



ARGOS-73 S-BAND SOLID STATE COASTAL SURVEILLANCE RADAR

ARGOS-73 is an S-band 2D coastal surveillance radar System of modern concept based on fully solid-state technology. ARGOS-73 is able to detect and to track targets operating over a wide range of speeds and featuring very small radar cross sections in clutter and jamming environments (from surface targets to hovering helicopters and aircrafts flying at over MACH 3).

ARGOS-73 uses a fully solid state transmitter based on an array of amplifier modules, which provides advantages, such as:

- Modular transmitter design: low, medium and high power versions are available
- Very high MTBF and easy maintainability
- Graceful degradation since the radar still operates even in case of failure of the most part of the amplifier modules
- Low voltage power supply for safe operator handling
- Very high intrinsic stability for optimum performance in clutter environment
- Low Life Cycle Cost.

ARGOS-73 antenna features a cosecant squared illumination pattern, very low sidelobes and double polarization.

Target detectability is enhanced by continuously adapting the operational mode to the changing environment using MTD technique and mapping of the environment.

Other features are: multiple transmission waveforms (phase coded), double conversion receiver, various frequency agility modes, plot extraction processing and on-line BITE.

APPLICATIONS

- Coastal radar stations for Air and Surface Surveillance
- Fixed or transportable versions

STATUS

ARGOS-73 systems have been supplied to Italian and foreign customers.



TECHNICAL CHARACTERISTICS

General performance

Range coverage:	in excess of 75 n.m. on a fighter a/c
Elevation coverage:	up to 35°
Range accuracy:	50 m
Angular accuracy:	0.3°
Antenna Type:	Cosecant squared reflector
Rotation diameter:	5.2 m
Scan rate:	6-12 rpm
Polarization:	linear and circular

IFF

Provision for IFF-ISLS integration including plot correlation (single antenna with double feeder).

Transmitter-receiver

Operating frequency:	S-band
Coherent transmitter fully solid state chain	
Transmitter facilities:	phase coded waveforms, staggered PRF, several frequency agility modes, EMCON
Receiver facilities:	- double frequency conversion, adaptive STC maps, MTD filtering, high ECCM features, clutter/ECM features. - clutter/ECM sensor to choose the best thresholding, air and surface separate ECCM channels.

ENVIROMENTAL CHARACTERISTICS

Equipment designed in accordance with Military Standards.

INSTALLATION DATA

Transmitter:	
- Dimensions (h w d):	mm (1750x1460x663)
- Weight:	kg 700
Receiver:	
- Dimensions (h w d):	mm (1950x827x566)
- Weight:	kg 440
Antenna (including SLS and Antenna pedestal):	
- Dimension (h):	mm 4980
Swing circle (including Antenna pedestal)	
- Diameter:	mm 5600
- Weight:	kg 1300