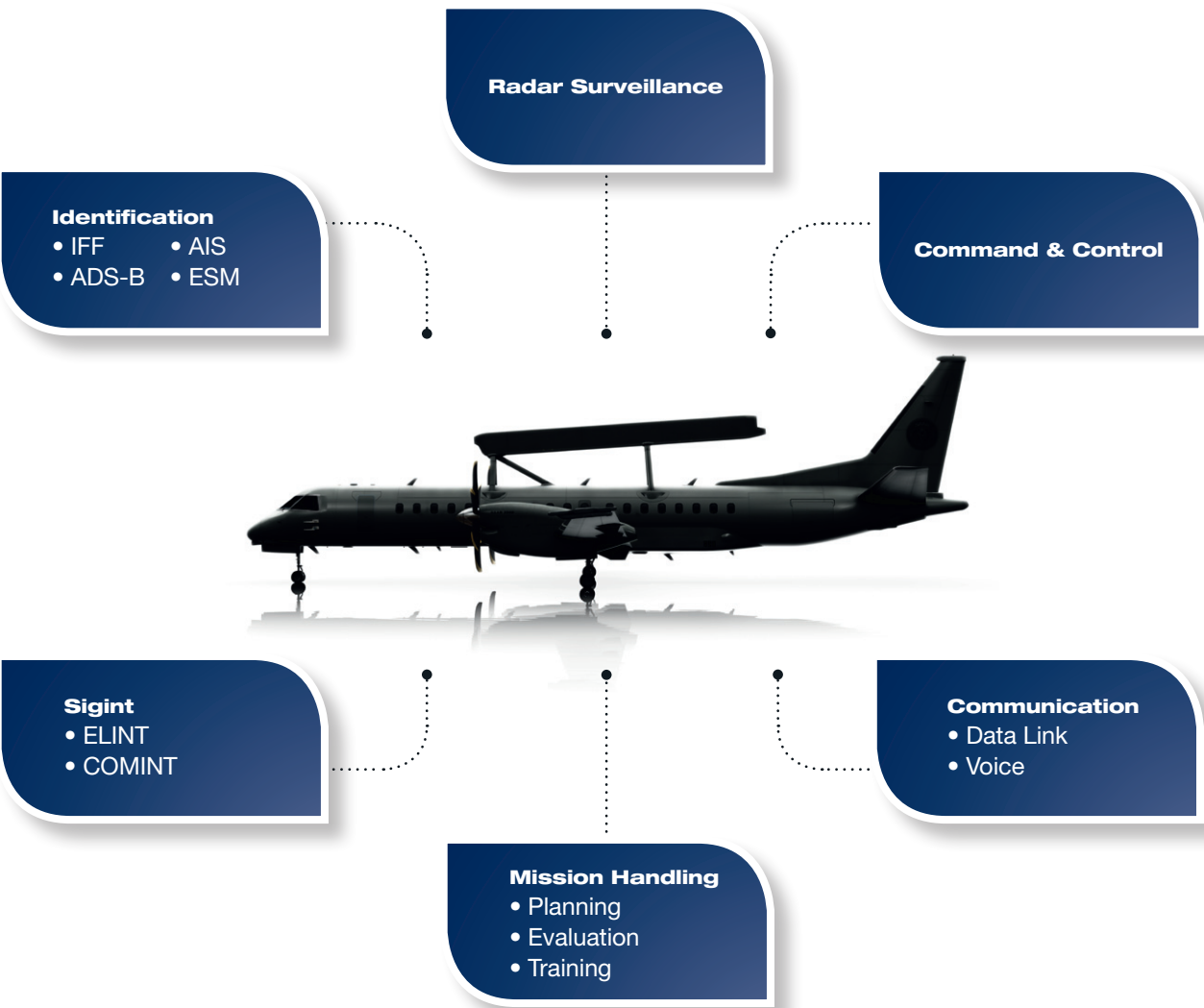


# ERIEYE AEW&C

## MISSION SYSTEM



## ERIEYE SYSTEM

# CAPABILITIES

ERIEYE is a complete AEW&C system that provides multi-role and multi-mission capabilities for both military and civilian needs.

### Multi-role capability

The capabilities of the ERIEYE AEW&C Mission System include:

- Air Surveillance
- Sea Surveillance
- Intelligence
- Command & Control

- Control of own assets
- Surveillance and control of national borders, assets and economic zones
- Search and Rescue
- Alert warning
- Air policing

### Multi-mission capability

Typical mission-types include:

- Air and Sea surveillance including Intelligence
- Airborne Early Warning

The extensive COM suite secures communication with participating assets and other control centres, on the ground or in the air.





# EXTENDED COVERAGE IMPROVED AWARENESS

In an ongoing operation, every second is vital in order to gain information superiority. Decisions and actions based on real-time information are crucial and demand systems that offer high situation awareness. ERIEYE is an Airborne Early Warning & Control (AEW&C) system which provides the rapid performance needed to make the right decisions. A true force multiplier that will facilitate the optimisation of your operations.

ERIEYE gives you the capabilities of a national asset to reinforce territorial integrity and national security. It is a proven system, operational since 1996. As the first modern AESA compact AEW&C system, it has constantly evolved to be in the top of the edge.

## Dynamic detection

Flying at high altitude, ERIEYE covers a much wider area than a conventional ground-based sensor system does. The effective surveillance area is more than 500,000 sq km horizontally and over 60,000 ft vertically. Sea coverage is only limited by the horizon, which is around 190 NM. Within this area, everything from fighter aircraft, hovering helicopters, cruise missiles or sea targets down to a Jet Ski can be detected and tracked.

The system will always deliver a reliable flow of precise information, irrespective of atmospheric and clutter conditions, 24 hours a day.

## Compact and cost-effective

The lightweight design of ERIEYE makes it ideal for medium- size commuter-type aircraft. This gives a cost profile far lower than rival systems requiring larger platforms. ERIEYE is today integrated on both turboprop and jet aircraft, Saab 2000 and Embraer-145. The ERIEYE integration on these platforms benefits from high availability and low operational cost. In short, it has a small organisational footprint.

## Flexibility through technology

The radar is based on the latest Active Phased Array technology, enabling the beam to be adjusted according to the situation. The radar energy can be spread over an extensive area or concentrated within a smaller prioritized area.

The radar produces particularly sharp and narrow beams with ultra-low side lobes. It detects objects quickly and monitors with high precision and a high update rate. S-band technology ensures top performance in all weather conditions. The current generation uses the latest technology, providing increased performance and functionality.

## KEY ERIEYE ADVANTAGES

- extends your horizon 10 times over
- detects and tracks all air and sea targets, down to cruise missile or Jet Ski size, even in heavy clutter and jamming conditions
- deploys rapidly to cover new and changing areas of operation, including intelligence
- is proven in 7 countries worldwide, fulfilling military and civilian tasks



# SYSTEM OVERVIEW

The Mission System includes sensors, C2 and communications. These are complemented by a comprehensive suite of training and support systems.

## Primary Surveillance Radar (PSR)

- AESA technology providing high availability and outstanding flexibility through the use of electrically scanned antenna
- S-band, doppler radar, providing a clutter-free picture over land and sea
- Automated tracking of all air and sea targets with high update rates
- Fully adaptive radar which adapts to the operational scenario

## Secondary Surveillance Radar (SSR) and Identification Friend or Foe (IFF)

- Integrated with the Primary Surveillance Radar and covers 360 degrees
- Electrically scanned antenna arrays
- Modes 1, 2, 3/A, C, 4 and S (prepared for mode 5)

## Command & Control (C2)

- Five multi-role operation consoles
- The combined air and sea picture is displayed and includes tools for decision support and asset handling
- Data fusion of all sensors and links providing system tracks

## Communications (COM)

- Extensive voice communication suite tailored to customer requirements including HF, VHF and UHF
- Real-time in-house data link dedicated for AEW&C or NATO Link 16 and Link11
- Sat Com

## Electronic Support Measures (ESM)

- Digital-Receiver based technology for selective precision measurements of RF signals in dense signal environments
- Long range, and 360 degrees coverage, with robust emitter identification
- High accuracy Direction Finding and Geo Location
- ELINT capability with high capacity recording and analysis including Intra pulse data
- Extensive operator tools for maintaining the EOB with short turn-around time and fully user-programmable emitter identification library

## Self Protection System (SPS)

Self Protection suite including the following capabilities:

- Missile Approach Warning
- Laser Warning
- Radar Warning
- Chaff and Flare Dispensing

## Communication Intelligence (COMINT)

- Long-range intercept of communication signals with high AoA accuracy
- Wideband monitoring of Signals of Interest
- Provides Electronic Order of Battle, contributing to a comprehensive Recognized Situation Picture
- Supports intelligence collection

## Mission Training System (MTS)

- A complete training system where all types of inter-crew procedures including leadership are practised
- Training on identical operator stations as in the air
- Instructor stations where operational scenarios can be adjusted in real time

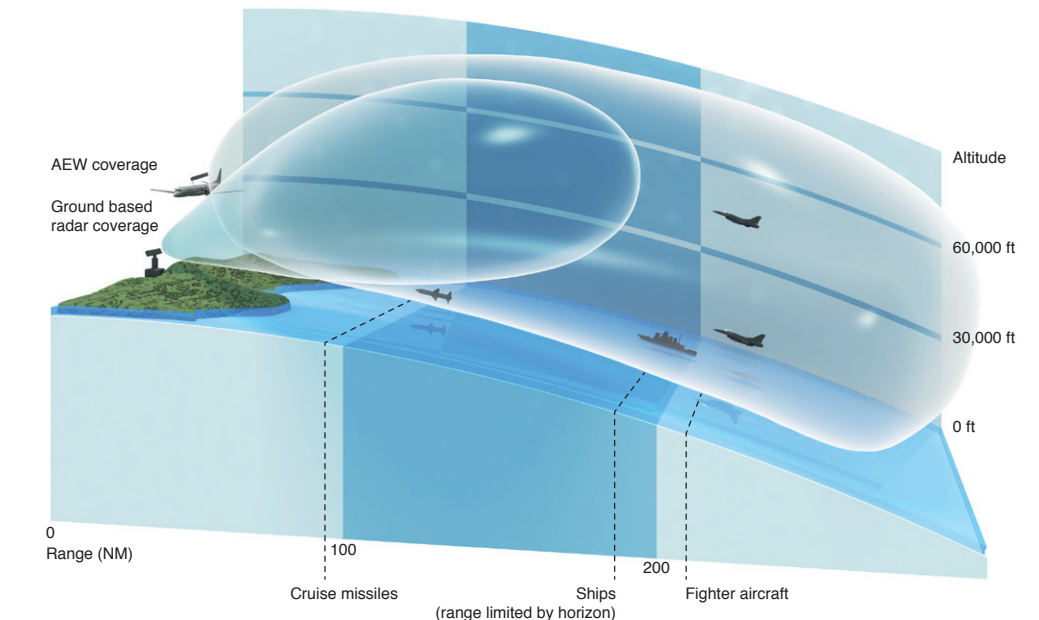
## Planning and Debriefing System (PDS)

- A system for planning and evaluation of missions
- Planning data is carried on-board the aircraft on a USB
- All mission data and data for maintenance is recorded on-board and saved on a USB for debriefing
- Extensive tools for evaluation such as replay

## Integrated Logistics Support (ILS)

- Saab offers a complete ILS solution tailored to precise customers' need
- Before delivery, training is provided for both operators and maintenance personal
- After delivery a tailored programme for service and support is provided
- Saab offers a long-term commitment covering the system in-service life time

# LONG RANGE COVERAGE AT ALL ALTITUDES



One great advantage of an airborne sensor flying at high altitude compared to a ground-based one is the huge coverage for detection of targets, especially

at low altitudes. Even if the ground based-sensor increases its range, it will only affect targets at very high altitude.

# FLEXIBLE DETECTION

## ERIEYE HAS AN EFFECTIVE SURVEILLANCE

**AREA** of more than 500,000 sq km horizontally and more than 60,000 ft vertically. The sea coverage is only limited by the horizon, which is around 190 NM. Within this area the system provides high performance tracking of air and sea targets and the ability to focus the radar energy in selected sectors. This allows for automatic tracking of several prioritized targets simultaneously.



Specifications subject to change without notice

www.saabgroup.com

Saab AB  
SE-412 89 Gothenburg  
Sweden

Tel +46 31 794 90 00  
Fax +46 31 794 90 02

