

GRYPHON R1540 MULTI-MISSION/DOMAIN RADAR

**Hemispherical surveillance of air, ground & sea targets with
fire control accuracy**

SRC's Gryphon R1540 radar is a 3-D, fully active electronically scanned array (AESA) surveillance and fire control radar. With hemispherical surveillance and 360° coverage, this high-performance system can simultaneously detect and track unmanned aircraft systems (UAS), manned aircraft, ground vehicles, personnel, watercraft, and rocket, artillery and mortar (RAM) threats. The Gryphon R1540 radar offers class-leading performance for detection range, accuracy, tracking and clutter rejection. The radar's AI based classifier easily discriminates targets for the operator and provides warning against incoming threats. The Gryphon R1540 radar can be mounted on a tripod, tower or vehicle. In vehicle applications, the radar can perform its missions while on the move at highway speeds.

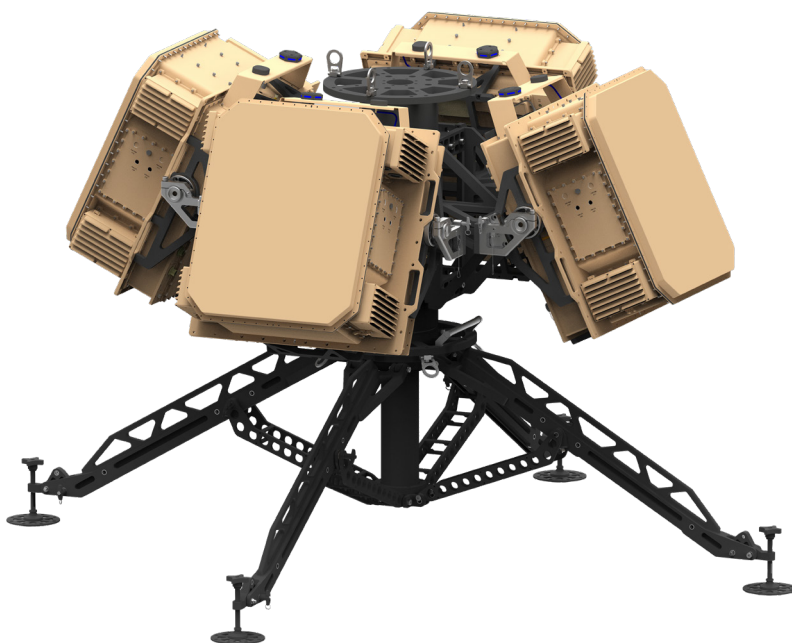
PRECISION TARGETING

The radar can simultaneously operate in search and track modes, including high update rate precision track beams, enabling the system to track and direct fire toward a threat while scanning the entire volume for additional targets.

The Gryphon R1540's advanced Extended Kalman Filter based

tracker with Interacting Multiple Models (IMM) provides an extremely accurate target location. For RAM threats, the radar can accurately determine the weapon's launch and impact coordinates. The Gryphon R1540 radar can be integrated with countermeasure systems, such as guns, missiles, loitering munitions, and high energy laser systems, and it can cue cameras and EW systems. As part of a fire control system, the radar delivers firing coordinates to an integrated weapon system and tracks both the target and the weapon munitions (including bullets) to determine and recalculate firing coordinates in real-time.

**THE GRYPHON R1540 RADAR
DETECTS, TRACKS AND CUES
INTEGRATED WEAPON SYSTEMS
WHILE ON-THE-MOVE AT
HIGHWAY SPEEDS**



GRYPHON R1540

MULTI-MISSION/DOMAIN RADAR

APPLICATIONS

The Gryphon R1540 radar performs all the following missions simultaneously

- Air surveillance
- Counter-UAS including swarms
- Short-range air defense (SHORAD)
- Weapon location/CTA
- Cruise missile detection/tracking
- Ground surveillance
- Border protection
- Fire control
- Sense and warn

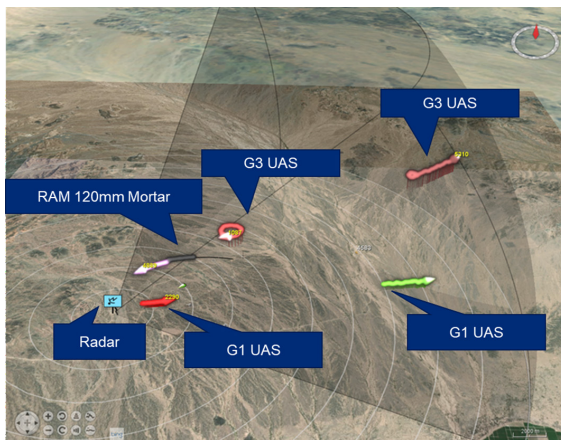
BENEFITS

- Performs surveillance and precision tracking of air, ground and sea targets simultaneously
- Excellent performance in strong clutter
- Detects and tracks low, small, and slow-moving (LSS) targets along with fast, highly maneuvering threats
- Air cooled for improved reliability, reduced weight and cost
- 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
- Operator manuals, maintenance manuals, training courses, integrated logistics support, and depot services available

SPECIFICATIONS

- Size: 81cm x 94.8cm x 43.9cm (31.9in x 37.3in x 17.3in) (single panel)
- Weight: 78 kg (171 lbs) (single panel)
- Input power: 12.5 kw
- Detection range
 - 12.7 km (7.9 mi) for small UAS
 - 30.2 km (18.8 mi) for large UAS
 - 22.6 km (14 mi) for single person
 - 44.8 km (27.8 mi) for small vehicles and boats
 - 40 km (24.9 mi) for small manned aircraft
 - 93 km (57.8 mi) for large manned aircraft
- Azimuth coverage: 360°
- Elevation coverage: 90°
- Operating frequency: X band
- Operating temperature: -40° C to +49° C including solar load
- Designed to meet Mil-STD-810 and Mil-STD-461



FEATURES

- 3-D AESA radar with fire control accuracy
- Hemispherical surveillance of air, ground, & surface targets
- Open architecture
- On-the-move capable at highway speeds
- Tracks 1,000+ targets, such as swarms, simultaneously
- AI-supported target classification; low false alarm rate
- Interfaces:
 - ASTERIX, RES, TCUT, SAPIENT
- C2s:
 - FAAD, Lattice, IBCS, MSCT, MEDUSA, Vigilant Halo, AFATDS and more
- Electronic protection against interference and jamming
- Advanced 3-D user display with pan & zoom features
- Automatic data recording with playback
- Built-in test for automatic fault detection & Isolation
- Integrates with cameras, weapon systems, and other sensor systems



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