Cooperative Development of Operational Safety and Continuing Airworthiness

Under ICAO Technical Co-operation Programme



ADVISORY BULLETIN

Subject: SAFETY OVERSIGHT - TAWS/EGPWS EQUIPMENT

Date: 14 May 2008

Initiated by: COSCAP-SA

AB No: AB (SA) - 008

1. PURPOSE. This advisory bulletin (AB) provides recommendations to administrations on action that should be taken related to Advisory Circular AC (SA)-016 **Reduced Effectiveness of TAWS/EGPWS Equipment.**

2. BACKGROUND. Advisory Circular AC (SA)-016 provides information to air operators on factors that must be addressed to ensure that the timely warning provided by TAWS/EGPWS equipment is available all of the time. The EGPWS/TAWS safety issues that have been identified concern the upkeep of soft-ware on which EGPWS/TAWS depends; as well as the obstacle, runway and terrain database; the provision of global navigation satellite system (GNSS) positioning; the operation of the system's "peaks and obstacles" function; and the geometric altitude function of the equipment.

3. BENEFIT OF GNSS EQUIPMENT.

a. Advisory Circular AC (SA)-016 highlights that the proper functioning of EGPWS/TAWS operation can be undermined by the lack of suitable navigational input, where DME/DME update for area navigation systems is not available. Some States have mandated the installation of GNSS equipment as a component of the EGPWS/TAWS system to ensure navigation accuracy. Use of GNSS, accessible worldwide, eliminates the possibility of position shift, which is a source of false warnings (or worse, the failure to provide a genuine warning). States/Administrations may wish to give consideration of mandating the installation of GNSS equipment.

AB(SA)-008 COSCAP-South Asia Page 1

4. SAFETY OVERSIGHT OF AIR OPERATORS.

a. It is expected that air operators would have established procedures to ensure that the effectiveness of installed equipment is maintained to the required specifications. However, a number of recent incidents indicate that this is not always the case. CAAs should as part of their inspection programme ensure that aspects related to the effectiveness of EGPWS/TAWS equipment are reviewed.

5. ACTION BY STATES.

- **a.** States/Administrations may issue the attached Advisory Circular AC (SA)-016 titled, Reduced Effectiveness of TAWS/EGPWS Equipment, after appropriate modifications as may be considered necessary.
- **b**. Where aircraft may be conducting approaches in areas where DME/DME update of position is not available, consideration should be given to mandating the installation of GNSS equipment.
- **c.** To ensure that air operators obtain the greatest safety benefit from EGPWS/TAWS, CAAs should ensure that during inspections of air operators that the following procedures have been established and are being followed:
- Software is updated to the latest available standard;
- Databases are updated to the latest available standard;
- EGPWS/TAWS geometric altitude function is enabled (if available);
- EGPWS/TAWS peaks and obstacles function is enabled (if available); and
- Implementation of any applicable service bulletins issued by manufacturers.

Capt Salahuddin M Rahmatullah

Regional Flight operations Expert COSCAP-SA