

PRECISION FIRE CONTROL RADAR

Precision tracking for accurate targeting of kinetic and directed energy weapons systems

SRC's Precision Fire Control Radar (PFCR) is a 3-D, fully active electronically scanned array (AESA) fire control radar capable of integrating with a variety of kinetic and directed energy weapon systems.

The radar is designed to detect and track targets of interest including unmanned aircraft systems (UAS), manned aircraft, vehicles, personnel and rocket, artillery and mortar (RAM) threats.

The multi-mission radar system delivers enhanced force protection

capabilities and situational awareness to the warfighter by supporting various missions including counter-UAS, short-range air defense (SHORAD) and air surveillance.

PRECISION TARGETING

The PFCR provides accurate and precise target location, including altitude and velocity of airborne and ground-based threats in a configurable hemispherical volume of coverage (360° in azimuth and 90° in elevation).

Upon target detection and classification, the radar delivers firing

THE PRECISION FIRE CONTROL RADAR IS A LOW COST, LIGHTWEIGHT, AIR COOLED, 3-D AESA SYSTEM CAPABLE OF DIRECTING FIRE FROM ANY INTEGRATED WEAPON SYSTEM

coordinates to an integrated weapon system and tracks both the target and integrated weapon munitions to determine and recalculate firing coordinates on-the-fly.



PRECISION FIRE CONTROL RADAR

VERSATILE

Supporting the evolving mission of the warfighter, the PFCR is vehicle mountable and operable both at-the-halt and on-the-move, in all-weather conditions. The radar can be integrated to direct various weapon systems, including turret mounted guns, loitering munitions and high energy laser systems. The PFCR can simultaneously operate in search and track modes, with a high update precision track capability, giving the radar the ability to track and direct fire toward a threat while scanning for additional threats or friendly tracks.

APPLICATIONS

- Counter-UAS
- Ballistic missile defense
- Directed-energy cueing
- Short-Range Air Defense (SHORAD), Maneuver-Short-Range Air Defense (M-SHORAD), Very-Short-Range Air Defense (V-SHORAD),
- Fire control
- Air surveillance
- Counterfire target acquisition
- Force protection

BENEFITS

- Performs air surveillance and precision tracking simultaneously while on-the-move
- Modular antenna design adapts to evolving mission parameters
- Seamless integration with a variety of kinetic and directed energy weapon systems
- Increases accuracy of integrated weapon systems by tracking outgoing rounds and recalculating targeting coordinates in real-time
- Increased situational awareness and protection for the warfighter against any adversary

SPECIFICATIONS

- Weight: 100 lbs (45 kg) per panel
- Input power: 2.5 kw per panel
- Operating frequency: X band
- Operating temperature: -40° C to 55° C
- Azimuth coverage: 90° Steerable
- Elevation coverage: 90° Steerable

This technology is currently under development.



FEATURES

- 3-D AESA radar
- On-the-move, multi-mission operation
- Track-while-scan (TWS)
- High update precision track
- Automatic target tracking and classification – tracks hundreds of targets simultaneously, from outgoing rounds to larger, long-range targets
- Integrates to cue cameras, weapons and other sensor systems with high accuracy
- Compatible with a variety of interfaces
 - MAFIA/MAS
 - TCUT
 - ASTERIX
 - AFATDS
 - FAAD C2
 - IBCS
 - Multi-source correlator tracker
- Detects, classifies, and provides target location accuracy
- Detects low, slow and small (LSS) threats
- Built-in test for automatic fault isolation
- Air cooled
- Lightweight
- Low life cycle cost
- Low false alarm rate
- Advanced 3-D display



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