

Extracts from the Report of APANPIRG/19, 1-5 September 2008

Agenda Item 3.2 – ATM/AIS/SAR

RVSM Implementation in China

3.2.5 The meeting was informed that the RVSM Implementation Task Force (RVSM/TF) had met three times (July/August 2007, September 2007 and April 2008) since APANPIRG/18 with the primary objective of implementing RVSM throughout the airspace of China. The meeting noted the activities of the RVSM/TF in this regard and that a metric system had been retained in China for the RVSM operations. Following extensive preparations and with assistance from the RVSM/TF, China implemented RVSM in the Beijing, Guangzhou, Kunming, Lanzhou, Shanghai, Shenyang, Urumqi and Wuhan flight information regions (FIRs) and Sector 01 (airspace over the Hainan Island) of the Sanya FIR at 1600 UTC on 21 November 2007, as scheduled.

Review of RVSM Implementation

3.2.7 The meeting recognized that with the implementation of RVSM in China, RVSM had now been very widely implemented throughout the Regions except for the Pyongyang and the Ulaanbaatar FIRs.....

3.2.8 As virtually all airspaces of the Regions had now implemented RVSM and that the work of the RVSM/TF was very close to completion, the meeting considered that the RVSM/TF could be dissolved. The dissolution would take effect after the one year review meeting of China RVSM implementation which was scheduled in December 2008, and any residual matters would be allocated to the respective ATS Coordination Groups or the ATM/AIS/SAR Sub-Group for action.

Amendments to ICAO Flight Plan

3.2.12 During the discussions on this topic, the meeting raised the concern that States could begin to implement the new FPL format as early as 2009. Implementation of FPLs in a non-integrated fashion could result in Flight Plans being rejected or processed improperly by States that have not yet transitioned. The changes will have widespread implications on automated systems, including ATM systems and airspace user systems.

3.2.14 The meeting was of the view that that a full and comprehensive assessment of the implications of the transition to the new FPL for ANSPs and airspace users is absolutely necessary. In this regard, the meeting considered that ICAO global leadership is critical in addressing the issues to ensure a smooth transition.

3.2.16 The meeting agreed that there would be many actions necessary to ensure a streamlined regional implementation, including the development of a regional transition strategy and procedures for its implementation. In order to ensure that the matter would be appropriately addressed on a regional basis, the meeting agreed to the following Decision establishing a Task Force and drafted preliminary Terms of Reference accordingly.

Ad Hoc Working Group on Global Operational Data Link Document

3.2.42 The meeting welcomed the initiatives taken so far by both the Asia/Pacific and the North Atlantic Regions, in coordination with the ICAO Regional Offices in Bangkok, Paris and ICAO HQ in Montreal, to work towards a single, globally applicable procedures document for FANS data link operations – the Global Operational Data Link Document (GOLD). The meeting supported the work of the Ad-Hoc GOLD Working Group and adopted[Conclusion 19/2 supporting this work]

Data Link Harmonisation

3.2.43 The meeting reviewed the outcomes of the second meeting of the Trans-Regional Airspace and Supporting ATM Systems Steering Group (TRASAS/2, March 2008), as recorded in the Report of Agenda Item 3.5. Additionally, TRASAS/2 had noted the progress on Data Link Harmonization activities in the European and North Atlantic Regions, and invited APANPIRG/19 to consider a draft Conclusion.....

3.2.44 However, in light of subsequent developments advised to ATM/AIS/SAR/SG/18, the meeting considered that it was premature to endorse the draft Conclusion but agreed that APANPIRG promulgate clear ‘in-principle’ support for global data link harmonization in terms of the following text:

*That, noting the developmental work being coordinated by the ICAO Secretariat in terms of a global harmonization strategy for ADS-C and CPDLC data link operations, APANPIRG fully supports the principle of global converge of data link evolutions to properly support seamless ATS provision across global FIR boundaries. In this context, APANPIRG gives in-principle support to the draft Data Link Harmonization Strategy shown at **Appendix G** to the APANPIRG/19 Report on Agenda Item 3.2, recognizing that amendment to the draft strategy is likely under the guidance of the OPLINK Panel.*

Update on the Development of the ICAO EUR/NAT Regional Database for the Five-Letter Name-codes Allocations

3.2.84 The meeting was provided with an update on the ICAO EUR/NAT Regional Database (ICARD) for five-letter name-codes and route designators. APANPIRG/18 had recognized the considerable benefits of using the ICARD system and, under Conclusion 18/11, endorsed the regional use of ICARD.

3.2.85 The initial trial phase of implementation of ICARD for Asia/Pacific has been successfully completed. Accordingly, all States of the Region are now invited by the Regional Office to register in the ICARD system and to start using it. States should contact the Regional Office, who will provide guidance and assistance in this respect.

Agenda Item 3.3 – RASMAG

3.3.1 The meeting reviewed a consolidated report of the Eighth and Ninth Meetings of the Regional Airspace Safety Monitoring Advisory Group of APANPIRG (RASMAG/8 and 9), held in December 2007 and May 2008, respectively



Asia/Pacific RVSM Safety Assessments

3.3.3 There are five “APANPIRG Approved” RVSM Regional Monitoring Agencies (RMAs) currently providing services in the Asia/Pacific region, as follows:

- The Pacific Approvals Registry and Monitoring Organization (PARMO), operated by the United States FAA;
- The Monitoring Agency for the Asia Region (MAAR), operated by Aeronautical Radio of Thailand (AEROTHAI);
- The Australian Airspace Monitoring Agency (AAMA), operated by Airservices Australia;
- The JCAB RMA, operated by Japan Civil Aviation Bureau; and
- The China RMA, operated by the Air Traffic Management Bureau of the Civil Aviation Administration of China.

3.3.4 The meeting reviewed a summary of the most up to date safety assessments of RVSM operations in the widespread airspaces of the Asia/Pacific Region, as prepared by the Asia/Pacific RMAs under procedures and in formats established by RASMAG.

RVSM Non - Approved Operators Using RVSM Airspace

3.3.4 Persistent examples of a minority of RVSM non-approved flights ‘incorrectly’ filing flight plans showing RVSM approval have been identified through the work of the PARMO and AAMA. This meant that it was likely that in some circumstances the 1000 feet separation standard was being inadvertently applied by ATC when the 2000 feet separation standard was required – this was a breakdown of separation incident.

3.3.5 Questions were raised during RASMAG/9 about the legal responsibility of an air navigation service provider (ANSP) who knew, through the RMA work in this area for example, that some identified airframes were filing “W” (i.e. RVSM approved) when they were not authorized to do so but took no action to apply the greater vertical separation standard.

3.3.6 The meeting 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.

Inverse correlation between ATC-to-ATC coordination errors and automated messaging

3.3.16 Previous meetings had continually noted that the category of LHD that contributes the most to operational risk was errors in transfer of control from one ATC unit to the adjacent ATC unit (Category E). Australia and the USA presented research that demonstrated that ATC coordination errors were much more prevalent along those FIR boundaries where automated messaging (e.g. AIDC) is not available. RASMAG considered



that if AIDC capabilities were implemented between all FIRs in the Asia/Pacific Region, this would have an immediate positive benefit in terms of reduced ATC-to-ATC coordination errors and strongly encouraged States to consider accelerating AIDC implementation planning in order to achieve the direct safety benefits that would result.

Global Long Term Height Monitoring

3.3.17 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 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.

Consideration of 100 foot Operational Errors

3.3.24 The meeting noted that following the implementation of RVSM in China using a metric FLAS, operational errors between a Chinese FIR and an adjacent FIR applying the feet based RVSM FLAS could result in the aircraft being misaligned by 100 feet. For example, an aircraft that was required to transition to FL331 from FL330 (or vice versa) but failed to do so would be misaligned by plus (or minus) 100 feet. RASMAG agreed that further study was required to ascertain whether operational errors arising as a result of the 100 feet misalignment between the feet based FLOS and the metric scheme adopted in China should be considered as part of the RVSM safety assessment.

3.2.19 The China RMA informed the meeting that they were continuing to investigate this matter, with the objective of providing updated information for consideration by RASMAG/10 during December 2008.

Note: RASMAG/10 further reviewed this matter and, thanking China RMA for their additional efforts in investigating this issue so thoroughly, noted that based on the quantitative analysis, fitting distribution and technical risk comparison the investigation into the misalignment of 100 feet does not demonstrate any influence (positive or negative) on safety performance for the sovereign Chinese airspace.

RASMAG/10 also noted that no reports of operational errors involving a 100 foot misalignment situation had been received by Asia/Pacific RMAs in the 12 months since the RVSM implementation in China. based on the evidence to hand, the 100 foot misalignment did not pose a safety risk and, although such situations should be treated under normal safety management system processes, they should not be reported as LHDs.

Agenda Item 3.4 – CNS/MET

Satellite Data Communications Performance

3.4.21 The meeting noted a paper on satellite data communication performance and the work of the Inmarsat instigated FANS Satcom Improvement Team (FANS SIT) to raise awareness on the important global issues affecting the availability of satellite data link services. In response to continuing stakeholder concerns about Satcom data link performance, FANS SIT participants and stakeholders are currently assessing viable

short, medium and long term changes to the system to improve both FANS and airline operations communications (AOC) SATCOM data link network performance.

3.4.25 The meeting noted the existing technical and funding issues associated with satellite data link service provision and the consequential operational impact due to the rapid growth of civil aviation. The meeting agreed that the operational problem needs solution and the satellite communication issue should be urgently addressed. In view of the foregoing, the meeting adopted Conclusion 19/24 calling for a meeting of all stakeholders to be held on this subject.

Flight Procedure Design Office

3.4.36 In response to critical deficiencies in procedure design capability in the region identified by the PBN/TF, support was solicited for the establishment of an ICAO Asia-Pacific Flight Procedure Design Office (FPO) by mid-2009 to assist States in the Asia and Pacific Regions to enhance the quality of their instrument flight procedures and meet the PBN implementation goals of ICAO Assembly Resolution A36-23. This proposal arose as a result of the recognition that if issues regarding shortfalls in procedure design capability were not addressed, this would become a potential “show-stopper” in meeting the above PBN implementation goals. The concept of operation, anticipated funding sources and requirements, staffing assumptions and goals for the FPO were discussed. The objective of the FPO would be to foster implementation of flight procedures, developed with the appropriate quality systems, especially PBN and vertically guided instrument approach procedures.

(Note: during PBN/TF/4 meeting (Japan, March 2009) ICAO announced that China had been selected to host the ICAO Asia-Pacific Flight Procedure Design Office)

Agenda Item 3.6 – Other Air Navigation Matters

3.6.1 China informed the meeting that the Air Traffic Management Bureau (ATMB) of the Civil Aviation Administration of China (CAAC) took many actions before the Beijing Olympic Games to ensure the streamlined handling of increased traffic volumes.

3.6.2 The measures taken included the implementation of RVSM throughout China, significant reorganization of airspace, optimization of airspace usage, development of an Operations Coordination and Decision Making Mechanism, establishment of a Different Level Response & Coordination Mechanism, implementation of special Flight Plan Application and Approvals procedures, adoption of air traffic flow management (ATFM) measures, activation of temporary routes and holding areas, publication of Olympics related aeronautical information and provision of briefings to affected operators, etc. China also established the AIS website, www.aischina.com so that all relevant information could be downloaded.

3.6.3 From 1st to 24th August, the average number of landings and take-offs at Beijing Capital Airport was 1198 per day. Thursday 7th August was the busiest day during the Beijing Olympic period, with 1340 flights landing and taking off at Beijing Capital Airport. The 45 VIP flights and 316 Olympic family members' flights on this day helped result in a new record in Chinese air traffic management history. Conversely, traffic volumes on 8th August were the lowest recorded during the Olympics, with only 794 flight movements at Beijing Capital Airport,



Agenda Item 4 -Regional Air Navigation Deficiencies

4.1 The meeting noted that APANPIRG/18 placed highest priority in its future work programme on the urgent elimination of the safety related deficiencies in the region and decided to set up a performance objective related to the resolution of deficiencies calling upon States to establish action plans with target dates, and to inform the Regional Office of their plans. The meeting recalled the APANPIRG Conclusion 18/60 on the provision of a regional on-line database for air navigation deficiencies and noted that it is available through the ICAO APAC website www.bangkok.icao.int via secure access provided by the Regional Office to States and International Organizations concerned