



International Civil Aviation Organization

**Seventh Meeting of CNS/MET Sub-Group of APANPIRG and
Tenth Meeting of CNS/ATM IC Sub-Group of APANPIRG**

Bangkok, Thailand, 15 – 21 July 2003

Agenda Item 5: Radio Navigation Aids

RNAV/GNSS

(Presented by New Zealand)

SUMMARY

Airways New Zealand is the provider of Air Navigation Services in New Zealand's domestic and oceanic airspace. Development of Navigation facilities in New Zealand is based on balancing customer requirements with lifecycle management and application of new technology. Planning and implementation considers where best gains in cost benefit can be achieved for both the customer and Airways New Zealand as the ANS provider.

1. RNAV/GNSS NPA Implementation

1.1 New Zealand has implemented 42 RNAV/GNSS (GPS) non-precision approaches. This work has enabled the commencement of a gradual phase down of NDBs; 3 have already been decommissioned. New Zealand currently has 48 NDBs. Further NDBs will be decommissioned as more RNAV/GNSS non-precision approaches are implemented and operators install GNSS receivers to their aircraft.

1.2 Only NDB that currently serve as back up to VOR/DME are being considered in the phase down as GPS NPA are used to replace such NDB and serve as a back-up to the VOR/DME.

1.3 This is intended to allow a gradual and suitable transition to cater for operators that rely on one or the other or both of these methods of navigation.

2. ILS/GBAS Implementation

2.1 New Zealand currently has 10 Instrument Landing Systems. ILS continues to be upgraded with new equipment to ensure that the ILS services at New Zealand's main airports are maintained until at least 2015. The purchasing of GBAS has been deferred until there is sufficient operator demand and availability of certified avionics. The earliest installations of GBAS are not likely before 2007/08.

3. Required Navigation Performance (RNP) Implementation

3.1 Following trials at Auckland last year FMS arrival/STARs have been implemented with expected benefits of improved routing and better aircraft energy/fuel management. It is anticipated the trials will be expanded to include RNAV and RNP elements with development work underway together with airline operators to implement RNP approaches at specific locations.

4. Transition from Conventional to GNSS Technology

4.1 A significant transition period is expected between conventional navaids and GNSS to allow and cater for customer needs as dictated by their economies but also by Air Navigation Service provider life cycle management economies. Open discussion and communication between Airways and its customers ensures a balanced approach may be taken to meet the needs of both parties. To this end the New Zealand ANS provider and regulator sponsor an aviation industry forum where future CNS/ATM planning is openly discussed and direction set.

5. ACTION BY THE MEETING

- 5.1 The meeting is invited to:
- (a) Note the content, and
 - (b) Exchange views on the various matters discussed in this paper.

END