CNS SG/20
Appendix F to the Report

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 qualified for 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 2018;

f) ILS is capable of meeting the majority of requirements for precision approach and landing in the Asia-Pacific Region;

g) ILS 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 and use of multi-frequency, multi-constellation GNSS may mitigate risks caused by narrow band frequency interference and ionospheric disturbances.

j) The region has developed an ionospheric threat model for GBAS

Strategy

i) Convert from traditional 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 regional ionospheric threat model for GBAS as appropriate

v) implement the use of APV operation in accordance with the Asia/Pacific Seamless ATM Plan;

vi) rationalize terrestrial navigation aids, retaining a minimum network of terrestrial aids necessary to maintain safety of aircraft operations;

vii) protect all the Aeronautical Radio Navigation Service (ARNS) frequencies through education, appropriate regulation and the active detection and elimination of intentional and unintentional interference sources.;

viii) ensure civil-military interoperability; and

ix) continue monitoring the development of GNSS elements and alternative position, navigation and timing.

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