



International Civil Aviation Organization

**The Twentieth Meeting of the APANPIRG ATM/AIS/SAR Sub-Group
(ATM/AIS/SAR/SG/20)**

Singapore, 05 – 09 July 2009

Agenda Item 6: Review of ATS Coordination Group Meetings

**REVIEW OF THE OUTCOMES OF THE SEVENTEENTH MEETING OF
SOUTH-EAST ASIA ATS CO-ORDINATION GROUP (SEACG/17)**

(Presented by the Secretariat)

SUMMARY

SEACG/17 was held in May 2010 in Singapore, following the Tenth Meeting of the FANS Implementation Team for South-East Asia (FIT-SEA/10). This paper presents a summary of the report of SEACG/17 for review by the meeting.

This paper relates to

Strategic Objectives:

- A: Safety – Enhance global civil aviation safety*
- C: Environmental Protection – Minimize the adverse effect of global civil aviation on the environment*
- D: Efficiency – Enhance the efficiency of aviation operations*
- E: Continuity – Maintain the continuity of aviation operations*

Global Plan Initiatives:

- GPI-1 Flexible use of airspace*
- GPI-2 Reduced vertical separation minima*
- GPI-5 Performance based navigation*
- GPI-6 Air Traffic Flow Management*
- GPI-7 Dynamic and flexible ATS route management*
- GPI-8 Collaborative airspace design and management*
- GPI-9 Situational awareness*
- GPI-16 Decision support and alerting systems*
- GPI-17 Implementation of data link applications*
- GPI-18 Aeronautical information*

1. INTRODUCTION

1.1 SEACG/17 was held in May 2010 in Singapore, following the Tenth Meeting of the FANS Implementation Team for South-East Asia (FIT-SEA/10). The objective of SEACG was not for long-term planning but to identify and solve current problems or deficiencies in ATS by means of an action plan with specified timelines.

1.2 This paper summarizes the report of SEACG/17. A number of matters are covered in detail in other working papers of this Sub-Group meeting.

2. DISCUSSION

Adoption of Terms of Reference of the Group

Draft Terms of Reference

2.1 Hong Kong, China indicated that SEACG had been working without the Terms of Reference (TOR). In order to provide members with a clear focus of work as well as to avoid duplication of work with other grouping(s) and/or Task Force(s), Hong Kong, China proposed the SEACG adopting a TOR and provided a draft for the meeting's consideration. The meeting agreed that the draft TOR for SEACG would be appropriate. Hong Kong, China would undertake to present the finalized TOR at the upcoming ATM/AIS/SAR/SG/20 for consideration and endorsement.

Review Outcomes of Related Meetings

AIS Update from the Second Meeting of ICAO AIS-AIM Study Group

2.2 The meeting noted that the Second Meeting of the Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG/2, November 2009) was held at the ICAO headquarters in Montréal, Canada.

Outcomes of the First and the Second Meetings of the South-East Asia Route Review Task Force (SEA-RR/TF)

2.3 The meeting reviewed the outcomes of the First and the Second Meetings of the South-East Asia Route Review Task Force (SEA-RR/TF/1 and 2). ATM/AIS/SAR/SG/19 (June 2009, Bangkok) agreed to rename Southeast Asia RNP Implementation Task Force (RNP-SEA/TF) to Southeast Asia Route Review Task Force and set a prime task of reviewing the ATS route structure in the Western Pacific/South China Sea (WPAC/SCS) airspace south of the Fukuoka FIR boundary.

Outcomes of SEA-RR/TF/2

2.4 It was recalled that there were several ATS routes which cross the main traffic flow serving major airports in the northeast/southwest portions of the South China Sea (SCS) region. These crossing aircraft also need to be accommodated with economical efficient levels. By duplicating these crossing routes and using a spacing of 60 NM, fewer levels would be required for these aircraft by establishing a unidirectional system using same levels, which should provide additional flight levels to the primary routes within the SCS.

2.5 Philippines advised the meeting they support the establishment of a unidirectional parallel route to L628 which crosses the major traffic flow from Manila to Bangkok. They also pointed out that L628 also interacts with three other routes, namely M772, M754 and A583.

Reduced Horizontal Separations

2.6 IATA was of view that currently aircraft equipage suggested that majority of aircraft on these two primary routes L642 and M771 were data link capable and an overwhelming majority of these aircraft were also capable of better than RNP 4 navigation performance. IATA also noted that RNP 4 was the preferred navigation specification in the APAC Regional PBN plan in the short-term.

2.7 The Secretariat observed that the introduction of 30/30 NM separations were based on data link operations and FIT-SEA CRA need to be involved. Suitable monitoring of system performance must be completed to ensure requirements are met.

2.8 Hong Kong, China advised the meeting that their current surveillance capabilities concerning L642 and M771 required further strengthening on redundancy. Their future plans had been finalized and involve ADS-B capability but was still some way from realizing the operational capability to support these reduced separations. Hong Kong, China did not object to the proposal but was not in the position yet to be able to participate.

Review Current Operations across Southeast Asia and Identify Problem Areas

Flow Control Restriction on A1/G86

2.9 At the Third Meeting of East Asia ATM Coordination Group (EATMCG/3), Taipei ACC was advised that the flow control restriction imposed in association with their ATS system maintenance had caused significant delays between 1525–1840 UTC on eastbound departures from Bangkok International Airport and other airports within the Bangkok FIR. Taipei ACC subsequently advised Hong Kong, China that they had rescheduled the maintenance of ATS system to between 1400 and 1700 UTC to avoid the peak departure period at airports within the Bangkok FIR. If an extension should happen, Taipei ACC would issue a NOTAM in good time to notify the affected FIRs of the flow control measure.

Updates on ATS Activities in Vietnam

2.10 Viet Nam reported that the main activities carried out in 2009 to 2010 were:

- (1) Extension, Establishment and Revision of ATS routes/segments:
 - (i) New ATS routes R213 from Can Tho to Phnom Penh (to be implemented in July - August 2010);
 - (ii) Extension of ATS route R334 from Shihanoukville to Phu Quoc (to be implemented in July - August 2010);
 - (iii) The new route/corridors to/from Chu Lai Airport, which is planned to be upgraded to and international airport, would be implemented in Quarter IV/2010 – Quarter I/2011;
 - (iv) ATS routes B224 (Cat Bi –Nankang);
 - (v) One-way route M756 (ENREP – Tan Son Nhat) to be further coordinated and safety assessment performed in Quarter IV/2010 – Quarter I/2011; and
 - (vi) Further coordination for the establishment of a new ATS route Siem Riep – UBON – VILAO serving an increasing traffic between Ha Noi and Siem Riep.
- (2) Coordination with other ACCs:
 - (a) Ha Noi ACC: Respective ATC LOAs with Ho Chi Minh ACC, Nanning ACC and Vientiane ACC have been revised.
 - (b) Ho Chi Minh ACC:

- (i) Respective ATC LOAs with Ho Chi Minh ACC, Ha Noi ACC and Sanya ACC have been revised.
- (ii) The revised ATC LOA between Ho Chi Minh ACC and Kuala Lumpur ACC initiated by Civil Aviation Authority of Vietnam (CAAV) at SEACG/15 (May 2008, Bangkok) had not been signed yet by Kuala Lumpur ACC. Malaysia advised the meeting that it should be completed in approximately six weeks, i.e. by mid-July.
- (iii) Monitoring the performance of ATS-direct speech circuit between Ho Chi Minh ACC and Manila ACC, and to coordinate with Manila ACC to achieve a satisfactory level of performance, if necessary.
- (iv) Ho Chi Minh ACC encountered certain difficulties in coordination with Sanya ACC for northeast-bound traffic during night time associated with flow control restriction imposed by the Taipei FIR.

Implementation of the New CNS/ATM Systems in the Region

Outcomes of the Second Meeting of Flight Plan & ATS Messages Implementation Task Force (FPL&AM/TF/2)

2.11 The meeting reviewed the outcomes of the Second Meeting of Asia/Pacific Flight Plan & ATS Messages Implementation Task Force Meeting and Seminar (FPL&AM/TF/2, November 2009).

Regional Strategies for Implementation

2.12 FPL&AM/TF/2 considered that the implementation strategy being considered by IATA, whereby all user switchovers occurred on the same day, would result in an unmanageable impact on ANSPs systems with a very real risk of system crashes. As such, ANSP safety case hazard analysis was likely to find that mitigation of some kind was necessary. Under the phased arrangements, users would have the opportunity to switch to the NEW format at a time of their choosing during an identified users testing and implementation period, supported by operational ANSPs systems able to assist with testing and the user transition, whilst at the same time maturing their own systems. A transition period was declared, commencing 1 January 2012 and ending 15 November 2012.

2.13 The Secretariat requested States which did not participated in FPL&AM/TF/2 to bring the above information back home and start preparation for the transition and implementation of the NEW flight plan format targeted in November 2012.

Fifth Meeting of the South East Asia Sub-Regional ADS-B Implementation Working Group

2.14 The meeting 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) hosted by Directorate General of Civil Aviation (DGCA), Indonesia.

Australia-Indonesia Data Sharing Project

2.15 Australia and Indonesia provided an update on their data sharing project. Airservices Australia had approved Phase 1A. Indonesia's DGCA has also approved Phase 1A and an ADS-B Filter has been installed in MAATS, Makassar. The tests were conducted between two States and the result of the test was successful.

2.15.1 The meeting noted that four ADS-B ground stations at Saumlaki, Merauke, Thursday Island and Gove have been installed and are operating. A draft agreement is in the final stage of co-ordination for signature by the two States. The draft is based on large part of the sample agreement developed by SEA ADS-B WG.

2.15.2 The target date of using ADS-B data for situational awareness and safety nets by ATC is set for 2010 for Australia and 2011 for Indonesia. The project was expected to extend to the Phase 1B and possibly to the Phase 2.

Updates on ADS-B Data Sharing in South China Sea area

2.16 Singapore updated the implementation plan in the South China Sea area. Indonesia, Singapore and Vietnam have been jointly working on the installation of ADS-B ground stations and VHF radios. Discussions were also held between the parties concerned on the ADS-B data sharing and the use of the VHF radio facilities at other party's premises. It was explained that confirmation to the final version of the paper was not received from Viet Nam.

2.16.1 ADS-B operations will be exclusive and applicable between FL 310 and FL 410. IATA supported efforts made by the three States to enable ADS-B data and DCPC capability sharing.

ATS Route Development

Restriction on G581

2.17 Japan drew to the attention of the meeting that the current flight level allocation scheme (FLAS) on ATS route G86 was discussed and agreed at a Western Pacific/South China Sea RVSM Scrutiny Group (WPAC/SCS RSG) meeting and an East Asia ATM Coordination Group (EATMCG) meeting, and was implemented on 3 July 2008. Hong Kong, China had subsequently issued a NOTAM which said that FL 400 was not available to flights entering the Hong Kong FIR at KAPLI between 0001 and 1600 UTC for safety consideration from 3 July 2008. In return, Taipei ACC imposed a restriction that FL 400 was not available at IGURU on G581 to flights overflying the Taipei FIR entering Hong Kong FIR at KAPLI between 0001UTC and 1500UTC, on Fukuoka FIR. Hong Kong, China and Japan agreed that they would hold a tripartite meeting including Taipei ACC and report the outcomes to the Regional Office as soon as possible.

Implementation of 50 NM Lateral Separation Standard for RNAV Routes L625, M767, N884 and N892

2.18 Singapore presented a report on the progress of discussion amongst Singapore, the Philippines and Vietnam on using 50 NM lateral separation standard for RNAV routes L625, M767, N884 and N892 arose from SEA-RR/TF/2. The proposal was supported by a safety assessment conducted by SEASMA, which was presented at RASMAG/12 in December 2009 and the 3 States also supported the proposal. China advised the meeting that N892 is partially within the Sanya FIR and the responsibility of ATS on that portion of N892 has been delegated to Ho Chi Minh ACC. China supported the proposal from the operational point of view. Due to the procedural considerations, China required further coordination to be conducted amongst the concerned parties and more time would be needed to process it further. After some discussions, the four States agreed to continue discussion off-line and would report the progress to ATM/AIS/SAR/SG/20 to be held in early July 2010, with a tentative implementation date of the separation standard of 26 August 2010.

Development of State Contingency Plan

Harmonisation of State Contingency Plans

2.19 The general methodology and considerations for States to undertake in developing their contingency plan can be identified as follows:

- (a) identifying the major international traffic flows to ensure minimal disruption;
- (b) determining the flight level assignments on the contingency routes; and
- (c) demarcating the segment of the contingency routes.

2.20 Singapore shared their experience in the development of their contingency plan and emphasized the importance of the consultative processes between adjacent FIR authorities which would require numerous multi-lateral meetings and travelling to take place before the plan could be finalized. The meeting took note that States in developing their plan may only cater for a scenario of a singular activation of the plan. In a scenario where multiple plans are required to be activated, there is a possibility that the established fixed contingency routes in one plan may not be harmonised with the routes in the adjacent plan. Similarly the established levels assigned for the contingency routes in one plan may not match the flight levels assigned in the other plan. In such cases, the activation of multiple adjacent contingency plans would pose a challenge to ensure continuity of safe international air traffic movements across the affected FIRs.

2.21 It is therefore advantageous for States to harmonise their contingency plans through a coordinated regional effort to ensure that these plans remain effective and relevant. This not only serve to fulfil States' requirement to meet the ICAO Annex 11 requirements on contingency arrangements but also ensure that the disruption of international air traffic movements would be minimised across the affected FIRs. IATA supported the proposal and pointed out to the meeting the importance for States to ensure their contingency plans were robust and catered to multiple scenarios, as well as the need to be kept up-to-date in order that as and when such plans are required to be activated, the appropriate contact points could be established in the most effective manner.

2.22 Both IATA and Singapore remarked that the RVSM operations only took account of aircraft capability, and the ATM infrastructure in the airspace concerned has no bearing in the operations. Hence, any activation of the contingency plan in an FIR would not impact on the RVSM classification in its airspace.

Any Other Business

Outcomes of the 46th DGCA Conference

2.23 The 46th Conference of Directors General of Civil Aviation (DGCAs), Asia and Pacific Region was hosted by Japan Civil Aviation Bureau (JCAB) in Osaka, Japan from 12 to 16 October 2009.

Action Item 46/1 – Seamless Sky - ATM

2.24 The ICAO Council President stated at the conference that seamless sky was a priority of ICAO and was a mandate of ICAO Assembly. The President stressed on the need for developing specific Terms of Reference to support this concept and establish a starting point.

Outcome of the Third Meeting of East Asia ATM Coordination Group (EATMCG/3)

2.25 Japan reported the outcome of the third meeting of East Asia ATM Coordination Group (EATMCG/3, December 2009).

RNAV 5 Preferential Operation

2.26 The circumstance where RNAV 5 routes and VOR routes are established in the same airspace leads to increasing of air traffic controllers' workload. Air traffic controllers always have to care of separation between aircraft on RNAV 5 route established close to VOR route, because lateral separation between RNAV 5 route and VOR route is not considered when establishing RNAV 5 route. And aircraft on RNAV 5 route has much possibility to overtake aircraft on VOR route.

2.27 The Sky Highway is to segregate flights on RNAV 5 routes and VOR routes operationally at FL 290. The Sky Highway will be in force in October 2010 when the fourth runway of the Tokyo International Airport (Haneda) will be opened.

Flight Plan

2.28 Operators are requested to file flight plan according to the aircraft RNAV 5 capability. If the aircraft is RNAV 5 approved and plans to operate between FL 290 and FL 410, the operator shall file flight plan along RNAV 5 routes; and if the aircraft is not RNAV 5 approved, the operator shall file flight plan at or below FL 280, or at or above FL 430. Air traffic controller will assign cruising altitude based on the notation in the flight plan.

Volcanic Contingency Arrangements

2.29 In view of the recent volcanic activity in Europe, IATA felt that there was a need for SE Asian States to review existing contingency arrangements and consider establishing an effective coordination arrangement among States so as to provide clear guidelines to enable appropriate decision making and effective communication in such eventuality. In this connection, States were encouraged to participate in a forthcoming MET/ATM Task Force meeting to be held in Fukuoka, Japan in January 2011, which would cover volcanic contingency procedures development under the agenda. IATA also urged States to supply appropriate contact points to ATM/AIS/SAR/SG/20 to be held in July 2010 so that appropriate contacts could be established/ maintained in the interim period prior to the MET/ATM Task Force meeting as required.

3 ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information and activities provided by this Working Paper;
- b) request China, the Philippines, Singapore and Viet Nam to report the progress of implementation of 50 NM lateral separation standard on N892; and
- c) request MET/ATM Task Force of the CNS/MET Sub-Group to develop the volcanic ash contingency plans and consider the following draft Conclusion:

Draft Decision 20/XX – Develop Sub-Regional Volcanic Ash Contingency Plan

That, in view of the recent volcanic activity in Iceland, the CNS/MET Sub-Group be invited to develop sub-regional volcanic ash contingency plans.

- d) urge States to supply appropriate contact points with whom appropriate contacts could be established/maintained in the interim until the sub-regional volcanic ash contingency plans become available.

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