

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

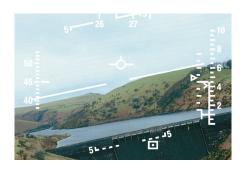
# MISSION PROVEN, GPS-DENIED NAVIGATION AND SITUATIONAL AWARENESS

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

Traditional, forward-looking radar has a 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 a 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 that protects against controlled flight into terrain (CFIT).

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**

- 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)



#### **KEY FEATURES**

#### **Terrain referenced navigation**

- Offers accurate, drift-free navigation relative to an on-board 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 ground proximity warnings
- 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

#### **LRU** options

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

#### **Database terrain following**

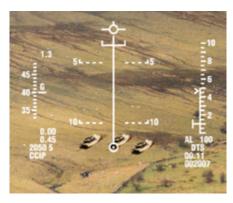
- · Enables terrain following
- Uses no active sensors and emits no forward emissions
- Provides awareness of the terrain beyond the immediate horizon, enabling the aircraft to follow ground contours more closely

### Advanced Terrain Avoidance Cueing (ATAC)

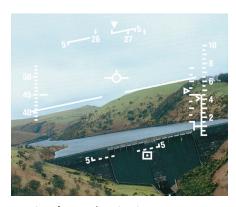
• ATAC is also part of the Fast Jet core product.



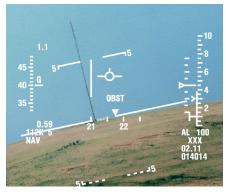
Predictive ground collision avoidance system



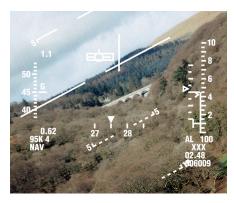
Passive target ranging



Terrain referenced navigation



Obstruction warning and cueing



Database terrain following

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#### **COLLINS AEROSPACE**

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