



TACTICAL MOBILE 3D RADAR FOR ARTILLERY WEAPON LOCATION AND FIRE CONTROL

KRONOS® Dome is a highly compact, mobile weapon location and fire control system, designed to detect rockets, artillery shells and mortars. The main objective of KRONOS Dome is to locate enemy firing positions, estimate point of impacts and provide fire control when integrated with an appropriate weapon system.

It scans the horizon and tracks projectiles in the early phase of trajectory, whilst simultaneously prioritising the threat. With use of an X-band Active Electronic Scanning Antenna (AESA), KRONOS Dome protects against multiple threats by scanning a beam in both azimuth and elevation.

THE SOLUTION

KRONOS Dome has been designed to meet the demand for an easily deployable tactical sensor to counter emerging threat scenarios. It also meets the requirements of military forces to exercise increased security with reduced manpower and improved response time.

KRONOS Dome is a member of the KRONOS multifunctional radar family, all of which employ Active Electronic Scanning Array (AESA) technology.

Deployed in a Counter Rocket, Artillery and Mortar (CRAM) role, KRONOS Dome detects artillery rockets, guns and mortars by scanning the horizon for ascending projectiles. By continuously monitoring a projectile's track and trajectory, a launch site and impact point can be estimated (Weapon Locating functions). This information can then be transmitted to the Command & Control (C2) center.

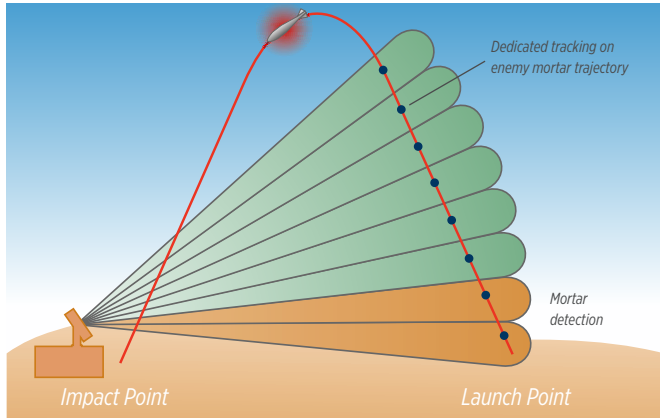
KRONOS Dome also provides a Fire Control (FC) mode for instances when the system is integrated with an appropriate weapon system. In FC mode, counter projectiles are tracked through the final part of their trajectory and the impact point is determined. Fire control and weapon location can be carried out simultaneously in different sub-sectors.

The approximate range of the KRONOS Dome is 50km, operating over a nominal azimuth sector of 90° up to the zenith in elevation.

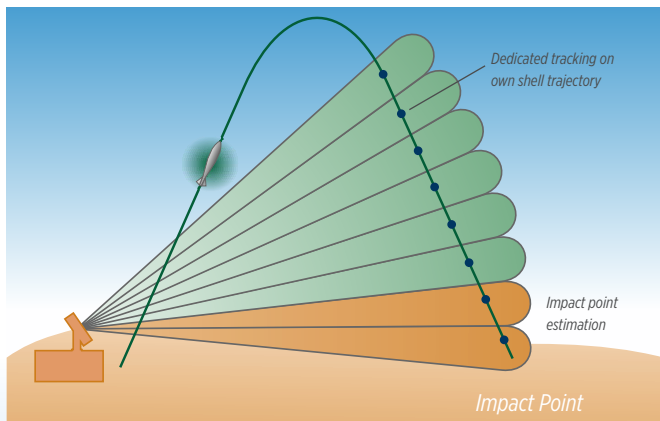
KRONOS® DOME

Counter Rocket, Artillery & Mortar (CRAM)

Weapon Location (WL) used to detect rocket, mortar and gun shells, and to evaluate LP and IP of enemy artillery. Also provides warning time for assuring force and asset protection.



Fire Control capability to direct fire from friendly forces, estimating shell launch and impact points, providing accurate correction data for fire adjustment.



High survivability and tactical mobility

KRONOS Dome can be contained within a standard 10ft ISO container equipped with autonomous power supplying redundant Air Conditioner and NBC protection. It is also transportable by standard commercial truck or tracked vehicle (8 tonne payload) or by helicopter, aircraft, ship or train.

FUNCTIONAL CAPABILITIES

- Automatic evaluation and prioritisation of threats
- Adaptive waveforms based on clutter level estimations
- Automatic computation of local horizon on a sector base
- Outstanding ECCM capabilities (Wide frequency agility, Side lobe Blanking, Automatic Least Jammed Frequency Selection, Emission Control).

TECHNICAL CHARACTERISTICS

Antenna technology	AESA with solid state TRM modules
Frequency	X-band
Navigation aid	Inertial Navigation System and GPS
Antenna Height	4m
Air conditioner	Air conditioner for indoor units and a liquid cooling system for the antenna
Navigation aid	Inertial Navigation System and GPS
Size and weight	10ft ISO shelter 8 tons
External power generator	24 hour without refueling with system completely operating

PERFORMANCE DATA

Instrumented range	50Km
Azimuth coverage	90°
Elevation coverage	90° in tracking 70° in surveillance
Number of tracks	>50 per minute

