



International Civil Aviation Organization

**The Third Meeting of the Regional Airspace Safety Monitoring Advisory Group
(RASMAG/3)**

Bangkok, Thailand, 6 - 7 June 2005

Agenda Item 7: Funding of Regional Safety Monitoring Activities

FUTURE DIRECTION OF MAAR

(Presented by Monitoring Agency for Asia Region)

Summary

This working paper addresses MAAR's intention regarding the provision of safety monitoring for the implementation of the RNP-based horizontal-plane separation minimum in the Asia Region. In turn, the paper summarizes MAAR's current duties and responsibilities in supporting the RVSM implementation in the Asia Region, and proposes the future plan in fulfilling the role of Safety Monitoring Agency (SMA) to ensure the safety of the Asian airspace where RVSM and RNP-based horizontal-plane separation minimum are applied.

1. Introduction

1.1 The objective of this paper is to express MAAR's intention to fulfill the role of Safety Monitoring Agency (SMA), providing the airspace safety monitoring services to support the implementation of RVSM and RNP-based horizontal-plane separation minimum in the Asia Region.

2. Background

2.1 At the 14th APANPIRG Meeting held in Bangkok, Thailand (4 - 8 August 2003), the meeting approved the final transition plan, jointly presented by Federal Aviation Administration (FAA) and Aeronautical Radio of Thailand Ltd. (AEROTHAI) in regards to the transfer of the Regional Monitoring Agency (RMA) duties and responsibilities for the RVSM implementation in the Asia Region from the Asia Pacific Approval Registry and Monitoring Agency (APARMO) to Monitoring Agency for Asia Region (MAAR).

2.2 In this regard, MAAR has fully assumed the RMA duties and responsibilities for the Asia Region, since 2 September 2003.

3. Current MAAR Works

3.1 Since 2 September 2003, MAAR has provided safety monitoring for the RVSM implementation in the Asia Region, including Bay of Bengal (BOB) and Western Pacific/South China Sea (WPAC/SCS). Its duties and responsibilities include:

- Establishing and maintaining Point of Contact (POC) database,

- Establishing and maintaining a central registry of State RVSM approvals of operators and aircraft using RVSM airspace,
- Administering height-keeping performance monitoring for aircraft intended to operated in the RVSM airspace,
- Establishing and maintaining a database containing the results of height keeping performance monitoring,
- Providing timely information on changes of the monitoring requirements for aircraft type classifications to State authorities and operators,
- Using height-keeping performance monitoring results to assess compliance of operators and aircraft with RVSM height-keeping performance requirements,
- Providing the means for identifying non-RVSM approved aircraft using the RVSM airspace where RVSM is applied, and the means for notifying the appropriate State Approval Authority,
- Monitoring all altitude deviations of 300 ft or more (Large Height Deviation–LHD), within airspace where RVSM is applied,
- Conducting safety assessments before the planned RVSM implementation, and
- Providing safety oversight after RVSM implementation in the regional airspace.

3.2 In addition, MAAR assists ICAO in assessing the safety of the RVSM implementation in Japan and Republic of Korea (ROK) domestic airspace planned for September 2005.

3.3 MAAR reports the results of the safety assessment and oversight for the implementation of RVSM in the Asia Region to the Asia/Pacific RVSM Implementation Task Forces (RVSM/TF) and Regional Airspace Safety Monitoring Advisory Group (RASMAG). Since September 2003, the following reports have been provided to support the safe implementation of RVSM in the Asia Region:

- 90-day and 1-year reviews of LHD and safety oversight for the post-implementation of RVSM in WPAC/SCS airspace
- Preliminary safety assessment of the pre-implementation of RVSM in BOB airspace
- Final safety assessment for the pre-implementation of RVSM in BOB airspace
- 90-day and 1-year reviews of LHD and safety oversight for the post-implementation of RVSM in BOB airspace
- Preliminary safety assessment of the pre-implementation of RVSM in Japan/ROK domestic airspace

3.4 The future safety monitoring works responsible by MAAR in supporting the safe implementation of RVSM in the Asia Region include:

- Annual reviews of LHD and safety oversight for the post-implementation of RVSM in the Asia Region, including BOB and WPAC/SCS airspace (provided to RASMAG),
- Safety assessment for the RVSM flight level orientation scheme (FLOS) in WPAC/SCS (provided to RVSM/TF), and
- Final safety assessment for the pre-implementation of RVSM in Japan/ROK domestic airspace (provided to RVSM/TF)

3.5 The main goal of AEROTHAI in establishing MAAR is to assist the ICAO in ensuring the safe implementation of RVSM in the Asia Region. Therefore, no fee will be charged for MAAR services regarding to the RVSM implementation in Asia Region. The incurred expense would be purely AEROTHAI's operating expenses. However, aircraft operators intending to conduct height keeping performance monitoring for its RVSM-approved aircraft through AEROTHAI would be charged on a cost-recovery basis.

4. MAAR Future Plan

MAAR would continue to assume the RMA duties and responsibilities for the RVSM implementation in the Asia airspace, including the FIRs located only in the BOB and WPAC/SCS regions¹, at no cost to the concerning States and operators.

4.1 In regards to the provision of airspace safety monitoring for the implementation of the RNP-based horizontal-plane separation minimum in the Asia Region, the technical capability and prior experience of MAAR on the airspace safety monitoring in support of the RVSM implementation in the Asia Region is a strong fundamental for it to assume the roles and responsibilities of the SMA in the Asia Region. Nonetheless, MAAR still requires the specific technical/operational know-how for the provision of RNP-based horizontal-plane separation minimum airspace monitoring.

4.2 MAAR is coordinating with CSSI, who has relevant technical capabilities and experiences, to fulfill the roles and responsibilities of the SMA in the Asia Region.

4.3 It is important to note that, due to the limited resources currently available, the expansion of MAAR services would require financial support on a cost-recovery basis.

5. Action by the Meeting

5.1 The meeting is invited to note the information presented in this working paper and consider the proposed future plan for MAAR.

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- FIRs in BOB Region = Dhaka, Chennai, Delhi, Kolkata, Mumbai, Male, Yangon, Katmandu, Karachi, Lahore, Colombo, Jakarta, Kota Kinabalu, Singapore, Bangkok FIRs
- FIRs in WPAC/SCS Region = Phnom Penh, Hong Kong, Bali, Jakarta, Ujung Pandang, Vientiane, Kota Kinabalu, Kuala Lumpur, Manila, Singapore, Bangkok, Hanoi, and Ho Chi Minh FIRs, and Sanya AOR