



**Thirteenth Meeting of the Asia/Pacific Air Navigation Planning
and Implementation Regional Group (APANPIRG/13)**

Bangkok, Thailand, 9 to 13 September 2002

Agenda Item 2.1: ATS/AIS/SAR Matters

SUMMARY OF EMARSSH TF/8 MEETING

(Presented by the Secretariat)

SUMMARY

This working paper gives a summary of the Report of the EMARSSH TF/8 meeting which took place on 5-9 August 2002 in Bangkok, Thailand, following the ATS/AIS/SAR/SG/12 meeting.

1. INTRODUCTION

1.1 The Eighth Task Force Meeting on a Revised ATS Route Structure – Asia to Middle East/Europe, South-of-the-Himalayas (EMARSSH TF/8) was held in Bangkok, Thailand, from 5 to 9 August 2002.

1.2 The meeting was attended by 54 participants from 17 States, 2 International Organizations and 1 Charting Company.

1.3 The purpose of the meeting was to finalise all outstanding issues associated with the EMARSSH project in order to achieve the target implementation date of AIRAC 28 November 2002. These issues included AIS matters, route structure and coordination between adjacent FIRs/States

2. DISCUSSION

2.1 The meeting noted that many areas concerning this large project have been addressed but will require further work to ensure a smooth transition to the revised route structure. Amongst these were:

- a) safety management issues;
- b) domestic route requirements;
- c) planning of ATC workload and training requirements;
- d) coordination and cooperation with military organisations;
- e) further work on exclusive or non exclusive use of RNP airspace;
- f) communication requirements as a result of the changed route structure;
- g) Weather deviation procedures;
- h) Transition procedures;
- i) AIS requirements

2.2 The meeting was given a status report of progress on these items.

Safety Management requirements

2.2.1 The meeting was advised that traffic data collection in support of safety assessments for RNP10 operations has been initiated. Airservices Australia had kindly undertaken to provide a safety analysis for the proposed EMARSSH routes, based on the data provided. It is expected that this safety assessment will be completed by 31 October 2002.

Domestic route requirements

2.2.2 States were reminded to examine their domestic route system to ensure that they harmonize with the EMARSSH route structure.

Planning of ATC workload and Training requirements

2.2.3 It was suggested that States investigate the impact on ATC workload as a result of changes due to the new route structure through their FIR(s) to ensure that it was compatible with controller abilities. The amount of aircraft operation within a portion of airspace at any one time is likely to increase due to the reduction of spacing of routes over the high seas. This will need further consideration when RVSM is introduced over many parts of the EMARSSH route structure in November 2003.

ATS Training for EMARSSH

2.2.4 With regard to ATC training requirements for the EMARSSH project, States were requested to seriously look at this item especially with regard to:

- a) separation procedures dealing with RNP airspace;
- b) familiarisation with changes to many of the ATS route designators;
- c) Weather Deviation Procedures in the Bay of Bengal and Arabian Sea;
- d) new sectorization within an ACC where required; and,
- e) changes to coordination procedures with adjacent FIRs

Coordination and cooperation with military organizations

2.2.5 The meeting was requested to confirm that all civil/military coordination has been completed regarding proposed changes as a result of the EMARSSH project. In the majority of cases this coordination had been successfully completed. In some cases routes through military airspace were only available for limited periods, for example, nighttime operations only. There was still ongoing civil/military coordination in certain areas of the project.

Exclusive or Non-exclusive use of RNP airspace

2.2.6 The meeting agreed that RNP10 airspace over the high seas in the Bay of Bengal and Arabian Sea would be exclusive airspace at and above FL280, for aircraft approved for RNP10 operations.

Communications requirements as a result of the changed route structure

2.2.7 The meeting agreed that with the exception of ground-ground direct speech circuit between Medan and Chennai ACCs, the present communication requirements in relation to the EMARSSH structure were adequate.

Weather deviation procedures

2.2.8 Due to other important matters, which needed to be finalized including AIP Supplements for AIRAC date of 5 September 2002, it was decided to defer this work till after the meeting. The EMARSSH Core Team would study this issue in more detail, and develop procedures for affected States' consideration and produce either a NOTAM or an AIP Supplement to cover these procedures.

2.2.8.1 It was fortuitous that the EMARSSH implementation date was in the "dry season" in both oceanic areas. This would allow an appraisal of the Weather Deviation Procedures to be completed prior to the onset of the monsoon season.

AIS requirements

2.2.9 AIP SUP relating to the EMARSSH project had been agreed by States to be distributed on AIRAC 5 September 2002. The meeting recalled that this project may be the largest ATS route structure change ever to be initiated. The EMARSSH routes structure covers three ICAO regions and it is essential that all changes agreed to are harmonized along the routes. For this reason, it was agreed that sufficient time needed to be given to the aviation industry, charting companies and aircraft database manufacturers to ensure the success of the project.

2.3 Outstanding issues carried over from previous EMARSSH meetings

2.3.1 During past EMARSSH Task Force meetings, there were several outstanding issues which still needed to be resolved. These included:

- a) confirmation of agreed routes between Muscat/Mumbai FIRs;
- b) some queries on routes between Tehran/Muscat/Mumbai FIRs;
- c) confirmation of routes across the Bay of Bengal;
- d) confirmation of EMARSSH routes in the Yangon FIR;
- e) re-alignment of a route between Kuala Lumpur/Jakarta FIRs;
- f) confirmation of the starting point for BB10 from the Malaysia Peninsular;
- g) confirmation of EMARSSH routes through the Kabul FIR; and,
- h) agreement of States concerned for a parallel route through Saudi Arabia, Jordan and Syria.

All of these matters were addressed and resolved.

2.4 Report on progress from States

Islamic Republic of Iran

2.4.1 The I.R. Iran has achieved major changes to their ATS route structure within the Tehran FIR in accordance with EMARSSH requirements. This, in no small part, has been achieved by excellent civil/military coordination. Many of their EMARSSH routes have already been implemented and the others will be implemented on the scheduled date of 28 November 2002. Due to the Afghanistan situation, a few routes joining from the Kabul FIR into the Tehran FIR are not expected to be open by the EMARSSH implementation date.

India

2.4.2 India made a detailed presentation to the meeting listing out the routes and the route details from FIR of entry to the FIR of exit, that have been agreed for implementation on 28 November 2002. India informed the meeting that route segments are being progressed for developing the route system as direct as possible. When such route segments are passing through special use airspace, it is expected that these segments will be available for restricted hours of operations, viz 1630 to 0030 UTC.

Pakistan

2.4.3 Pakistan informed the meeting of the progress made towards implementation of the revised route structure through Pakistan. The meeting was also informed that Pakistan has accepted proposed routings regarding entry/exit points on India/Pakistan FIR, as well as on Pakistan/Iran FIR.

Nepal

2.4.4 Nepal informed the meeting that originally, Himalaya-1 (Nepalgunj to Inde), Himalaya-2 (Kunming – Kathmandu), Himalaya-3 (Kathmandu- Nepalgunj- Delhi), BB17 and BB18 routes were proposed to be established through Nepal under the EMARSSH project. Due to various issues yet to be resolved by certain states, the originally proposal cannot be progressed to meet the implementation date of 28 November 2002. These routes would be progressed as soon as possible when the outstanding issues are resolved.

Myanmar

2.4.5 In coordination with ICAO, Myanmar has advised their readiness and acceptance of the proposed revised route structure through the Yangon FIR.

2.5 Bay of Bengal Issues

Letters of Agreement

2.5.1 The meeting was updated on the Bay of Bengal States' preparations with regard to signing of Letters of Agreement (LOAs) for the EMARSSH route structure implementation.

2.5.1.1 India reported that it had circulated draft LOAs to Nepal, Malaysia, Indonesia and Sri Lanka and that India plans to complete the signing of all LOAs by mid-September 2002.

2.5.1.2 Indonesia confirmed it had begun reviewing the draft LOAs provided by India and Malaysia. Indonesia will also send a draft LOA to Sri Lanka before 1 October 2002.

2.5.1.3 Malaysia advised that it is planning to complete the signing of LOAs with its neighbours by 31 October 2002 and that it would commence the training of Malaysian air traffic controllers in the first week of November.

2.5.1.4 Nepal advised the meeting that it was making preparations to have its LOAs with India and Bangladesh signed before the end of October.

2.5.1.5 Sri Lanka reported that only small changes would be required in its LOA with India. Sri Lanka expects to sign the LOA with Indonesia before the end of August.

2.5.1.6 Thailand planned to complete its LOA with Malaysia and Myanmar by 31 October 2002.

No-Pre-Departure Clearance (PDC)

2.5.2 No-PDC arrangements currently practiced by Malaysia and Singapore would continue following the implementation of EMARSSH. Malaysia, Singapore and Indonesia were also considering the application of No-PDC to flights planning to operate on routes P574 and N563 which cut across the Jakarta FIR from the Kuala Lumpur FIR. The details of this application of No PDC will be discussed at a later date among the States concerned.

2.5.2.1 The meeting was also advised that Thailand had requested the addition of FL260 as a No-PDC flight level for flights on M770 (BB10) and L759 (BB9). It was agreed to put this request aside until after the implementation EMARSSH. An assessment could be made at the EMARSSH Implementation Review meeting to determine if the need to include FL260 as a No PDC flight level still existed.

Other route issues in the Bay of Bengal

2.5.3 Thailand was agreeable to having the eastern end of M770 anchored at RANONG (RAN). In addition, an existing ATS route (part of R325) from Phuket would remain, joining M770 east of RANONG, within radar coverage of Phuket. This route would be the primary route for westbound departures from and overflying the Malaysian Peninsula.

2.5.3.1 Phuket was a popular destination for flights from Europe during certain seasons of the year. Noting the availability of radar around Phuket, it would be possible for such flights to route along P628, via OLSEL and L645 to Phuket without impeding the air traffic flow on the adjacent EMARSSH routes.

2.5.3.2 There was concern that the alignment of P574 through the Kuala Lumpur, Jakarta and Kuala Lumpur FIRs would generate unnecessary controller workload and increased coordination between Indonesia and Malaysia. In a spirit of cooperation, States concerned agreed to make the transfer of control point between Jakarta and Kuala Lumpur approximately 15 minutes inside the Jakarta FIR to provide sufficient time for Kuala Lumpur ACC to carry out coordination with Chennai ACC with regard to westbound flights.

2.5.3.3 ATS route A327 from Phuket to PAMPTO supported flights to and from Johannesburg. It was noted that currently, flights operating along this route, as well as G465 and R203, were restricted to either FL260 and below or FL390 and above, due to the many major crossing routes over the Bay of Bengal. The meeting was briefed that there was a proposal for the route be converted to an RNAV route and for a review of its operation to be carried out with the aim of minimising flight level restrictions.

2.5.3.4 So as to address the need of non RNAV equipped aircraft wishing to fly across the Bay of Bengal, the meeting accepted a proposal for the existing route B466 to be retained but re-defined with a highest useable level of FL270. As for non-RNAV equipped aircraft wishing to operate between Phuket and Calcutta, the meeting noted that such flights could use existing routes along the northern coast of the Bay of Bengal.

Confirmation of EMARSSH routes through the Kabul FIR

2.5.4 Agreement and approval has been obtained from the Coalition Forces operating in Afghanistan to introduce a new RNAV route, N644 to replace ATS route V888 for transit international flights operating through the Kabul FIR. This route is one of several EMARSSH routes which were earlier agreed to by the Afghanistan Ministry of Civil Aviation and Tourism in August 2001.

2.5.4.1 Another EMARSSH route, which was approved by the Coalition Forces subsequent to 2001, was L750, which replaced V838. Both of these routes will be implemented on AIRAC date of 5 September as part of the Contingency Air Traffic Management Plan (CATMP) for Transit of the Kabul FIR by International Civil Aircraft.

2.5.4.2 Other EMARSSH routes through the Kabul FIR are still awaiting approval from the Coalition Forces, who are the overall authority for airspace within the Kabul FIR. The meeting was advised that the Coalition Forces would regularly review the other EMARSSH routes that are not currently being used for civil operations and will advise when these routes can be implemented.

2.6 Identify ATS Routes To Be Deleted

2.6.1 States were urged to identify existing routes that would become redundant with the implementation of the EMARSSH route structure. Such routes should be deleted from the Air Navigation Plan and appropriate national documentation (e.g. State's AIP). Housekeeping of this nature would minimise any confusion that could arise in flight planning and aircraft operations.

2.6.2 The meeting also recognised that there would be a need for some routes to be retained for domestic traffic operations. States were urged to consider adjusting the upper limits, the operating hours or even the alignment of such routes to ensure that they complement the EMARSSH route structure.

2.7 Finalize AIS issues required prior to implementation

2.7.1 The meeting considered the draft AIP SUP which had been initially developed during EMARSSH TF/7 (Tehran 13 – 16 May 2002). As a result of discussions, the meeting concluded that the following items were essential elements for inclusion in the AIP SUP to be issued by individual States:

- a) SIDS/STARS – including specific details of new or changed SIDS/STARS associated with the EMARSSH route structure, or those that are to be deleted as a result of deleted or changed routes;
- b) Point to point descriptions of each new EMARSSH route within the respective FIRs;
- c) Point to point description of all international and/or domestic airways or route segments to be revised; and
- d) Details of all international and/or domestic airways or route segments that are to be deleted.

2.7.2 In addition to the requirements of the AIP SUP issue, States were also reminded of their responsibilities in relation to providing formal written notification to the ICAO regional office for proposed amendments to the Air Navigation Plan, including details of ATS routes which are to be deleted as a result of the implementation of the EMARSSH route structure.

2.7.3 On advice from Jeppesen, the meeting noted that from an AIS data management perspective, 11 October 2002 is the last date for the cancellation/removal of previously notified data amendments and that consequently, 11 October 2002 would be regarded as the “Go/No Go” date for EMARSSH.

2.8 Transition Plan

2.8.1 The draft transitional procedures which had been developed during EMARSSH TF/7 (Tehran 13 – 16 May 2002) was reviewed and it was agreed that the transition to EMARSSH routes was a “one-time” event, which would require the application of specific procedures.

2.8.2 In finalizing the Transition Plan, the meeting adopted the following principles:

Implementation

- a) The EMARSSH route structure will be implemented effective 28 November 2002 at 0200 UTC;
- b) The actual transition from the old to the new route structure should be accomplished by ATC giving specific route instructions to a specific intersection for each individual flight; and

2.8.2.1 All transitions are to be completed by 0230 UTC.

Traffic Management

2.8.3 The meeting concluded that in addition to the Flight Planning requirements detailed above, ATS Units would apply tactical management to assist each and every flight through the transition to the new routes. This may involve the use of amended ATC clearances and/or variations to the actual time of implementation.

2.8.3.1 The meeting was of the view that in some circumstances, it would be prudent for ATC to initiate an early transition, especially in those circumstances where the transition could be wholly contained within the one ATC sector and thus reduce the amount of ATS coordination with the adjoining Sector/FIR.

Radio Failure Procedures

2.8.4 A requirement for special radio failure procedures to cover the specific transition period was considered. These procedures would be unique to the EMARSSH transition and are as follows:

“In the event of radio communication failure, Pilots shall initiate the transition to the revised ATS route structure at 11280200 UTC, and be established on the revised EMARSSH route structure no later than 11280230 UTC”.

NOTAM advice

2.8.5 The meeting was informed that because the transition plan was a “one-time event”, details of the Transition Plan should be promulgated by NOTAM at least three weeks in advance, to enable crew training on the EMARSSH routes and associated procedures, to be completed ahead of transition. The meeting concluded that as this was a “one time event”, special radio failure procedures for the transition period should also be included in the NOTAM.

3. ACTION BY APANPIRG/13

3.1 The meeting is invited to:

- a) note the considerable progress made by EMARSSH TF/8;

- b) urge States to complete all necessary work in an accurate and timely fashion to achieved the scheduled implementation of the EMARSSH project by AIRAC date 28 November 2002;
- c) urge States to maximize their efforts in the distribution of accurate AIS data on all changes required in the EMARSSH route structure;
- d) encourage States to complete all required Letters of Agreement with their neighbouring ACCs before implementation;

