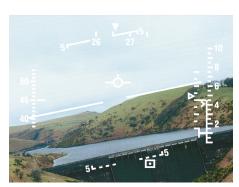


#### **TERPROM® DIGITAL TERRAIN SYSTEM**

# Mission proven, GPS-denied navigation and situational awareness

Enables aircraft to fly demanding missions more safely and effectively in all weather conditions, day and night

Traditional, forward-looking radar has the downside of potentially alerting an enemy with its forward electronic emissions. Designed specifically for military aircraft, the Collins Aerospace TERPROM® Digital Terrain System is a true tactical tool that combines highly accurate navigation capability with a digital terrain map, providing situational awareness, flight safety and air-to-ground ranging functions, with no forward emissions.



TERPROM® uses stored digital terrain elevation data and inputs from the aircraft's navigation system and radar altimeter to produce a highly accurate Terrain Referenced Navigation solution. TERPROM® uses the navigation solution together with digital map data to provide functions that protect against controlled flight into terrain (CFIT) and enhance situational awareness.

TERPROM® is already in operational service and has been selected by over 20 air forces worldwide for use on many different aircraft types.

### **KEY FEATURES & BENEFITS**

- Terrain Referenced Navigation
- Predictive Ground Collision Avoidance System
- · Obstruction Warning and Cueing
- · Database Terrain Following
- Passive Air to Ground Ranging
- Advanced Terrain Avoidance Cueing (ATAC)
- ITAR free



#### **KEY FEATURES**

#### **Terrain Referenced Navigation**

- Offers accurate, drift-free navigation relative to an onboard terrain database
- Features accuracy comparable to GPS
- 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
- Does not rely upon continuous radar altimeter inputs
- Operates throughout the entire flight envelope of the aircraft
- 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

### **Passive Air to Ground Ranging**

- Provides three separate functions: horizontal, line of sight and coordinate ranging
- Allows locations of point of interest on the ground to be determined and passed on to sensor and weapon systems
- Supports multiple functions, including attacking targets of opportunity with guided or ballistic weapons, threat visibility calculation and intelligence gathering

# Line replaceable unit (LRU) Options

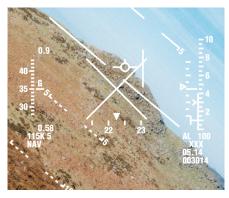
- A/V outputs
- 1553/ARINC bus support
- · Onboard map storage

#### **Database Terrain Following**

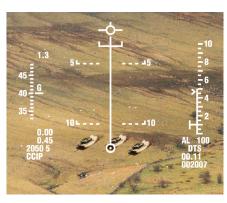
- Provides a steering cue to fly a low-level terrain following flight path
- Uses no active sensors and emits no forward emissions
- Uses knowledge of the terrain beyond the immediate horizon to calculate a smooth ground hugging flight profile

# Advanced Terrain Avoidance Cueing (ATAC)

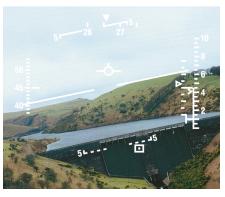
- Enables intuitive, dynamic visualization of the terrain
- Provides information both ahead and on either side of the aircraft



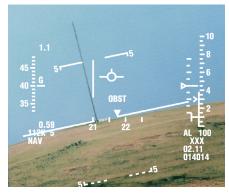
Predictive Ground Collision Avoidance System



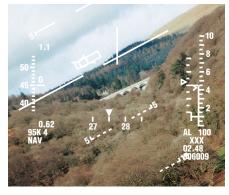
Passive Air to Ground Ranging



Terrain Referenced Navigation



**Obstruction Warning and Cueing** 



**Database Terrain Following** 

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## **COLLINS AEROSPACE**

+44(0)1752 69 56 95 fax: +44(0)1752 69 55 00 gnc.uk@collins.com collinsaerospace.com