

Built on the superior reputation of its predecessor the RDR-1400C, the RDR-1600's digital technology provides full compatibility with integrated or glass configured flight decks.



The RDR-1600 provides a full-color presentation of weather returns, auto pitch/roll correction, pilot-selectable antenna tilt and scan angle, and Built-in-Test (BIT) for the following operational modes:

- Weather Detection/Weather Alert
- Search and Rescue
- Surveillance
- Beacon Detection Mode
- Ground Mapping

### Weather Detection

Search and rescue may be one of the most difficult aviation missions to perform successfully with inclement weather being the rule rather than the exception. The RDR-1600 offers a 240 NM display range and detailed close-ups at ranges of 1 NM or 0.5 NM which allows for safety and precision of movement to plan weather avoidance maneuvers.

Critical air-to-surface sweeps demand constant attention from both pilot and crew, and intercepting a beacon or target in heavy seas can be challenging. With the RDR-1600's weather alert feature, users are flashed a warning whenever third-level (red) weather areas are detected up to 25 NM beyond the selected range.

### Airborne Surveillance

Different surveillance missions require different capabilities. The RDR-1600 provides three specialized search modes:

- Search 1 incorporates special sea clutter rejection circuitry to help detect small boats or buoys down to a minimum range of 450 feet
- Search 2 is designed for precision ground mapping, where high-target resolution is important
- Search 3 includes normal ground mapping which is useful to detect prominent land objects or coastlines

### Operating Capabilities

Complying with Search TSO C102 and Weather TSO C63c, the RDR-1600 enables land or sea approaches in 200-foot ceiling and 0.5 mile visibility minimums. Its beacon mode allows detection of DO 172 2 pulse and 6 pulse beacons, and can easily change modes with the push of a button. The RDR-1600 has a transmitter peak power output of 10kW combined with a low power consumption of less than 100 watts. The RDR-1600 is available with four different antenna sizes and excels in the detection of small targets while operating at a typical helicopter altitude of 500 feet (152 meters).

### Value and Reliability

The RDR-1600 is a reliable and cost-effective commercial weather radar system complete with a two-year, no-hassle warranty. The RDR-1600 and its predecessor, the RDR-1400C, can be serviced by our worldwide network of service centers to keep you flying in all kinds of weather.



Mi-17V5

## Main Features

- Narrow Pulse Precision Approach Mode (450 feet minimum detection range)
- BIT Circuitry
- Improved Clutter Detection
- ARINC 429 and 453 Interface



## Technical Specifications

- Range Frequency: X-band
- RF Power Output: 10 kW nominal
- Antenna Size: 10 in., 12 in., 18 in., or 12 in. x 18 in.
- Scan Angle: 120 or 60 degrees
- Scan Rate: 28 degrees/second
- Display Range/Marks: 0.5/0.125, 1.0/0.25, 2.0/0.5, 5.0/1.25, 20/5, 40/10, 80/20, 160/40, 240/60 NM
- Minimum Detection
  - Range (Weather Mode): 1,500 feet (470 m)
  - Range (Search Mode): 450 feet (135 m)
- Beacon Range: Line-of-Sight or up to 80 NM
- Size
  - Receiver/Transmitter:
    - Width: 5 in. (12.7 cm)
    - Depth: 14.05 in. (35.69 cm)
  - Antenna:
    - Swing Radius: 10 in. – 6.62 in. (16.82 cm)  
12 in. – 7.62 in. (19.35 cm)  
18 in. – 10.62 in. (26.97 cm)
    - Depth: 7.68 in. (19.5 cm)
- Weight
  - Receiver/Transmitter: 17.3 lb. (7.8 kg)
  - Antenna and Drive: 10 in. – 7.4 lb. (3.4 kg)  
12 in. – 7.6 lb. (3.5 kg)  
18 in. – 11.7 lb. (5.3 kg)  
18 in. x 12 in. – 10.5 lb. (4.7 kg)
  - Control Panel: 1.7 lb. (0.77 kg)
- Power Requirements: 28 VDC @ 3.0 amps Hz @ 3.0 voltamps
- Temperature
  - Receiver/Transmitter: -50 °C to +55 °C
  - Control Panel: -50 °C to +55 °C