SEA GIRAFFE 4A combines the battle-proven designs from the SEA GIRAFFE AMB and ARTHUR product families with an all-new radar sensor based on AESA (Active Electrically Scanned Array) technology. The radar is technically designed for easy upgrading to meet and counter future threats and missions.

**WITH SEA GIRAFFE 4A**
the commanding officer will access very high situation awareness through simultaneous air and surface surveillance together with uncompromised self-defense capabilities. This new radar offers exceptional range, performance, and multi-functionality in a single compact solution. The SEA GIRAFFE 4A scans the search volume up to 70 degrees with 60 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 46 boats and periscopes.

**Important features:**
- Automatic air and surface surveillance and tracking including Tracking On-Jam
- Classification of both hovering and moving helicopters
- Target indication to weapon systems for both anti-air and anti-surface engagements
- Constant False Alarm Rate (CFAR) to reject false alarms caused by clutter and/or noise jamming
- PRF 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
- Automatic jammer detection and tracking in both azimuth and elevation
- PRF switching
- Ultra-low side-lobe levels including side-lobe blanking
- Frequency agility; pulse to pulse, burst to burst, and scan to scan frequency agility
- Sector transmission that can be independently defined by the operator
- Automatic selection of least jammed frequency
- Automatic jammer detection and tracking in both azimuth and elevation
- PRF switching

**EXTENSIVE ECCM CAPABILITY**
The SEA GIRAFFE 4A provides extensive Electronic Counter-Counter Measure (ECCM) to meet the complex ECM environment of today and tomorrow. Methods of countering noise and deceptive jamming and chaff are included such as:
- 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 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
- Automatic selection of least jammed frequency
- Automatic jammer detection and tracking in both azimuth and elevation
- PRF switching

**MEDIUM/LONG-RANGE AESA SURVEILLANCE RADAR**

**SEA GIRAFFE 4A**
combines the battle-proven designs from the SEA GIRAFFE AMB and ARTHUR product families with an all-new radar sensor based on AESA (Active Electrically Scanned Array) technology. The radar is technically designed for easy upgrading to meet and counter future threats and missions.

**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.
**PRODUCT CONFIGURATION**

The superior system availability (with high MTBF and advanced BIT) 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 minimizing the total cost of ownership.

**SEA GIRAFFE 4A BASELINE CONFIGURATION**
- Radar type: Stacked beam 3D radar
- Antenna type: AESA, digital beam forming
- Frequency: S (E/F) band
- Elevation coverage: > 70 degrees
- Rotation rate: 30 or 60 rpm
- Search volume: 360° or in a sector
- Instrumented range: 350 km
- Capacity:
  - Air Surveillance: > 1000 tracks
  - Surface: > 500 tracks
- Power Consumption: 40kW
- Stabilization: Electronic
- Data interface: Ethernet
- Power supply: MIL-STD 1399 type 1

**UPGRADING & EXTENDED CAPABILITIES**
- Identification Friend or Foe (IFF) interrogator antenna
- IFF interrogator
- IFF transponder equipments

**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.

**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.**

**UPGRADING & EXTENDED CAPABILITIES**
- Identification Friend or Foe (IFF) interrogator antenna
- IFF interrogator
- IFF transponder equipments

**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.

**SYSTEM BLOCK DIAGRAM**

**TECHNICAL DATA**
- Radar type: Stacked beam 3D radar
- Frequency: S (E/F) band
- Elevation coverage: > 70 degrees
- Rotation rate: 30 or 60 rpm
- Search volume: 360° or in a sector
- Instrumented range: 350 km
- Capacity:
  - Air Surveillance: > 1000 tracks
  - Surface: > 500 tracks
- Stabilization: Electronic
- Data interface: Ethernet
- Power supply: MIL-STD 1399 type 1

**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 groundbreaking 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.**

**www.saabgroup.com**