



International Civil Aviation Organization

**The Twentieth Meeting of the Regional Airspace Safety Monitoring
Advisory Group (RASMAG/20)**

Bangkok, Thailand, 26-29 May 2015

Agenda Item 2: Review Outcomes of Related Meetings

RELEVANT MEETING OUTCOMES

(Presented by the Secretariat)

SUMMARY

This paper presents information on search and rescue from relevant meetings.

1. INTRODUCTION

1.1 The Second Meeting of the APANPIRG Air Traffic Management Sub-Group (ATM/SG/2) was held in Hong Kong, China from 04 to 08 August 2014.

1.2 The Twenty Fifth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/25) was held in Kuala Lumpur, Malaysia, from 08 to 11 September 2014.

1.3 The Fifty First Conference of Directors General of Civil Aviation, Asia and Pacific Regions (DGCA/51) was held at Hong Kong, China from 24 to 26 November 2014.

1.4 The Fifth Meeting of the South Asia/Indian Ocean ATM Coordination Group (SAIOACG/5) and Twenty-Second Meeting of the South-East Asia ATM Coordination Group (SEACG/22) were held at Bangkok, Thailand from 03 to 06 March and from 09 to 12 March respectively.

1.5 The APANPIRG Contributory Bodies Structure Review Task Force (ABSRTF) pre-meeting discussion teleconference took place on 08 April 2015 (the Second Meeting of the ABSRTF would take place from 24 to 25 June 2015).

2. DISCUSSION

ATM/SG/2

2.1 ATM/SG/2 had the following key discussion points relevant to the RASMAG.

3.11 *In particular, the ATM/SG meeting noted that RASMAG had recommended that a Special Coordination Meeting (SCM) should be conducted involving Bangladesh, India, Indonesia, Malaysia, and Myanmar to, inter alia, investigate the installation of Automatic Dependent Surveillance – Broadcast (ADS-B), Very High Frequency (VHF) communications and sharing data from a site on Great Nicobar Island, which was close to the Indian, Indonesian and Malaysian FIR boundaries. Moreover, MAAR had noted that there were coordination problems between India and Myanmar, which resulted in the receiving controller not acknowledging the same information provided by the transferring controller. The meeting noted that this could be due to English proficiency, but MAAR would investigate further to clarify. These incidents could be investigated during the SCM between the States concerned.*

3.14 *The ATM/SG/2 meeting noted that greater effort and urgency appeared to be required by States to investigate and reduce ATC operational errors, and implement full AIDC capability. In the case of AIDC, the meeting agreed that it would be beneficial to form a short-term AIDC Implementation Task Force that focused on the South China Sea (SCS) and Bay of Bengal (BOB). Noting APANPIRG Conclusion 24/17: AIDC Implementation and Conclusion 24/27: Prioritization of AIDC Implementation to Address LHDs, and the continued incidence of LHDs in the BOB and SCS area, the ATM/SG/2 endorsed the following Draft Conclusion for consideration by APANPIRG: RASMAG Draft Conclusion 19-4: Asia/Pacific AIDC Implementation Task Force (which would become a CNS/SG Draft Conclusion).*

3.16 *The China RMA had advised RASMAG that they were continuing to experience problems with the interface between Urumqi and Lahore (Pakistan) FIRs. The RASMAG Secretariat had informed the meeting that there was an outstanding task regarding the need for a Special Coordination Meeting between Pakistan and China to address this high risk situation with enhancements to communications and ATS surveillance.*

3.19 *The ATM/SG/2 recognised from the RASMAG report that there had been significant deterioration in the region meeting the TLS overall (90% to 16% by FIRs), which had been partially caused by improved reporting. Notwithstanding this, and using a comparison of the ratio of LHDs to estimated flight hours, RASMAG/19 had recognised that the true rate of LHDs in Chinese and Republic of Korea (ROK) airspace was probably much more than was currently being reported. China had acknowledged that, relative to the flight hours, the LHD reporting ratio of China and DPRK was quite low, with possible existence of underestimation in these regions. The ATM/SG/2 meeting recognised that China had committed at RASMAG/19 to improve its mechanism of LHD reporting and develop a plan to establish an open reporting culture as part of a 'just culture' element of its safety management system by conducting a review.*

3.20 *The ATM/SG meeting noted that Asia/Pacific States with the majority of non-RVSM airframes identified by the Asia/Pacific RMAs to be operating within the RVSM stratum without proof of RVSM approval were from China, India, Indonesia, Pakistan and the Philippines. Overall, the number of non-RVSM aircraft had marginally reduced by 3% in the past year. This indicated that there was considerable work to do and APANPIRG Conclusion 24/6 Repetitive Non-RVSM Approved Aircraft Operating as RVSM Approved Flights which encouraged States to 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, except where a specific non-RVSM operation was authorized, had not yet been effective.*

Alignment of the RANP with the Global Air Navigation Plan (WP08)

ICAO reported on the work of the eANP Working Group (eANP WG) which was formed in follow-up to the 12th Air Navigation Conference Recommendation 6/1 Regional Performance Framework – Planning Methodologies and Tools regarding the alignment of regional air navigation plans with the Fourth Edition of the GANP, and proposals to develop a new Asia/Pacific Regional Air Navigation Plan (RANP) document.

The eANP WG had agreed that the ANP data related to the air navigation facilities and services could be classified as: stable, dynamic or flexible. In this regard, it was agreed that the new ANP should be composed of three volumes.

- a) **Volume I** should contain stable plan elements the amendment of which require approval by the Council;*
- b) **Volume II** should contain dynamic plan elements, the amendment of which does not require approval by the Council; and*
- c) **Volume III** should contain dynamic/flexible plan elements [not subject to the reporting of Deficiencies] providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes such as the ASBUs and associated technology roadmaps described in the GANP.*

APANPIRG/25

2.2 Key excerpts from the APANPIRG/25 report are as follows.

Integration of Human Factors in Research, Operations and Acquisition

3.2.1 There was considerable discussion by the ATM/SG/2 on the Federal Aviation Administration's (FAA's) use of a multidisciplinary human factors analysis in the development and operations of ATM systems. India, Hong Kong, China and IFATCA all emphasised the importance of human-in-the-loop planning at the earliest stage of project management. The meeting considered that there was a significant need for improvement in human factors knowledge and input into the development of appropriate processes for system engineering, procedure design, procedures and training. APANPIRG/25 noted that a number of States at CNS SG/18 had highlighted the need for integration of Human factors in Research, Acquisition, Operations and Maintenance of CNS/ATM Systems.

3.2.2 APANPIRG/25 agreed to the following Conclusion:

Conclusion APANPIRG/25-11: Human Performance Initiatives

That, ICAO be urged to:

- a) conduct an Asia/Pacific human performance seminar/workshop for optimal Air Traffic Control (ATC) and Search and Rescue (SAR) operational safety and efficiency; and*
- b) review the human performance provisions in the Asia/Pacific Seamless ATM Plan.*

3.3.7 Australia provided guidance material intended to guide implementation of Air Navigation Service (ANS) data link systems to FIT-Asia/3. APANPIRG/25 adopted the following Conclusion:

Conclusion APANPIRG/25-23: Data Link Implementation Strategy Guidance

That, the Data Link Implementation Strategy Guidance Material appended as Attachment A to APANPIRG/25/WP08 be adopted as guidance material for States/Air Navigation Service Providers and made available on the ICAO Asia/Pacific Regional Office Website (www.icao.int/apac).

3.3.8 RASMAG/19 discussed the issue of lack of points of contact for aircraft operators to report data link and other system problems directly to the Air Navigation Service Provider (ANSP) (FIT-Asia/3/WP11). APANPIRG/25 adopted the following Conclusion:

Conclusion APANPIRG/25-24: Contact Details for Airspace User Reporting of ADS-C/CPDLC Problems to ANSPs

That, States be urged to provide, and promulgate in their AIP, a point of contact for airspace users to report Automatic Dependent Surveillance-Contract/Controller Pilot Data-link Communications (ADS-C/CPDLC) problems to the State/Air Navigation Service Provider (ANSP).

3.3.38 MAAR stated that they had encountered a number of problems with the December 2013 TSD, including very late submission, TSD template not being followed, and TSD containing numerous errors and typos. The main cause of this problem seemed to be because many States still relied heavily on manual processing of their TSDs.

3.3.39 As a result, MAAR wanted to encourage States that did not have an automated TSD generation capability to submit their raw FPL messages instead of the conventional-format TSDs. MAAR noted that they were currently using this approach with Manila, Male, and Dhaka FIRs, which had proven very successful since it greatly reduced the resources required to prepare the TSDs for States. In this connection, MAAR proposed a Draft Conclusion which was endorsed by RASMAG/19 and adopted by APANPIRG/25:

Conclusion APANPIRG/25-25: Submission of FPLs as Traffic Sample Data (TSD)

That, Asia/Pacific States that do not have an automated TSD generation capability be urged to consult with the appropriate Regional Monitoring Agency (RMA) and if agreed, submit their raw Flight Plan (FPL) messages to the appropriate RMA, instead of conventional TSDs.

3.3.42 Asia/Pacific RMAs had reported instances of State aircraft operating in RVSM airspace without authorisation and, as in Europe, a consistent policy within the Asia/Pacific Region would help to alleviate this problem. Greater coordination between civil and military authorities, particularly on RVSM operational requirements, would support such a policy. APANPIRG/25 agreed to the following Conclusion:

Conclusion 25/26: Flights in RVSM Airspace by non-approved State Aircraft

That, Asia/Pacific States be urged to ensure close cooperation between civilian and military authorities, so that all RVSM operational requirements are clearly understood and complied with by State aircraft.

3.4.22 Noting APANPIRG Conclusion 24/17: AIDC Implementation and Conclusion 24/27: Prioritization of AIDC Implementation to Address LHDs, and the continued incidence of LHDs in the BOB and SCS area, the CNS SG/18 meeting agreed on the terms of reference of an AIDC implementation task force to solve identified problems in an effective manner in the short term and support the achievement of AIDC-related regional targets (phase 1 target for 2015 and prepare implementation of phase 2 target for 2018 as far as practicable) in the mid-term.

3.4.23 The ATM/SG/2 meeting also noted that it would be beneficial to form a short-term AIDC Implementation Task Force that focused on the South China Sea (SCS) and Bay of Bengal (BOB) and endorsed the following RASMAG Draft Conclusion 19/4: Asia/Pacific AIDC Implementation Task Force. 3.4-6

3.4.24 The meeting adopted the draft Decision 18/3 endorsed by CNS/SG 18 and ATM SG/2 meetings:

Decision APANPIRG 25/37 – AIDC Implementation Task Force

That, the AIDC Implementation Task Force be established with Terms of Reference provided in APANPIRG/25/WP09, Appendix D.

3.4.26 Given the need to minimize the implementation issues with AIDC, the CNS SG/18 meeting noted that involved stakeholders would have to plan their activities concurrently and exchange and coordinate their plan and modalities bilaterally with concerned Administrations to achieve harmonious AIDC implementation in the Region. Bilateral implementation of the PAN Regional ICD would require strict bilateral agreements or Memorandum of Understanding (MOU) on AIDC arrangements and synchronization of technology refresh cycles and maintaining backward compatibility of the automation systems for smooth exchange of AIDC messages. In view of the foregoing, the CNS SG/18 meeting formulated the draft Conclusion which was adopted by the meeting:

Conclusion APANPIRG 25/38 – Harmonization for AIDC Implementation

That, States/Administrations in the APAC Region be urged to share their implementation plans and experiences with concerned States for an expeditious AIDC implementation in a harmonized and timely manner.

DGCA/51

2.3 Action Items relevant to the RASMAG resulting from the DGCA/51 meeting were as follows:

Action Item 51/6	Noting the benefits of ADS-B data sharing, the Conference urged States and Administrations to share their experiences, best practices and guidance on ADS-B data sharing, and support the ICAO RSO's development, operation and maintenance of the APRD (ADS-B Avionics Problem Report Database).
Action Item 51/9	Recognizing the importance of human factors in ATM, the Conference encouraged States and Administrations to provide and offer training programmes on human factors in ATM.
Action Item 51/12	Recognizing the importance of English language proficiency of air traffic controllers, the Conference encouraged States and Administrations to exchange experiences on the implementation of English language proficiency for air traffic controllers towards a regional plan for English language proficiency of air traffic controllers.
Action Item 51/13	Noting the low responsiveness of States to APANPIRG activities, the Conference a) encouraged States and Administrations to provide the necessary resources and ensure continuity of participation by their experts at APANPIRG meetings and b) requested APANPIRG to establish a mechanism for planning regional cooperation activities in particular for the implementation of ASBU Block 1 in the region.
Action item 51/14	Following the endorsement of the APAC Seamless ATM Plan at APANPIRG/24, the Conference urged States and Administrations to report the progress of their implementation of the Seamless ATM Plan using the available reporting forms.
Action Item 51/19	The Conference requested ICAO to develop guidance materials on the organization of civil aviation authorities with respect to safety oversight, including issues related to inspectors in the various areas and facilitate a high level meeting for the South Asia Region.
Action Item 51/20	Recognizing the importance of collaboration among States/Administrations in pursuing route structure review to achieve Seamless ATM Operations, the Conference requested ICAO RSO to support States/Administrations on these efforts.

SAIOACG/5, SEACG/22

2.4 The SAIOACG/5 report contained the following excerpts related to RASMAG:

2.9 *In particular, the RASMAG/19 meeting noted that a Special Coordination Meeting (SCM) should be conducted involving Bangladesh, India, Indonesia, Malaysia, and Myanmar to, inter alia, investigate the installation of Automatic Dependent Surveillance-Broadcast (ADS-B), Very High Frequency (VHF) communications and sharing data from a site on Great Nicobar Island, which was close to the Indian, Indonesian and Malaysian FIR boundaries. The First Bangladesh, India, Malaysia, Thailand Coordination Meeting (BIMT/1) was successfully held at Bangkok, Thailand, from 18 to 19 August 2014 on this subject. India would present a paper to the ATM/SG/3 on progress made.*

2.5 The SEACG/22 report contained the following excerpts related to RASMAG:

2.6 **Figure 3** indicated the following sub-regional regional trends to RASMAG/19 for Southeast Asia. The sub-region had not met the TLS, which was largely connected with two major interface problems. The first was between Indonesian airspace and Singapore and Philippines airspace, and continued internal problems within Indonesian airspace between the Jakarta FIR and the Ujung Pandang FIR. The second was between the Philippines airspace and Singapore, Malaysian, Viet Nam, Hong Kong and Japanese airspace. The increased reporting by Indonesia was a positive. The level of continued operational errors involving interfaces with both the Indonesian and the Philippines airspace remains deeply concerning.

2.7 *Greater effort and urgency appeared to be required by both States to investigate and reduce ATC operational errors, and implement full AIDC capability. In the case of AIDC, the meeting agreed that it would be beneficial to form a short-term ATS Inter-facility Data-link Communications (AIDC) Implementation Task Force that focused on the South China Sea (SCS) and Bay of Bengal (BOB).*

3.1 *Recognizing the need for high capacity major traffic flow routes (MTF) between Southeast Asia and East Asia, and the effect of the current modified single alternate Flight Level Orientation Scheme (FLOS) that caused conflicts with crossing traffic, SAIOACG4/SEACG22 combined meeting had decided to establish a South China Sea Major Traffic Flow Review Group (SCS MTFRG) consisting of China, Hong Kong China, Malaysia, the Philippines, Singapore, Viet Nam, IATA, IFATCA and the ICAO RSO. The group's objective was to review MTF conflicts with specific ATS routes and the overall South China Sea airspace, air route and the suitability of the FLOS to optimise airspace capacity and enhance flight safety in the long term and report outcomes of the review and recommendations to the ATM/SG/2 or SEACG/22 meetings.*

2.6 SEACG/22 noted that the task of reviewing the SCS FLAS/FLOS was deferred until the MTFs had been identified and studied.

ABSRTF

2.7 APANPIRG/25 noted that in light of the performance based approach to air navigation planning and implementation there was a need to align the work programme of States, regions and ICAO and in this regard due consideration should be given to planning, implementation, performance measurement, monitoring and reporting aspects and that a project based approach for ASBUs should be applied to APANPIRG Contributory Bodies (Sub Groups, Working Groups, Task Forces) as necessary.

2.8 The objective of the ABSRTF was to promote a more project-management-driven approach to regional air navigation planning and implementation, which is guided by and aligned with regional priorities and the Global Air Navigation Plan/ASBU strategy: and develop a new structure of the APANPIRG and its contributory bodies in accordance with APANPIRG Decision 25/50 for endorsement by APANPIRG/26.

2.9 The ABSRTF discussed whether RASMAG, as a body dealing primarily with safety matters, should report to the Regional Aviation Safety Group (RASG) under the Global Aviation Safety Plan (GASP) instead of APANPIRG, which deals primarily with the Global Air Navigation Plan (GANP). At the ABSRTF Teleconference (08 April 2015), the RASMAG Chair advised that as the task of the RASMAG was to review airspace safety performance and facilitate the implementation of airspace safety monitoring and performance assessment services, APANPIRG was the right forum for reporting, especially as its main deliverable was to submit recommendations to APANPIRG to improve ATM operations. Thus it was proposed that RASMAG continue to report directly to APANPIRG. However, RASMAG would however continue to share the ATS Data and analysis submitted by RMAs and EMAs with RASG/APRAST.

2.10 The ABSRTF noted that Sub Groups should identify projects primarily from ASBU Modules adopted by APANPIRG and APAC Seamless ATM plan. The respective APANPIRG Sub Group should examine and review the usefulness and continuity of the project groups reporting to it and propose their new structure to APANPIRG for approval.

2.11 As RASMAG was not a body that directly managed ASBU-related implementation, no changes to the RASMAG Terms of Reference (TOR) were recommended by the ABSRTF.

2.12 In order to give effect to the outcomes of the AN-Conf/12, the ABSRTF considered a revised structure of the Group and the adoption of a project management approach in its planning, implementation and reporting activities in support of States' efforts to implement SARPs, Regional requirements, regional targets and objectives and other ICAO provisions and policies.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any related item.

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