



*International Civil Aviation Organization*

**The Nineteenth Meeting of the ICAO RVSM Implementation Task Force  
(RVSM/TF/19)**

Bangkok, Thailand, 02 - 04 July 2003

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**Agenda Item 5: Implementation Management Considerations**

**RVSM IMPLEMENTATION PLAN IN COLOMBO FIR**

(Presented by Sri Lanka)

**SUMMARY**

This working paper presents the results of the sample of traffic collected during 15<sup>th</sup> December 2002 to 15<sup>th</sup> February 2003 within Colombo FIR, which were analyzed for the implementation of ICAO Reduced Vertical Separation Minimum (RVSM).

The traffic sample is summarized in terms of:

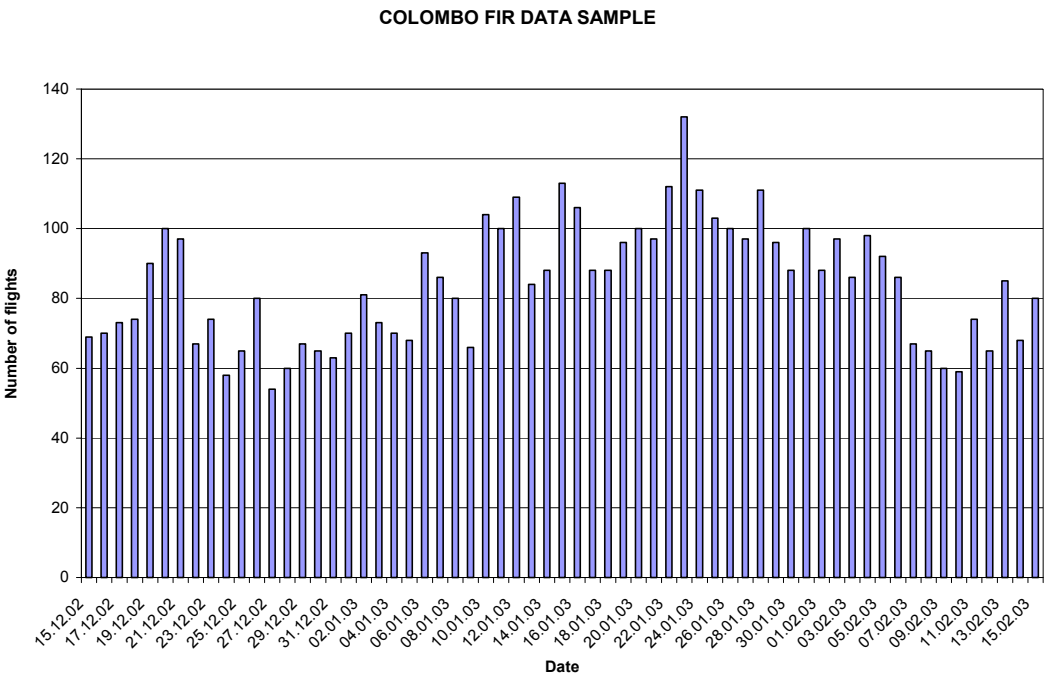
- Airspace users,
- Air craft types,
- Entry point.
- Entry flight level,
- Entry time,
- Exit point,
- Exit flight level,
- Exit time,
- Point of departure and,
- Destination of flights.

**1. Introduction**

To determine the flight levels for RVSM Implementation, Air traffic statistics were collected from 15<sup>th</sup> December 2002 to 15<sup>th</sup> February 2003 on air routes R 461, **M300**, **L645**, A327, B340/A463, B344, G325, G462, G465, **P762**, **P570**, R456, A465, G454, B340F, A214, and A549, over Colombo airspace.

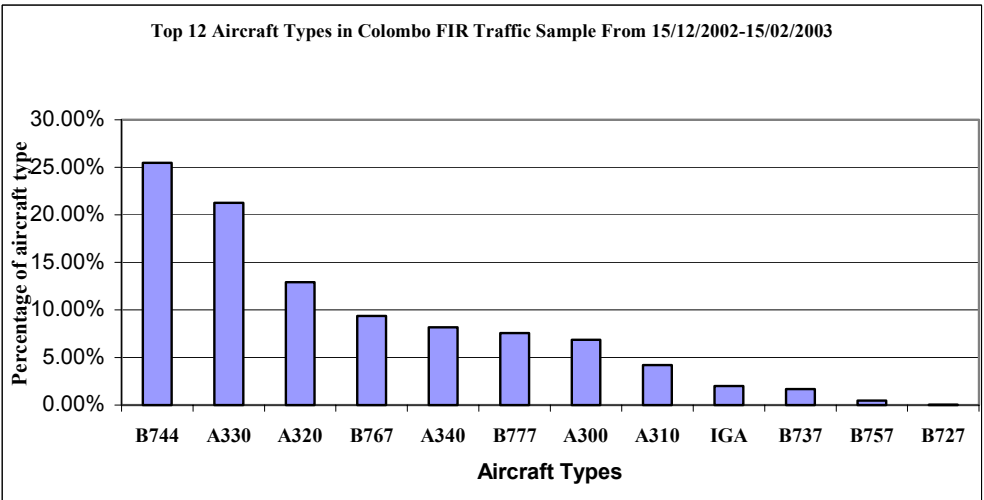
2. The number of flights on above airways and flight levels assigned to aircraft were collected and analyzed. Current traffic flow over the Colombo FIR is shown in the figure1. (EMARSSH routes are in bold letters/figures for easy reference).

Figure 1.



2.2. Figure 2 shows the Percentage of Aircraft Types which had operated across Colombo FIR.

Figure 2.



2.3 RVSM compliance of aircraft which had operated across Colombo FIR during the Period under review

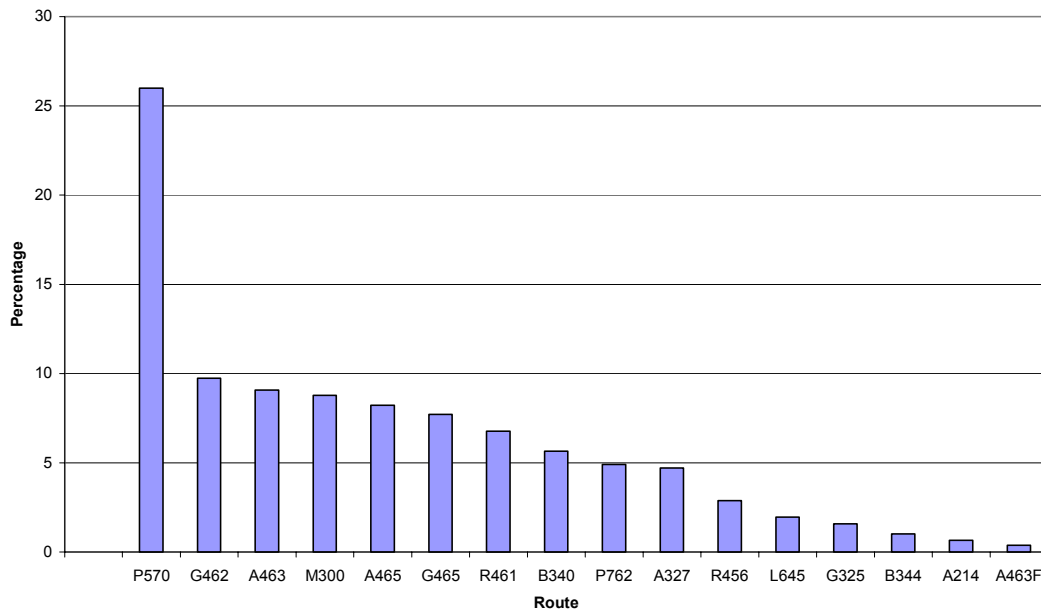
Aircraft Type Group	Aircraft Types
B744	B744, B74F, B74B
A330	A330, EA33
A320	A320, A319, A321, EA32
B767	B767, B762, B763
A340	A340, EA34, A343
B777	B777, B772, B773
A300	A300, A306, EA30, A30B
A310	A310, EA30
IGA	C130, AN124, C5, LR35, MD11

**Note** Approximately 85% of aircraft which operate across Colombo FIR are RVSM Compliant.

2.4. Figure 3 appearing below shows the distribution of the traffic on Routes in the Colombo FIR

**Figure 3.**

**Utilization of Colombo FIR Routes in Traffic Sample From  
15/12/2002 - 15/02/2003**



3. Implementation of RVSM in the Colombo FIR is planned to be effective on the 27 November 2003 in the flight level band FL 290 to FL 410.

3.1 The application of RVSM operations should be also based on the Single Alternate Flight Level Orientation Scheme.

3.2 Traffic on route A327 very often conflict with traffic on routes A463F, B340F, G462, P570, as the route A327 is crossing all the above routes. Therefore altitude allocation for traffic on A327 shall be restricted to FL410 for east bound traffic and FL400 for west bound traffic. In conjunction with adjacent ACC this restriction can be relaxed.

#### **4. Suggested improvement**

Software changes to the Radar Data Processing and Display System (RDPDS) and Flight Data Processing System (FDPS) are required in order to support the RVSM Implementation.

4.1. There should be an indication in the Target label to identify RVSM compliant aircraft from non compliant aircraft for controllers' easy reference.

4.2 The Conflict Alert parameters will have to be changed i.e. the parameters used above FL 290 have to be revised to cater for RVSM requirements.

4.3. Flight Data Processing System has to be updated so that the system can read RVSM capability of the aircraft from its ICAO flight plan and print it in the flight progress strip.

#### **5. Action by the Meeting**

5.1 The meeting is invited to consider the proposed operational plan of RVSM operation over the Colombo FIR.

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