



*International Civil Aviation Organization*

**The Third Meeting of the APANPIRG ATM Sub-Group  
(ATM /SG/3)**

Bangkok, Thailand, 03-07 August 2015

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**Agenda Item 2: ATM Systems (Modernisation, Seamless ATM, CNS, ATFM)**

**Outcomes of CNS SG/19 meeting**

(Presented by Secretariat)

**SUMMARY**

This paper presents the outcomes of the CNS SG/19 meeting held from 20 to 24 July 2015.

**1. INTRODUCTION**

1.1 The Nineteenth Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/19) of Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG), was held at the ICAO Regional Office, Bangkok, Thailand, from 20 – 24 July 2015.

1.2 The meeting was attended by 75 participants from 23 States/Administrations, 3 International Organizations namely IATA, IBAC and IFALPA, one Communication Service Provider – SITA and Rockwell Collins.

1.3 The meeting report and inputs to the meeting are available here: <http://www.icao.int/APAC/Meetings/Pages/2015-CNS-SG19.aspx>.

**2. DISCUSSION**

Communications

- AIDC
  - The meeting noted that ATFM/SG/5 made a decision (ATFM/SG/5-1) on the need for an ICD for technical ATFM communications solutions. A small working group comprised of China, Hong Kong China, India, Indonesia, Japan, Singapore, Thailand was established to draft an Operational Requirements document and a technical interface control document (ICD).
  - a list of recommendations for AIDC Implementation provided in the CNS SG/19 report were endorsed and proposed for distribution to States/Administrations for AIDC Implementation guidance through Draft Conclusion
  - States/Administrations in the Asia/Pacific Regions be encouraged to use the Pan Regional ICD for AIDC for any planned new ATM automated system or updating ATM automated systems for AIDC function. (Draft Conclusion)

- The meeting noted a number of papers presented to APA TF/1 meeting by Indonesia, Singapore, Malaysia, Sri Lanka and USA on the AIDC implementation status. The meeting congratulated all States for having achieved the successful conduct of trials and/or implementation of AIDC.
- The AIDC implementation status including ATN/AMHS in the APAC Region further updated by the meeting is tracked by CNS SG and provided in the report
- next meeting of the AIDC Task Force is scheduled for early 2016
- CRV (future IP-based aeronautical network for the APAC Region that will be interconnected to other ICAO regions)
  - The second iteration of the CRV Cost Benefit Analysis was endorsed.
  - 16 APAC States/Administrations have funded the procurement process, and 2 more intend to join
  - The tender for CRV services will be advertised in August 2015
  - Necessary cost arrangements between APAC States/Administrations should be discussed and established for Mid 2016
- SWIM: To follow up APANPIRG Conclusion 25/43 - Promote understanding of SWIM in APAC Region with focus on both technical and operational aspects for SWIM development, a workshop is scheduled for April-June 2016

#### Navigation

- A revised Navigation Strategy for APAC Region was endorsed (Draft Conclusion) due to the delayed readiness of Augmented GNSS to support Category II and III operations by 2017 (instead of 2016)
- PBN
  - The PBNICG developed a document called the 'PBN-in-a-page' to summarise relevant PBN-related information from various ICAO documents into one page to be used as a quick reference material during PBNICG meetings as well as during PBN airspace and route design sessions (Draft Conclusion)
  - Recognising the difficulties of safety assessment of PBN procedures which are required by various ICAO documents, the PBNICG developed a PBN Procedure Safety Assessment Checklist and Hazard Template to facilitate this assessment. The Template can be used to record and analyse the hazards identified as well as document the proposed mitigation measures (Draft Conclusion)
  - States/Administrations have to report their progress about PBN for end of July 2015
- ISTF
  - considering that extreme ionospheric gradients were observed in parts of APAC region through data collection, and in Brazil likewise, the need for GBAS threat model is confirmed

- considering the various factors such as variable ground stations network layouts and service levels, guidance material for establishing a SBAS ionospheric safety case model has to be developed

### Surveillance

- An ADS-B Seminar was held in conjunction with the ADS-B SITF/14 meeting which provided an opportunity for sharing information and experience focused on mandating carriage/operational use of ADS-B from regulators; airframe and avionics manufacturers; air space users' perspective; system/equipment suppliers, and Air Navigation Service Providers
- Guidance is needed on Separation Minima: ICAO (SASP) was invited to study the separation minima that can be applied using ADS-B with CPDLC and ADS-B with "DCPC" type (i.e. without operators) of SATCOM voice in remote airspace outside the range of VHF voice communications of the responsible ATC unit (draft conclusion)
- Regarding the need to study the space-based ADS-B application, the meeting noted the Decision 14/2 made by the ADS-B Task Force to study the application of space-based ADS-B in the Asia Pacific region; and focus on regional aspects, develop recommendations on implementation of ADS-B delivered from space-based platforms, and on required performance standards.
- CNS SG/19 endorsed an Amendment to ADS-B Implementation and Operations Guidance Document (AIGD) (draft conclusion)
- APANPIRG/25 held in September 2014 did not adopt the second part of the draft Conclusion formulated by ADS-B SITF/13 meeting i.e. "States in the Asia and Pacific Regions may choose to require or not require an Operations Specification or Operations Approval for ADS-B OUT". As a result of discussion the CNS SG/19 endorsed three Draft Conclusions promoting the concept that States do not require operational approval for the operational use of ADS-B OUT by ATC, and the mandatory carriage of serviceable 1090 MHz ES ADS-B transmitting equipment by aircraft
- The meeting noted the latest satisfactory progress in establishment of a Regional ADS-B Avionics Problem Reporting Database (APRD) in collaboration with the ICAO Regional Sub-office (RSO)
- ADS-B SITF proposed the revised wording for an Asia/Pacific Region ADS-B forward fitment commencing in 2018: States/Administrations in APAC Region are strongly encouraged to mandate that registered aircraft with a maximum certified take-off mass exceeding 5 700 kg or having a maximum cruising true airspeed capability greater than 250 knots, with a date of manufacture on or after 8 June 2018 (two years after the European forward fitment mandate is effective) be equipped with ADS-B avionics compliant with Version 2 ES (equivalent to RTCA DO260B) or later version (draft conclusion)
- Surveillance Implementation Coordination Group: the meeting endorsed the Terms of Reference of the Surveillance Implementation Coordination Group (SURICG) (draft conclusion). The next meeting of the ADS-B SITF would be a back to back meeting with a new surveillance body
- The meeting noted the progress of the collaborative efforts of Indonesia, Singapore and Viet Nam to achieve seamless ADS-B surveillance coverage over a portion of the South China Sea area

- Singapore and Viet Nam had agreed on a progressive phased approach to reduce longitudinal separation on specified ATS routes to allow airspace users the optimum benefits of ADS-B. From the previous 50 NM longitudinal separation, the minimum separation would be reduced to 20NM over 3 phases commencing in December 2013 and planned to be completed at the end of 2015
- India and Myanmar provided updates on their ADS-B implementation programme and readiness status for ADS-B data sharing
- Inter-regional ADS-C Reporting Interval Task Force: the Terms of Reference of the inter-regional ADS-C Reporting Interval Task Force provided by NAT Implementation Management Group were endorsed and States in Asia/Pacific Regions with experience of ADS-C implementation and in a position to do so, were encouraged to participate in the Task Force to contribute the study (draft conclusion). IATA commented that users do not want any proposal derived from this study to be mandated for global application, given different regional unique requirements

#### eANP

- CNS Parts of e-ANP were endorsed and proposed for adoption (draft conclusion)

#### Deficiencies

- the Navigation Aids Performance deficiencies in Philippines (Un-serviceability of both the ILSs and the DVOR at Manila airport ) had been removed as CAAP had effectively taken remedial efforts in improving the air navigation facilities and service.

#### Human factors

- the meeting agreed to add an additional agenda item on Human Factor and related issues such as training for agenda of next year meeting (CNS SG/20)

### **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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