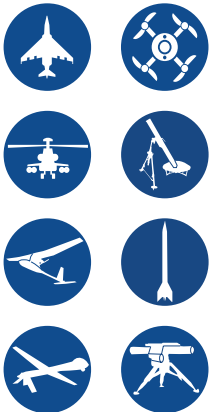




In the Heart of Tactical Integrated Air & Missile Defense Systems



All-Threat Air Surveillance Radars

RADA's All-Threat Tactical Air Surveillance radar systems detect all types of airborne vehicles (including UAVs) and missiles, rockets and mortars. They track and classify the threats, provide warnings and alerts and exchange data with external command and control and weapon systems via a simple to use Ethernet interface. They are the ideal sensors for MANPAD, VSHORAD, SHORAD and tactical IAMD systems. The radar systems can be based on any member of RADA's tactical radar platforms – eCHR, MHR and ieMHR - which differ primarily in antenna size.

RADA's air surveillance radars are the system of choice for current and emerging tactical Integrated Air & Missile Defense weapon systems, whether based on guns, missiles, directed energy, jamming or other threat defeat technologies. These tactical radar systems are also ideal gapfillers, complementing short and medium-range air surveillance systems. The radars may be installed at fixed locations, rapidly deployed in the field, or operate On-The-Move (OTM) on land vehicles or ships.

When radars are integrated with EO/IR sensors and RF jammers, this counter-UAV (C-UAV) system provides a complete "soft-kill" solution against nano, micro and mini-size drones.

A single radar platform provides 90° azimuth coverage. Hemispheric coverage is achieved when four radars are employed as a system.

In addition to Air Surveillance, these programmable, software-defined platforms can host a variety of operational missions such as Hostile Fire Location, Ground/Surface Surveillance, and combinations of such operational missions.

Nomenclature of the radar systems (per platform):

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

Full Range of Tactical Radar Platforms for the Maneuver Force



eCHR

MHR

ieMHR

- Pulse Doppler, Software-Defined, Multi-Mission Radar Platforms
- AESA (Active Electronically Scanned Array) Antenna based on GaN Amplifiers
- Hemispherical Coverage with 4 radars
- 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	eCHR	MHR	ieMHR
Spatial Coverage (Single Radar)	90° Az, 90° El		
Frequency Band	S Band		
Antenna Type	GaN-Based AESA		
Interfaces	Ethernet, I/O Discretes, RS-422, RS-232		
Input Power	28 V (per MIL-STD-1275E) / 110/220 VAC		
Power Consumption (Single Radar)	250 W average	290 W average	760 W average
Dimensions	50 cm (w) 30 cm (h)	50.4 cm diameter	79 cm diameter
Weight	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.

Maximum Detection Ranges:

Type of Threat	RPS-22 (Hosted on eCHR)	RPS-42 (Hosted on MHR)	RPS-82 (Hosted on ieMHR)
Nano UAV	2 Km	3.5 Km	7 Km
Medium-Size UAV	9 Km	15 Km	30 Km
Heavy Transport Aircraft	32 Km	50 Km	100 Km
Regular Fighter	16 Km	25 Km	50 Km
Utility Helicopter	17 Km	30 Km	60 Km
Direct-Attack Rocket/ Missile	4 Km	6.5 Km	13 Km
Heavy Mortar	4.5 Km	6 Km	12 Km

Radar System Installations:



Static - Deployable, Fixed



Land Vehicles – Maneuverable/On-the-Move



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