AN/TPQ-50 MULTI-MISSION RADAR

The AN/TPQ-50 radar performs **early warning for indirect fire, counterfire target acquisition and air surveillance** simultaneously.

The AN/TPQ-50 radar leverages SRC's LCMR counterfire target acquisition and *LSTAR®* air surveillance software to provide the warfighter with a versatile, powerful, all-in-one multi-mission radar.

The radar provides continuous 360º surveillance and 3-D target location using a non-rotating, electronically steered antenna. The ruggedized radar contains few moving parts, is vehicle mountable and can be configured for fixed site emplacement in hard to reach areas where typical radars are impractical.
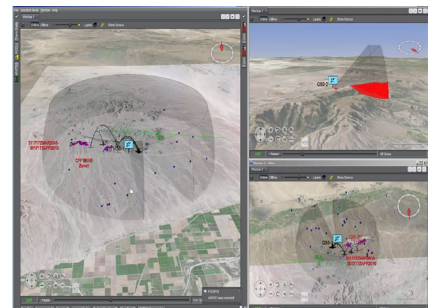
The system can simultaneously detect and track multiple targets from separate points of origin within a 700 square kilometer surveillance area. The radar is designed to support a variety of missions including: air surveillance, force protection, CTA, very short range air defense (V-SHORAD), counter-UAS, ground-based sense and avoid (GBSAA) and critical infrastructure protection.

MULTI-MISSION

The AN/TPQ-50 radar is multi-mission capable, allowing the operator to configure the radar to support a variety of missions simultaneously, including: early warning for indirect fire, CTA, air surveillance and counter-UAS missions. In multi-mission mode, the radar can perform the tasks of two or more radars and can be configured to prioritize specific capabilities to fit mission needs.

SRC'S AN/TPQ-50 MULTI-MISSION RADAR GIVES WARFIGHTERS 360º SURVEILLANCE AND 3-D TARGET LOCATION CAPABILITIES AGAINST ANY ADVERSARY, ANYTIME, ANYWHERE
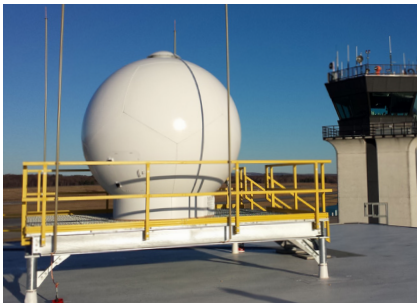

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AN/TPQ-50 MULTI-MISSION RADAR

WEAPON LOCATION

SRC's AN/TPQ-50 radar system is a trusted U.S. Army program of record. Combined with SRC's LCMR software, the radar is the most capable counter-rocket, artillery and mortar (C-RAM) radar in its class. The system is designed to detect, track, classify and warn of incoming RAM threats while determining point of origin and point of impact locations. The system can track multiple weapons simultaneously and has a detection range of up to 15 kilometers, and a point of origin accuracy of 50 meters at 10 kilometers.

SRC's AN/TPQ-49 and AN/TPQ-50 are the most widely fielded modern counterfire radars in the world.

AIR SURVEILLANCE

With SRC's *LSTAR* software, the radar can detect and track a wide range of traditional and non-traditional aircraft, with an instrumented range of more than 35 kilometers. The *LSTAR* software extends the radar coverage volume by employing air surveillance specific waveforms tailored to airspace monitoring. This capability makes the system an ideal solution for V-SHORAD, counter-UAS missions, GBSAA systems to enable safe UAS flights in domestic airspace, and general air surveillance for wind farm gap filling.

APPLICATIONS

- Air surveillance
- Counterfire target acquisition
- Counter-UAS
- Critical infrastructure protection
- Force protection
- Ground-based sense and avoid
- V-SHORAD

BENEFITS

- Transports easily in challenging terrain
- Low lifecycle cost
- Unattended remote operation
- Few false alarms in challenging clutter
- Ideal for integrated solutions
  - EO/IR camera or counterfire response
  - ADS-B or secondary surveillance radar

SPECIFICATIONS

- Operating frequency: L-Band
- Detection range
  - Counterfire: Up to 15 km
  - Air Surveillance: > 35 km
- Azimuth coverage: 360°
- Elevation coverage: 0 - 30°
- System weight: < 227 kg / 500 lb
- System size: 40 in/102cm diameter by 85 in/216cm high (adjustable)
- Power: 1,800 W, 110/240 VAC 50-400 Hz
- Tested against the following standards
  - MIL-STD-461E, MIL-STD-464A, MIL-STD-810G

FEATURES

- Performs multiple missions simultaneously
- Ruggedized with few moving parts
- Rooftop, tower, tripod or vehicle mountable
- Complete integrated logistics support
- 3-D location display
- 360 degree coverage with non-rotating, electronically steered antenna
- Solid state GAN transmitters
- Compatible with a variety of command and control systems
  - AFATDS
  - FAAD C2
  - Medusa
  - MSCT
  - Other
- Configured to support a variety of interfaces
  - ASTERIX
  - NGI
  - RES
  - Other

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