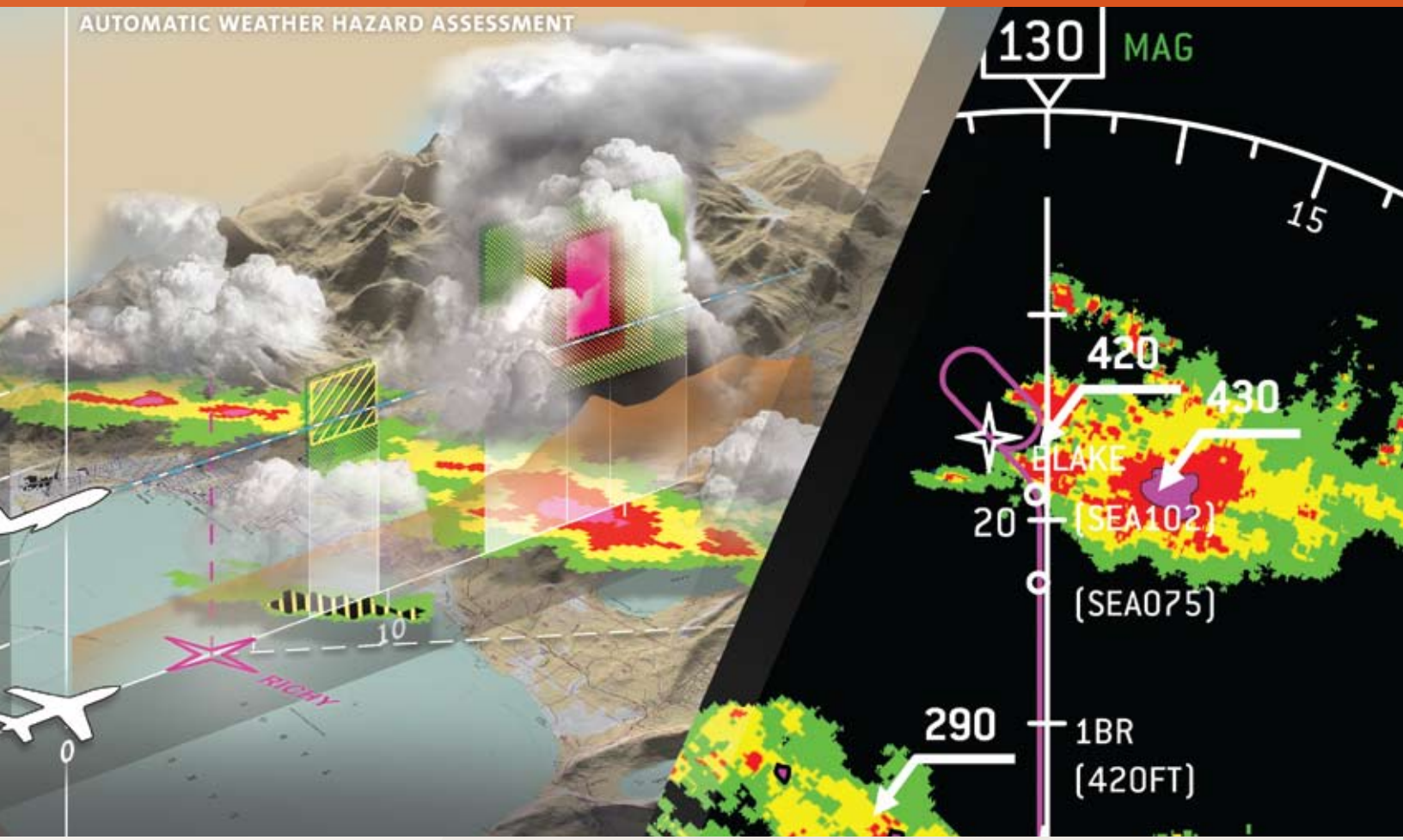
WXR-2100 MultiScan Hazard Detection™ system



Superior, automatic clutter-free weather detection and analysis from the nose of your aircraft to 320 NM.

Rockwell Collins new MultiScan Hazard Detection™ system offers an innovative approach to detecting, analyzing and displaying actual weather hazards enabling safer, smoother and more efficient flights. Global flight tests of the system have validated the performance of the hazard detection concept and ensure the radar makes optimum adjustments to maximize the "probability of detecting" thunderstorms during all phases of flight.

The system includes six ground-breaking technologies that go beyond today's most advanced radar systems by adding predictive weather analysis and hazard detection features.

Geographic Weather Correlation utilizes a database of geographic and seasonal weather variations that enhance the MultiScan™ algorithms in order to provide accurate worldwide hazard information to the flight crew at all times and in all places.

Directed Sequential Hazard Assessment is our patented technology that provides flight crews information on storm height, growth rate and turbulence potential all referenced to the aircraft flight path.

Flight Path Hazard Analysis combines the Directed Sequential Hazard Assessment feature and flight path information to evaluate and display the actual weather threat along the aircraft's route tailored to the phase of flight.

Vertical Weather Analysis provides a method for analyzing the vertical profile of a weather cell so pilots can determine the safest and most efficient flight path.

Predictive OverFlight™ Protection measures the storm growth rate and then makes a prediction on whether the storm or the clear air turbulence bubble above a developing storm cell will reach the aircraft's flight level.

Enhanced Two-Level Turbulence (E-turb) detects light to moderate turbulence events and provides flight crew warnings up to 40 NM ahead of the aircraft.

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ADDITIONAL FEATURES

- OverFlight Protection
- Geographic Weather Correlation
- Cell tracking
- SmartScan™
- True Zero™
- Comprehensive Weather Analysis
- Enhanced turbulence detection with turbulence alerts
- Vertical Weather Analysis
- Predictive OverFlight
- Enhanced ground clutter suppression
- Path Attenuation Compensation (PAC) and PAC alert
- Exceptional transmitter/receiver system performance
- Active gain in all modes
- Full split function operation (Boeing aircraft)
- EGPWS interface (hazard bus)

AVAILABLE MODES

- MultiScan automatic operation
- Ground map
- Weather
- Weather plus turbulence
- Windshear detection (takeoff and landing flight phases)
- Turbulence detection
- Manual operations – independent; mode, gain, tilt, range for each pilot
- Manual gain available in all modes

OVERALL SYSTEM SPECIFICATIONS

General	ARINC 708, 708A, 429, 453, 600
TSO	C63c
Interfaces	TCAS, ACARS, EFIS, CMC/CFDS, Radio Altimeter, EGPWS, DADC, IRS or ADIRU
Environmental	RTCA DO-160D
Software	RTCA DO-178B Level C

Performance index (avoidance)

X-Band	236 dB (580 nm range)

Receiver-transmitter

Size	Per ARINC 708A
Weight	27 lbs max
Input power	115 V ac ±10%, 400 ± 20 Hz single phase
Power dissipated	145 watts or less

Transmitter

PRF	180 (up to 3,000) pp/s
Pulse widths	1 to 25 microseconds
Frequency (direct digital synthesis)	9.33 GHz
Peak power	150 watts nom

Receiver

Noise figure	4.0 dB
Bandwidth	Optimized to selected pulse width
Minimum discernible signal	-125 dBm

Antenna

First side lobe	-31 dB
Stabilization type	Full stabilization – all modes
Type	Flat plate
Beam width	3.5°
Gain	34.5 dB nom

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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Rockwell Collins delivers smart communication and aviation electronics 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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