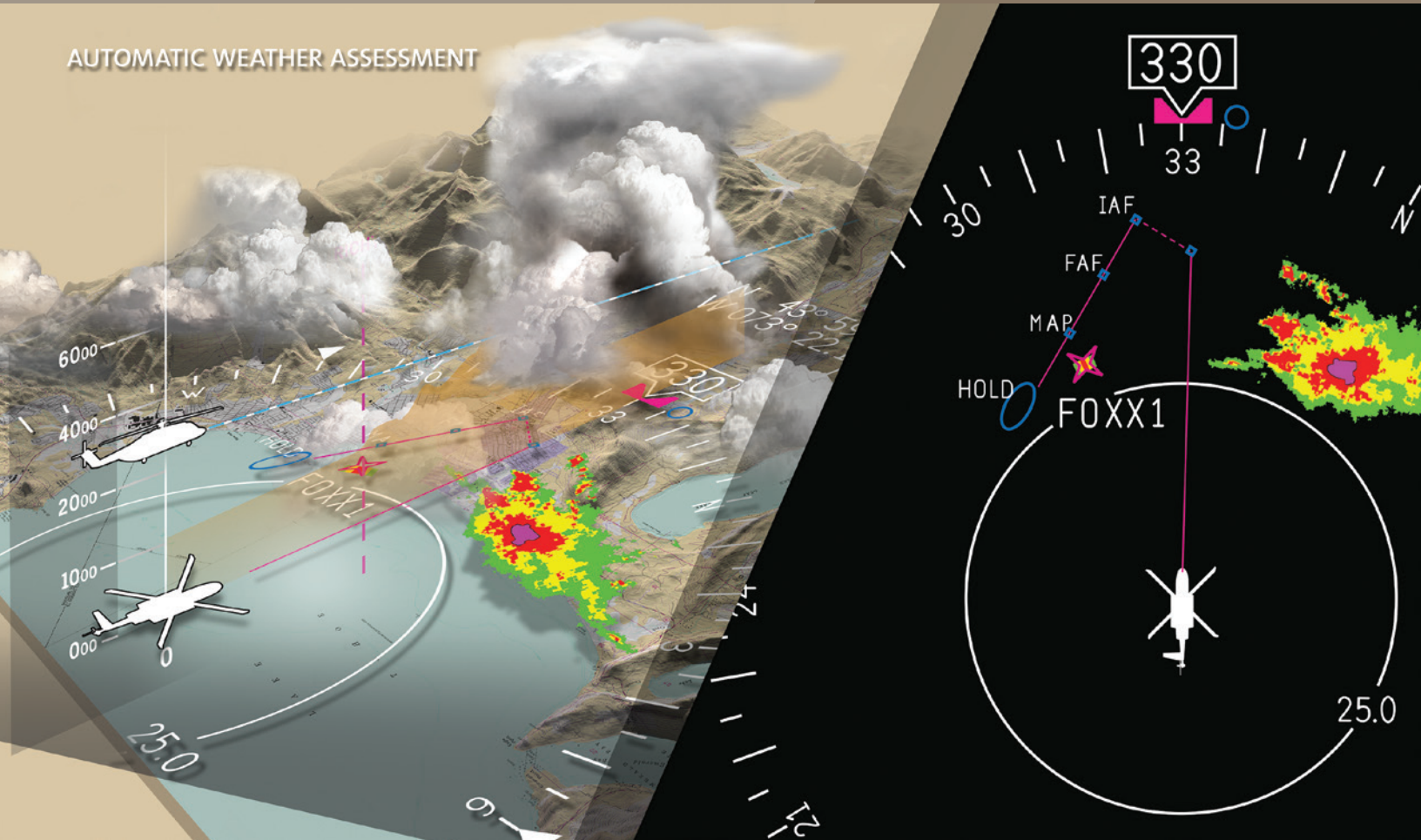


RTA-4100 MultiScan™ weather radar for helicopters

AUTOMATIC WEATHER ASSESSMENT



Automatic, clutter-free weather detection and analysis from the nose of your aircraft to 300 NM.

Rockwell Collins RTA-4100 MultiScan™ weather radar delivers comprehensive weather analysis and threat detection capability to pilots. The system provides a 300 NM clutter-free weather display and enhanced effectiveness as a threat detector. Capabilities such as MultiScan automatic operation, automatic gain control, turbulence detection and alerting accurately depict weather and weather-related hazard events at any location around the globe.

The digital design of the RTA-4100 MultiScan weather radar supports growth for enhanced ground mapping and sea clutter rejection modes, expanding its usefulness in mission effectiveness and safety.

Our MultiScan weather radar system automatically gives pilots a complete picture of weather while simplifying radar operations by eliminating the need to manually adjust the radar. The system automatically scans ahead of the aircraft and combines the returns through advanced digital processing and analysis algorithms to display not just precipitation rates but the actual weather

threats. The result – a more accurate depiction of weather and turbulence hazards while significantly reducing flight deck workload and training for pilots.

The all solid-state design of the RTA-4100 MultiScan weather radar provides the highest reliability in its class, helping to manage operating costs for today's cost-constrained markets. Designed to support integration of new sources of data as they become available, the RTA-4100 MultiScan weather radar is the optimal solution for today and tomorrow.

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KEY FEATURES

- Automatic operation
- Clutter-free, real-time weather detection from the aircraft nose to 300 NM
- Variable temperature based gain
- Geographic Weather Correlation (patented)
- Certified turbulence detection out to 40 NM
- Enhanced ground clutter suppression
- TrueZero™ automatic antenna misalignment compensation
- Path Attenuation Compensation (PAC) and PAC alert
- SmartScan™ rapid update technology
- Exceptional transmitter/receiver system performance
- Active gain in all modes
- Full split function operation
- High reliability

AVAILABLE MODES

- MultiScan automatic operation
- Time-shared operation – independent; mode, gain, tilt and range for each pilot
- Ground map
- Weather
- Weather plus turbulence
- Turbulence detection
- Test
- Manual operation

OVERALL SYSTEM SPECIFICATIONS

General	ARINC 429, 453
TSO	C63c
Interfaces	EFIS, AHRS/IRS, CAS
Environmental	RTCA/DO-160E
Software	RTCA DO-178B Level C

System parameters	12" antenna	14" antenna
Antenna gain (dB)	27.5	28.9
Beam width (deg)	8.0	7.5
Performance index	224.6	227.4
Avoidance range (nm)	369	410
Weight (lbs)	15.7	16.0

Receiver-transmitter-antenna

Size	Per installation manual
Input power	28 V dc ±20%
Power dissipated	70 watts or less

Transmitter

PRF	120 to 1,800 pps
Pulse widths	3.4 to 55 microseconds
Frequency (direct digital synthesis)	9.45 - 9.49 GHz
Peak power	50 watts nominal

Receiver

Noise figure	3.8 dB
Bandwidth	32 MHz
Minimum discernible signal	-126 dBm

Antenna

First side lobe	-30 dB
Stabilization type	Full stabilization – all modes
Type	Flat plate

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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Rockwell Collins delivers smart communication and aviation electronic solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

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