



**Twenty First Meeting of the
Informal South Pacific ATS Co-ordinating Group (ISPACG/21)**

Auckland, New Zealand, 6-8 March 2007

Agenda Item 3: Review relevant work conducted since the last meeting.

**Application of 10-Minute Longitudinal Separation
Without the Mandatory Assignment of Mach Number Technique (MNT)**

(Presented by the Federal Aviation Administration)

SUMMARY

On 27 January 2006, a proposal (attached) for amendment of the ICAO Regional Supplementary Procedures (Doc 7030/4) concerning the application of 10-minute longitudinal separation without the mandatory assignment of Mach Number Technique (MNT) was approved by ICAO for use within the Oakland Oceanic FIR. This paper proposes to expand the application of 10-minute longitudinal separation without mandatory assignment of MNT to the South Pacific Flight Information Regions (FIR) and develop an implementation strategy for seamless integration of this separation minima.

1. Background

1.1 Data collection and operational trials began simultaneously in 1998 for the application of 10-minute longitudinal separation without mandatory assignment of MNT in the Oakland FIR. This data was then compared to previous studies to determine if current practice would support reduced longitudinal separation. FAA performed a comparative safety analysis of the airspace where 10-minute longitudinal separation was applied and found that, due to improvements in aircraft performance and air traffic control practices; the risk of collision due to the loss of planned longitudinal separation was no greater than the risk found in the original study which supported 10 minutes with MNT.

1.2 The Seventeenth Meeting of the Review of the General Concept of Separation Panel (RGCSP) Working Group A (RGCSP/WG/A/17) agreed that sufficient provisions were in the PANS-RAC (subsequently revised to the PANS-ATM) to enable authorities to reduce separation to 10 minutes without applying MNT and that the Regional Supplementary Procedures (Doc 7030) could be amended as appropriate

1.3 The United States proposed the attached Amendment of Regional Supplementary Procedures ICAO Doc 7030/4 to include the application of 10-minute longitudinal separation without mandatory assignment of MNT. The amendment proposal was approved on 27 January 2006 and the new separation minima was implemented throughout the Oakland oceanic CTA. Since implementation, no problems have been noted.

2. Discussion

2.1 An airspace analysis is currently being conducted within the Anchorage oceanic FIR to determine if current practice would support reduced longitudinal separation. FAA is investigating the gain-loss probability distribution for aircraft pairs throughout the Anchorage FIR and the analysis centers on the description of aircraft pair separation and their combined ability to maintain separation once it has been applied.

2.2 Provided the analysis results are favorable, FAA anticipates that Anchorage will begin operational trials for use of 10-minute longitudinal separation without the mandatory assignment of MNT.

3. ACTION BY THE MEETING

- 3.1. In a continuing effort to harmonize global separation minima and supporting procedures, ANSPs are invited to:
- a. Take note of the information in this paper; and
 - b. Consider developing a strategy for implementing 10-minute longitudinal separation without the mandatory assignment of MNT.

-END-

Attachment 1



International
Civil Aviation
Organization

Organisation
de l'aviation civile
Internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Ref.: T 3/03.1 – AP008/06 (ATM)

2 February 2006

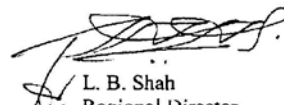
Subject: Approval of a Proposal for amendment of the
ICAO Regional Supplementary Procedures (Doc 7030)
(Serial No. APAC-S 03/1-PAC/RAC/1)

Sir/Madam,

I have the honour to inform you that the President, on behalf of the Council, approved on 27 January 2006 the attached proposal for amendment of the ICAO Regional Supplementary Procedures (Doc 7030/4).

The approved amendment will be incorporated in the next consolidated amendment to be issued to the Regional Supplementary Procedures.

Accept, Sir/Madam, the assurances of my highest consideration.



L. B. Shah
Regional Director

Enclosure:

Proposal for Amendment of *ICAO Regional
Supplementary Procedures*
(Serial No. APAC-S 03/1-PAC/RAC/1)

Asia and Pacific Office
252/1 Vibhavadi Rangsit Road
Ladysao, Chatuchak
Bangkok 10900
Thailand

Postal Address:
P.O. Box 11
Samysek Ladprao
Bangkok 10901
Thailand

Tel.: +66 (2) 537-8189
Fax: +66 (2) 537-8199

E-mail: icao_apac@bangkok.icao.int
AFTN: VTBBICOX

**Proposal for Amendment of
Regional Supplementary Procedures ICAO Doc 7030/4
(Serial No. APAC-S 03/1 – PAC/RAC/1)**

- a) **Regional Supplementary Procedures, Doc 7030/4:** PAC/RAC
- b) **Proposing State:** United States
- c) **Proposed Amendment:**
1. On page PAC/RAC-7 dated 30/11/01,
Add the following paragraph 6.2.1 c) to read:
 - c) within the Oakland Oceanic FIR 10 minutes, whether in level, climbing or descending flight, provided that the aircraft concerned follow the same track or continuously diverging tracks until some other form of separation is provided.
- d) **Proposers' reasons for amendment:**
- a) Data collection and operational trials began simultaneously in 1998 for 10-minute longitudinal separation in the Pacific Ocean airspace. This data was then compared to previous studies to determine if current practice would support 10-minute longitudinal separation. The FAA trials were successful and supports this proposed amendment.
 - b) The report of the Seventeenth Meeting of the Review of the General Concept of Separation Panel (RGCSPP) Working Group A (RGCSPP/WG/A/17) at Annapolis, Maryland, United States on 6 to 17 November 2000 states in paragraph 3.1.2:

The meeting noted that the 10-minute longitudinal separation trials for the Pacific Ocean airspace were completed and that application of the separation without MNT could be applied when appropriate measures were established. It was further noted that the PANS-RAC (Part III, 8.2.1 b) allowed for 10-minute separation to be applied if navigation aids permit frequent determination of position and speed, and under Section 9 (paragraph 9.2b) separation may be reduced.
 - c) RGCSPP/WG/A/17 further agreed that sufficient provisions were in the PANS-RAC (subsequently revised to the PANS-ATM) to enable authorities to reduce separation to 10 minutes without applying the MNT. The meeting noted that authorities would need to determine the regulations and procedures necessary for suitably equipped and approved aircraft to be separated in this way. Therefore, an amendment to the PANS-RAC was not necessary and the Regional Supplementary Procedures (Doc 7030) could be amended as appropriate.

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