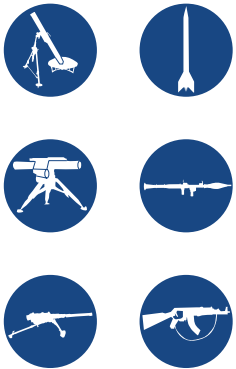




The Ultimate Combat Threat Management



Hostile Fire Detection Radar Systems

RADA's Hostile Fire Detection (HFD) and Location radar systems detect, track, classify and locate all types of direct and elevated fires, including: Rockets, Artillery, Mortars (RAM), ATGMs, RPGs, Low-QE Rockets, Small Arms, and more. They classify the threats, calculate the POO (point of origin) and POI (point of impact) with tactical accuracies, display tracking and provide audible and visual warning/alert, as well as data over Ethernet to external C4I systems for alerting the threatened forces.

The radar systems can be based on any member of RADA's tactical radar platforms – CHR, eCHR, MHR and ieMHR - which differ primarily in antenna size.

These Hostile Fire Location radars are the systems of choice for advanced tactical force protection and C-RAM solutions, whether on-the-move or stationary. They provide maximal alert time against elevated fire, and accurate POO for preventing further threats coming from the same firing origin.

The radar systems can be integrated with any protection system and other radars/sensors. It may be installed onboard fighting vehicles for deployable, on-the-move force protection, at fixed bases, and also ship borne onboard littoral combat and patrol ships.

A single radar platform provides 90°/120° coverage model depended. Hemispheric coverage is using MHR and 120° using CHR. Hemispheric coverage is achieved when four/three identical and interchangeable radars are employed as a system.

In addition to Hostile Fire Location, these programmable, software-defined radar platforms can host a variety of operational missions such as Aerial Surveillance, 3D Perimeter Surveillance, and combinations of such operational missions.

Nomenclature of RADA's radar systems (per platform):

Mission	CHR	eCHR	MHR	ieMHR
Hostile Fire Location	RPS-15	RPS-20 / RPS-21	RPS-40 / RPS-41	RPS-80 / RPS-81
All-Threat Air Surveillance	RPS-12	RPS-22	RPS-42	RPS-82
3D Perimeter Surveillance	RHS-14	RHS-24	RHS-44	RHS-84

Full Range of Tactical Radar Platforms for the Maneuver Force



CHR

eCHR

MHR

ieMHR

- Pulse Doppler, Software-Defined, Multi-Mission Radar Platforms
- AESA (Active Electronically Scanned Array) Antenna based on GaN Amplifiers
- Extremely High Elevation Angles, up to Hemispheric Coverage
- On-the-Move (OTM) Operation
- Non-Rotating, Solid State, Digital Radars
- Compact and Mobile, for Tactical Applications
- High Reliability
- Superior Performance-to-Price Ratio

Radar Platforms Specifications:

PARAMETER	CHR	eCHR	MHR	ieMHR
Spatial Coverage (Single Radar)	120° Az, 90° EI	90° Az, 90° EI		
Frequency Band	S Band			
Antenna Type	GaN-Based AESA			
Interfaces	Ethernet, I/O Discrettes, RS-422, RS-232			
Input Power	28 V (per MIL-STD-1275E) / 110/220 VAC			
Power Consumption (Single Radar)	110 W average	250 W average	290 W average	760 W average
Dimensions	47.5 cm (w) 27 cm (h)	50 cm (w) 30 cm (h)	50.4 cm diameter,	79 cm diameter,
Weight	18 kg	21 kg	26 kg	57 kg
Cooling Method	Passive Only			
Operating Temperature	-40° to +55° C			

Radar Operating Modes:

- **Track While Search:**

The radar is set to search the desired coverage volume. The radar updates target tracks at the search rate allowing the tracking of up to 500 simultaneous targets.

- **High Update Track Mode:**

For high priority targets the radar is set to track a few targets at a higher update rate while continuing to use track while search for the lower priority targets. High priority targets may be selected for high update rate tracking manually by the operator or automatically by the radar based upon the threat profile.

- **Single Target Tracking:**

This mode is employed when the most accurate and frequent information on a certain target is desired, typically by an external weapon system which commands the radar to this mode. This improves the track accuracy for weak or highly maneuverable targets.

Maximal Detection Ranges per Radar Systems:

Type of Threat	RPS-15 (Hosted on CHR)	RPS-25 (Hosted on eCHR)	RPS-40 (Hosted on MHR)	RPS-80 (Hosted on ieMHR)
Light/Medium Mortar		3 Km	5 Km	10 Km
Heavy Mortar		4.5 Km	6 Km	12 Km
Short-Range Rocket		3.5 Km	5 Km	10 Km
Direct-Attack Rocket/Missile	2 Km	4.5 Km	6.5 Km	13 Km
RPG	250 m	500 m	Max. Firing Range	Max. Firing Range

Radar System Installations:



Static - Deployable, Fixed



Land Vehicles – Maneuverable/On-the-Move



Shipborne

7 Giborei Israel Blvd.,
P.O. Box 8606
Netanya, 4250407
Israel
Tel: +972-9-892-1111
Fax: +972-9-885-5885
E-mail: mrkt@rada.com

www.rada.com