

**Twenty Third Meeting of the  
Informal South Pacific ATS Co-ordinating Group (ISPACG/23)**

**Santiago, Chile, 26-27 March 2009**

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**Agenda Item 3: Review Relevant Work Conducted Since ISPACG/23**

**OUTCOMES FROM RASMAG/10**

(Submitted by ICAO Asia and Pacific Regional Office)

**SUMMARY**

A summary of the outcomes from the 10<sup>th</sup> meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/10, December 2008) forms the basis for this paper. The draft APANPIRG Conclusion and two draft APANPIRG Decisions prepared by RASMAG are highlighted for review by the BBACG.

**1. INTRODUCTION**

- 1.1 The Tenth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/10) was held in Bangkok, Thailand from 15 to 19 December 2008. The meeting was attended by 33 participants from Australia, China, India, Japan, New Zealand, Republic of Korea, Singapore, Thailand, United States and Viet Nam.
- 1.2 The first day of the RASMAG/10 meeting was conducted as a technical meeting for the five Asia/Pacific RVSM Regional Monitoring Agencies (RMAs). The intent of this meeting was to give the RMAs an opportunity to focus discussions on technical issues, identify resolutions to these issues and standardize regional processes.

**2. DISCUSSION**

*Minimum Monitoring Requirements*

- 2.1 In reviewing the height monitoring requirements for airframes used in RVSM operations, RASMAG/10 understood that the Annex 6 provisions for global monitoring would take effect in about 2 years time, from November 2010, so were not presently applicable. Also, as the RMA Manual was further delayed, the status of the Minimum Monitoring Requirements (MMRs) in the RMA Manual was questionable. However, RASMAG/10 recognized that the MMRs promulgated by the Monitoring Agency for the Asia Region (MAAR) had only slight differences from the MMRs in the RMA Manual and were always at least equal to or more exacting than the Annex 6 requirements. Consequently, the meeting agreed that, in the interim, the MAAR

MMRs that that been adopted by RASMAG/3 should continue as the basis of MMRs used by Asia/Pacific RMAs.

- 2.2 However, the meeting also recognized that the monitoring of an airframe was a significant burden to the operator and that monitoring therefore should be at the minimum rate necessary. Accordingly, the matter would be kept under review, with the objective of utilizing the Annex 6 provisions as the basis for regional MMRs insofar as possible.
- 2.3 Recognizing that APANPIRG had not formally adopted MMRs and noting the extended delays in finalization of the RMA Manual and the interim period until the 2010 effective date for the Annex 6 provisions, the meeting drafted the following conclusion:

**Draft Conclusion RASMAG 10/1 – Adopt RVSM Minimum Monitoring Requirements**

*That, recognising that publication of the ICAO RMA Manual had been further delayed and that the Annex 6 provisions for the global long term monitoring of airframes used in RVSM operations would not take effect until November 2010, the Asia RVSM Minimum Monitoring Requirements adopted by RASMAG and promulgated by the Monitoring Agency for Asia Region (MAAR) be adopted by Asia/Pacific RMAs as the basis for RVSM monitoring requirements in the Asia and Pacific Region.*

*Global Long Term Height Monitoring*

- 2.4 APANPIRG/18 had recognized that the 2010 implementation of Annex 6 global long term monitoring requirements for airframes used in RVSM operations would have significant impacts in the way regional monitoring was managed, including the need for widespread regional height monitoring infrastructure capability to be made available. Under the terms of Conclusion 18/4, APANPIRG had tasked Asia/Pacific RMAs in conjunction with RASMAG to prepare a regional impact statement summarizing the estimated consequences for the Region, including consideration of the numbers of airframes required to be monitored and ground infrastructure required.
- 2.5 RASMAG/8 had commenced work in this regard, identifying six Long Term Height Monitoring (LTHM) Actions which had subsequently been circulated by ICAO State Letter (Ref: T3/10.1.17 – AP018/08 ATM) during January 2008. Regrettably, as a result of high workloads on all the RMAs and the Regional Office, work had stalled in respect to the formulation of a regional impact statement. The meeting agreed that APANPIRG/19 in September 2008 should be informed about the 6 LTHM Actions agreed by RASMAG/8 and that RASMAG was still attempting to progress work in this respect.
- 2.6 APANPIRG/19 agreed that effective coordination arrangements between States and RMAs was a critical first step and adopted the following Conclusion:

*Conclusion 19/15 – Enhanced communications between States and RVSM RMA's*

*That, noting the Annex 6 provisions for the global long term monitoring of airframes used in RVSM operations and the critical role of Asia/Pacific RVSM Regional Monitoring Agencies (RMA's) in monitoring the safety of RVSM operations, the Regional Office draw the attention of States to the Long Term Height Monitoring Actions promulgated by RASMAG. In particular, States are encouraged to immediately strengthen relationships with their respective RMA's to ensure that information in relation to RVSM approval status is continuously available to RMA's.*

*RVSM Non - Approved Operators Using RVSM Airspace*

- 2.7 APANPIRG/19 expressed serious concern in relation to flights that were apparently using RVSM airspace when they did not have the State approvals to do so. In agreeing that this issue ultimately required regulatory intervention, the meeting requested RASMAG to continue its investigations in this regard with the objective of providing a more comprehensive briefing to APANPIRG/20 (2009) in relation to this issue.
- 2.8 In this context, RASMAG/10 discussed a number of possible methods to identify non-approved operators. The most readily available method was to compare flights in the annual December traffic sample data against the approvals databases maintained by regulatory authorities. This was already a normal method used by regional RMA's, and RMA's agreed to ensure diligence in this approach.
- 2.9 The Australian Airspace Monitoring Agency (AAMA) described a simple software application that enabled an audit of AFTN messages to be made on a frequent basis to identify flight plan messages in which 'W' had not been filed. Australia ran the software application on a monthly basis and the process had been beneficial in identifying cases of apparent non compliance, many of which had turned out to be database errors. The AAMA offered to make the software application available to other RMA's on request. Regional RMA's would continue to study the problem and provide feedback to the next meeting, for consolidation and submission to APANPIRG.

*LHD Definitions*

- 2.10 MAAR reported that, based on available data from States and RMA's, it could be inferred that States may not entirely comprehend the significance and meaning of Large Height Deviation occurrences. In preparing the recent assessment for the Bay of Bengal, MAAR had experienced a number of situations where relevant data had been provided by neighbouring AAMA about risk bearing incidents in the MAAR area of responsibility that had not been reported to MAAR. This clearly supported the concerns previously expressed by RASMAG in relation to under reporting of LHDs

by Bay of Bengal States. The meeting strongly recommended that States review the definition and reporting requirements for Large Height Deviations and faithfully provide relevant information to accredited RMAs to facilitate a statistically reliable safety assessments.

- 2.11 RASMAG material containing the plain language definition of a large height deviation and information relating to the categorisation of RVSM Large Height Deviations has been included as **Attachment A**.

*PBN Regional Implementation Plan*

- 2.12 The Ninth Meeting of RASMAG (RASMAG/9, May 2008) studied the outcomes of the PBN TF/1 and TF/2 meetings (January and April 2008, respectively) and noted the excellent progress being made by the Task Force towards drafting the Regional and State PBN Implementation Plans. RASMAG/9 proposed a draft inclusion as Section 9 *Safety Assessment and Monitoring Requirements* of the Regional PBN Implementation Plan for consideration by the next PBN/TF meeting.
- 2.13 PBN/TF/3 (July 2008) reviewed the text proposed by RASMAG/9, noting that the text summarized the ICAO requirements. Accordingly, PBN/TF/3 incorporated the draft text from RASMAG as Section 9 of Regional PBN Implementation Plan.
- 2.14 PBN/TF/3 also requested APANPIRG to consider incorporating all the assessment and monitoring requirements and activities for PBN applications into the RASMAG role. The CNS/MET/SG/12 meeting (July 2008), also discussed the proposals from PBN/TF/3 that APANPIRG task RASMAG with the conduct of the assessment and monitoring for PBN implementation.
- 2.15 APANPIRG/19 recognized that as the PBN/TF/3 meeting had been held in July 2008, after RASMAG/9 in May 2008 and ATM/AIS/SAR/SG/18 in June 2008, these two Sub-Groups had not had the opportunity to review the proposed Regional PBN Plan. Consequently, APANPIRG/19 considered it more appropriate to adopt the regional plan as an 'interim' edition, pending review by RASMAG and ATM/AIS/SAR/SG. APANPIRG/19 adopted the interim edition under Conclusion 19/25 and urged States to review the interim plan, provide feedback to ICAO Regional Office and use the interim plan as a basis for developing national PBN Implementation Plans.
- 2.16 The meeting reviewed the interim edition of the regional PBN plan and proposed additional text for Section 9 - *Safety Assessment & Monitoring Requirements* to clarify that the responsibility for safety assessment and ongoing monitoring lies with the implementing States, not with RASMAG. States are encouraged to coordinate with RASMAG regarding the en-route safety assessment and monitoring requirements and methodologies. The meeting also proposed a number of editorial updates, as shown in **Attachment B**, and requested that the Secretariat provide the RASMAG proposals as a working paper to the PBN/TF/4 meeting scheduled in March 2009 for their consideration.

*Horizontal safety assessment and monitoring*

- 2.17 RASMAG had long recognized that although arrangements for monitoring in the vertical plane (RVSM) using RMAs were comparatively advanced, there was a need to further develop regional safety assessment and monitoring capability in the horizontal plane (i.e. lateral and longitudinal). A number of areas required clarification, covering both the administrative and technical aspects of horizontal monitoring. The issue had been brought to APANPIRG's attention previously, resulting in the following Decision, taken during August 2005:

*APANPIRG Decision 16/1 – Safety Monitoring Agency (SMA)*

*That, the term Safety Monitoring Agency (SMA) be used to describe an organization approved by regional agreement to provide airspace safety monitoring and implementation services for international airspace in the Asia/Pacific region for implementation and operation of reduced horizontal separation.*

- 2.18 In order to bring to APANPIRG's attention the recommendations from RASMAG that the requirement for horizontal monitoring agencies to be approved by regional agreement be set aside and the naming convention be clarified by adoption of the term En-route Monitoring Agency, RASMAG/10 agreed to the draft Decision below. It is the intention of RASMAG that this Decision replaces APANPIRG Decision 16/1

**Draft Decision RASMAG/10-2 – En-route Monitoring Agency (EMA)**

*That the term En-route Monitoring Agency (EMA) be used to describe an organization providing airspace safety assessment, monitoring and implementation services for international airspace in the Asia/Pacific region to support implementation and operation of reduced horizontal (lateral and longitudinal) separation.*

*Expand December TSD for airspace planning*

- 2.19 The ICAO Asia/Pacific Air Traffic Flow Management (ATFM) Seminar/Workshop was held in Fukuoka, Japan from 7 to 9 October 2008. The ATFM Seminar/Workshop recognized the fundamental and critical need for accurate and timely data to be continuously available to support implementation and ongoing ATFM operations. This was essential in two aspects:
- a) Static data identifying historical traffic loadings, for use as strategic planning and trend analysis, and
  - b) Dynamic real time data that was used for the tactical management of traffic in terms of commencement of ATFM measures

- 2.20 The ATFM Seminar/Workshop recognized that as a result of the Annex 11 provisions requiring that RVSM monitoring be conducted on a regional basis, APANPIRG/16 had endorsed the use of a standardized approach to the sampling of vertical and horizontal traffic data under the terms of Conclusion 16/4, adopting the month of December every year for the collection of a one month traffic sample data by all Asia/Pacific States. Although this data was currently used exclusively for airspace safety monitoring purposes, the ATFM Seminar/Workshop considered it likely that this annual traffic count would provide a very useful source of data for airspace planning purposes in general and specifically to identify peak traffic loadings for ATFM purposes.
- 2.21 Consequently, the ATFM Seminar/Workshop recommended that RASMAG review the situation, with the objective of expanding the use of the annual December RVSM data collection for airspace implementation planning and implementation in general (ATFM, PBN, ATS routes etc) and, under supervision of the Regional Office, enabling this data to be made available to implementation groups as required to support all regional ATM implementations.
- 2.22 After considering this proposal the meeting gave in-principle agreement to the concept. However, beyond agreeing to a standardized template for the annual December traffic sample data gathering that also included a column to record the en-route PBN approvals status of each flight (as discussed in paragraph 2.15 above), regional RMAs were not able to accommodate extra workload or responsibilities in gathering and managing data. Release of data would need to be authorized by an appropriate oversight body, such as the Regional Office. Additionally, RMAs also preferred that wherever possible implementing agencies obtained data directly from the States or parties involved in each implementation. The meeting agreed to the following draft Decision in this respect:

**Draft Decision RASMAG/10-3 –Expand use of safety monitoring data**

*That the arrangements for annual month of December traffic sampling by all States to satisfy airspace safety monitoring analysis as called for by APANPIRG Conclusion 16/4 be expanded to enable this data to also be used for airspace planning and implementation purposes. This will apply only where such data is not otherwise available to regional or State implementing bodies and only with specific authority of the ICAO Asia/Pacific Regional Office.*

**3. ACTION BY THE MEETING**

- 3.1 The meeting is invited to:
- a) Note the information in this paper;



- b) Note RASMAG draft Conclusion 10/1 recommending that APANPIRG adopt RVSM minimum airframe monitoring requirements for the Asia/Pacific region and APANPIRG Conclusion 19/15 calling for the strengthening of relationships between States and RVSM RMAs (paragraphs 2.1 to 2.6);
- c) Recognise that there are regular examples of RVSM non-approved flights using RVSM airspace (paragraph 2.7 to 2.9);
- d) Study the RASMAG guidance material on LHD definition and LHD categorisation and implement suitable methodologies that ensure that all LHDs are being reported to the responsible RMA (paragraph 2.10 to 2.11);
- e) note the RASMAG proposals to enhance the PBN Regional Plan, noting that safety requirements for implementation and ongoing monitoring are the responsibility of implementing States (paragraphs 2.12 to 2.16); and
- f) note the draft Decision to APANPIRG enabling the expanded use of annual December traffic sample data for airspace planning subject to the conditions shown in the RASMAG draft Decision (paragraphs 2.19 – 2.22).

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