

MULTI-ROLE 3D NAVAL SURVEILLANCE RADAR

The SEA GIRAFFE AMB is designed to maximise the response time for the naval commander. You will benefit from Saab's long experience throughout the world. With Saab as your partner you have access to future-proof solutions, giving your capabilities the edge.

SEA GIRAFFE AMB HAS:

- Instantaneous and simultaneous 0-70° coverage on all antenna revolutions
- Supreme detection range for high-speed targets and small RCS targets on the surface
- High degree of automation to support fast and accurate decision-making
- DDS (Data Distribution Service) interface for easier CMS integration

This multi-role 3D radar provides a full range of functions for simultaneous:

- Air surveillance and tracking, including Tracking-On-Jam
- Surface surveillance and tracking
- Target classification of both moving and hovering helicopters
- Navigation/close combat capabilities
- Target indication to weapon systems for precision anti-air and anti-surface engagement
- Gunfire support, including high-resolution splash spotting

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. The radar has been proven in all kinds of environments including regions with extensive ducting conditions.




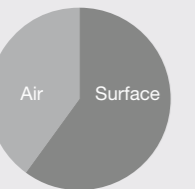
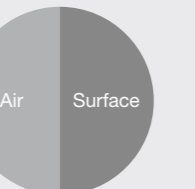
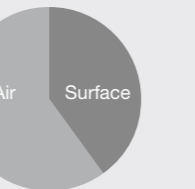
The concurrently processing target returns from multiple digitally shaped narrow receive beams in elevation results in high altitude coverage and monopulse accuracy in elevation. The radar covers the full search volume every second.

In order to relieve operator interaction, SEA GIRAFFE AMB provides fully automatic operation on both air and surface targets, supported by a variety of different clutter maps and doppler processing to eliminate both land- and weather-driven clutter.

SEA GIRAFFE AMB provides the most comprehensive Electronic Counter-Countermeasure (ECCM) capabilities available today including ultra-low antenna side-lobes.

A WORLD-CLASS LINE-UP

All Saab radars combine battle-proven designs from the renowned ERIEYE (AEW), ARTHUR and GIRAFFE AMB product families. Saab offers a full range of high-performing radar systems for a multitude of applications and mission types.

	SEA GIRAFFE 1X 3D AESA X-band	SEA GIRAFFE AMB 3D C-Band	SEA GIRAFFE 4A 3D Full AESA S-Band
			
Mission	Maritime Security Operations Self defence	Multi Role - Medium Range Self defence	Multi Role - Medium/Long range Self defence
Focus			



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SEA GIRAFFE AMB MULTI-ROLE NAVAL SURVEILLANCE RADAR

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LOOK INTO THE FUTURE

Saab has been active in defence and security for more than 75 years. Solutions for air, sea and land operations, civil security and commercial aeronautics make us a complete business partner. Working with Saab means you will benefit from the ultimate synthesis of experience, efficiency and excellence in engineering.

In radar technology we are at the very forefront and offer outstanding capabilities to demanding customers all over the world. In a way you could say that our mission in this field is to help your forces to virtually look into the future. To see before you are seen and to maintain superior situational awareness.

A line of ground-breaking innovations form a track record that proves our ability to sharpen the **thinking edge**. Making it sharp enough to cut through the barrier of the impossible, strengthening your ability to protect your troops and keep people safe.

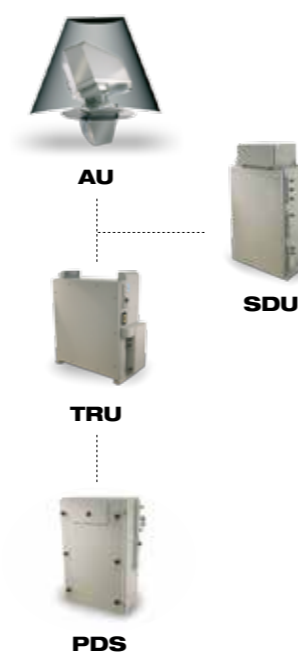
PRODUCT CONFIGURATION

Today the SEA GIRAFFE AMB has the designation AN/SPS 77 V(1) for the US Navy's Littoral Combat Ship, LCS 2/4 and AN/SPS 77 V(2) for LCS 6 and higher.

SEA GIRAFFE AMB COMPRISES THE FOLLOWING MAIN HARDWARE UNITS:

- Antenna Unit (AU)
- Transmitter Unit (TRU)
- Signal and Data Unit (SDU)
- Power Distribution System (PDS)

SYSTEM BLOCK DIAGRAM



EXTENDED CAPABILITIES

The following extended capabilities for the SEA GIRAFFE AMB baseline product configuration are available:

- Stealth Radome
- 360° mortar/rocket detection and alert (C-RAM)
- Identification Friend or Foe (IFF) interrogator antenna
- IFF interrogator
- Improved detection range and redundancy with an additional Transmitter Unit

The Stealth Radome is built with Frequency Selective Surfaces (FSS) to minimise the Radar Cross Section (RCS) and infrared signature of the above-deck parts of the SEA GIRAFFE AMB. The radome is capable of carrying equipment on the top, for example an ESM, ELINT and/or a COMINT. The Counter Rocket, Artillery and Mortar alert function detects, tracks and classifies very small ballistic objects in severe clutter. The point of impact, the ballistic trajectory as well as the impact position are calculated. A warning signal of impact position is given well in advance, allowing the ship to perform an evasive manoeuvre in order to avoid being hit.

ILS - INTEGRATED LOGISTICS SUPPORT

ILS is an important part of the system delivery and will form the basis for future maintenance.

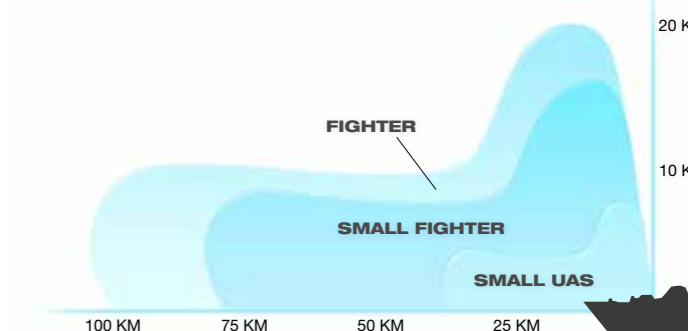
Saab ILS experts have solid experience in tailoring ILS deliveries together with customers worldwide.

The superior, unsurpassed system availability (with high MTBCF and advanced BIT) provided by SEA GIRAFFE AMB will greatly reduce the required investment in onboard and depot spares. Minimal operator training and maintenance requirements will significantly contribute to minimising the total cost of ownership.



TECHNICAL DATA

Radar type	Stacked beam 3D radar
Antenna type	3D phased array, digital beam forming
Frequency	C (G/H)-band
Elevation coverage	> 70 degrees
Rotation rate	60 rpm
Instrumented Range	180 km
Capacity	
- Air	> 200 tracks
- Surface	> 400 tracks
- Rocket/Artillery/Mortar	> 100 tracks/min
Power consumption	15 kW
Stabilization	Electronic
Data interface	Ethernet
Power supply	MIL-STD 1399 type 1



Specification subject to change without notice.

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