

International Civil Aviation Organization



**The Special Coordination Meeting for the Bay of Bengal area (SCM/BOB) and
The Sixteenth Meeting of the Bay of Bengal ATS Coordination Group
(BBACG/16)**

Bangkok, Thailand, 31 January – 4 February 2005

Agenda Item 2: Air Traffic Flow Management System

AIR TRAFFIC FLOW OVER THE BAY OF BENGAL

(Presented by IATA)

SUMMARY

This paper presents a review of the current air traffic management situation over the Bay of Bengal, Indian Continental airspace and Kabul FIR in the context of long haul flights from South East Asia to Western Europe.

1. INTRODUCTION

1.1 The problem of lengthy delays and uneconomic routes and flight levels for long haul flights from South East Asian airports to Western Europe across the Bay of Bengal and Indian Continental airspace are well known. Much effort has been directed by all concerned towards addressing these issues such as the implementation of the EMARSSH routes, RVSM and various other measures among the States to coordinate the traffic flow. While there has been some relief, the problem of congestion on a single preferred route still continues to occur from time to time.

2 DISCUSSION

2.1 The EMARSSH Routes

2.1.1 The EMARSSH routes were implemented on 28 November 2002. However, the full benefits were not realized because the full program as originally agreed to by States, could not be implemented. Instead of the anticipated 4 independent Asia –Europe flows across the northern half of the Bay of Bengal and through India, Pakistan and Afghanistan, there were only two independent flows, via TIGER or SAMAR. To make matters worse, the military action in Afghanistan took away one third of the available altitudes.

2.2 RVSM

2.2.1 RVSM was implemented one year later on 27 November 2003. This doubled the number of available levels over the Bay of Bengal and the Indian FIRs. However, a good percentage of these levels were lost through the non implementation of RVSM in Kabul airspace through which the bulk of the long haul traffic had to transit. As only FL310 and FL350 could be operated, the additional capacity afforded by the implementation of RVSM could not be harvested.

2.2.2 The non-implementation of RVSM in Kabul FIR and the consequent requirement for Pakistan to provide transition between RVSM and CVSM flight levels also led to the loss of capacity in the Lahore FIR, where A466 and N644 were taken as a single route by ATC for traffic separation purposes, even though they diverge into Kabul FIR.

2.2.3 At RVSM TF 20 it was decided that in deference to Pakistan's reservations over possible ATC problems in transitioning aircraft from possibly four RVSM levels (FL280, 300, 320 & 340) to only two CVSM levels in Kabul FIR (FL280 was not available and FL310 and FL350 being the only practical levels for most of the long haul aircraft), that the traffic on these two routes would be managed as being on a single route. A concession was given to traffic out of Indian airports to enter Pakistan FIR at FL280 provided a longitudinal separation of 5 minutes was provided between such traffic and the overflying traffic, and no more than two aircraft out of the total of three, were on the same route over a ten minute time frame. Given that ATS service providers have had more than one year of experience after RVSM implementation, it is timely that the restrictions along these routes are reviewed and relaxed.

2.3 Improved level availability

2.3.1 In Feb 04 FL280 was made available for 4 hours during the evening rush hour period, in addition to FL310 and FL350. The level restriction on L333 in Delhi FIR was lowered to FL300 thus providing an additional RVSM level on this route.

2.4 Route enhancement

2.4.1 P628, which had terminated in the middle of the India continent at ASOPO, was extended, first to Rahimyar Khan and thereafter to Kandahar direct on 1 November 2004. This was a significant improvement as it cut wasteful time and fuel burn by reducing the route length by as much as 100 nautical miles and made this route a viable alternative to the preferred route L759/L750. Spreading some of the traffic to this route during the evenings when the upper winds were not a major problem has eased the traffic congestion and reduced some of the delays at the departure airports.

2.5 Mach Number Technique

2.5.1 Through the use of Mach Number Technique, ATS service providers have tried to reduce the longitudinal separation to 10 minutes. However, the difficulties in coordinating traffic flow manually among themselves have resulted in inefficiencies in maximizing the available slots. The differences in the ability of some aircraft types to operate at a mandated Mach Number at FL280 has also caused some problems.

2.6 Level transitions and communications problems over Yangon FIR

2.6.1 Flights over Yangon FIR continue to experience communications problems with Yangon ACC, both in the northern and southern segments of the Yangon FIR. The implementation of a procedure for Mandalay Approach to relay for Yangon ACC provided some relief, but the intermittent operation meant that a big percentage of aircraft are not able to communicate with ATC for long stretches while transiting the FIR. Despite the fact that there is now a new error tolerant procedure which allows for direct transition from a non-ICAO Metric to RVSM levels in that airspace this is still not a satisfactory situation as good radio communications are essential in case of a developing emergency developing. Meeting is informed that the IATA In Flight Broadcast Procedure (IFBP) has been in force in the area since 29 August 2003.

2.7 Communications problems over Mumbai and Kolkatta FIR

2.7.1 HF and VHF Radio Communications in the Mumbai and Kolkatta FIRS continue to raise concerns in view of its inconsistent quality. In particular Mumbai Radio Communications suffer from poor reception as well as frequency congestion. Kolkatta has introduced CPDLC on operational trials and the results are encouraging.

2.8 Air traffic management

2.8.1 The measures implemented to date have led to an easing of the traffic congestion over the Bay of Bengal in the evening hours. However, this is a temporary respite and it would be unrealistic to assume that this situation would last very long. Increase in traffic volumes not just from the South East Asian airports but possibly more dramatically from the airports in the Indian continent itself, is inevitable. As the number of slots in Kabul FIR are unlikely to increase, the problem of traffic congestion will return sooner or later. Ultimately, a comprehensive air traffic management plan for the whole of the Bay of Bengal is the only viable long-term solution. However, there is now an immediate need to manage the evening bunching of traffic over-flying Kabul FIR

2.9 Conclusion

2.9.1 IATA is grateful to all who have given their time and effort in implementing the measures to improve traffic flow over the Bay of Bengal. In particular we want to place on record our appreciation to India, Pakistan and the Afghanistan authorities for their outstanding cooperation in making the route improvements. We also thank ICAO for providing the leadership, and for facilitating the meetings and guiding the discussions.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note that while much work has been accomplished to improve the traffic flow over the Bay of Bengal, there are still concerns with :

- a) poor radio communications in some areas
- b) an urgent need to manage the westbound traffic flow in the evening hours
- c) long term need for a comprehensive Air Traffic Flow Management System in view of the expected increase in traffic flow.
