

**Draft Proposal for Amendment of  
the ICAO Regional Supplementary Procedures (Doc 7030/4)**  
(Serial No. APAC-S 02/XX - MID/ASIA/RAC)

- a) **Regional Supplementary Procedures, Doc 7030/4:** MID/ASIA/RAC
- b) **Proposing State(s):** Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) and Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG)
- c) **Proposed Amendment:** On page MID/ASIA/RAC-9, dated 13/2/00, *Amend* paragraph 6.5.1.1 to read:
- 6.5.1.1 The reduced vertical separation minimum (RVSM) shall be applied for flights within the Auckland Oceanic, Bali, Bangkok, Brisbane, Hanoi, Ho Chi Minh, Hong Kong, Honiara, Jakarta, Kota Kinabalu, Kuala Lumpur, Manila, Melbourne, Naha, Nauru, New Zealand, Phnom Penh, Port Moresby, Singapore, Taibei, Tokyo, Ujung Pandang, and Vientiane flight information regions (FIRs) (***ADD FIRS WHERE RVSM MAY BE APPLIED***).
- d) **Proposers' reasons for amendment:**
- i) The vertical separation minimum currently applied in the airspace of the Pacific Ocean and South China Sea is 300 m (1 000 ft) above flight level 290. The increase in air traffic between Asia/Middle East and Europe south of the Himalayas area coupled with the application of a 600 m (2 000 ft) separation minima has led to less than optimum efficiency of operation. The further introduction of RVSM over the Bay of Bengal and Arabian Sea areas will serve to increase the availability of fuel and time efficient flight levels and tracks to users, reduce the complexity of the air traffic management task (*e.g.* enhance the capability to accommodate traffic on intersecting tracks) and enhance airspace capacity.
- ii) APANPIRG determined that a target of 90% of the aircraft population planning to operate in airspace of the Bay of Bengal and beyond within the Asia Region where RVSM may be applied should be achieved in order for RVSM to be implemented in the scheduled date of 27 November 2003. A review of the aircraft fleet has been undertaken and it is anticipated that this target will be met by November 2003.
- iii) (*MIDANPIRG's decision to be added as appropriate*)
- iv) An analysis of benefits versus costs for the RVSM operations in the Bay of Bengal area and beyond within the Asia Region has shown total benefits in non-discounted dollars of \$???. Versus projected costs in non-discounted dollars of \$??? ***for the 15 year period between ???? and ????. This yields a positive benefit/cost ratio of ??.***

e) **Proposed implementation date of the amendment:** 27 November 2003

f) **Proposal circulated to the following States and International Organizations:**

Afghanistan	Japan	Papua New Guinea
Argentina	Jordan	Peru
Australia	Kazakhstan	Philippines
Bahrain	Kiribati	Portugal
Bangladesh	Kuwait	Qatar
Bhutan	Kyrgyzstan	Republic of Korea
Brazil	Lao People's	Russian Federation
Brunei Darussalam	Democratic Republic	Samoa
Cambodia	Lebanon	Saudi Arabia
Canada	Libyan Arab	Singapore
Chile	Jamahiriya	Solomon Islands
China	Luxembourg	Sri Lanka
(cc: Hong Kong, China)	Malaysia	Sudan
(cc: Macau, China)	Maldives	Syrian Arab Republic
Cook Islands	Marshall Islands	Tajikistan
Cyprus	Mexico	Thailand
Democratic People's	Micronesia, Federated	Tonga
Republic of Korea	States of	Turkmenistan
Ecuador	Mongolia	United Arab Emirates
Egypt	Myanmar	United Kingdom
Fiji	Nauru	United States
France	Nepal	Uzbekistan
Germany	Netherlands	Vanuatu
India	Kingdom of the	Viet Nam
Indonesia	New Zealand	Yemen
Iran, Islamic Republic of	Oman	IATA
Iraq	Pakistan	IFALPA
Israel	Palau	IFATCA

**(ADD AS  
APPROPRIATE)**

g) **Secretariat comments:** i) The Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) has already undertaken the task of implementing RVSM in the Pacific. The APANPIRG/9 meeting (Bangkok 24-28 August 1998) agreed (Decision 9/4) to the establishment of an ICAO RVSM Implementation Task Force to develop and co-ordinate RVSM implementation plans and programmes for the Asia/Pacific Regions as a whole and also to ensure that the requirements listed in Doc 7030 are met.

ii) ***The Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG) .....***

iii) The target implementation date was established as of 27 November 2003 in order to realize the end-to-end seamless RVSM operation between Asia/Middle East/Europe south of the Himalayas. This implementation date and necessary procedures will be notified to operators in State AIPs and NOTAM.

iv) RVSM implementation in the North Atlantic, Pacific and South China Sea airspace has proved to be safe and successful. Major operators have indicated that benefits received from RVSM exceeded the costs of RVSM approval within one year of implementation. Major RVSM benefits experienced have included increased access to user preferred, fuel and time efficient altitudes and routes.

v) The aircraft and operator approval processes and criteria applied in the North Atlantic, Pacific and South China Sea will be applied in the Bay of Bengal and Arabian Sea area RVSM implementation. Guidance material for Asia/Pacific RVSM implementation has been adapted from guidance material developed for Pacific RVSM implementation.

vi) This amendment proposes that aircraft and operators meeting the requirements of existing Doc 7030 provisions can operate safely and efficiently in airspace where 300 m (1 000 ft) vertical separation is applied. A safety assessment for the Bay of Bengal and Arabian Sea area is being undertaken. Existing communication and surveillance systems (High Frequency radio and procedural separation practices) are adequate to support this proposal.

vii) APANPIRG has adopted a Target Level of Safety (TLS) of  $5 \times 10^{-9}$  fatal accidents per aircraft flight hour to assess airspace system safety. This TLS will consider both operational errors and errors related to aircraft altitude-keeping performance.

viii) Bay of Bengal and Arabian Sea area ATS provider States have stated that for RVSM implementation to proceed it must be determined that approximately 90% of operations will be conducted by RVSM approved aircraft. ATS provider States have published NOTAM and AIPs to announce RVSM implementation. In these publications it has been stated that flight of non-approved aircraft at flight levels where RVSM is applied will only be accommodated if the operator co-ordinates prior to the flight with the appropriate ATS provider in accordance with published procedures and only for special types of flights (*e.g.* State aircraft, ferry, maintenance and humanitarian flights). This policy reflects that established for RVSM operations in the North Atlantic, Pacific and South China Sea.

ix) *(ADD AS APPROPRIATE)*

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