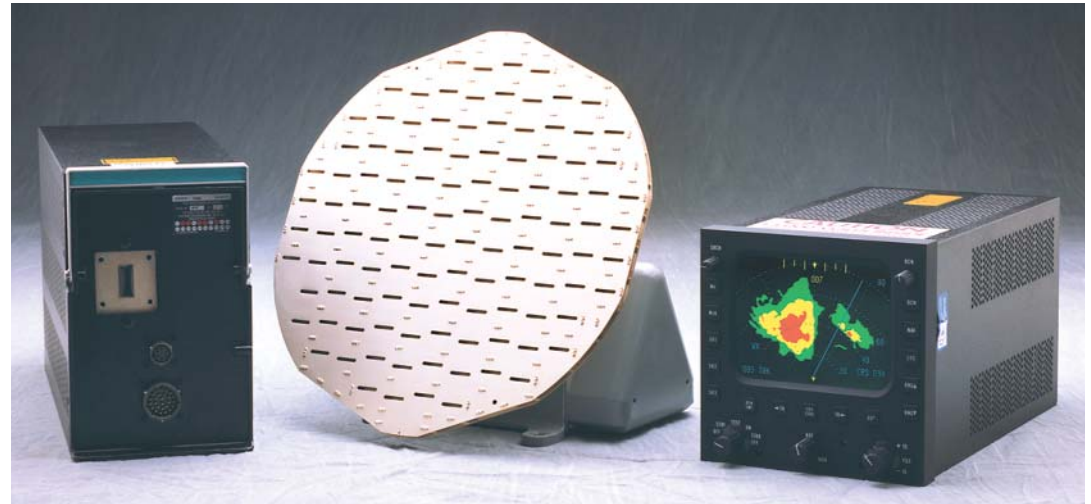


RDR-1400C

Search and Rescue, and Weather Avoidance Radar System



At Telephonics we understand how much you rely on your weather radar for offshore and special purpose missions. That's why the Telephonics' RDR-1400C is the top choice of government and industrial flight departments conducting search-and-rescue, offshore oil and gas exploration, surveillance and paramilitary operations.



Search and rescue may be one of the most difficult aviation missions to perform successfully, as inclement weather is the rule rather than the exception. Critical air-to-surface sweeps demand constant attention from both pilot and crew, and the challenge of

intercepting a beacon or target in heavy seas can be enormous.

The list of reasons to use the RDR-1400C is as long as the list of operators who use it. Since its inception, the RDR-1400 series has been the most technically advanced radar in its class. It combines superior performance with proven reliability.

Weather Detection

First and foremost, the RDR-1400C is a superior weather detection system. With its 240 nm maximum display range, there is plenty of time to plan weather avoidance maneuvers. For clear, detailed close-ups, two modes permit selection of full-scale ranges of either 1 nm or .5 nm, enhancing safety and precision of movement. The weather alert feature flashes 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-1400C 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 300 yards.
- Search 2 is designed for precision ground mapping, where high target resolution is important.
- Search 3 mode includes normal ground mapping and can also be used to detect and track prominent land objects and coastlines.



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Operating Capabilities

Along with special applications, the RDR-1400C has earned its reputation in day-to-day operations. Complying with TSO C102 and TSO C63b, the RDR-1400C enables land or sea approaches in 200-foot ceiling, ½-mile visibility minimums. Its beacon tracking mode permits operation with either current beacon codes or the newer DO-172/16 format, changing with the push of a button.

Delivering 10 KW of peak power, the system excels in the detection of small targets. For example, the RDR-1400C can locate a 9-meter (30-foot) target in Sea State 2 from up to 10 nm away, while operating at a typical helicopter altitude of 152 meters (500 feet).

Useful Features

Another reason for the RDR-1400C's popularity is its full range of useful features, including a full-color presentation of weather returns, auto pitch/roll correction, pilot-selectable antenna tilt and scan angle, and built-in-test.

Value and Reliability

In addition to the host of capabilities and features, the cost-effectiveness of the RDR-1400C is another advantage. Unlike expensive, military specification weather radar, the RDR-1400C is a commercially available, competitively priced system that's as long on value as it is on performance.

With hundreds of systems in service, the RDR-1400C has demonstrated its ruggedness and reliability. Telephonics understands that when someone needs you, they need you right away! We back the RDR-1400C with a two-year, no-hassle warranty and support you with a worldwide network of service centers to keep you flying in all kinds of weather.

System Specifications

- TSO Compliance: C102 and C63b
- Range Frequency: X-band
- RF Power Output: 10KW nominal
- Antenna Size: 10 in., 12 in., 18 in. circular or 12 in. x 18 in.
- Scan Angle: 120 or 60 degrees
- Scan Rate: 28 degrees/sec
- Display Range/Marks: 0.5/0.125; 1.0/0.25; 2.0/0.5; 5.0/1.25; 10/2.5; 20/5; 40/10; 80/20; 160/40; 240/60 nm
- Minimum Detection Range: 300 yards (275m)
- Beacon Range: Line of sight to 80 nm
- Size:
 - Receiver/Transmitter: Width: 5 in. (12.7 cm)
Height: 7.82 in. (19.86 cm)
Depth: 14.05 in. (35.69 cm)
 - Indicator: Width: 6.25 in. (15.88 cm)
Height: 6.25 in. (15.88 cm)
Depth: 10.875 in. (27.62 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)
- Weight:
 - Receiver/Transmitter: 17.3 lbs (6.6 kg)
 - Indicator: 11.5 lbs (5.2 kg)
 - Antenna and Drive: 10 in. – 7.4 lbs (3.4 kg)
12 in. – 7.6 lbs (3.5 kg)
18 in. – 11.7 lbs (5.3 kg)
- Power Requirements: 28 VDC @ 4.2 amps
115 VAC, 400 Hz @
3 voltamps
- Temperature:
 - Receiver/Transmitter: –50 deg. C to +55 deg. C
 - Indicator: –15 deg. C to +55 deg. C

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