VERA-NG - NEXT GENERATION MILITARY SURVEILLANCE SOLUTION

Air defence and passive surveillance are critical elements of today's military and security operations. VERA-NG by ERA addresses this by providing the most advanced and state-of-the-art Passive Surveillance System designed for detection, location, identification and tracking of air, ground and naval targets. The VERA heritage and worldwide reputation as a powerful surveillance solution extends over many decades with systems successfully deployed in Europe, Asia and the Americas.

VERA-NG by ERA is a deployable air command and control system component (DAC) and processes radars, jammers, SSR/IFF transponders, (Mode 1, 2, 3/A,C, 4, S), TACAN/DME interrogators, DataLinks and uncooperative targets based on transmission signatures and individual emitters.

The system is a proven Passive ESM Tracker (PET) that utilizes established Time Difference of Arrival (TDOA) multilateration techniques to localize on a broad range of emissions from low frequency VHF communications up to high frequency radar and jamming signals.

Because it emits zero electromagnetic energy VERA-NG by ERA offers a covert, electronic and physical, surveillance capability that is not vulnerable to anti-radar weapon systems allowing armed forces to conduct cross-border longterm surveillance without alerting neighbouring states. It effectively "sees without being seen". This also allows VERA-NG to be the last line of defence if primary radars are destroyed in a conflict situation.

The system's design is fully mobile and can be delivered in a "roll-on/roll-off" configuration including a fully configured mobile command center containing all the processing, analysis and observation equipment thus ensuring rapid tactical deployment. VERA-NG by ERA uses advanced techniques to identify targets without the need for ground-based transmissions. This allows users to identify individual aircraft, ship or land vehicle type.

BENEFITS

Covert operations "see without being seen" non-emitting capability

Allows for "good neighbor" status while still being vigilant

Provides long term ELINT information

Difficulty of jamming

Resistivity to anti-radiation missiles

Lower acquisition, operations, and maintenance costs (versus conventional radars)

No need for frequency allocations

A single VERA-NG ground station ready for deployement on a lightweight mobile tetrapod.

NextGen Surveillance Solutions

OPERATIONAL SPECIFICATIONS

Feature	VERA-NG
Mobility	Various carriers and masts according to customer demands (customizable)
Antenna system bearing adjustment	Remotely controlled in the range of 360 deg (synchronously at all sites)
Handling and manipulation	Without mechanization (handling by crew)
Frequency range	88 MHz - 18 GHz
Tracking capacity	200 real time tracks
Tracking capability	3 dimensional
Antenna unit power consumption (central/side)	210/130 W
Range	Up to 400 km
Tracking accuracy	Radar comparable
Target library capacity	10 000
Antenna unit overall dimensions	500 mm x 1 720 mm
Overall weight	85 kg antenna, 15 kg communication equipment
Tested against	MIL-STD- 810F (climatic & mechanical)
Operational regions	A1, A2, A3, B1, B2, B3, C0, C1, C2 according STANAG 2895
Processed signals	Modern emitters including Radar, Datalink, Jammers, Navigation, Identification
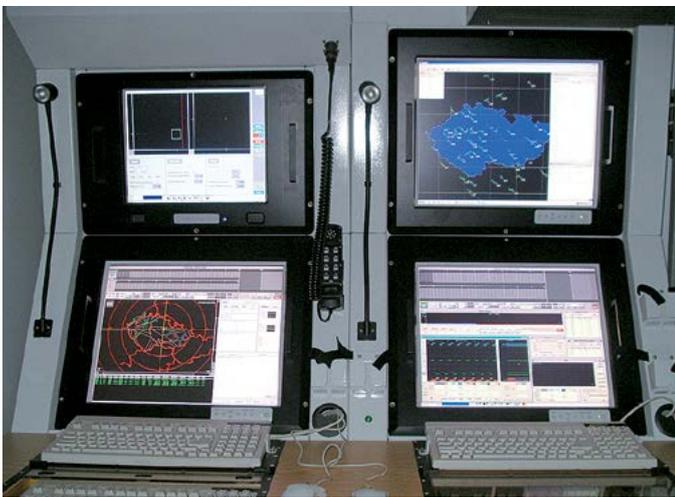
VERA-NG analysis and observation stations.

VERA-NG antenna before and after deployment.

Basic facts on ERA Company

ERA Company is a pioneer and leading supplier of next-generation surveillance and flight tracking solutions for the air traffic management and military markets. As one of the producers of the technologies of multilateration and ADS-B it has over 100 installations at airports and military bases in 55 countries on 5 continents. For half a century ERA has built a proud heritage delivering MLAT based solutions to ATM controllers. Apart from systems for the civil sector, ERA has developed the unique passive radiolocation system VERA-NG wich is used as part of defence surveillance network and advanced border protection.