Medium- to long- range
multi-mission surveillance radar



Sea Giraffe 4A
Total awareness, absolute superiority

Sea Giraffe 4A is a powerful, fully coherent and multi-role 3D naval radar system. It combines the battle-proven designs from Sea Giraffe AMB and ARTHUR product families with a radar sensor, based on AESA (Active Electrically Scanned Array) technology.

The Giraffe S-band AESA family design enables scalable and customized configurations, rotating or fixed face, depending on operational needs. The radar is technically designed for easy upgrading to meet tomorrow's mission requirements and overcome future threats.



With Sea Giraffe 4A the commanding officer will have access to very high situational awareness through simultaneous air and surface surveillance, together with uncompromising self-defence capabilities.

Sea Giraffe 4A radar offers exceptional range, performance and multifunctionality in a single compact solution. This is achieved by providing simultaneous:

- Automatic air and surface surveillance and tracking, including tracking-on-jam
- Classification and identification of targets, including hovering and moving helicopters
- Target indication to weapon systems for both anti-air and anti-surface engagements
- 360° mortar/rocket alert and weapon location
- Target designation for long-range surface-to-air missiles

Sea Giraffe 4A scans the search volume with 50 rpm and provides an unparalleled 3D target update rate, along with high altitude coverage and monopulse accuracy. The radar simultaneously detects small fast moving targets at all altitudes and in severe clutter. The surface channel gives a high probability of detecting very small targets in close proximity to the surface, for example RIB boats and periscopes.

Reliable and easy to operate
The superior system availability provided by Sea Giraffe 4A will greatly reduce the required investment in onboard and depot spares. Minimal operator training and maintenance requirements will significantly contribute to reducing the total cost of ownership.

Extensive countermeasures capabilities
Sea Giraffe 4A provides extensive Electronic Counter-Counter Measures (ECCM) to meet the complex ECM environment of today and tomorrow. The system also provides methods for countering noise and deceptive jamming and chaff.

These include:

- Ultra-low side-lobe levels including side-lobe blanking
- Frequency agility: pulse-to-pulse, burst-to-burst and scan-to-scan frequency agility
- Constant False Alarm Rate (CFAR) to reject false alarms caused by clutter and/or noise jamming PRF
- Automatic selection of least jammed frequency
- Automatic jammer detection and tracking in both azimuth and elevation
- LPI waveform switching and PRF stagger with random jitters
- Intermittent (or random) transmission to confuse hostile ESMs and anti-radiating missiles
- Sector transmission that can be independently defined by the operator.



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Key operational advantages

- Simultaneous air and surface surveillance
- Multi-role capabilities
- C-UAS through Drone Tracker functionality
- Sense and warn
- Excellent small target detection
- Fast reaction time for all targets
- Extensive Electronic Counter-Counter Measures (ECCM)
- Small footprint – both physically and weight



Technical data

Radar type:	Stacked beam 3D radar
Antenna type:	AESA, digital beam forming
Frequency	S (E/F) band
Elevation coverage:	> 70°
Update rate:	50, 30, 15 RPM
Search volume:	360º
Tracking capacity-	
Air/Surface targets:	1000 tracks
Climate zones:	All climate zones
Sensor weight:	1750 kg
Power Consumption:	30 kW
Stabilization:	Electronic
Power supply:	STANAG 1008 edition 9