



RDR-7000 Program Description

Introduction

Overview

Operators using legacy Honeywell Primus® 70X/70XA/660 weather radars are facing rising maintenance costs, limited parts availability, and declining support. With some systems already sunset and others becoming increasingly expensive to maintain, upgrading is the most practical path to long-term reliability and support.

The IntuVue™ RDR-7000 is Honeywell's next-generation, solid-state weather radar designed to replace magnetron-based systems. Built on the proven RDR-4000 platform, it delivers a major advancement in capability, automation, and safety for helicopter operations, with planned product support extending well into the future.

The Challenge with Legacy Radar

Traditional weather radar systems require significant pilot input and interpretation, which increases workload—especially in demanding conditions.

Limitations include:

- Manual operation: Continuous adjustment of tilt and gain to build a weather picture
- Limited visibility: Only a narrow slice of weather is visible at any time
- 2D interpretation: Pilots must mentally translate 2D returns into real-world 3D hazards
- Underflight risk: Especially for low-altitude helicopters, improper tilt can result in flying beneath hazardous weather

These factors make legacy systems both workload-intensive and prone to misinterpretation during critical phases of flight.

RDR-7000: The Solution

Upgrading to RDR-7000 is Honeywell's primary long-term support plan for operators currently flying with legacy magnetron-based Primus® 70X/70XA/660 Series weather radar. The IntuVue™ RDR-7000 3-D Automatic Weather Radar system has now achieved multiple TSOs and STCs and is planned for many more in the future.

The RDR-7000 fundamentally changes how weather radar is used in the cockpit by automating both scanning and analysis. It continuously scans the atmosphere ahead of the aircraft—out to 320 nautical miles and up to 60,000 feet—building a complete, real-time three-dimensional weather model. Rather than requiring pilot interpretation, the system automatically processes this data to identify and classify hazardous weather.

The automated capability of the RDR-7000 radar virtually eliminates pilot interaction to manipulate the radar and interpret the data. This allows for significantly reduced workload and enhanced situational awareness, especially during high-stress flight conditions.

Program Incentives

Honeywell is offering limited-time promotional incentives to support operators upgrading to the IntuVue™ RDR-7000. These programs are designed to ease the transition from legacy systems while delivering enhanced safety, passenger comfort, and operational efficiency.

Incentives include promotional pricing and an MSP-Avionics discount of \$30,000 in the first year for operators who enter a new three-year contract (with purchase of software options beyond retro mode). These offers are currently planned through 2026 but may be revised at any time. Additional rebates may be available for early adopters, so don't wait to contact your Honeywell sales representative to get your IntuVue™ RDR-7000 upgrade scheduled today!

Legacy Radar Model Reference

For Reference purposes, the 70X/70XA/660 designations represent the following radars:

Radar Model	Beacon Mode (Installed)	ARINC 453/708 Std Compatibility
P660	No	Both WXPDP & ARINC 453/708
P700	No	WXPDP, No ARINC
P700A	No	Both WXPDP & ARINC 453/708
P701	Yes	WPPDP, No ARINC
P701A	Yes	Both WXPDP & ARINC 453/708

Key Features and Benefits

Automatic Antenna Tilt Control

Reduces pilot workload by eliminating the need for manual tilt adjustments.

3D Volumetric Memory

Continuously scans the full airspace ahead (up to 320 NM and 60,000 ft), storing and updating all weather data in real time. Automatically accounts for earth curvature and supports multiple display options.

Predictive Hail & Lightning Detection (if installed)

Highlights areas with a high probability of hail or lightning using intuitive icons.

REACT (Rain Echo Attenuation Compensation Technique)

Identifies areas where signal attenuation may obscure weather behind significant precipitation.

Vertical Display (if supported)

Shows reflectivity along the flight path or a selected azimuth for enhanced situational awareness.

Weather/Turbulence Ahead Alerts

Notifies the crew of significant weather or turbulence ahead, even if not actively displayed.

GMAP Mode (Terrain Awareness)

Identifies key terrain features such as coastlines, lakes, and large urban areas.

Internal Topographical Data

Eliminates ground clutter from weather displays and removes weather returns from GMAP mode.

Enhanced Weather Detection

Improves long-range performance and detects more weather close to the aircraft compared to legacy systems.

On-Path vs. Off-Path Weather Differentiation

In **WX ALL mode**, off-path weather (above or below the flight path) is displayed with distinct patterns
In **WX PATH mode** (if installed), off-path weather is suppressed, showing only relevant weather along the flight path

