



SAAB

GIRAFFE 8A

AESA 3D LONG RANGE RADAR



GIRAFFE 8A

EXTENDED SITUATIONAL AWARENESS

The GIRAFFE 8A is a 3D Long-Range AESA radar system on the S-band, designed for the highest level of situational awareness and Ballistic Missile defence. It is offered in versions for fixed, transportable and mobile applications, all providing exceptional range, search volume and multi-role capabilities, combined with outstanding operational flexibility. Today and in the future. GIRAFFE 8A has the following main benefits:

LONG-RANGE AIR SURVEILLANCE/ EARLY WARNING & IDENTIFICATION:

- The capability to rapidly detect, track and report all air-breathing targets within the sensor coverage.

BALLISTIC MISSILE DEFENCE OPERATIONS:

- Detects, tracks and reports short/medium range ballistic missiles.
- Provides simultaneous weapons queuing and C2 reporting in order to significantly reduce time from warning to engagement.

OPERATIONAL IN ALL CLIMATE ZONES

GIRAFFE 8A is specified for operation in extreme climates, ranging from inland, coastal and hot desert to Arctic environments.

RELIABILITY

GIRAFFE 8A is very reliable and easy to operate. Redundant design and the AESA concept makes the time between critical failure extremely long.

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.

	GIRAFFE 1X	ARTHUR	GIRAFFE AMB	GIRAFFE 4A	GIRAFFE 8A	RADAR UPGRADES
Air Surveillance			•	•	•	•
Ground Based Air Defence	•		•	•	•	•
Weapon Locating		•		•		
Sense and Warn	•	•	•	•		
Multi Role			•	•	•	



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.



MULTI-ROLE AND MULTI-MISSION

All three configurations, mobile, transportable and fixed, share the same, identical radar and antenna design. These systems will, separately or in combination, provide your forces with real-time information superiority within the air domain wherever the mission takes place.

MULTI-ROLE CAPABILITY

With GIRAFFE 8A the integrated Air Defence System will be enhanced with a sensor suite to allow constant 24/7 air surveillance over the assigned area of responsibility. The GIRAFFE 8A will simultaneously search for, detect, track and report short to medium range ballistic missiles.

OPERATIONAL FLEXIBILITY

If the situation dictates, the commanding officer can choose between search in the entire 360° volume or an optimised search in a sector (40°-100°). Both with coverage up to 65° of elevation.

- Extended range
- Fast update
- Low observable targets



IDENTIFICATION

GIRAFFE 8A can be offered with a set of integrated Electronic Identification capabilities:

- IFF Mode 5 & S
- Target Classification
- Integrated Electronic Support Measures (ESM)
- Passive tracking if in network

SURVIVABILITY

Much emphasis has been put on ECCM performance in the design of GIRAFFE 8A. This includes:

- Ultra-low side-lobes
- Frequency agility; pulse to pulse, burst to burst, and scan to scan frequency agility
- PRF switching and PRF stagger with random jitters
- Intermittent (or random) transmission, to confuse hostile ESMS and Anti-Radiation Missiles
- Automatic selection of least jammed frequency
- Automatic jammer detection and tracking in both azimuth and elevation

OPERATED LOCALLY OR REMOTELY

GIRAFFE 8A is designed to be operated by remote control (primary method of operation). For local maintenance the system can be operated by a ruggedised PC in close connection to the system.

The Remote Control System is designed to give the operators full operational control of the sensor system. Although the radar system normally will operate unattended, all modes and functions can be remotely adjusted and controlled. The remote control functionality also includes system monitoring and system diagnostics.

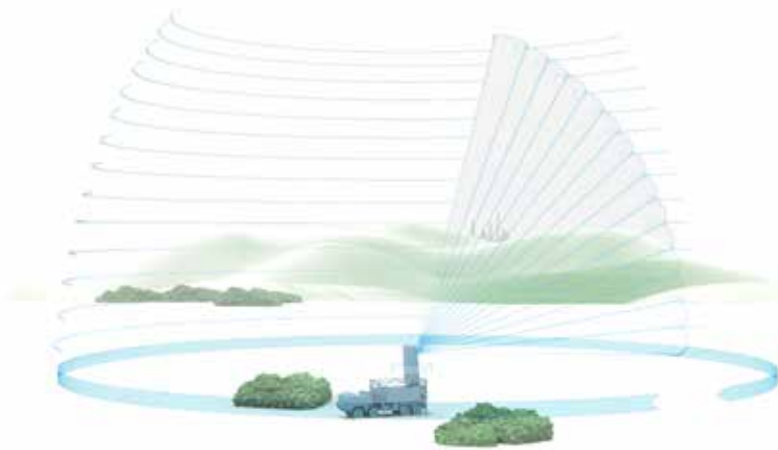
SMALL TARGET DETECTION

New AESA technology allows new functionality to detect and track small targets at longer ranges.

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.

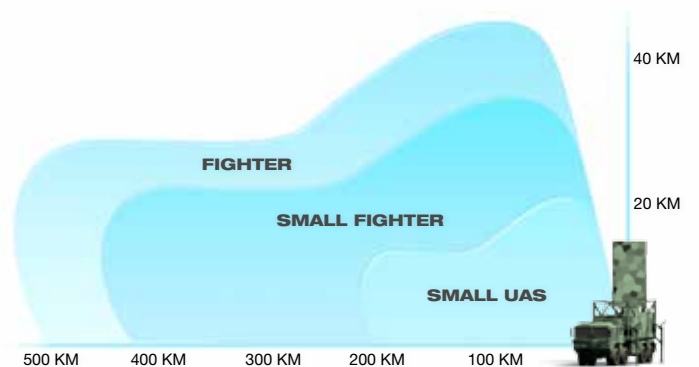


VOLUME SEARCH

- Rotating or non-rotating mode
- Continuous scan (mechanical or electrical)
- 15 stacked beams
- Elevation coverage: 0°-65°
- Scanning rate 24 rpm

TECHNICAL DATA

Radar type	Stacked beam 3D radar
Antenna type	AESA, digital beam forming
Frequency	S (E/F) band
Elevation coverage	> 65 degrees
Rotation rate	24 rpm
Search volume	360° or in a sector
Instrumented range	
- Air Surveillance	470 km
Capacity	
- Air Surveillance	> 1000 tracks
- Ballistic Missiles	> 100 tracks
Power Plant	External
Climate zones	All climate zones; in-land, costal, desert and arctic



Specification subject to change without notice.



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