



## TERPROM®

# Terrain Awareness and Warning System (TAWS)

Today's aircraft are required to fly demanding missions safely and effectively, by day and night, in all weather conditions. Traditionally, forward-looking radar has been used to achieve this capability, but it comes with the cost of alerting the enemy. The UTC Aerospace Systems TERPROM® system is a true tactical tool that combines a highly accurate navigation capability with a digital terrain map, providing flight safety with no forward electronic emissions.

TERPROM® is the world's most proven Digital Terrain System. To fulfil the military transport community's growing requirement for a Terrain Awareness and Warning System (TAWS), UTC Aerospace Systems has adapted the world-renowned TERPROM® system for use on these larger aircraft.

TERPROM® TAWS is a 4th generation Ground Proximity Warning System which provides a complete and continuous Controlled Flight into Terrain (CFIT) protection capability through the use of Terrain Referenced Navigation (TRN) and digital terrain and obstruction map databases. TERPROM® embodies predictive and reactive ground collision avoidance functionality to provide optional CFIT protection across the entire mission envelope, and satisfies the requirements of TSO-C92c and TSO-C151a. TERPROM® TAWS is the only terrain awareness and warning system 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).

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## Key Features

### Terrain Referenced Navigation

- Accurate drift free navigation relative to an on-board terrain database
- Uses Kalman filter fusion of data from existing aircraft sensors
- Provides precise, reliable and predictive ground proximity warnings
- Non-GPS dependent

### Predictive Ground Collision Avoidance System

- Generates both audio and visual ground proximity warnings
- Scans ahead in the terrain database and predicts appropriate avoidance manoeuvre

### Obstruction Warning and Cueing

- Provides directional cues to obstructions, power lines and pylons
- Enables visual identification and appropriate evasive manoeuvre

### Reactive GCAS

- Uses Radalt, Baro Altimeter and true airspeed
- TSO-C92c Mode 1-4

### Terrain Awareness Display

- Visual interface displaying the terrain as a series of colour bands
- Allows easy identification of potential threats from terrain
- TSO-C151a

### Database Terrain Following

- Passive terrain following capability
- No active sensors or forward emissions
- Awareness of the terrain beyond the immediate horizon enables identification of a smooth flight profile

### Additional Functionality

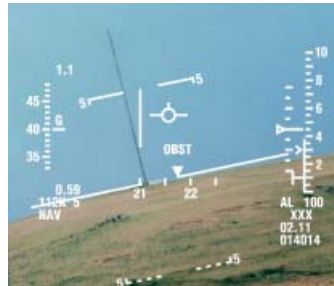
- Instrumented landing warning system (TSO-C92c)
- Altitude callout (TSO-C92c)
- Bank angle warning
- Reactive windshear warning (TSO-C117a)
- Passive ranging



Terrain Referenced Navigation



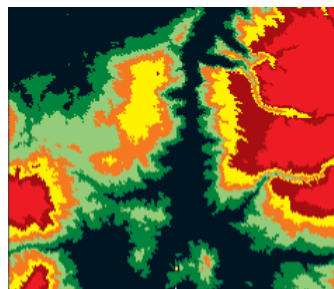
Predictive GCAS



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Terrain Awareness Display