



International Civil Aviation Organization

**The Thirteenth Meeting of the Regional Airspace Safety Monitoring
Advisory Group (RASMAG/13)**

Bangkok, Thailand, 2 – 5 August 2010

Agenda Item 2: Review Outcomes of Related Meetings

REVIEW REPORT OF ATM/AIS/SAR/SG/20

(Presented by Secretariat)

SUMMARY

This paper presents an overview of the outcomes of the 20th Meeting of Air Traffic Management/Aeronautical Information Service/Search and Rescue Sub-Group of APANPIRG held from 5 to 9 July 2010 in Singapore. Some important issues relating to RASMAG are highlighted.

1. INTRODUCTION

1.1 The 20th Meeting of the Air Traffic Management/Aeronautical Information Service/Search and Rescue Sub-Group of APANPIRG (ATM/AIS/SAR/SG/20, July 2010) reviewed the outcomes of RASMAG as well as the APANPIRG/20 report and other ATM/AIS/SAR-related meetings. Full copy of the meeting report is available on the website of Asia and Pacific Office at <http://www.bangkok.icao.int/> under the 'Meetings' menu

2. DISCUSSION

Review the APANPIRG/20 Report and Subsequent ANC/Council Actions

2.1 The meeting noted the actions taken by the Air Navigation Commission (ANC) on the Report of the APANPIRG/20 in the ATM/AIS/SAR fields. In accordance with the revised procedure adopted by the Council (C-DEC 177/14, dated 20 March 2006), Planning and Implementation Regional Groups reports are not presented to the Council unless the Commission deems it necessary for the Council to take action on any of the Conclusions. The meeting noted the Commission's actions on specific items of interest as follows:

2.2 While noting Conclusion 20/23 regarding the *adoption of Asia/Pacific Regional Impact Statement – RVSM Global Long Term Height Monitoring Requirements effective from November 2010*, the Commission welcomed the initiative of APANPIRG in preparing an impact statement for the Reduced Vertical Separation Minimum (RVSM) long-term height monitoring requirements and noted that it would serve as regional guidance material for developing regional monitoring infrastructure.

2.3 With regard to Conclusion 20/34 about the *Satellite data link communication capability*, the Commission noted the concerns of APANPIRG for ensuring the availability and sustainability of infrastructure to fulfill operational requirements for satellite data link communication services. It had been further noted that the same issue was highlighted by the North Atlantic Systems

Planning Group (NAT SPG) in September 2008. The Commission had noted that ICAO would undertake a case study on the ownership and control of the air navigation services infrastructure, including the development of a draft service level agreement for use by air navigation service providers (ANSPs), to ensure that private third party service providers perform in line with recognized safety and performance requirements. Furthermore, it was recognized that usage of two or more autonomous networks by States and international organizations would provide much better availability. The Commission invited the Secretariat to monitor further developments in this regard.

2.4 Confirming the request of APANPIRG in its Conclusions 20/37 (guidance material for PBN implementation), 20/42 (PBN safety assessment training) and 20/48 (Flight inspection and validation of flight procedures), the Commission requested the Secretariat to address these performance based navigation (PBN) issues through appropriate ANC Panels and Study Groups.

Regional Performance Framework and Metrics

2.5 The *Manual on Global Performance of the Air Navigation System* (Doc 9883) provides a step-by-step approach to performance-based planning on the basis of the Key Performance Areas (KPAs) identified in the ATM Operational Concept. Recognizing that the work process requires a globally coordinated effort, the aviation community is encouraged to follow a common approach towards development and implementation of a performance-based approach to safety of aviation, and air navigation planning and implementation. It was recognized that a common set of performance metrics for all regions should be available and States would carry on following the existing four APAC Metrics. In the meantime, the meeting formulated the following Draft Conclusion for consideration by APANPIRG:

Draft Conclusion SG 20/1 – Common Set of Performance Metrics for All the ICAO Regions

That, ICAO be invited to:

- a) *develop a common set of performance metrics for all the ICAO regions so as to facilitate comparative analysis; and*
- b) *establish the globally harmonised guidance on methodology of how to collect the data in order to achieve commonality.*

Review and Progress the Tasks Assigned to the ATM/AIS/SAR/SG by APANPIRG, and Consider Problems and Make Specific Recommendations

Report on Southeast Asia Route Review Task Force (SEA-RR/TF)

2.6 A proposal to realign two parallel RNAV routes L642 and M771 slightly to the west was submitted to the Task Force. This would have the benefits of both routes being within radar and VHF coverage north of the Singapore/Ho Chi Minh flight information (FIR) boundary which would allow 50 NM longitudinal spacing between all aircraft using these routes as well as the possibility of using RNAV 5 whereby the pair of RNAV routes could be decreased in both lateral and longitudinal spacing under radar/VHF overages. Further work was required on this initiative at future Task Force meetings.

2.7 It was suggested to the Task Force that a parallel pair of routes could be designed for both A1 and A202, which link Bangkok and Hong Kong through the Pearl River Delta. These four routes should also be unidirectional which would double the amount of flight levels compared to the present structure. This in turn would improve operational efficiency and safety for the airlines as well as ease the workload and complexity on air traffic controllers.

Proposed Changes to the Operational Letter of Agreement between States for the Monitoring of Aircraft Navigation Errors in the South China Sea Area

2.8 Singapore informed ATM/AIS/SAR/SG/20 that based on the Operational Letter of Agreement (LOA) signed in June 2008, the Civil Aviation Authority of Singapore (CAAS) had been designated as the Monitoring Authority and responsible for collating relevant data concerning flight operations along RNAV routes, L625, L642, M767, M771, N884 and N892, including the Gross Navigational Errors (GNE) reports from Hong Kong China, the Philippines and Singapore. Subsequently, South East Asia Safety Monitoring Agency (SEASMA) has been set up as the En-route Monitoring Agency (EMA) to provide airspace safety assessment and monitoring services to support the introduction and continued safe use of horizontal-plane separation minima in the South China Sea area.

2.9 In light of the above, the need to revise the current LOA was identified to reflect the change in the name of monitoring authority from CAAS to SEASMA. The meeting noted the changes proposed to the draft LOA. The meeting requested State representatives to take the LOA back to their States and provide comments to Singapore. It was agreed that the LOA among States concerned should be signed during APANPIRG/21 to be held in September 2010 in Bangkok.

Traffic Movements and GNE Reports June 2009 to May 2010 on the Six Designated Monitored Areas in the South China Sea

2.10 Singapore informed the meeting that in April 2010, Singapore Area Control Centre (ACC) reported one large lateral deviation of 20 NM to the left of N892 which was observed on ADS/CPDLC. A lack of coordination between ATC-unit to ATC-unit transfers of control responsibility was the contributing factor towards this large lateral deviation. No further lateral and longitudinal errors were reported in the monitored area during the period under review.

Global ATS Inter-Facility Data Communications (AIDC) Interface Control Document (ICD)

2.11 The United State Federal Aviation Administration (FAA) drafted a *Global Interface Control Document (ICD) for ATS Inter-Facility Data Communications (AIDC)* which was provided to the Informal Pacific ATC Coordinating Group (IPACG) for review and comments. ATM/AIS/SAR/SG/20 took note of activities carried out by the United States for the development of the global document and appreciated the work carried out. As the meeting did not have the expertise, participants were requested to take this information back to respective States for review and to provide resulting comments to Ms. Karen Chiodini (email: Karen.L.Chiodini@faa.gov) by 31 August 2010. With respect to the approval procedure of the document, it was informed that the same procedure undergone for approval of the *Global Operational Data Link Documents (GOLD)* would be also applicable for the Global ICD. The document, however, was expected to be completed for consideration by APANPIRG in 2011, and the meeting felt that it was too early to formulate a Conclusion. The meeting suggested the United States to submit the document to the CNS/MET Sub-Group meeting to be held in Jakarta from 19 to 23 July 2010. The Secretariat informed that the Asia/Pacific AIDC Implementation Seminar would be held in Bangkok on 12 and 13 October 2010, and advised that the forum could be used to seek comments.

Review of ATS Coordination Group Meetings

Bay of Bengal Reduced Horizontal Separation Implementation Task Force

Implementation Strategy for Use of 50 NM Longitudinal Separation in the Bay of Bengal

2.12 Over the period of the three Task Force meetings, it was finally agreed that three phases would be used in the implementation process of 50 NM longitudinal separation as follows:

Phase 1: N571, P628 and P762;

Phase 2: L301, L510, L759, M300, M770, N563, N877, P570 and P574; and

Phase 3: All other RNP 10 routes over the Arabian Sea, the Bay of Bengal and the Indian Ocean

Horizontal En-route Monitoring Agency and Operational Letter of Agreement for the Monitoring in the Arabian Sea, the Bay of Bengal and the Indian Ocean

2.13 The meeting noted that during a Bay of Bengal Reduced Horizontal Separation Implementation Task Force (BOB-RHS/TF) meeting, India advised the Task Force that, taking into consideration the amount of airspace within their FIRs in both the Arabian Sea and the Bay of Bengal, they were prepared to establish EMA to cover all routes to which 50 NM longitudinal separations will be applied. Singapore, who is responsible for the EMA service for the South China Sea area, offered to share their experience with India in this regard.

2.14 The Task Force recalled that the implementation of reduced horizontal separation minima requires continuous monitoring of aircraft navigation errors. This includes the identification and reporting of any Large Lateral Deviations (LLD) or Large Longitudinal Errors (LLE), to ensure that the target level of safety (TLS) of the operations within the airspace in question meets the regionally established TLS.

2.15 The first step in the monitoring process would be to identify suitably designated areas where monitoring can be done by means of surveillance. On day-to-day basis, air traffic controllers carrying out their ATC duties should be the front line first person to initiate the report should they encounter any aircraft with navigational errors. The Task Force agreed that an LOA should be put in place by the relevant States to ensure that the procedures for reporting of navigation errors, and traffic movement counts are administered accurate and consistently by all States involved.

Review Outcomes of RASMAG/20

2.16 ATM/AIS/SAR/SG/20 had a lengthy discussion on the Central Reporting Agency (CRA) arrangement. During the discussion, the meeting noted that the CRA arrangements were made on an individual sub-regional basis, and the arrangements and the mechanisms differed from sub-region to sub-region. The meeting felt that a region-wide safety monitoring arrangement for data link operations with oversight by RASMAG would be preferred. Accordingly, the meeting formulated the following Draft Conclusion for consideration by APANPIRG:

***Draft Conclusion SG 20/13 – CRA Arrangement under RASMAG
Responsibility***

That, in light of the variation of the CRA arrangement across the region, RASMAG be invited to provide guidance and oversight in the arrangement for the establishment and the operations of CRA in order to achieve a sustainable mechanism for the region.

Review Developments Relating to CNS/ATM Implementation

2.17 IATA expressed the view that implementation of newer technologies and procedures such as PBN and ADS-B presented new opportunities beyond the scope of the original definition of Continental Airspace, particularly within Asia/ Pacific. In some parts of Asia/Pacific, while a majority of an ATS route may well be over the “high seas” and therefore is prescribed as an Oceanic route, it may also be within range of ATM capability such as surveillance and direct communication. Aircraft on these routes are also generally within range of ground facilities, enabling periodic navigation update capability.

2.18 IATA considered that airspace (route or portion thereof) where CNS/ATM capability enables surveillance and VHF communication should be considered “Continental”. The airspace (route or portion thereof) where the capability does not exist should be considered either “Remote Continental” or “Oceanic”. In order to realize significant benefit, IATA had sought endorsement in principles that State consider air routes/airspace to be “Continental” based on CNS/ATM capability where justified, and otherwise be considered Oceanic. The Secretariat stated that there was no longer explicit definition of “Oceanic”, “Remote Continental” and “Continental” airspace in the ICAO documents, and separation application could be determined based on the capability of the CNS/ATM infrastructure.

ADS/CPDLC Operational Trial and the Proposed Action Plan for Transition from the Trial to the Operational Implementation in the Ujung Pandang FIR

2.19 The meeting was informed that Indonesia had conducted the ADS/CPDLC operational trial on oceanic ATS routes A461, B462, B583, B472, B473, B584 and R340/R590 in the Ujung Pandang FIR for all aircraft equipped with FANS-1/A from 3 July 2008 to 3 June 2010. During the first year of the trial, some problems were experienced, which were resolved by 2009. However, AIDC test continued. Indonesia has prepared the AIP Supplement on ADS/CPDLC operation in the Ujung Pandang FIR for publication on 29 July 2010 to notify the operation effective from 23 September 2010. The revised Supplementary Letter of Agreement (SLOA) on transfer of ADS/CPDCL between Brisbane ACC and Ujung Pandang ACC was approved and signed on 3 June 2010.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note in general the contents of the meeting report presented in this working paper; and
- b) note that ATM/AIS/SAR/SG/20 proposed to APANPIRG that region-wide CRA arrangement be established under the oversight of RASMAG.

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