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## ASSEMBLY – 35TH SESSION

### **PLENARY**

Agenda Item 2: Statements by delegations of Contracting States and of Observers

## AIR TRAFFIC MANAGEMENT ENHANCEMENT IN THE ASIA-PACIFIC REGION

(Presented by Singapore)

### INFORMATION PAPER

### **SUMMARY**

This paper highlights the enhancements in Air Traffic Management brought about by regional initiatives led by the ICAO Asia-Pacific Regional Office through close collaboration of States and user organisations like IATA and IFALPA. Singapore lauds the efforts made by the ICAO regional office and supports regional initiatives and programmes.

## 1. **INTRODUCTION**

- 1.1 Air traffic in the Asia-Pacific region has experienced strong growth despite the temporary setback due to the occurrence of severe acute respiratory syndrome (SARS) in 2003. Traffic has since bounced back. Within the Singapore FIR, traffic movements look on track for 9% growth over 2002 and 17% over 2003. It is therefore imperative to continue and strengthen regional efforts to enhance airspace safety and capacity.
- 1.2 In recent few years, through the leadership of the ICAO Asia-Pacific Regional Office and close collaboration of States and user organisations like IATA and IFALPA, several regional initiatives have been implemented which have helped enhance airspace capacity and safety. The Asia-Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) and its contributory bodies are the forums through which such initiatives are pursued.

# 2. SOUTH CHINA SEA ROUTE RESTRUCTURING AND EMARSSH PROJECT

2.1 Recent airspace improvements in the Asia-Pacific region include the following:

# a) South China Sea Route Restructuring

In November 2001, a new ATS route structure was successfully implemented over the South China Sea. Prior to this, ATS routes over the South China Sea were bi-directional and many of them converged and criss-crossed outside radar coverage. Airspace capacity was therefore much constrained by the route structure. The revised South China Sea route structure, on the other hand, comprised six uni-directional parallel trunk routes spaced 60 nautical miles apart. This immediately reduced traffic complexities and greatly enhanced the traffic flow, safety and capacity. Like the experience of many States in the region, Singapore's flights experienced fewer ground delays and were able to operate at optimum or close-to-optimum levels. In February 2002, further improvement to the airspace capacity in the South China Sea was made with the implementation of reduced vertical separation minima (RVSM). This provided six additional flight levels over the South China Sea to RVSM-equipped aircraft.

## b) EMARSSH Project

In November 2002, a new ATS route structure was successfully implemented across the Bay of Bengal, India and Arabian Sea. Before this, many of the trunk routes which carried the majority of long- and medium-haul flights converged over the Bay of Bengal. As a result, flights between Australasia and Europe / Middle East / Indian Sub-Continent were often delayed on the ground. The new route structure comprised a set of parallel routes spaced at a minimum of 50 nm apart across the Bay of Bengal, India and Arabian Sea. In addition, some routes over the Saudi Peninsula and Egypt were realigned to permit the application of RNP 5 criteria in the region (thus allowing reduced lateral and longitudinal separation of 30 nm, using ground-based navigational facilities and radar). RVSM was implemented on the revised routes in November 2003.

- All these airspace improvement initiatives have translated to fuel savings and better on-time departure for airlines. IATA had estimated that the annual saving for airlines are approximately 8 million USD for South China Sea routes and 55 million USD for EMARRSH routes. In addition, ATC workload and complexities resulting from coordination and traffic sorting have also reduced, thus improving productivity and safety.
- 2.3 Singapore is proud to have played an active role in these Asia-Pacific initiatives by being chairman of APANPIRG, a member of the Revised South China Sea Route Structure Implementation Task Force, a Core Team member of the EMARSSH Task Force, as well as a member and chairman of the RVSM Implementation Task Force. Singapore is committed to the regional initiatives to enhance airspace efficiency and capacity, and will continue to support the efforts of the ICAO Asia-Pacific Regional Office.

## 3. **GOING FORWARD**

- 3.1. Airspace enhancements harnessing CNS/ATM technologies is required going forward. Recognising this, APANPIRG has Sub-Groups and Task Forces to pursue implementation of CNS/ATM technologies, including CNS/MET, ADS-Broadcast and Aeronautical Telecommunications Network.
- 3.2. Singapore lauds the leadership role played by the ICAO Regional Office in spearheading regional ATM / airspace enhancement initiatives. With increasing air traffic, it is crucial to ride on the momentum of recent successes to push for further improvements in ATM / airspace enhancement.

# 4. **ACTION BY THE ASSEMBLY**

4.1. The Assembly is invited to note the information in this paper.