



SHIPBORNE PRECISION APPROACH RADAR

In response to the requirements of fast take-off and recovery of aircraft, the SPN-720, a naval precision approach radar has been developed. The radar is able to provide safe and reliable final approach and deck landing guidance for aircraft during day/night and in adverse weather conditions.

The SPN-720 offers CV NATOP Mode III landing, manual approach, during which the radar controller relays continuous updates to the pilot on his position and direction via a secure VHF Channel. The SPN-720 employs an I-band Doppler radar with coherent solid state transceiver, utilising frequency agile monopulse tracking at an operating range of 12 nautical miles.

The antenna is fitted on a stabilised gimbal which automatically locks onto the landing aircraft. The SPN-720 can be operated as a stand-alone system or be integrated within the ship Combat Management System as it can automatically correct the parallax error between the radar location and the landing path. It can also provide simultaneous control of two aircraft while Low Probability of Interception is ensured by minimal radiated power.

The SPN-720 Man-Machine Interface features two consoles (master and slave), each with a PAR Display and an Air Search Display.

THE PAR DISPLAY

The PAR Display presentations are arranged as: Conventional azimuth vs elevation (Az-EI) display format Width/height indicator with the error data set Messages and information area. The Az-EI Display tracks the A/C indicating its position with respect to the touchdown point, horizon sea level and runway centreline. The tracking data is updated every second.

Width/Height indicator is centred on the glidepath to indicate aircraft offset/error in azimuth vs elevation, within ± 6 deg azimuth and ± 600 ft elevation from centreline.

The message and information area displays commands, track status and information, system status; operational status, operational mode, range scale and general information.

SPN-720



THE AIR SEARCH DISPLAY

The Air Search Display presents the operator with the tracks gliding around the ship in a range-azimuth presentation.

Data received from the ship's main search radar, ship position and navigation parameters, are acquired by the PAR from the interface with the ship bus.

TECHNICAL SPECIFICATIONS

RADAR

Scanning Range	+/-20° azimuth
	0°-8° in elevation
Operating Range	12 nmi Decision Height (DH)
	min distance: 60 mt

DIMENSIONS AND WEIGHT

Height	1200mm
Width	1200mm
Depth	1200mm
Weight	300Kg

