GIRAFFE 4A
MULTI MISSION FLEXIBILITY

GIRAFFE 4A combines the battle-proven designs from the ARTHUR and GIRAFFE AMB product families with an all-new radar sensor, based on AESA (Active Electrically Scanned Array) technology. This new radar offers exceptional range, performance and multi-function operational flexibility in a single solution.

GIRAFFE 4A can act simultaneously in the following roles without performance degradation:

- **Air Surveillance.** The ability to identify and track a high number of objects simultaneously makes the system suitable for air and sea surveillance as well as military ATC.
- **Ground-Based Air Defence.** Tracks air targets together with identification capability to support multiple simultaneous engagements.
- **Weapon Locating.** Tracks ballistic projectiles and calculates point of origin and point of impact for counter-battery fire or adjustment of own fire.
- **Sense and Warn.** The ability to detect and warn for small incoming ballistic objects offers valuable protection of own forces or civilian protection objects.

OPERATIONAL IN ALL CLIMATE ZONES

GIRAFFE 4A is specified for operation in extreme climates, ranging from inland, coastal and hot desert to Arctic environments.

GIRAFFE 4A is reliable and easy to operate. Redundant design such as the AESA concept makes the time between critical failures extremely long—>2,500 h while typical repair time is less than 45 min.

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.

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<th>GIRAFFE 4X</th>
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The GIRAFFE 4A is designed to serve in several different roles. The system will give the commanding officer real-time information superiority and provide flexible tools to meet current and future threats in both combat and peacekeeping missions.

MULTI-MISSION CAPABILITY
With GIRAFFE 4A the commanding officer will access very high situation awareness through simultaneous air surveillance and GBAD target acquisition together with weapon locating capacity without performance degradation. In the situation depicted, the commanding officer can choose between search in the entire 360° volume or an optimised search in a sector (40°-120°). Both with coverage up to 70° of elevation.

OPTIMISED WEAPON LOCATING MODE
GIRAFFE 4A also offers an optimised mode for weapon locating where the radar continuously searches the horizon and immediately tracks incoming projectiles. The point of origin and point of impact are calculated and serve as input for counter-battery fire, adjustment of own fire or warning of incoming fire.

SURVIVABILITY
Much emphasis has been put on ECCM performance in the design of GIRAFFE 4A. 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 ESM and Anti-Radiation Missiles
- Sector transmission, which can be independently defined by the operator
- Automatic selection of least jammed frequency
- Automatic jammer detection and tracking in both azimuth and elevation

ENGINEERED FOR ADAPTABILITY
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 force to virtually look into the future. To see before you act and to maintain superior situational awareness.

A line of proven air-defence innovations form a track record that proves our ability to sharpen the thinking edge. Modern hardware and technology cut through the barrier of the impossible, strengthening your ability to protect your troops and keep people safe.

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- Ultra-low side lobes
- Frequency agility; pulse to pulse, burst to burst, and scan to scan frequency agility
- PRF switching and PRF wave with random (flicker)
- Intermittent (or random) transmission, to confuse hostile ESM and Anti-Radiation Missiles
- Sector transmission, which can be independently defined by the operator
- Automatic selection of least jammed frequency
- Automatic jammer detection and tracking in both azimuth and elevation

OPERATED LOCALLY OR REMOTELY
GIRAFFE 4A is designed to be operated locally or remotely. The system can be operated via a rugged PC in close connection to the system. The system can also be operated remotely with two operator places in an NBC protected and armoured trailer.

FLEXIBILITY & MOBILITY
GIRAFFE 4A can be deployed by two persons in less than 10 minutes and teardown takes less than 5 minutes. It can also be airlifted using standard equipment for container handling. With larger aircraft such as the IL-76, C-17 or A400M the system can be transported as drive-on/drive-off cargo.

UIL – 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.

TECHNICAL DATA
- Radar type: Stacked beam 3D radar
- Antenna type: AESA, digital beam forming
- Frequency: 5 (S/ET) band
- Elevation coverage: > 70 degrees
- Rotation rate: 360° or in a sector
- Search volume: 360° or in a sector
- Instrumented range:
  - Air Surveillance: 280 km
  - Weapon Locating: 100 km
- Capacity:
  - Air Surveillance: > 1000 tracks
  - Weapon Locating: 100 tracks
- Power Plant: Internal
- Climate zones:
  - All climate zones; in-land, coastal, desert and arti-

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