



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

Agenda Item 3: Review Operations

REVIEW OF RVSM IMPLEMENTATION IN THE MANILA FIR AFTER PHASE 2

(Presented by the Philippines)

SUMMARY

This Information Paper presents a review on RVSM implementation in the Manila FIR after Phase 2 of RVSM implementation on 31 October 2002.

1. INTRODUCTION

1.1 Implementation of RVSM in the Western Pacific/South China Sea areas came in 2 phases. In Phase 1 Cambodia, China (on N892 only), Malaysia, Philippines, Singapore, Thailand and Vietnam (Ho Chi Minh FIR only), Taiwan (on N892 only) implemented RVSM on 21 February 2002. In Phase 2, RVSM was implemented in China (to the rest of the oceanic airspace of the Sanya AOR), Hong Kong, China, Indonesia, Lao PDR, Vietnam (in the Hanoi FIR), and other areas in Taipei FIR as well. This information paper presents a review on RVSM implementation in the Manila FIR after Phase 2 of RVSM implementation on 31 October 2002

2. OBSERVATIONS

2.1 Phase 2 of RVSM implementation had completed the number of FIRs surrounding the Manila FIR that are implementing RVSM in their airspace. The Manila FIR is surrounded by the following FIRs, (starting clockwise from the Pacific to South China Sea), Naha FIR, Oakland FIR, Ujung Pandang FIR, Kota Kinabalu FIR, Singapore FIR, Ho Chi Minh FIR, Sanya AOR, Hong Kong FIR and Taipei FIR.

2.2 The second phase of RVSM implementation did not add any more transition areas inside the Manila FIR since Ujung Pandang had agreed to perform transition tasks for overflights from Australia to Hong Kong or Taipei, that will traverse the 4 parallel RNAV Routes within the Manila FIR i.e. M767, N884, L625 and N892, where modified single alternate Flight Level Orientation Scheme (FLOS) is applied. This was agreed upon in the RVSM Special Coordination Meeting held in Manila last July 2002. It should be noted that Indonesia is implementing RVSM based on single alternate FLOS. The arrangement is working well, although there are times when Manila ACC would accept flight levels based on single alternate in order that additional flight levels would be available at those crossing points where traffic would sometimes occur.

2.3 Although transition tasks within the Manila FIR are still within manageable level, problems occur during bad weather conditions (i.e. typhoon coming) where Large Scale Weather Deviations (LSWD) occur, especially along the parallel routes. Other problem encountered is when there are several re-routings, which require transitions outside of radar coverage from single alternate to modified single alternate.

2.3.1 Whenever LSWD is reported on the parallel routes, Manila ACC would request the transferring ACC that flight levels for the unidirectional (Northeast direction) parallel RNAV route be changed to all ODD flight levels i.e. FL290, FL310, FL330, FL350, FL370, FL390, FL410. instead of the EVEN flight levels provided by the modified single alternate FLOS. This is usually done whenever LSWDs occur on L625, one of the busiest routes inside the Manila FIR. The Manila ACC supervisors found out that this arrangement is easier to manage, hence, would usually coordinate with Ho Chi Minh ACC supervisors for this flight level arrangement (as provided in LOA between ACCs).

2.3.2 Other concerns, during adverse weather conditions, are the requests for re-routings wherein transitions had to be done outside of radar coverage. This occurred between the Naha FIR and Manila FIR boundary, with traffic going to Hong Kong from either Korea or Japan, opting to reroute inside the Manila FIR. Since Naha ACC applies single-alternate FLOS, Manila ACC controllers have to change these flight levels to modified single alternate FLOS of the SCS areas. In addition, since transition tasks are all done outside of radar coverage, flow control measure, through flight level allocation, is resorted to in order to lessen workload of ATCs, and to enhance safety as well.

2.4 Weather deviation has been one of the problems encountered by FIRs located along the so called 'typhoon belt areas', like the Manila FIR. The transition tasks from modified single alternate to single alternate and v.v., particularly during large-scale weather deviations, had given additional problems in some areas in the Manila FIR.

3. CONCLUSION

3.1 The meeting is invited to note the observations on RVSM implementation in the Manila FIR.

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