



International Civil Aviation Organization

**The 17th Meeting of the Regional Airspace Safety Monitoring Advisory Group
(RASMAG/17)**

Bangkok, Thailand, 28 – 31 August 2012

Agenda Item 2: Review Outcomes of Related Meetings

RELEVANT MEETING OUTCOMES

(Presented by the Secretariat)

SUMMARY

This paper presents the outcomes from relevant recent meetings for RASMAG to review.

This paper relates to –

Strategic Objectives:

A: *Safety – Enhance global civil aviation safety*

Global Plan Initiatives:

- GPI-2 Reduced vertical separation minima
- GPI-8 Collaborative airspace design and management
- GPI-9 Situational awareness
- GPI-16 Decision support systems and alerting systems
- GPI-17 Data link applications
- GPI-21 Navigation systems
- GPI-22 Communication infrastructure

1. INTRODUCTION

1.1 The ADS-B Seminar and Eleventh Meeting of the ADS-B Study and Implementation Task Force (ADS-B SITF/11) were held at Jeju, Republic of Korea, 24 to 27 April 2012.

1.2 The Nineteenth Meeting of South-East Asia Air Traffic Management (ATM) Coordination Group (SEACG/19) was held at Bangkok from 01 to 04 May 2012.

1.3 The Second Meeting of the South Asia/Indian Ocean ATM Coordination Group (SAIOACG/2) was held in Bangkok from 22 to 25 May 2012.

1.4 The Twenty-Second Meeting of the APANPIRG Air Traffic Management/Aeronautical Information Services/Search and Rescue Sub-Group (ATM/AIS/SAR/SG/22) was held at Bangkok from 25 to 29 June 2012.

1.5 The Second Meeting of the ICAO Asia/Pacific Seamless ATM Planning Group (APSAPG/2) was held at Tokyo, Japan from 6 to 10 August 2012.

2. DISCUSSION

ADS-B SI/TF

2.1 Australia was requested to establish and maintain a regional database of identified ADS-B airframe problems. States were requested to share and provide information for the database. The meeting discussed the need for a single, global database of aircraft equipage such as PBN, ADS-B etc. IATA advised that ICAO HQ were creating such an integrated Airline Operating Certificate (AOC) database.

SEACG

2.2 SEACG noted the continued lack of compliance in the West Pacific/South China Sea and Indonesian airspace with the RVSM TLS. Recalling the importance of AIDC to minimize LHD, which constituted a major cause or factor of RVSM safety issues, a SEACG Capability Planning ad hoc survey was conducted of matters such as AIDC (ATS Inter-facility Data-link Communications) implementation status. The survey revealed that no SEACG administrations were using AIDC operationally except for China (Sanya) and Hong Kong, China – partial implementation. Only two other trials (Singapore-Viet Nam and Malaysia-Indonesia) were taking place, despite APANPIRG *Conclusion 19/19*, urging administrations to expedite AIDC implementation.

2.3 Hong Kong, China highlighted good progress in aircraft equipage of ADS-B along two ATS routes, L642 and M771. Within the Hong Kong FIR for the same period, a total of 2,163 ADS-B airborne targets had been detected out of 3,041 aircraft (71% equipped), and 66% (2,008) of these had good NUC values. Hong Kong, China felt that Automatic Dependent Surveillance-Broadcast (ADS-B) mandates provided a very clear message to aircraft operators to plan for retro-fitting and forward-fitting their fleets. IATA advised that they saw ADS-B as the key for long-term height keeping monitoring.

2.4 The Philippines advised that resumption of Manila FIR ADS/CPDLC (Controller Pilot Data-link Communications) trial operations could not commence until the Department of Transportation and Communications had finalized its review. As soon as issues with the equipment had been settled, the Philippines would be working to resume the ADS/CPDLC trial.

2.5 The inconsistency in approach in the AIDC, ATFM and ATS surveillance fields meant it was important to approach the planning, development and implementation of these areas in a much more disciplined and coordinated manner, with regular appraisal of the status of progress, barriers, and solutions that supported SEACG future planning. SEACG/19 established three AIDC, ATFM and ATS surveillance systems Small Working Groups (SWG).

SAIOACG

2.6 SAIOACG/2 noted there had been difficulty in completing safety data sharing LOA, as many States had administrative issues signing agreements with foreign entities. The meeting noted that MAAR had advised that the Bay of Bengal airspace RVSM risks were below TLS, however, since 1 July 2010, there had been no LLD or LLE report for the Bay of Bengal area. India suggested that air traffic controllers needed to be trained and directed to understand the importance of reporting correctly.

2.7 The SAIOACG/2 meeting agreed on a Draft Conclusion that allow States to mandate ADS-C (Contract) and CPDLC and Mode S transponders, which was agreed by the ATM/AIS/SAR SG/22 meeting for APANPIRG's consideration:

Draft Conclusion ATM/AIS/SAR/SG/22/5 – Asia/Pacific Air Navigation Concept of Operations Mandates

That, States intending to implement Performance-Based Navigation and Safety Nets may, after appropriate consultation with airspace users, designate portions of airspace within their area of responsibility:

- a) as providing priority for access to such airspace for aircraft with prescribed Performance-Based Navigation (PBN) specifications and supporting data-link equipage (ADS/CPDLC); and
- b) mandating the carriage and use of an operable Automatic Dependent Surveillance-Contract/ Controller Pilot Data-link Communications Systems (ADS-C/CPDLC) system, and mode A/C and/or mode S transponder.

2.8 SAIOACG also established three SWG regarding the implementation of AIDC, ATFM and ATS surveillance systems.

ATM/AIS/SAR/SG

2.9 Hong Kong, China described their experience on trials of AIDC using a standalone system while engineering a new ATM System with integrated AIDC capability that would enable a smooth implementation of AIDC with all the neighbouring ANSPs in 2013. Hong Kong, China stated that despite ICAO AIDC guidance material, there were grey areas and different interpretations in data field and Cyclic Redundancy Check (CRC) algorithm mismatch settings by equipment manufacturers that could lead to compatibility issues. Hong Kong, China supported a coordinated regional AIDC plan and requested that capable neighbouring ANSPs to arrange AIDC tests with their system. IATA and IFATCA congratulated Hong Kong, China for their work on AIDC implementation.

APSAPG

2.10 CANSO presented examples of specific initiatives in ADS-B and CDM where a number of States and their stakeholders were working together to transform ATM operations, which could be replicated across the entire Asia/Pacific Region provided there was proactive collaboration in the planning and execution of cross-border projects. CANSO underlined the need to have a strong focus on deliverables by translating strategies into action.

2.11 CANSO had initiated a series of ADS-B Focus Group meetings among the concerned parties to draw up concrete action plans for ADS-B collaboration within the Bay of Bengal and for the second phase of the South China Sea project. The first meeting involving India, Myanmar, CAAS, CANSO and IATA was held in Singapore on 3-4 July 2012. At this meeting, India and Myanmar agreed in-principle to share ADS-B data and VHF facilities from Sittwe and Coco Island (Myanmar), and Agartala and Port Blair (India). The sharing of ADS-B data and VHF communications from these stations would provide end to end surveillance between Calcutta and Myeik thus enabling reduced separation on a number of ATS routes.

2.12 The initial phase of ADS-B and VHF communications data-sharing over the South China Sea involved Indonesia, Singapore and Vietnam, and had completed several major milestones. By the end of 2013, ADS-B would be mandated for all flights at and above FL290 on ATS routes L642 and M771.

2.13 On 17 July 2012 at a meeting hosted by CANSO involving the Philippines and Singapore, there was in-principle agreement to install an ADS-B station at Quezon-Palawan. Together with an ADS-B station in Brunei, there would be end-to-end surveillance on the trunk routes N884 and M767. A separate meeting with Brunei was being planned.

2.14 Hong Kong, China recommended that the AIDC, CDM, ATFM, and ADS/CPDLC Aviation Safety Block Upgrade (ASBU) Block 0 elements should be considered as minimum operational and system needs and thus should be collaboratively implemented within the Asia/Pacific. The meeting agreed that the following ASBU elements were Priority 1 (Critical Upgrade) status:

- B0-10 Improved Operations Through Enhanced En-Route Trajectories (CDM, FUA);
- B0-25 Increased Interoperability, Efficiency And Capacity Through Ground-Ground Integration (AIDC);
- B0-30 Service Improvement Through Digital Aeronautical Information Management (AIM);
- B0-35 Improved Flow Performance Through Planning Based On A Network-Wide View (ATFM);
- B0-40 Improved Safety And Efficiency Through The Initial Application Of Data Link En-Route (CPDLC and ADS-C); and
- B0-84 Initial Capability for Ground Surveillance (MLAT and ADS-B).

2.15 In accordance with the APSAPG Terms of Reference, a draft Seamless ATM Plan outline was required to be developed for APANPIRG/23 (10-14 September 2012), with the completed Plan to be submitted to APANPIRG/24 in 2013.

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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