



Continuing our reputation of superior radar systems, TTM's search, surveillance and weather avoidance radar is the ideal choice for fixed- or rotary-wing maritime surveillance platforms.

Mission Success Starts With a Clear Vision

TTM's RDR-1700A radar is a lightweight, X-band and 360° digital color system offering standard display modes of:

- Aircraft heading reference
- North reference
- Ground reference
- Display offset

These modes, along with target marker capabilities, allow operators to determine range and bearing (latitude/longitude) of a target from the aircraft and relative range and bearing between targets. The system also has the capability to offset the sweep center to any location on the display and provides four operating modes:

- Surface search with sea-clutter rejection/terrain mapping
- Weather alert and avoidance
- Radar beacon interrogation and identification
- Search & Rescue Transponder (SART) beacon detection
- Test mode with continuous Built-in-Test (BIT)

The RDR-1700A interfaces with aircraft navigation systems to display radar returns, search patterns, waypoints and flight log information.



AgustaWestland AW139

System Design and Capabilities

The RDR-1700A is designed for fixed- or rotary-wing aircraft engaged in maritime patrol, surveillance, rescue missions and precision terrain mapping. The system may be configured in numerous system configurations, but the major components consist of four Line Replaceable Units (LRUs):

- Receiver/Transmitter (R/T)
- Interface unit
- Radar indicators or radar control panel
- Antenna array and antenna drive

RDR-1700A Technical Specifications

System Temperature	Receiver/Transmitter	-40° - +55°C
	Interface unit	-45° - +70°C
System Power Requirements	28 VDC @ 8 amps	115 VAC/400 Hz @ 1 amp
System Weight	63.5 lb./28.8 kg (360° operation - no control panel, 15 in. radar indicator)	59.7 lb./27.0 kg (180° or 120° operation - no control panel, 15 in. radar indicator)
System Display Overlay Modes	Radar only, heading overlay and navigation overlay	
 Radar Specifications	Range	0.625 NM - 160.0 NM
	Transmitter frequency	9,375 MHz
	Transmitter power output	10 kW nominal
	Pulse width	0.1/0.5/2.35 usec
	Pulse repetition frequency	1,600/800/200 Hz
	Receiver frequency (search/weather modes)	9,375 MHz
	Receiver frequency (beacon modes)	9,310 MHz
	Antenna drive	360° Circular Scan, 180° Sector Scan, 120° Sector Scan
	Antenna array	39 x 9 in., 33 x 9 in. and 29 x 9 in. for 360°
		18 or 12 in. circular or 18 x 12 in. for 180°
18 or 12 in. circular or 18 x 12 in. for 120°		
Scan rate	45° - 90°/Sec (360° sector scan)	
	28°/Sec (120° or 180° sector scan)	

Options include three different sized radar multi-function indicators, a 15-inch console display, 8.4-inch console display, 6.4-inch cockpit display and a multi-function display with PAL formats in either RGB or composite.

System capabilities include flight plan display, navigation inputs from GAMA ARINC 429 sources, target position transmission and a 20-target Track-While-Scan (TWS) processor providing location latitude and longitude, target heading and velocity.



Beechcraft KingAir 350

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