



International Civil Aviation Organization

**The Fourteenth Meeting of the Regional Airspace Safety Monitoring
Advisory Group (RASMAG/14)**

Bangkok, Thailand, 21 – 25 February 2011

Agenda Item 2: Review Outcomes of Related Meetings

OUTCOMES OF APANPIRG/21

(Presented by the Secretariat)

SUMMARY

APANPIRG held its 21st meeting in September 2010 in Bangkok, Thailand. The summary of the discussion at APANPIRG/21 is at Attachment to this paper.

1. INTRODUCTION

1.1. The Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) held its 21st meeting (APANPIRG/21) in Bangkok, Thailand from 6 to 10 September 2010.

2. DISCUSSION

2.1 A summary of discussion at APANPIRG/21 has been included as **Attachment** to this paper. In relation to its Conclusions and Decisions, the following actions have been or will be taken:

- 1) The Regional Office has published the '*Asia/Pacific Guidance Material for the Implementation of Amendment 1 to the 15th Edition of the Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444)*' as regional guidance material (Conclusion 21/4);
- 2) The '*Strategy for the Implementation of New ICAO Flight Plan Format and Supporting ATS Messages*' has been updated and published. States and users are urged to continue implementation planning based on the strategy (Conclusion 21/5);
- 3) In order to keep the ICAO Flight Plan Implementation Tracking System (FITS) website updated, the Regional Office has urged States which have not yet provided data to inform the office of the initial set of data required in the FITS website, such as scheduled date and contact person (Conclusion 21/6);
- 4) States which have not yet done so are urged to (Conclusion 21/7);
 - a) nominate an ICARD authorized user in order to make use of the ICARD system and improve the process of allocation of five-letter name-codes (5LNCs);

- b) review the list of 5LNCs, identify non-used, duplicate or non-ICAO 5LNCs and take actions to rectify the situations;
 - c) update the ICARD database by adding missing information, e.g. latitude and longitude coordinates, etc; and
 - d) take necessary actions to implement the widespread use of the ICARD system.
- 5) ICAO will organize the global Seamless ATM Symposium to be held from 12 to 14 April 2011 in Tokyo, Japan graciously hosted by Japan Civil Aviation Bureau (JCAB) in conjunction with the Ad-Hoc Group meeting on 15 April, inviting the APANPIRG member states and other interested parties in order to foster discussion and action for the Asia and Pacific States in the planning of the future ATM system, considering the overall vision for the region for seamless ATM (Decision 21/8);
- 6) MET/ATM Task Force has been requested to develop sub-regional volcanic ash contingency plans and States have been requested to designate appropriate contact points to establish/maintain contacts until the sub-regional volcanic ash contingency plans become available (Conclusion 21/9); and
- 7) ICAO will transfer FASID Table ATS 2, HF radiotelephony VOLMET broadcasts, from ATS to MET, which would involve moving the Tables related to VOLMET broadcasts from the ATS part to the MET part of all ANP/FASID, where applicable. (Conclusion 21/11).

3. CONCLUSION

3.1 The meeting is invited to

- a) note the information provided in this paper;
- b) note that APANPIRG was informed that RASMAG/13 (August 2010, Bangkok) recalled with regard to the revised Minimum Monitoring Requirement (MMR) that Conclusion 20/20 would remain in force until the Long-Term Height Monitoring (LTHM) requirements in Annex 6 – *Aircraft Operations* become effective in November 2010. RASMAG decided that the revised MMR agreed by RMACG/5 would remain as the basis for the maintenance of LTHM requirements in the region after November 2010 as in Decision RASMAG 13/1 – Use of the Revised MMR in LTHM for the Region; and
- c) note that APANPIRG was informed that the result of APAC Metric 1 – the percentage of RMA sub-regions achieving the regional TLS for RVSM operations, referenced as of April, was 77.8 %.

.....

SAMMARY OF DISCUSSION AT APANPIRG/21

Agenda Item 3.2: ATM/AIS/SAR

Report of the 20th Meeting of the ATM/AIS/SAR Sub-Group

3.2.1 The meeting reviewed the outcomes of the 20th Meeting of the ATM/AIS/SAR Sub-Group (ATM/AIS/SAR/SG/20, July 2010).

Volcanic Ash Developments

3.2.2 ATM/AIS/SAR/SG/20 had noted that in response to the disruptions to commercial air traffic in Europe and beyond caused by the eruption of Iceland's Eyjafefjallajökull volcano on 14 April 2010, ICAO had established the International Volcanic Ash Task Force (IVATF) to develop a global safety risk management framework that would make it possible to determine the safe levels of operation in airspace contaminated by volcanic ash. In view of the recent volcanic activity in Europe, IATA considered that there was a need for States in the Southeast Asia area to review existing contingency arrangements and consider establishing an effective coordination arrangement amongst States. In view of this, the meeting formulated Decision 21/9 – Develop Sub-Regional Volcanic Ash Contingency Plan.

Air Traffic Flow Management (ATFM) Survey for Asia/Pacific

3.2.3 ATM/AIS/SAR/SG/20 noted that an ATFM survey was conducted in accordance with Conclusion 20/13 of APANPIRG, from March to April 2010 based on the ATFM Survey Questionnaire that had been prepared by the ATM/AIS/SAR and the CNS/MET Sub-Groups in order to facilitate the work of the AFTM Steering Group. Replies to the survey were received from Australia, Hong Kong China, Macau China, Fiji, India, Japan, Malaysia, Mongolia, New Zealand, Pakistan, Philippines, Republic of Korea, Singapore, Thailand and the United States. The meeting noted the result of survey and that the MET aspect of the ATFM was passed on to the MET/ATM Task Force for review.

Improvement of the State Letter Consultation Process on Amendment Proposals to SARPS and PANS

3.2.4 ATM/AIS/SAR/SG/20 noted that ICAO issued the State letter Ref.: AN 1/1-10/32 on 29 March 2010 regarding the improvement of State letters as a consultation tool with States and international organizations on amendment proposals to Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS) proposing a re-designed State letter format.

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

3.2.5 ATM/AIS/SAR/SG/20 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 Flight Information Region (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 and Ujung Pandang Area Control Centres (ACCs) was approved and signed on 3 June 2010.

Seamless ATM Operations in Asia/Pacific Region

ICAO Asia and Pacific Seamless ATM Workshop

3.2.6 ICAO Air Navigation Commission (ANC) noted that the Directors-General of Civil Aviation (DGCA) Conference had agreed (Action item 46/1 of the 46th DGCA Conference refers) to use the existing mechanism of APANPIRG as the starting platform to discuss the future ATM of the Asia/Pacific region as proposed by Japan during APANPIRG/20 (September 2009, Bangkok). To achieve the objective to extend knowledge about ICAO Global ATM Operational Concept and the future ATM visions such as NextGen (United States), SESAR (Europe) and CARATS (Japan), the Federal Aviation Administration (FAA) and Japan Civil Aviation Bureau (JCAB) proposed to hold a workshop on the future air traffic systems in collaboration with ICAO Asia and Pacific Office in early 2011. The meeting adopted Conclusion 21/8 – ICAO Asia/Pacific Seamless ATM Workshop.

Note – ICAO will organize the global Seamless ATM Symposium hosted by Japan Civil Aviation Bureau in Tokyo, Japan from 12 to 14 April followed by the regional Ad-hoc meeting on 15 April 2011.

ICAO Seamless ATM Ad-Hoc Group

3.2.7 Japan recalled that the ICAO headquarters had taken an initiative to harmonize the air navigation modernization plans of States in accordance with ICAO Global Air Navigation Plan. States in the Asia/Pacific region need to discuss the future plans for the Seamless Sky from their perspective in response to the global discussion of ICAO Headquarters.

3.2.8 Japan noted that APANPIRG currently had three sub-groups, namely, ATM/AIS/SAR/SG, CNS/MET/SG and RASMAG. Under the sub-groups, several subordinate meetings such as Task Forces discuss more detailed issues. Recognizing the role of the existing meetings, Japan suggested three options for consideration.

3.2.9 Different options in this regard have remained under discussion. ICAO agreed with the ad-hoc meeting arrangement and suggested that the first meeting could be held at or after the Seamless ATM Workshop in February 2011. The Chairman and IATA preferred an early date for the first ad-hoc meeting. The meeting adopted Conclusion 21/12 – Convening of the Seamless ATM Ad-Hoc Meeting.

CANSO Seamless Airspace Guidance Document

3.2.10 CANSO informed the meeting that CANSO was in the process of finalising a Seamless Airspace Guidance Document. CANSO informed the meeting that they would hold the ATM Operations Best Practices Seminar in November 2010 where they planned to have a panel discussion involving Asia/Pacific air navigation service providers (ANSPs) and various stakeholders on the subject of Seamless Sky in the region.

ICAO New Flight Plan Format Issue

Second Meeting of ICAO Flight Plan and ATS Messages Implementation Task Force

3.2.11 ATM/AIS/SAR/SG/20 reviewed outcomes of the Second Meeting of ICAO Flight Plan and ATS Messages Implementation Task Force (FPL&AM/TF/2, November 2009) including the transition plan prepared which is sub-divided in three phases. APANPIRG/21 strongly urged that all States should commit to apply the NEW flight plan format by 15 November 2012. States having not notified their schedule date and implementation methodology yet should do so to ICAO Asia/Pacific Office as early as possible.

Third Meeting of the FPL&AM Implementation Task Force

3.2.12 The meeting reviewed the outcomes of FPL&AM/TF/3 (August 2010, Bangkok) which took place after ATM/AIS/SAR/SG/20 therefore the outcomes was not included in the ATM/AIS/SAR/SG/20 report. A number of States and agencies presented their concerns and point of view at the meeting for implementation of new Flight plan format.

3.2.13 IATA needed urgent action by the ICAO headquarters to assess the global state of readiness, identify and agree necessary changes and harmonize plans/guidance on a global basis. Also, the meeting thanked Australia, Japan and the United States for their working paper. The meeting agreed that the regional and the global coordination be further enhanced and issues be raised to the ICAO headquarters and possibly with the DGCA/47 in October 2010, and adopted the Conclusion 21/14 - Enhancement of the Global Coordination for Implementation of the NEW Flight Plan Format.

Global Operational Data Link Document

3.2.14 The meeting noted that the GOLD had replaced the *Guidance Material for ATS Data Link Services in North Atlantic Airspace* (NAT Data Link GM) and the *FANS-1/A Operations Manual* (FOM) for Asia/Pacific (APAC), South American (SAM) and African/Indian Ocean (AFI) regions. The GOLD also includes provisions for the aeronautical telecommunication network (ATN) implementation in the European Region.

3.2.15 A global configuration management process will need to be put in place by ICAO whereby the document would be maintained in coordination between the concerned PIRGs and the ICAO Secretariat. In the initial period, the GOLD Ad-Hoc Working Group will assist the Secretariat in the global coordination of future amendments to the GOLD.

Route Optimization Proposals – between Europe and Northeast Asia

3.2.16 IATA proposed 15 route proposals with their start/end points and a comparison between new and existing routes including distance and time savings. Benefits in fuel savings were estimated at an average of 31 000 tonnes of fuel (approximately 100 million kg of CO₂) on a yearly basis with all routes implemented. Japan responded that military considerations should be taken into account, and coordination would be required among Japan, DPR Korea and Russia Federation.

3.2.17 IATA advised that more detailed presentation would be made to individual States and at this meeting wanted to present this intention to States. In this regard, the Regional Office advised that the requests should be brought to the attention of the Third Meeting of the Trans-Regional ATM and Supporting ATM Systems Steering Group in October 2010 with more detailed data.

Status of ATM-Related Regional Guidance Material

Asia/Pacific ATS Route Catalogue

3.2.18 The ATS Route Network Review Task Force (ARNR/TF, disbanded) drafted the *Asia/Pacific ATS Route Catalogue*. On-going updates have been undertaken by the Regional Office based on the information made available from States and airspace users. Version 7 is now available from the ICAO Asia/Pacific Office web site (<http://www.bangkok.icao.int/>) under the menu “APAC eDocuments”.

Guidance Material for Data Link Ground Equipment Procurement and Implementation

3.2.19 RASMAG/9 updated the *Guidance Material for the Asia/Pacific Region ADS/CPDLC/AIDC Ground Systems Procurement and Implementation*. Version 2 is now available from the ICAO Asia/Pacific website (<http://www.bangkok.icao.int/>) under the menu “APAC eDocuments”.

AIDC Interface Control Document

3.2.20 ATM/AIS/SAR and CNS/MET Sub-Groups jointly endorsed the AIDC ICD Version 3 document, as amended. In adopting the Version 3 ICD, APANPIRG/18 (September 2007, Bangkok) formulated Conclusion 18/8 – Adopt Version 3 Asia/Pacific AIDC ICD. Version 3 is now available from the ICAO Asia/Pacific Office website (<http://www.bangkok.icao.int/>) under the menu “APAC eDocuments”.

Air Traffic Flow Management (ATFM) Communications Handbook

3.2.21 The *Air Traffic Flow Management (ATFM) Communications Handbook for the Asia/Pacific Region* recognises that once operational procedures are defined, a key element in removing language barriers is establishing common terms and phrases. Terminology and phraseology differences in the operational application of ATFM procedures can be a potential source of confusion during communications, both written and verbal, between international ATFM units. This Asia/Pacific guidance material is intended to support States in overcoming these issues. APANPIRG/20 adopted the ATFM Communication Manual under Conclusion 20/12. Version 1.0 is now available from the ICAO Asia/Pacific Office website (<http://www.bangkok.icao.int/>) under the menu “APAC e-Documents”.

ATS Coordination Group Activities

3.2.22 The meeting was updated on the activities of the ICAO and State ATS coordination groups that contribute to the work of APANPIRG. The meeting noted the outcomes of the groups as in the following paragraphs.

Seventeenth Meeting of South-East Asia ATS Co-Ordination Group (SEACG/17, May 2010, Singapore, with FIT-SEA/10)

3.2.23 The 17th Meeting of the South-East Asia ATS Coordination Group (SEACG/17, May 2010) reviewed the outcomes of the Fifth Meeting of South-East Asia Sub-Regional ADS-B Implementation Working Group (ADS-B SEA WG/5, January 2010). Australia and Indonesia had provided an update on their data sharing project. Australia had approved the Phase 1A plan. Indonesia had also approved the Phase 1A and an ADS-B Filter was installed in MAATS, Makassar. The tests were conducted between two States and the result of the test was successful.

3.2.24 Japan drew to the attention of SEACG/17 that the current flight level allocation scheme (FLAS) on ATS route G86 was discussed and agreed at the Western Pacific/South China Sea RVSM Scrutiny Group (WPAC/SCS RSG) and EATMCG meetings, and was implemented on 3 July 2008. Subsequently, Hong Kong and Taipei ACCs imposed certain restrictions. In order to overcome this problem Hong Kong, China and Japan had agreed that they would hold a tripartite meeting including Taipei ACC and report the outcomes to the Regional Office as soon as possible.

3.2.25 Japan advised SEACG/17 that a circumstance where RNAV 5 routes and VOR routes are established in the same airspace leads to an increase in air traffic controllers’ workload. Air traffic controllers always have to be extra cautious in providing separation between aircraft on RNAV 5 route established close to VOR route, because lateral separation between RNAV 5 route and VOR

route was not considered while establishing RNAV 5 route. The Sky Highway of Japan is to segregate flights on RNAV 5 routes where as VOR routes are operationally at FL 290.

3.2.26 Japan announced at FIT-SEA/10 (May 2010, Singapore) that they would no longer be able to provide the FIT-SEA CRA service after March 2011 because of its national budget and other reasons. FIT-SEA/10 recognized the need to establish a formal FIT-SEA CRA as soon as possible but not later than March 2011 by Philippines, Singapore and Viet Nam. In the meantime, Japan would continue to support ADS/CPDLC implementation in the Manila FIR beyond March 2011 until it can start a regular operation, possibly through Japan International Cooperation Agency (JICA) programme.

Agenda Item 3.3: Regional Airspace Safety Monitoring Advisory Group (RASMAG)

3.3.1 The meeting reviewed a consolidated report of the 12th and the 13th Meetings of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/12 and 13, December 2009 and August 2010, respectively).

Asia/Pacific RVSM Safety Assessments

3.3.2 For Asia/Pacific Region, APANPIRG-endorsed Regional Monitoring Agency (RMA) services are provided by:

- a) Australian Airspace Monitoring Agency (AAMA);
- b) China RMA;
- c) Japan Civil Aviation Bureau (JCAB) RMA;
- d) Monitoring Agency for the Asia Region (MAAR); and
- e) Pacific Approvals Registry and Monitoring Organization (PARMO).

Assessment of Non-Approved Operators Using RVSM Airspace

3.3.3 United States carried out the assessments using one-month samples of the Pacific and Northeast Asia traffic movement data collected during December 2009. The importance of timely notification by States of operator approval status to RMAs was emphasized by the results.

3.3.4 All civil aircraft operations observed in each sample were compared against the collective approvals database from January 2010. The operator-aircraft combinations identified as asserting approval for operations in RVSM airspace (“/W” or “/Q” in Field 10 of the ICAO flight plan) found in the traffic data, were cross-examined with the collective approvals database. The operator-aircraft combinations identified were still under investigation.

3.3.5 The meeting noted that experience had shown that the primary systematic reason for failure to match operations and approvals was a delay in State notification of the approval status of some operators to the appropriate RMA. This situation should be remedied in the future because of the widespread application of RVSM throughout the region.

3.3.6 Australia reported that checks in January 2009 while identifying a number of non-approved aircraft, also revealed a number of issues related to the approvals database held by the State authority due in part to delays in having that data base updated following the issuing of approvals to operators. Pro-active discussions between AAMA and the State authority saw these data base issues effectively resolved as evidenced in the significant reduction in the number of non-approved aircraft identified in subsequent months.

RVSM Manual

3.3.7 It was noted that the Separation and Airspace Safety Panel (SASP) agreed to progress the update to RVSM Manual (Doc 9574) with the goal of completing a final draft at its next working group meeting in May 2010. To that end, the Chairman of RASMAG provided a copy of the draft document for RASMAG's review seeking any feedback to be provided to the Chairman by 30 March 2010.

3.3.8 RASMAG/13 was provided with suggested wording in consideration of RASMAG Task 12/1, which highlighted the benefits of establishing Scrutiny Groups as part of the safety management for RVSM airspace. As a result of discussion, additional wording was developed for the amendment and agreed to by the meeting. RASMAG/13 requested the Chairman to directly coordinate with SASP at its next meeting in November 2010.

Long-Term Height Monitoring Infrastructure

3.3.9 Through an analysis of the traffic flows and input from the respective RMAs, RASMAG/12 determined that there were five main blocks of airspace within the Asia/Pacific region that contained the major traffic flows of the fleets that remained essentially within one or more of those five areas. In assessing the types of monitoring infrastructure required in each of these areas, RASMAG/12 agreed with the following:

For the Japanese FIR, a ground-based Height Monitoring Unit (HMU) to capture the domestic fleet plus those aircraft operating across the North Pacific or between Japan and Southeast Asia;

For the China FIRs, several ground-based HMU essentially to accommodate the large number of Chinese domestic fleet that operate within those FIRs only, and to be available for other international flights that may operate in that airspace;

For Southeast Asia, given the proposed infrastructure in the other areas, MAAR advised that their assessment is that any required monitoring of the fleet of States in this area can be accommodated by use of available Enhanced GPS Monitoring Units (EGMUs);

For the Indonesia/Pakistan area, a ground-based HMU to cater primarily for the large domestic fleet that operates in that area; and

For the Australian area including Indonesia, New Zealand and Papua New Guinea, the widespread Australia and Indonesian ADS-B network and the proposed ADS-B mandate for Australian airspace effective 2013 will provide significant monitoring capability without the need for other ground-based systems.

RVSM Approval Aircraft ADS-B Equipage in Australia

3.3.10 As proposed by RASMAG, AAMA had taken steps to identify the number of aircraft types by operator that could potentially be monitored using ADS-B in the period from December 2010 to 12 December 2013. RASMAG/13 was informed that as a first step, the analysis identified the operators using the Australian RVSM airspace.

3.3.11 RASMAG/13 thanked Australia for the detailed analysis and encouraged AAMA to continue its excellent work with the United States in establishing the viability of ADS-B as a height monitoring means. United States congratulated AAMA on the effort in providing this analysis. They also explained that NAARMO was keen to use ADS-B to measure changes in ASE.

Review Outcome of Related Asia/Pacific Meetings

3.3.12 RASMAG/13 reviewed the outcome of PBN/TF/6, FIT-BOB/12, FIT-SEA/10, SEACG/17 and ATM/AIS/SAR/SG/20. RASMAG/13 agreed that communication and surveillance capability had a vital role to play in ensuring the continuing safety of the region's airspace. RASMAG/13, however, was of view that while RASMAG's responsibility is to oversight safety in the region, the arrangement for the establishment and operations of CRAs was the responsibility of FIT and ATM/AIS/SAR/SG.

Sample Letter Templates for Use by Asia/Pacific RMAs

3.3.13 MAAR raised an issue regarding the fact that previous letters sent by them to States have been ignored while letters from ICAO have generated a response. They suggested that in sending the letter in Appendix A of WP/16, that it would be more effective to have this sent from the ICAO Regional office. The Secretary acknowledged that there may be issues with that process but if the RMA could complete the required areas of the standardized letter, he would arrange for it to be sent by ICAO if possible.

Large Height Deviation (LHD) between Japan and Republic of Korea

3.3.14 Japan reported four LHDs which were had occurred since the implementation of AIDC on 15 June 2009. New Zealand suggested that possibly Japan could supply a further update of the analysis. RASMAG/12 agreed to task the RMAs that could provide data and analysis in relation to the effect of AIDC on Category E LHDs, to do so.

EMA Handbook PBN Approvals Database Format

3.3.15 A format in the EMA Handbook had been developed that specifically includes all current PBN and data link approval types. New Zealand had proposed combining the RVSM, PBN and data link approvals databases, and so, in anticipation, the proposed format also allows for RVSM approvals.

Unified Approvals Database

3.3.16 New Zealand reported that in discussing the notion of a Regional PBN Approvals database, RASMAG/11 had agreed not to pursue the regional database at the present time but had requested States to consider the proposal and how to best provide data for inclusion when it was eventually established. The number of PBN approvals that an aircraft may hold requires a more complex database than for RVSM approvals. There are a number of navigation specifications that must be allowed for; the approvals are not hierarchical and may be airspace-dependent.

Establishment of PBN Approval Database

3.3.17 RASMAG/13 recalled that at RASMAG/12, New Zealand proposed combining and linking the RVSM and the PBN databases. JCAB RMA had been inspired by the proposal, and combined the PBN database with the RVSM database. JCAB RMA has also combined the RMA F2/F3 forms and EMA A2/A3 forms.

3.3.18 RASMAG/13 noted that RMA, RVSM-related data shall be exchanged with the other RMAs, whereas this is currently not the case with PBN-related data. The database established by JCAB RMA is the combination of the globally shared RVSM data and the locally required PBN data. JCAB RMA foresees lasting improvement of the database format as the development of PBN operations continue.

3.3.19 Singapore also thanked Japan and both agreed to share PBN data that they had captured. The Chairman suggested that possibly other RMAs could review their F2/F3 forms to capture this information which was supported by the meeting. The United States commented that the sharing of PBN data between EMAs is a good outcome which should be encouraged.

China as RMA for the Oceanic Airspace of the Sanya FIR

3.3.20 China reported that in 2002 when RVSM was implemented partially in the Sanya FIR, RVSM had not been introduced in domestic Chinese airspace. China RMA received authorization from APANPIRG in 2008 in Conclusion 19/14. Civil Aviation Authority of China (CAAC) realized that it was important to enhance the management of domestic RVSM airspace and ensure a thorough knowledge of the risk for the entire Chinese airspace. The meeting was advised that China RMA was willing to take over the responsibility for the oceanic airspace of Sanya FIR from MAAR.

3.3.21 RASMAG/12 noted the intention of China, and endorsed the proposed action. In Conclusion 19/14, APANPIRG had explicitly authorised China as the RMA for China's sovereign airspace. In addition, it was also noted that RASMAG/11 had endorsed China RMA's taking over from MAAR as the RMA for the Pyongyang FIR. The meeting adopted Conclusion 21/15 – Responsibility Area of China RMA.

India's Progress towards Establishment of Enroute Monitoring Agency (EMA) – BOBASMA

3.3.22 RASMAG/13 thanked India for the information and encouraged them to continue their work to develop capabilities that would enable them to be endorsed as an EMA. The Chairman also reminded India of the need to present their credentials to RASMAG in relation to establishing their capability to undertake the required technical work of an EMA.

Data Link Performance

3.3.23 New Zealand noted a report to IPACG FIT CRA that an A345 fleet had displayed a downward trend in data link performance in terms of both ADS-C and CPDLC round-trip times. This was thought to be due to increasing use of on-board passenger facilities for the Internet access and in-flight telephone connectivity via satellite. It was understood that a software upgrade to the ground earth station would resolve the problem, and that this upgrade had been approved.

Fifth Meeting of the Regional Monitoring Agency Coordination Group (RMACG/5)

3.3.24 The meeting noted that RASMAG/13 was provided a brief overview of the outcomes of the fifth RMA Coordination Meeting (RMACG/5, May 2010) held in Atlantic City, USA and the main items of discussion were presented. With regard to the revised Minimum Monitoring Requirement (MMR) agreed at RMACG/5, RASMAG/13 recalled that Conclusion 20/20 would remain in force until the Long-Term Height Monitoring (LTHM) requirements in Annex 6 – *Aircraft Operations* become effective in November 2010. RASMAG/13 was also informed that Annex 11 provisions and those of the RVSM manual require system performance monitoring on a regional basis to provide evidence of stability of ASE. In addition, the revised MMR agreed by RMACG/5 was a means to translate the requirement of Annex 6 into the operational environment. Therefore, RASMAG decided that the revised MMR agreed by RMACG/5 would remain as the basis for the maintenance of LTHM requirements in the region after November 2010 as in Decision RASMAG 13/1 – Use of the Revised MMR in LTHM for the Region.

3.3.25 The Secretariat was tasked to update the LTHM impact statement to incorporate the revised MMR. RMAs were requested to review the monitoring burden based on the revised MMR by 30 August 2010.

Proposed Changes to the Asia/Pacific Regional En-Route Monitoring Agency (EMA) Handbook

3.3.26 RASMAG/13 was informed by Singapore that States were recommended to use the suggested form in the EMA handbook (APPENDIX E) when submitting large lateral deviation (LLD) and/or large longitudinal error (LLE) where, it was stated that deviations due to weather and other contingency events will need to be reported. The meeting agreed that an LLD did not include ATC approved deviations or other contingency events, and adopted the proposed changes to the EMA Handbook which clarifies that large horizontal-plane deviations identified in the monitoring process would not include ATC-approved deviations or other contingency events unless the deviation magnitude is greater than the approved deviation.

Review by APANPIRG/21

3.3.27 The meeting noted that the persistent examples of RVSM non-approved flights incorrectly filing plans showing RVSM approvals had been identified. The Secretariat advised the meeting that research by RMAs were still on-going on the causes of the problem therefore it was recommended that RMAs continue to identify non-approval airframes and provide that information to the States concerned for action on an individual case basis. Further, the Secretariat informed the meeting that particularly investigation on operator-aircraft combinations was yet to concluded, and a Conclusion or Decision would not be formulated for APANPIRG until appropriate actions are found on a total region basis and identified by RASMAG. The meeting noted that the result of APAC Metric 1 – the percentage of RMA sub-regions achieving the regional TLS for RVSM operations, referenced as of April, was 77.8 %.

.....