



## ARSS Radar

Advanced Radar Surveillance System



Telephonics' Advanced Radar Surveillance System (ARSS) is a lightweight and man-portable ground-surveillance radar that can be controlled locally or remotely. System versatility allows for tripod, vehicle or tower mounting, making the ARSS equally effective in all environments.

### ARSS Surveillance

The ARSS is a Pulse-Doppler radar featuring Track-While-Scan (TWS) and pulse compression technology providing high-performance and Wide Area Surveillance (WAS) capability to search, detect, acquire and track targets.

The system operates in X-band with eight user-selectable operating frequencies and is tested to and complies with the requirements of measurement for electro-magnetic interference characteristics. The ARSS is a Low Probability of Intercept (LPI) system employing non-linear waveform and low-power consumption.

### Applications

Over 1,200 systems have been deployed globally, supporting a wide range of applications including:

- Border security
- Force protection
- Battlefield surveillance
- Critical infrastructure protection



ARSS integrated on Telephonics' RaVEN®-Mobile Surveillance Capability (MSC)

### Ease of Integration

Telephonics' ARSS can be integrated with virtually any mobile surveillance platform, integrated security system or border surveillance network. The system's interface supports network operations, radar controls and tracked target reporting on an external server, which facilitates integration into remote or networked surveillance systems.

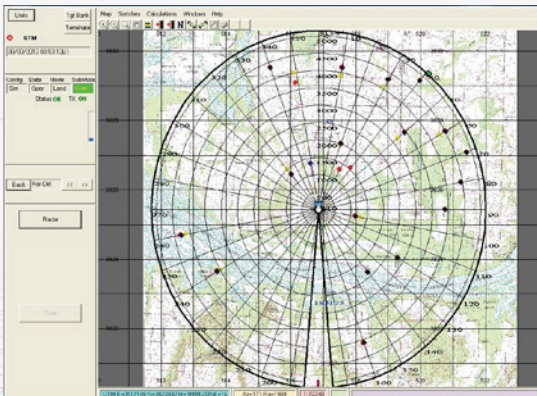
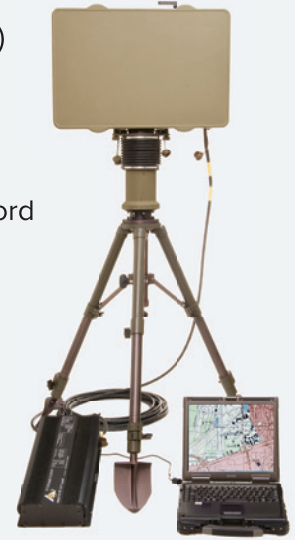
# Advanced Radar Surveillance System

## Key Specifications:

- System detection ranges:
  - Pedestrian: 8 km
  - Group: 10 km
  - Light Vehicle: 18 km
  - Heavy Vehicle: 30 km
  - Hovering Helicopter: 15 km
- Minimum detection velocity: 0.5 m/s
- Range:  $\pm 25$  m
- Elevation: 5° max
- Azimuth coverage: defined sector up to 360°
- Scan speeds: 1.3, 2.6 and 3.8 RPM
- Operating frequency: X-band
- Pulse compression transmitted peak-power: 5 W
- Weight: 19 kg (TRA 9 kg/pedestal 10 kg)
- Interface: Standard Ethernet/XML
- Reliability:
  - Mean Time Between Failure (MTBF) (fixed installation): 20,000 hours
  - Mean Time To Repair (MTTR) (O-level): <20 minutes
- Operating temperature range: -30°C to +55°C

## Key Features:

- Automatic TWS for 60-300 targets
- Enhanced display, PPI and B-Scope, digital map, clutter map and graphics-on-color display
- User-definable alarm and no-interest zones
- Target identification via audio Doppler zones
- X-band radar for excellent all-weather performance
- Extensive Built-in-Test (BIT)
- Environmentally qualified
- Optional battery (24 V)
- Integrates multiple map formats
- Ability to continuously record radar operation



ARSS offers 360° coverage

## System Advantages

Telephonics' ARSS offers a number of distinct advantages including:

- All-weather 24/7 operation
- Reliable solid-state technology with exceptional detection capabilities
- Low life-cycle cost
- Rapid setup and ease of use
- Predicted reliability of over 20,000 hours for fixed-system installations

For additional information, contact Telephonics at 631.755.7000 or visit [www.telephonics.com](http://www.telephonics.com).