in APAC Region establish Runway Safety Teams comprising all the stakeholders at their airports and Runway Safety Programmes should address the mitigation measures in a timely manner taking into RASG activities and report the action taken to Regional Office.*

2.6 APANPIRG noted that the AOPWG had reviewed the requirements and recognized that there was a need to provide additional guidance on this based on best practices. Recognizing the need for guidance, APANPIRG/24 adopted the following Conclusion:

***Conclusion 24/8 – Minimum Vertical Clearance between Aircraft and an Object on aircraft stands***

*That ICAO be invited to:*

- i) carry out studies based on the best practices followed at airports worldwide and develop guidance for parking low height equipment in-between the aircraft stands; and*
- ii) carry out feasibility studies regarding the provision of guidance for minimum vertical clearances between an aircraft and an object on aircraft stands.*

2.7 The meeting noted that Republic of Korea (ROK) highlighted that with the advancement of technology, aircraft and air navigation facilities have become state-of-the-art and there was a need to revisit the regulations for obstacle limitation surfaces. Bangladesh, Singapore, India, Hong Kong China, New Zealand, Vietnam and Pakistan supported the draft Conclusion. APANPIRG noted the importance of balancing safety and economic application and adopted the following Conclusion:

***Conclusion 24/9 – Review of SARPS on Obstacle Limitation Surfaces (OLS)***

*That, recognizing the advancement of air navigation systems and the need for land use optimization around aerodromes, ICAO be invited to review the OLS requirements.*

**Agenda Item 3.2 – Flight Plan 2012 Post Implementation Review**

2.8 The ATM/SG/1 meeting had been informed of activities prior to, during and since the implementation of Amendment 1 to the 15<sup>th</sup> Edition of ICAO Doc. 4444 (PANS/ATM) on 15 November 2012. The operational deployment of Amendment 1 identified problems that included a number of pre-existing issues, and some new issues requiring further attention.

2.9 APANPIRG/24 noted that the most significant remaining issues were:

- the use of the letter 'J' to indicate SUPER wake turbulence category was not included in Amendment 1, and is currently only supported by State Letter AP080/08. This issue was being addressed by ICAO Headquarters;
- the indicator RVR/ in Item 18 of the FPL (not a new issue, and this indicator

should be either accepted without processing or deleted without rejection by ATM systems);

- rejection of FPL if unexpected RMK/ information was included in Item 18 (the Asia/Pacific Guidance Material clearly specified that RMK is a free text field);
- limitations on the number of characters in the Item 18 indicator PBN/ (global guidance was provided); and
- inconsistent instructions in PANS/ATM on the use of Item 10 indicators for ADS-B capability (this matter was referred to ICAO HQ).

2.10 In particular, APANPIRG/24 noted that the use of converters could only be considered a short-term solution, pending modification of ATM systems to receive, process and send NEW format FPL and ATS messages. While ATM systems remained incapable of independently processing NEW format messages the benefits of the Amendment 1 changes could not be realized, particularly those relating to PBN based separation and provision of ADS-B services, including separation. The interoperability of AIDC messaging would remain restricted where converter solutions were in use. For these reasons, the benefits of the Amendment 1 changes could not be realized under these circumstances, and APANPIRG/24 adopted the following Conclusion:

***Conclusion 24/11: Reliance on FPL and ATS Message Converters***

*That, considering the airspace capacity, efficiency and safety benefits intended by the full implementation of PANS/ATM Amendment 1 changes, States are urged to:*

- a) *report to the ICAO Asia/Pacific Regional Office the:*
  - i. *current status of ATM automation and conversion systems; and*
  - ii. *planned date of implementation of full capability to process NEW format FPL and ATS messages without conversion; and*
- b) *where converters are utilized, upgrade ATM Automation and supporting systems to fully support Amendment 1 changes without using converters.*

2.11 APANPIRG/24 also adopted the following Decision, dissolving the FPL&ATM Messages Task Force:

***Decision 24/12: Dissolution of the FPL&AM Implementation Task Force***

*That, considering the successful implementation of Amendment 1 to the Fifteenth Edition of ICAO Doc 4444 (PANS/ATM), the Asia/Pacific Flight Plan and ATS Messages Implementation Task Force (FPL&AM/TF) be dissolved, and any on-going tasks be delegated to the ATM Sub-Group.*

**SAIOACG/3 and SEACG/20 Meeting Outcomes**

2.12 APANPIRG/24 reviewed the report of the combined Third Meeting of the South Asia/Indian Ocean ATM Coordination Group (SAIOACG/3) and Twentieth Meeting of the South-East Asia ATM Coordination Group (SEACG/20), which was held in Bangkok, Thailand from 18 to 22 February 2013.

2.13 As a result of the SAIOACG/SEACG ATFM Small Working Group (SWG) discussion, the following Conclusions were adopted by APANPIRG/24:

***Conclusion 24/13: Air Traffic Flow Management Capacity Assessments***

*That States be urged to establish capacity assessment and adjustment mechanisms, and regular review for all aerodromes and ATC sectors where traffic demand is expected to reach capacity, or is experiencing traffic congestion, and to report the assessment outcomes to the Asia/Pacific Regional Office prior to 1 May 2014.*

***Conclusion 24/14: Air Traffic Flow Management Information Sharing***

*That States, where ATFM processes are in place, including within adjacent airspace, be urged to share information, which may include:*

- a) capacity assessment: including factors of interest affecting capacity, such as special use airspace status, runway closures and weather information;*
- b) traffic demand information: which may include flight schedules, flight plan, repetitive flight plan data as well as associated surveillance updates of flight status; and*
- c) ATFM Daily Plan.*

***Conclusion 24/15: Asia/Pacific ATFM Steering Group***

*That, States participate in, and support the Asia/Pacific ATFM Steering Group to develop a common Regional ATFM framework, which addresses ATFM implementation and ATFM operational issues in the Asia/Pacific region.*

2.14 As an outcome of the SAIOACG/SEACG Communications (COM) SWG discussion, APANPIRG 24 adopted the following Conclusions:

***Conclusion 24/16: South China Sea ATS Facilities***

*That the provision of surveillance and communications services in the South China Sea area, where radar, ADS-B and/or VHF voice communications are currently not provided, be reviewed by China, Hong Kong China, Malaysia, Philippines, Singapore and Viet Nam, to consider:*

- a) enhancement of current services;*
- b) delegation or amendment of airspace service volumes; and*
- c) cooperative agreements to exchange communications and surveillance capability.*

***Conclusion 24/17: AIDC Implementation***

*Recognizing that States implementing AIDC messaging may be doing so without previous knowledge or experience, and significant safety, ATC capacity and workload benefits arise from implementation of an appropriately selected initial suite of AIDC messages;*

*States should:*

- a) engage as soon as possible in AIDC trials to develop knowledge and address any related ATM or communications system issues;*
- b) implement operational AIDC messaging as a matter of priority, in accordance with APANPIRG Conclusion 19/19; and*
- c) implement as far as practicable, the AIDC messages Advanced Boundary Information (ABI), Coordinate Estimate (EST), Acceptance (ACP), Transfer of Control (TOC) and Assumption of Control (AOC).*

2.15 The Secretariat presented draft Version 12 of the *Asia and Pacific Region ATS Route Catalogue* to the ATM/SG/1 for review and update. The ATS Route Catalogue contained an updated list of regional ATS routes supporting the Regional Air Navigation Plan, and a list of ATS route airspace and State requests. APANPIRG/24 adopted the following Conclusion:

***Conclusion 24/18: ATS Route Catalogue Version 12***

*That Version 12 of the Asia and Pacific Region ATS Route Catalogue, appended as Appendix A to the Report on Agenda Item 3.2 replace Version 11 on the Asia/Pacific Regional Office's web site.*

AIS – AIM Implementation Task Force Outcomes

2.16 APANPIRG/24 reviewed the report from the Aeronautical Information Management (AIM) Quality Assurance Seminar and the Eighth Meeting of the Aeronautical Information Services – Aeronautical Information Management (AIS-AIM) Implementation Task Force (AAITF/8), which were held in Ulaanbaatar, Mongolia, from 6 – 10 May 2013.

2.17 The ICAO Regional Office had conducted an analysis of the electronic Aeronautical Information Publication (eAIP) of the 23 States having previously reported eAIP availability. Of 23 States reporting eAIP availability, only 6 had internet-accessible eAIP which was fully compliant with Annex 15 requirements for an Integrated Aeronautical Information Package. Six provided an Annex 15-compliant AIP Book, AIP SUP and AIC, but not NOTAM. A further three States provided AIP Book, but not AIP Supplements (AIP SUP) and/or Aeronautical Information Circulars (AIC). The APANPIRG Chair noted the following Conclusion adopted by APANPIRG/24 would provide beneficial principles:

***Conclusion 24/19: Electronic AIP***

*That, considering that Electronic AIP (eAIP) is part of Phase 2 of the AIS-AIM Transition Roadmap, due for completion by 14 November 2013 to coincide with the publication of Amendment 37 to Annex 15, and that few Asia/Pacific States' internet-accessible eAIP as reported to ICAO Regional Office comply with the Annex 15 requirements for Integrated Aeronautical Information Packages, States are urged to:*

- a) implement internet-accessible electronic AIP (eAIP) as soon as possible;*
- b) ensure the eAIP has the unconditional authority of the State, without disclaimers referring to a separately published paper product;*
- c) permit open access to the eAIP either without the need for registration or, if registration is required, access to eAIP is automatically and immediately available;*
- d) provide the facility to register for an update/amendment notification service;*
- e) ensure the eAIP complies with Annex 15 requirements for content and structure;*
- f) report eAIP implementation and its internet hyperlink to the ICAO Asia/Pacific Regional Office; and*
- g) having implemented internet-accessible eAIP, on receipt of advice from the ICAO Asia/Pacific Regional Office, discontinue the forwarding of paper or CD copies of AIP, AIP SUP, AIC and NOTAM Checklists to the Regional Office.*

2.18 The only view of AIS – AIM transition progress available to States was the State AIS AIM Transition Table (available on the ICAO Regional Office website). While the reporting of individual Steps in terms of percentage-completion made it difficult to clearly assess, it was clear that progress was different between States, and significantly different than the AIS-AIM Roadmap, in which Phase 1 was intended to be completed by November 2010 and Phase 2 by November 2013.

2.19 APANPIRG/24 noted that 17 Administrations responded to the subsequent State Letter (AP135-12) requesting basic plans under *Conclusion 23/9 – AIS-AIM Transition State Plans*. Ten States had completed Phase 1, which was intended to be completed by November 2010. No State planned to complete all nine Phase 2 Steps by the scheduled date of 14 November 2013. Only 4 States (India, Japan, New Zealand and Singapore) had implemented all Phase 1 plus more than half of the Phase 2 elements including P-11 - Electronic AIP.

2.20 It had become apparent that further guidance for the submission of Basic Air Navigation Plan (BANP) proposals for amendment (PFA) for ATS routes was needed. The following Conclusion was adopted by APANPIRG/24:

***Conclusion 24/20: Basic Air Navigation Plan Amendment Procedure and Guidance for Submission of ATS Route Amendments***

*That, to further improve the quality and processing time of proposals to amend ATS route information in the Basic Air Navigation Plan, the Doc 9673 Amendment Procedure provided on the Asia/Pacific website should be replaced with the Amendment Procedure and Guidance for Submission of ATS Route Amendments appended as Appendix E to the Report on Agenda Item 3.2.*

2.21 Japan had proposed that there was a need to clarify differences between States' NOTAM operations and the descriptions in the Asia/Pacific Operating Procedures for AIS Dynamic Data (OPADD), and to facilitate the global harmonization of NOTAM operations. OPADD edition 3.0 was included in Chapter 3 of *Guidance Manual for Aeronautical Information Services in the Asia/Pacific Region*. APANPIRG/24 adopted the following conclusion:

***Conclusion 24/21: Survey of Differences between States NOTAM Operations and Chapter 3 of the Guidance Manual for AIS in the Asia/Pacific Region - OPADD Edition 3.0***

*That, recognizing the potential for inconsistencies in NOTAM format within the Asia Pacific Region, States should complete the OPADD Survey attached at Appendix F to the Report on Agenda Item 3.2 and forward the completed survey to the ICAO Asia/Pacific Office by 31 December 2013.*

**Asia/Pacific Search and Rescue Task Force Outcomes**

2.22 APANPIRG/24 reviewed the report from the first Meeting of the Asia/Pacific Regional Search and Rescue Task Force (APSAR/TF/1, Bangkok, Thailand, 5 to 7 February 2013) was attended by 18 Asia/Pacific SAR Administrations, ICAO and the International Maritime Organization (IMO).

2.23 The meeting discussed the difficulties of enacting agreements between States, which often involved waiting for long periods for political agreement. The meeting noted that ICAO/IMO may be able to facilitate some agreements involving high-level decision-makers. The APSAR/TF Chair agreed to examine the suggestion to draft a template that might be adopted by the ANSPs for extending cooperation between ATS units, until such time as the formal SAR Agreements were signed by competent authorities. APANPIRG/24 adopted to the following conclusion:

***Conclusion 24/22: Search and Rescue Agreements***

*Recognising the difficulties of enacting Search and Rescue (SAR) Agreements, States should be urged to make arrangements for senior civil and military decision-makers to facilitate the implementation and maintenance of SAR Agreements as early as possible.*

2.24 At the APSAR/TF/1, Australia had suggested the establishment of an Asia/Pacific Aeronautical SAR Contact List, with a focal point for each administration and relevant International Organization. Australia stated that the nominated contact(s) should preferably be a SAR manager or senior SAR qualified person who could respond in a timely and effective manner to coordinate aeronautical non-emergency and administrative SAR matters.

2.25 Australia had emphasised that the Contact List should not be confused with any listings of SAR Points of Contact (SPOCs) used for 24 hour SAR emergency communications associated with RCCs and the COSPAS-SARSAT distress beacon system. The following Conclusion was adopted by APANPIRG/24:

***Conclusion 24/23: Asia/Pacific SAR Contact List***

*That, States should be urged to provide contact details of SAR managers or senior SAR staff who may respond in a timely manner to aeronautical non-emergency and administrative SAR matters to the Asia/Pacific Regional Office, for incorporation into an Asia/Pacific SAR Contact List.*

**Agenda Item 3.3 – Regional Airspace Safety Monitoring Advisory Group (RASMAG)**

2.26 The report from the Eighteenth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/18, Bangkok, 01-04 April 2013) was reviewed by APANPIRG/24.

2.27 The RASMAG/18 meeting recognised that the En-Route Monitoring Agencies (EMAs) could have a role like an RMA in respect of identifying airframes that were not performing as expected in respect of their data-link performance data. Thus the meeting agreed that it was logical to expand the EMA roles to include monitoring of Communication Performance (RCP) and Required Surveillance Performance (RSP) approvals, although it was recognised that EMAs were not assigned to all the FIRs in the region. APANPIRG adopted to the following Conclusion:

***Conclusion 24/25: En-Route Monitoring Agency Role and Tasks***

*Considering the requirement for a defined process of monitoring airframe Required Communication Performance (RCP) and Required Surveillance Performance (RSP) compliance, and analysis of data-link performance affecting horizontal separation standards that utilise data-link, Asia/Pacific States should:*

- a) in collaboration with RASMAG, assign an En-Route Monitoring Agency (EMA) for each FIR; and*
- b) support the assigned EMA with the provision of information regarding -*
  - i. observed aircraft horizontal navigation performance; and*
  - ii. observed non-compliant data-link performance of individual aircraft; and*
  - iii. aircraft data-link approvals, and*
- c) recognise the potential benefit of EMAs in providing risk analysis to support horizontal separation implementation.*

2.28 The RASMAG/18 meeting had discussed that the way in which the Asia/Pacific region dealt with non-compliant aircraft would become increasingly important with the implementation of other airspace mandates such as for ADS-B, noting that the previous APANPIRG Conclusion 23/15: *Long-Term Non- RVSM Approved Aircraft* had not resulted in a significant reduction of errant operators.

2.29 Recognising the serious risk to safety, as well as the continued non-compliance by some operators with RVSM requirements over many years, APANPIRG adopted the following Conclusion:

***Conclusion 24/26: Repetitive Non-RVSM Approved Aircraft Operating as RVSM Approved Flights***

*That, Asia/Pacific States should, except where a specific non-RVSM operation is authorised, deny entry to operate within RVSM airspace for aircraft that have been confirmed as non-RVSM approved over a significant length of time, or by intensive checking.*

2.30 Stemming from the analysis of Large Height Deviation hot spots, RASMAG had agreed that there was an urgent need for prioritisation of AIDC (ATS Inter-facility Data Communications) implementation as a risk mitigation measure at the following interface hot spots. These hot spots were also where category E LHDs (ATC to ATC transfer errors as a result of human factors issues) formed a significant portion of the total reports. APANPIRG adopted the following Conclusion:

***Conclusion 24/27: Prioritization of AIDC Implementation to Address LHDs***

*Considering that ATS Inter-facility Data Communications (AIDC) is an important means of minimizing Large Height Deviations (LHD), Asia/Pacific States should support the expedition of AIDC through collaborative projects at the following significant LHD interface areas:*

- a) *Indonesia: between Jakarta and Chennai/Ujung Pandang/Brisbane/Melbourne FIRs;*
- b) *India: between Chennai and Kuala Lumpur FIRs;*
- c) *Philippines: between Manila and Fukuoka/Taipei/Hong Kong/Ho Chi Minh/Singapore/Kota Kinabalu/ Ujung Pandang FIRs; and*
- d) *China: between –*
  - i. *Urumqi and Lahore FIRs; and*
  - ii. *Beijing and Ulaan Baatar FIRs.*

Agenda Item 3.6 – APSAPG Outcomes

2.31 The Third Meeting of the ICAO Asia/Pacific Seamless Air Traffic Management (ATM) Planning Group (APSAPG/3) was held at Chennai, India from 21 to 25 January 2013. The Fourth Meeting of the ICAO Asia/Pacific Seamless ATM Planning Group (APSAPG/4) was held at Hong Kong, China from 03 to 07 June 2013.

2.32 IATA had introduced APSAPG/4/WP03, which provided an economic analysis of transition to Seamless ATM. The study entitled *Economic Analysis of Seamless Air Traffic Management* was predicated on the assumption that all ASBU Block 0 critical elements would be implemented and extrapolated the impact on Regional Gross Domestic Product (GDP) if there were implementation differences or delays. Without ASBU Block 0 improvements, the study concluded that overall aviation's contribution to regional GDP would fall 2.22 to 0.8% by the year 2030.

2.33 The Secretariat had presented the results of the Major Traffic Flow (MTF) and Sample Regional Routes to APSAPG/3. This study had been modified by updates following the APSAPG/2 meeting, and was conducted to determine the status of Seamless ATM capability and issues, in order to identify improvements for Seamless ATM capability.



2.34 APANPIRG/24 noted that IFATCA had presented a paper to APSAPG/3 focused on the need for human performance to be considered at all stages and at all levels of development of any ATM plan, noting that four papers on this subject had been provided at the AN-Conf/12. IFATCA had felt that while there had been much discussion on the automation and modernisation of ATM systems, but there has been very little reference to human factors and human performance. Human performance in the context of new automated ATM systems included such diverse elements as, equipment design, training, acceptance of change, workload, ‘just culture’ reporting and staffing.

2.35 APANPIRG adopted the following Draft Conclusions and Decision:

***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 46<sup>th</sup> 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.*

### **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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