

Coastal Surveillance Radar 970 Fish Eagle

The FISH EAGLE 970 is transportable, land-based, continuous scanning surveillance radar optimised for coastal surveillance applications. It shares radar and processing technology with the SPIDER 940.

It is a member of the 900 StealthRad product family of low cost, lightweight, Low Probability of Intercept (LPI) Frequency Modulated Continuous Wave (FMCW) radars. The low transmitted power levels of the StealthRad family inherently increase reliability and reduce component cost, providing a cost-effective solution for short-range radars. The low LPI element makes them ideal for covert operations.



The FISH EAGLE 970 consists of a self-contained operator control cabin and a separately deployable antenna mast. The control cabin is equipped with an operator's terminal and control unit, processor and drive electronic units, a power generator and environmental management systems. The deployable mast houses the radar sensor assembly including antenna assembly and radar electronics, rotator assembly and mast assembly. The antenna mast can be extended with the aid of an electrical winch system and is available in a 5 m and a 15 m configuration.

TYPICAL APPLICATIONS

- Coastal surveillance
- Marine management
- Monitoring of coastal traffic (both sea and air)
- Monitoring of activities on inland lakes

MODE OF OPERATION

Continuous scanning surveillance. The unique architecture of the StealthRad continuous scanning surveillance radars allows them to be optimised for both surface and air targets at the same time. This enables the StealthRad to be deployed in littoral situations as well as on inland water areas, where it can serve in both the air surveillance and surface surveillance role.

SYSTEM FEATURES

- Transportable
- Local and remote (via wire or wireless network) operation
- Data distribution to a regional control centre
- Can serve as a local area control center
- Autonomous operation
- Geolocation and North alignment
- Detection and tracking of both air and surface targets simultaneously

Table 1: TECHNICAL SPECIFICATIONS

Characteristic	Description
Frequency band	I / J Band
Transmit power	20 Watt
Antenna size	3.5 m
Antenna tilt range	-10° to +10°
Instrumented range	40 km
Scan rate	15 RPM

Range accuracy	8 m
Azimuth accuracy	inherent accuracy better than 0.1° dependent on mast stability
Source	230 VAC 50 Hz
Consumption	1.6 kW
Weight	1700 kg
Weight mast, ballast & steelworks	3300kg
Dimension cabin	3 x 3 x 3 m (l x w x h)
Temperature storage	-20 to +70°C
Temperature operational	-20 to +50°C

Table 2: DETECTION RANGES:

Characteristic	Description
Light aircraft (RCS = 2m ²)	20 km
Private jet (RCS = 5m ²)	30 km
Helicopter (RCS = 10 m ²)	35 km
Inflatable boat (RCS = 1 m ²)	15 km
Power boat (RCS = 5 m ²)	30 km
Fishing vessel (RCS = 100 m ²)	Instrumented range

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<http://surveillance-radars.at-communication.com/en/at/970-fish-eagle.html>