



International Civil Aviation Organization

**NINETEENTH MEETING OF THE COMMUNICATIONS/NAVIGATION
AND SURVEILLANCE SUB-GROUP (CNS SG/19) OF APANPIRG**

Bangkok, Thailand, 20 – 24 July 2015

Agenda Item 5: Navigation

5.4) Review Navigation Strategy

NAVIGATION STRATEGY FOR THE ASIA/PACIFIC REGION

(Presented by the Secretariat)

SUMMARY

This paper presents the Navigation Strategy for the Asia/Pacific Region adopted by APANPIRG/25 meeting for review by the meeting.

1. INTRODUCTION

1.1 The Navigation Strategy for the Asia/Pacific Region was updated by the Eighteenth Meeting of CNS Sub-Group of APANPIRG in July 2014. Slight updates were proposed and after some discussion, the meeting agreed to adopt the updated Navigation Strategy for the Asia/Pacific Region as proposed by New Zealand and IATA (Draft conclusion 25/39). The revised Navigation Strategy was adopted by APANPIRG/25 under Conclusion 25/39. The revised Navigation Strategy has been posted on the ICAO APAC website: <http://www.icao.int/APAC/Pages/edocs.aspx>

1.2 The revised strategy adopted by APANPIRG/25 is provided in the **Attachment A** to this paper for review by the meeting.

2. ACTION REQUIRED BY THE MEETING

2.1 The meeting is expected to review the Navigation Strategy for the Asia/Pacific Region provided in the **Attachment A** to this paper.

REVISED NAVIGATION STRATEGY FOR THE ASIA/PACIFIC REGION

Considering:

- a) the material contained in the Performance Based Navigation Manual (Doc 9613) for enroute, approach, landing and departures operations;
- b) operators are approved to conduct PBN operations;
- c) GNSS is the primary navigation system for RNP;
- d) APV operations may be conducted with either BARO-VNAV or augmented GNSS;
- e) Augmented GNSS is available to support Category I, and will be able to support Category II and III operations by 2016;
- f) ILS is capable of meeting the majority of requirements for precision approach and landing in the Asia-Pacific Region;
- g) MLS CAT III is operational;
- h) the need to maintain aircraft and ground interoperability both within the Region and between the Asia/Pacific Region and other ICAO regions and to provide flexibility for future aircraft equipage;
- i) single-frequency GNSS may be susceptible to radio frequency interference and ionospheric disturbances:

Strategy

- i) Convert from terrestrial-based instrument flight procedures to PBN operations in accordance with the Asia/Pacific Seamless ATM Plan;
- ii) retain ILS as an ICAO standard system for as long as it is operationally acceptable and economically beneficial;
- iii) implement GNSS with augmentation as required for APV and precision approach or RNP operations where it is operationally and economically beneficial;
- iv) implement the use of APV operation in accordance with the Asia/Pacific Seamless ATM Plan;
- v) rationalize terrestrial navigation aids, retaining a minimum network of terrestrial aids necessary to maintain safety of aircraft operations;
- vi) protect all the Aeronautical Radio Navigation Service (ARNS) frequencies;
- vii) ensure civil-military interoperability; and
- viii) continue monitoring the development of alternative position, navigation and timing
