

# TERPROM®

## The Tactical GPWS

TERPROM® is the world's most proven Digital Terrain System.

Today, aircraft are required to fly demanding missions safely and effectively by day and night, in all weathers. Until now few aircraft have been able to achieve this, and only then by using a forward looking radar which will alert the enemy.

BAE SYSTEMS has the solution: TERPROM® - which combines a highly accurate navigation capability with a digital terrain map, to provide safety and tactical benefits with no forward electronic emissions.

TERPROM® is a software-based product, which provides users with a range of operational benefits:

- Terrain Referenced Navigation
- Ground Proximity Warning
- Obstacle Warning
- Terrain Following
- Passive Target Ranging

TERPROM® uses stored digital terrain elevation data, and inputs from the aircraft's navigation system and Radar to produce a highly accurate Terrain Referenced Navigation solution. Utilising this capability and having been designed specifically for military aircraft, TERPROM® provides state-of-the-art protection against CFIT (Controlled Flight Into Terrain).

TERPROM®, already in operational service, has been selected by over fourteen Air Forces worldwide for use on many different aircraft types.

TERPROM® can be supplied as a software suite supported by appropriate map memory storage, as a single module for installation in existing equipment or as a self contained Line Replaceable Unit.



## TERPROM® CAPABILITIES

**Terrain Referenced Navigation (TRN)** - accurate, drift-free navigation relative to the on-board terrain database achieved by Kalman filter fusion of data from existing sensors. TERPROM® TRN is the key to providing precise, reliable Predictive GPWS. With accuracy comparable to GPS, it requires no external aids and is unaffected in jamming environments.

**Predictive Ground Proximity Warning System** - generates predictive ground proximity warnings that do not rely on continuous radar altimeter inputs. Therefore, with no aircraft altitude restrictions or limitations on flight manoeuvre, TERPROM® provides timely warnings throughout the entire flight envelope of the aircraft.

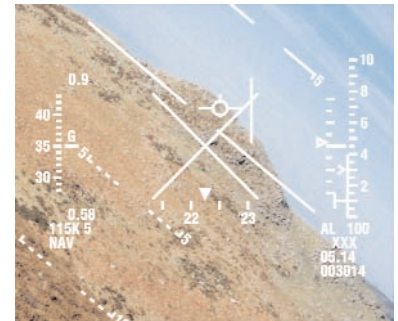
**Obstruction Warning and Cueing** - provides a precursor alert against point obstruction. Allows visual identification and appropriate evasive manoeuvre.

**Database Terrain Following** - TERPROM® generates terrain following cues that can be displayed to the pilot or used in the aircraft FCS. Unlike conventional terrain following radar, TERPROM® has no forward emissions and

achieves total freedom of manoeuvre through the use of its stored map database. Constant awareness of the shape of the terrain beyond the immediate horizon, enables an aircraft to follow ground contours more closely, and thus further reduce exposure to the enemy.

**Passive Target Ranging** - successful ground attack requires undetected approach and accurate weapon delivery. As a passive system TERPROM® gives no forewarnings. Knowledge of target elevation (from the terrain database) and aircraft altitude, height above target is continuously available for target ranging calculations. Thus, weapon aiming is significantly improved. This capability can also be used with helmet mounted sights for designation of off-boresight targets of opportunity.

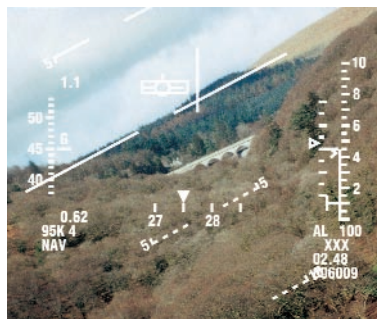
Predictive GPWS



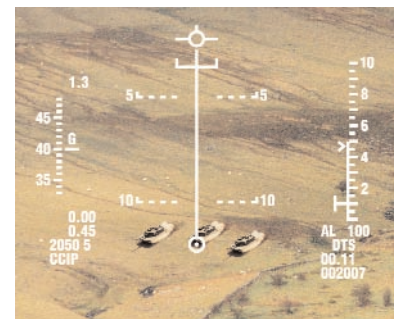
Obstruction Warning



Database Terrain Following



Passive Target Ranging



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