

The **Ground Observer 80** (GO80) addresses the stringent and demanding needs for surveillance, reconnaissance and target acquisition of the Armies, Navies, Border Guards, Coast Guards and Security Forces.

The Ground Observer 80 offers the ultimate performances of Ground Surveillance Radars in a very compact and light package: 24 km detection range on pedestrians, and up to 80 km on larger targets, high resolution thanks to its large antenna and 2000 range gates down to 10 m width.

This unsurpassed combination of range, coverage, accuracy, and resolution is achieved independently of the scan angle, thus allowing surveying 360° at once and with the same performances across the whole coverage.



**Long Range Ground and Sea Surveillance Radar**

## **GROUND OBSERVER 80**





## Ground Observer 80

### Long Range Ground and Sea Surveillance Radar

#### SUPERIOR PRINCIPLES AND PERFORMANCES

The Ground Observer 80 employs superior principles. Compared to GSRs with Active Electronically Scanned Arrays (AESAs), the advantages are evident.

- Scan angles of up to  $360^\circ$  (or  $n \times 360^\circ$ ) for GO80. Border, Coastal and Security Surveillance require in many situations scan angles wider than  $120^\circ$ .
- In the GO80, range, accuracy and resolution do not depend on scan angle.
- The GO80 benefits from a low weight (2 man-portable loads of  $\leq 34$  kg) and low power consumption ( $< 300$  W), which significantly ease integration into vehicles down to 3.5 tons.

The GO80 can be flexibly configured with 40 W or 80 W transmitters, 0.8 m or 1.6 m antennas. It can be mounted on top of masts on vehicles or on fixed site towers or operated stand-alone on a tripod up to 200 m away from the operator console.

Moreover, due to its standard Ethernet/Asterix interface, the GO80 sensor can easily be integrated into systems and operated by client-server principle via any IP network.



#### FEATURES

- Multiple modes
  - Manual Acquisition
  - Search (Surveillance)
  - Single Target Tracking (STT)
  - Fire registration (FDM/IFA) (option)
- 2000 high resolution range gates (10/20/40 m)
- Multiple (5), flexible sector scan
- Track-While-Scan (TWS) for up to 50 targets in parallel to sector surveillance
- Automatic Target Classification
- Most comprehensive ECCM/EPM suite
- Ethernet/Asterix interface for easy system integration and netting

#### KEY PARAMETERS

- Solid state, coherent Pulse-Doppler
- I-Band (9.2 to 10 GHz, 81 frequencies)
- 80/40/20 km range swath, free positioning
- $\pm 24^\circ$  elevation positioning
- $n \times 360^\circ$  azimuth
- 1.5 km/h to 1000 km/h radial speed
- Scan speeds: 8 %/s, 16 %/s, 32 %/s
- Detection ranges ( $P_d = 90\%$ ,  $P_{fa} = 10^{-6}$ ) for 80W
  - Person ( $0.5 \text{ m}^2$ ):  $\geq 24$  km
  - Light vehicle ( $2 \text{ m}^2$ )  $\geq 34$  km
  - Vehicle ( $10 \text{ m}^2$ )  $\geq 49$  km
  - Helicopter ( $5 \text{ m}^2$ )  $\geq 46$  km
  - Rubber boat ( $1 \text{ m}^2$ )  $\geq 28$  km
  - Vessel ( $50 \text{ m}^2$ )  $\geq 72$  km
- All weather, MIL-STD 810 compliant