



3-D VOLUMETRIC WEATHER RADAR

**More accurate weather detection  
at longer ranges**

## Reduce operating and maintenance cost by at least 30%

Technology and automation improve weather avoidance decision making and increase flight safety and system reliability.

### Product Features

- Complete 3-D volumetric weather acquisition
- Minimum Operational Performance Standard (MOPS) certified for enhanced turbulence detection
- 320nm weather detection range
- Automatic flight path based hazard assessment
- Analysis modes (vertical profile and constant altitude)
- Earth curvature correction
- Internal terrain based ground clutter extraction
- Improved weather and windshear detection, and hail and lightning prediction
- Fleet commonality
  - Common spares
  - Common features
  - Common training
- 3 MCU size instead of 8 MCU size

### Benefits

- Improves strategic maneuvering for rerouting sooner due to weather
- Reduces risk of encountering hazardous weather by providing predictive warnings for hail, lightning and windshear
- Reduces delays, turn backs and diversions
- Minimizes turbulence costs reducing injuries, aircraft inspections and passenger concerns
- Lowers cost of operations by more than 35% through increased reliability
- Reduces maintenance costs by more than 30%
- Decreases system weight by up to 30%, yielding a \$10,000 per year per aircraft savings
- Reduces maintenance costs – no manual adjustments to system or antenna required

All estimates on performance, operational benefits and cost savings provided within this document are based on Honeywell data.

### Specifications: RDR-4000

Radar Processor	
Size	Standard ARINC 3MCU
Weight	10.5 lbs (4.76 kg) Max
Mating Connector	ARINC 600
Input Power	115 VAC (96–134 VAC) 360 Hz–800 Hz
Power Dissipated	150 VA nom. (Includes power required for transmitter receiver, antenna drive and control panel)
Environmental	DO-160E (-55°C to +70°C)
Software	RTCA DO-178B Level C
Transmitter/Receiver	
Transmitter Type	Solid State Gallium Arsenide
Transmitter Method	Pulse Compression
Weight	5.1 lbs (2.31kg) Max
Transmitter Frequency	9.375 GHz
Noise Figure	1.9dB
Environmental	DO-160E (-55°C to +70°C)
Minimum Discernable Signal	-124 dBm
Antenna System	
Flat Plate	Gain/Beamwidth/Weight
30"	34.8 dBi nom./3.0 degrees/6 lbs.
24"	33 dBi nom./4.2 degrees/4 lbs.
18"	31 dBi nom./5.6 degrees/3.0 lbs.
Scan Rate	Up to 90 degrees/sec.
Mounting	Standard ARINC-708A
Size	Per ARINC-708A
Weight	16 lbs. Single, 29.5 lbs. Dual
Power Dissipated	(Included in RP-1 Power)
Environmental	DO-160E (-55°C to +70°C)
System Specifications	
Max Detection Ranges	320 nm – Weather and Ground Map 60 nm – Turbulence 5 nm – Windshear
Azimuth Coverage	+/- 90 degs – Weather and Ground Map +/- 40 degs – Windshear
Performance Index	
X-Band Avoidance	238dB (RTCA DO-173/220)
Interfaces	ARINC-453, ARINC-429, ARINC-575, (RAD ALT), RS-232, Ethernet, EGPWS, CMC/CFDS, AFDX, Radio Altimeter, ACARS, TCAS, EFIS
TSO	C63c

Policy Notice: In keeping with Honeywell's goal of constant product improvement, product specifications and design features may be altered without notice.

The IntuVue family of advanced weather radars offer you increased efficiency, greater safety, and enhanced performance across your fleet. Future enhancements will include more intuitive displays, extended turbulence detection and other advanced features.

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