



*International Civil Aviation Organization*

**The Eighteenth Meeting of the ICAO RVSM Implementation Task Force  
(RVSM/TF/18)**

Bangkok, Thailand, 30 June – 01 & 04 July 2003

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**Agenda Item 2: Review Implementation Actions**

**REVIEW ON THE IMPLEMENTATION OF REDUCED VERTICAL SEPARATION  
MINIMUM (RVSM) OVER SOUTH CHINA SEA AREA WITHIN KUALA LUMPUR  
AND KOTA KINABALU FIRs**

(Presented by Malaysia)

**SUMMARY**

This Information Paper provides the 90 day and one year follow up review on the implementation of RVSM over South China Sea Area.

**1. INTRODUCTION**

1.1 RVSM has been successfully implemented in Kuala Lumpur and Kota Kinabalu FIRs in two phases. The portion of airspace involved in Kuala Lumpur FIR is east of route M751/B469 and extends toward the Kuala Lumpur and Singapore FIR boundaries. (Refer Appendix 1) In Kota Kinabalu FIR, RVSM was implemented in the whole airspace.

1.2 The first phase was implemented on 21 February 2002 at 1930 UTC between FL310 to FL410 inclusive.

1.3 The second phase of implementation was on 31 October 2002 at 1930 UTC where the level band was extended from FL290 to FL410 inclusive.

**2. OPERATIONAL IMPLEMENTATION**

2.1 Jakarta/Ujung Pandang FIRs implemented RVSM on 31 October 2002. The level band was between FL350 to FL390. The difference in the vertical dimension has resulted in Flight Level Allocated Scheme (FLAS) requirement between Kota Kinabalu and Jakarta/Ujung Pandang FIRs. Kota Kinabalu ACC is managing the transition task for westbound flights on these routes - B592, R455, R223 and B584 as all the traffic involved are within the radar coverage. (Refer Appendix 2)

2.2 Overall, implementations of RVSM went smoothly without any reported problems and have resulted in enhanced efficiency of operations, which the airline operators and air traffic controllers have benefited tremendously.

### 3. ALTERNATE ROUTE – Y331

3.1 The introduction of domestic ATS route Y331 on 31 October 2002 from TAXUL to PIBOS has provided airlines an alternate route, in order to relieve congestion at PK (Refer Appendix 1). Some airlines inbound to KLIA on L642 are now flight planning on this route. However more airlines are encouraged to do so.

3.2 TABLE A below show statistics taken for a period of one week, between 7<sup>th</sup> to 13<sup>th</sup> March 2003 for flights inbound to Kuala Lumpur International Airport (KLIA) from South China Sea Area on route L642. About 55 % of the flights are still not flight planning to operate on Y331.

TABLE A – Flights Inbound to KLIA from South China Sea Area

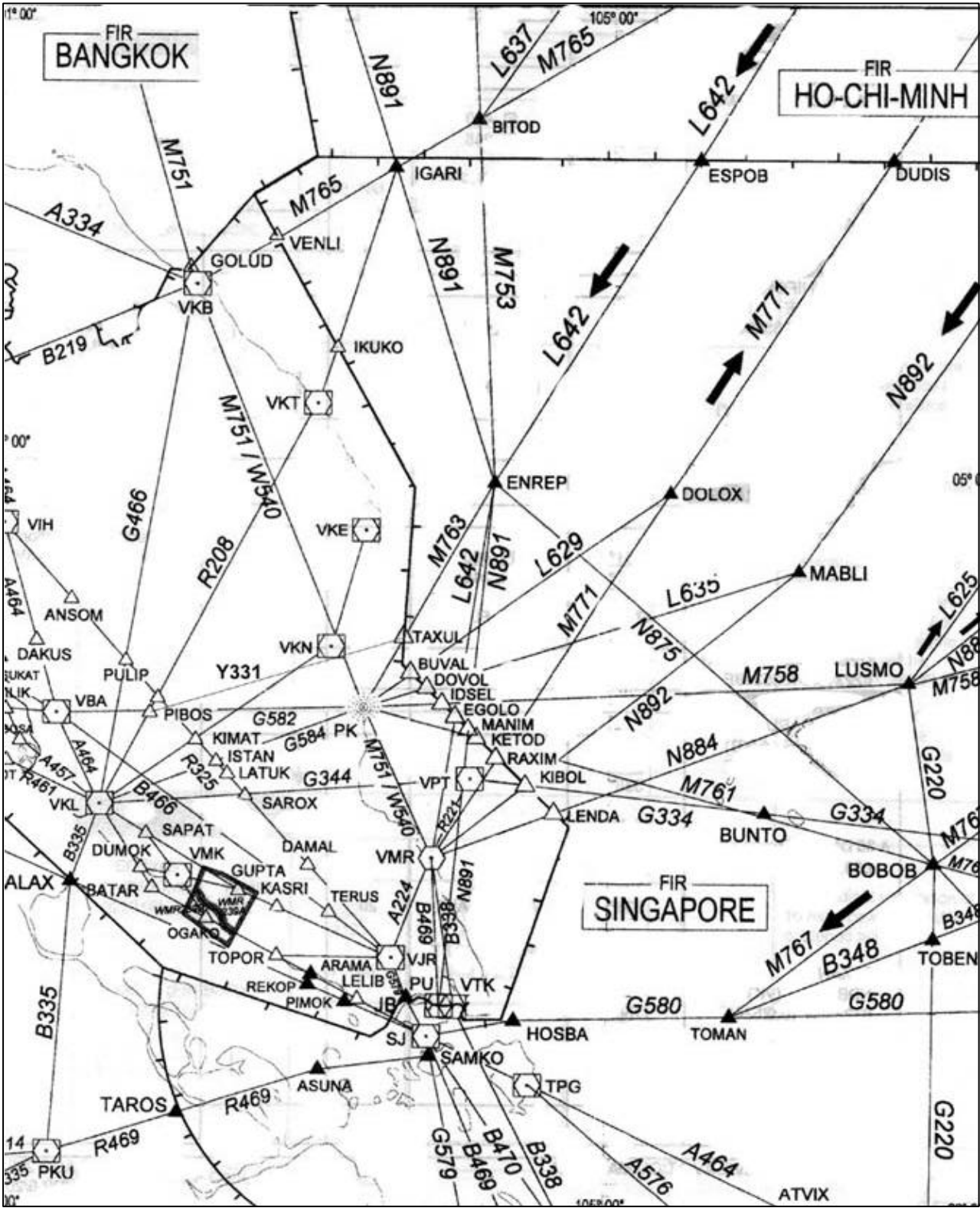
ROUTES	NO. OF FLIGHTS	PERCENTAGE
L642 - ENREP – TAXUL - PIBOS (Y331)	40	44.9
L642 - ENREP – TAXUL - PK - ISTAN	49	55.1
TOTAL NO. FLIGHTS	89	100

### 4. ACTION BY MEETING

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

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## RVSM AIRSPACE IN KUALA LUMPUR FIR – EAST OF M751/B469 INCLUSIVE



## Kota Kinabalu - Airspace with FLAS application

The diagram illustrates a flight level transition task for four specific routes: B592, R455, R223, and B584. It shows five horizontal flight levels: FL390 (WEST BOUND), FL380, FL370, FL360, and FL350 (WEST BOUND). A vertical dashed red line marks the transition point. A horizontal double-headed arrow below the line indicates a 10-minute duration for the transition. Red arrows show the flight paths: FL390 and FL350 transition from FL380 to FL360, while FL380 and FL360 remain on their respective levels. The text '(EAST BOUND)' is on the left and '(WEST BOUND)' is on the right. A bracket under the transition area is labeled 'TRANSITION TASK – FOR THE FOLLWING ROUTES: B592, R455, R223 AND B584'.

## APPENDIX 2