

Ground Observer 12 is THALES' answer to growing demands for a light-weight compact Ground Surveillance Radar.

While infantry and special forces require true man-pack (light weight, small size), in border or civilian security applications high scan rates, easy netting/system integration and design-to-cost are prime issues.

With Ground Observer 12 THALES - the world market leader in Ground Surveillance Radar - has created a package tending to all those requirements while also incorporating outstanding features of their high performance long and medium range Ground Surveillance Radars.

Thus the Ku-band, Pulse-Doppler Ground Observer 12 is suitable for a wide range of applications including battlefield, border, coast and site surveillance both by military / paramilitary forces or civilian users.



Light-weight Ground Surveillance Radar

GROUND OBSERVER 12





Ground Observer 12

Light-weight Ground Surveillance Radar

COMPACT, EASY TO INTEGRATE

Ground Observer 12 can be operated stand-alone on a tripod or integrated to masts/vehicles.

The man-pack configuration with tripod and lap-top MMI can be set-up in ≤ 2 min and operated by one man. Given the small size (e.g. sensor 0.57m x 0.35 m x 0.16m) and light weight a stand-alone radar pack including laptop MMI, tripod, cables and battery set (for 6 h operation) can be easily carried by carrying harness over long distances in true man-pack fashion. Being small and light weight the Ground Observer 12 does not impose any demanding infrastructure requirements in fixed site installations.

Due to its standard Ethernet/ASTERIX interface the Ground Observer 12 sensor can easily be integrated to systems and operated by client-server principle via any IP network (cable, fiber-optic LAN, WiFi, etc.) from any standard PC.

Ground Observer 12 features built-in-test (BIT) with in-depth coverage (during operation and off-line) also allowing remote read-out.

It can be supplied from standard 24V prime power sources (batteries, generators, vehicle alternators) or via an AC/DC converter from public utility. A 48V input is available as an option.

Ground Observer 12 is qualified to MIL-STD-810F and MIL-STD-461F thus allowing operation in any physical and electromagnetic environment, e.g. from -32°C to $+65^{\circ}\text{C}$ and in wind gusts up to 130 km/h. Ground Observer 12 is 100 % watertight (1m immersion) and sand/dust resistant.



FEATURES

- Multiple modes
 - Manual Acquisition
 - Search (Surveillance)
 - Single Target Tracking
 - Fire Registration (option)
- Multiple sectors (up to 5)
 - each up to 360°
 - individual setting of parameters
- Track-While-Scan (TWS) for 40 targets
- Automatic Target Classification (or Dopplertone output)
- Comprehensive EPM/ECCM including frequency agility, PRF stagger, M out of N
- Recording/play back function

KEY PARAMETERS

- Ku-band (≥ 440 MHz bandwidth)
- Coverage (up to 27 km)
 - 12 km range swath (24 km growth)
 - 70 m minimum range
 - $\approx 4^{\circ}$ elevation beam ($+20^{\circ}/-15^{\circ}$ positioning)
 - $> 360^{\circ}$ azimuth
 - 1.5 km/h to 400 km/h radial speed
- Scan speeds: 12 %s to 32 %s
- Detection ranges (PD=90 %, Pfa=10-6)

	Basic	Extended
• person (0.5 m ²):	$\geq 7,1$ km	$\geq 8,4$ km
• light vehicle (2 m ²):	$\geq 9,8$ km	$\geq 11,6$ km
• vehicle (10 m ²):	$\geq 14,3$ km	$\geq 16,8$ km
• helicopter (5 m ²):	$\geq 13,3$ km	$\geq 15,6$ km
• rubber boat (1 m ²):	$\geq 8,3$ km	$\geq 9,9$ km
- Weight (sensor about 16 kg): approx. 30 kg for full stand-alone pack including tripod, MMI, batteries (6 h operation), cables and carrying harness.
- MTBF > 4000 h (full pack, tactical field use); sensor (fixed site) > 20000 h.

THALES ELECTRONIC SYSTEMS GMBH

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