

RDR-4000M 3D Weather Radar for the C-130 transport aircraft

RDR-4000M

Industry-leading 3D volumetric weather radar technology optimized for military operations with High-Resolution Ground Mapping (HRGM) and sectored skin paint modes.



Efficiency

Only Radar

That Automatically Scans
All of the Weather, All the Time

RDR-4000M features automated weather detection to display significant weather without requiring pilots to make tilt adjustments

- Reduces Pilot/Navigator Workload
- Improves Safety by Expanding Situational Awareness Time
- Field Tested and Combat Proven (C-17)

26% Improvement

In Weather Avoidance Decision-Making Ability to Detect and Reroute Around Storms Sooner (relative to previously available systems)

- Enhanced Strategic Maneuvering
- More Efficient and Quicker Flight Rerouting
- Reduces Delays, Turn Backs and Diversions

Safety

First Radar

Certified to the FAA Enhanced Turbulence Minimum Operating Performance Standards (MOPS)

Advanced, forward-looking weather detection and avoidance capability

- Improved turbulence identification
- Detects hazards along flight path
- Look ahead function when maneuvering

50% Reduction In Turbulence Related Incidents

Based on In-Service Data, Compared to Aircraft Equipped with Conventional Radars

- Predictive Windshear Detection and Alerting
- Reduces Hazardous Weather False Alarms
- More Effective Routing and Rerouting Decisions



More Complete View of Weather

Radar automatically and continuously scans the airspace up -80 to +80 degrees in front of the aircraft, from 0 to 60,000 ft. and up to 320nm ahead

- Volumetric 3-D Scanning
- Pulse Compression Technologies
- Extended Turbulence Detection to 60nm
- Predictive Lightning
- Predictive Hail
- REACT (identifies areas of beam attenuation)

Value



Lower Fuel Costs

>30%

Weight Reduction Over Existing Military Radars

Lower system-installed weight reduces mission fuel consumption



Reduced Maintenance Costs

+80% Increase

Mean Time Between Unscheduled Removal (MTBUR)

- Reduces Unit Removals
- Minimizes Spares
- Decreases Operational Delays

8000+ Hours

Mean Time Between Failure

System uses direct drive, DC brushless mechanical drive with coaxial rotary joints, and a solid-state transmitter design to improve operational uptime.