



International Civil Aviation Organization

**SIXTEENTH MEETING OF THE
COMMUNICATIONS/NAVIGATION/SURVEILLANCE AND
METEOROLOGY SUB-GROUP (CNS/MET SG/16) OF APANPIRG**

Bangkok, Thailand, 23 – 27 July 2012

Agenda Item 5: Navigation

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2) discuss issues related to implementation of GNSS and review developments that have taken place in the Region

GBAS STATUS

(Presented by Australia)

SUMMARY

This paper presents an update on the current status to achieve a Category I commissioned GBAS services at Sydney International Airport

This paper relates to –

Strategic Objectives:

A: **Safety** – Enhance global civil aviation safety

Global Plan Initiatives:

GPI-5 RNAV and RNP (Performance-based navigation)

GPI-15 Match IMC and VMC operating capacity

GPI-21 Navigation systems

1. Introduction

1.1 Airservices Australia in collaboration with industry partners has been evaluating the next generation of precision approach and landing aid, the Ground Base Augmentation System (GBAS). GBAS is a local area augmentation system which monitors the performance visible GPS satellites and transmits to aircraft integrity, correction and path definition information to support precision approach operations. ICAO has published standards for Category I (200' DH) and has standards developed and in final evaluation to extend GBAS services to support Category III approach and landing operations.

2. Discussion

2.1 Since the last report made to CNS/MET SG/15 all systems engineering verification activity was completed on 1 June 2012 on the SLS 4000 (SmartPath) system at Sydney International Airport. This engineering activity forms part of the pre-commissioning roadmap and delivered

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compliance evidence and established all supporting systems (logistics, monitoring and reporting). Airservices is now seeking approval to conduct operational test and evaluation activities under restricted conditions as the precursor to the final presentation of a Safety Case to the Australian Regulator which will seek approval to operate the system to a CAT I standard. While a final date for commissioning the GLS service has not been set, the intention is that approval is achieved before the end of 2012, which is six months later than advised in 2011.

2.2 The take-up of GLS technology capable of using GBAS technology by Airlines is increasing. Qantas continues to expand fleet fitment and Virgin Australia has committed to GLS equipage with new aircraft coming on line.

2.3 Australia continues to play an active role in the International GBAS Working Group and the recently established regional ICAO Sub Working Group forum to support cooperation in the Asia Pacific region to establish a regional ionosphere model (Ionospheric Studies Task Force (ISTF/1)).

2.4 On 9 February 2012 the German GBAS system at Bremen received the German type approval as a primary landing system by the Federal Supervisory Authority for Air Navigation Services (BAF). The GBAS at Bremen may be used independently of the instrument landing system (ILS).

3. Action by the Meeting

3.1 The meeting is invited to note the success of on-going GBAS evaluations and the progress towards achieving certification of GBAS as the next generation precision approach and landing aid in Australia.

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