

TERPROM® TERRAIN AWARENESS AND WARNING SYSTEM (TAWS)

Mission proven, GPS-denied navigation and situational awareness

Meets the growing demand for enhanced navigation and situational awareness capabilities for military transports

Today's aircraft have to fly demanding missions safely, day and night, in all weather. Traditional forward-looking radar has the downside of potentially alerting an enemy with its forward electronic emissions. The TERPROM® Terrain Awareness and Warning System (TAWS) from Collins Aerospace is a true tactical tool that combines highly accurate navigation capability with a digital terrain map, providing flight safety and situational awareness functionality with no forward emissions.

TERPROM® TAWS is a fourth-generation ground proximity warning system that provides controlled flight into terrain (CFIT) protection by combining Terrain Referenced Navigation with digital terrain and obstruction map databases. It provides predictive and reactive ground collision avoidance warnings to enable optimal CFIT protection across the entire mission envelope, meeting the requirements of TSO-C92c and TSO-C151a. TERPROM® is the only TAWS specifically designed as a low-level tactical system.

TERPROM® can be supplied as a software suite supported by appropriate map memory storage or as a self-contained line replaceable unit (LRU).

KEY FEATURES & BENEFITS

- Terrain Referenced Navigation
- Predictive Ground Collision Avoidance System
- · Obstruction warning and cueing
- Reactive Ground Collision Avoidance System
- Terrain awareness display
- Database Terrain Following
- ITAR free



KEY FEATURES

Terrain Referenced Navigation

- Uses accurate, drift-free navigation relative to an onboard digital terrain database
- Uses Kalman filter fusion of data from existing aircraft sensors
- Provides precise and reliable navigation
- Not dependent on GPS

Predictive Ground Collision Avoidance System

- Generates both audio and visual warnings against imminent controlled flight into terrain
- Scans ahead in the terrain database and predicts appropriate avoidance maneuvering

Obstruction Warning and Cueing

- Provides directional cues to connected obstructions, such as power lines or pylons, and fixed obstructions
- Enables visual identification and appropriate evasive maneuvering

Reactive Ground Collision Avoidance System

- Uses radar altimeter, barometric altimeter and true airspeed
- TSO-C92c Mode 1 to 4 compliant

Terrain Awareness Display

- Displays a visual interface of the terrain as a series of color bands
- Allows easy identification of potential threats from the terrain
- TSO-C151a compliant

Database Terrain Following

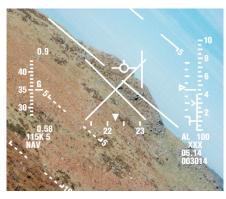
- Provides a steering cue to fly a low-level terrain following flight path
- Uses no active sensors and emits no forward emissions
- Uses knowledge of the terrain beyond the immediate horizon to calculate a smooth ground hugging flight profile

Line replaceable unit (LRU) Options

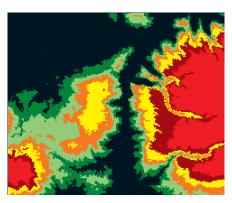
- A/V outputs
- 1553/ARINC bus support
- · Onboard map storage

Additional functionality

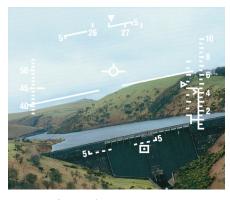
- Instrument landing warning system (TSO-C92c)
- Altitude callout (TSO-C92c)
- Bank angle warning
- Reactive wind-shear warning (TSO-C117a)
- Passive ranging



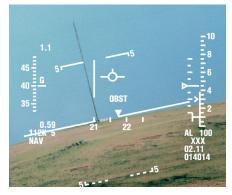
Predictive Ground Collision Avoidance System



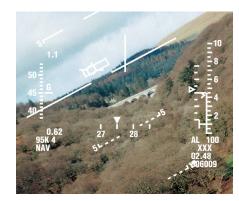
Terrain Awareness Display



Terrain Referenced Navigation



Obstruction Warning and Cueing



Database Terrain Following

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