Greater accuracy means shorter searches, faster rescues and more lives saved.

When it comes to airborne Search and Rescue (SAR) missions, saving time is often the difference between a rescue and a recovery. That’s why government, military and civilian SAR organizations are upgrading their DF capabilities with Rockwell Collins’ DF-430 Multi-Mission Direction Finder.

Lightweight, compact and rugged, the DF-430 is specifically designed to receive and interrogate all current international distress frequencies including 121.5 MHz, 243 MHz, 406 MHz, as well as ARGOS and COSPAS-SARSAT encoded beacon signals.

**Proven SAR performance**
The DF-430 has been in production for over 10 years and there are over 2,000 units in service with government and military SAR providers including the U.S., Italian and Canadian Coast Guards. It is also serving military SAR/CSAR units throughout Europe, and in Japan, Taiwan, New Zealand and Australia.

**Multi-mission flexibility**
While designed primarily as a highly accurate airborne direction finding system, the DF-430’s compact size and minimal power requirements make it attractive for surface SAR applications including installations on towers and a ship’s mast.

One example of a land-based application is the U.S. Coast Guard’s requirement for 406 MHz direction finding equipment as part of its Rescue 21 SAR system. Rescue 21 will cover coastline, navigable rivers and waterways in the continental United States, Alaska, Hawaii, Guam and Puerto Rico. Rockwell Collins has conducted studies that indicate the DF-430 could be easily modified to satisfy the USCG’s needs.

**KEY FEATURES**
- 30 - 407 MHz frequency range
- Flush-mounted omni-directional, vertically polarized antenna with permanent 360° scanning
- Lightweight – less than 3.3 kg
- Compact design
- No external receiver required
- No calibration required
KEY BENEFITS
- Easy installation and system integration
- Small radome size is easily mounted on towers and ships’ masts
- Multi-Mission government, civilian and military SAR
- High reliability – MTBF as per MIL-HDBK-217 calculated at over 3,900 hours for ARW and over 14,025 hours for AIC (at 35°C)
- Full MIL-STD-1553B and ARINC 429 configurability
- Highly cost effective
- Designed to meet tomorrow’s SAR needs
  – Software upgradable to meet all future COSPAS-SARSAT frequencies
  – Ready to host new 406 MHz downlink protocol for the new Galileo SAR system

TECHNICAL SPECIFICATIONS

General radio specifications
- Frequency range: 30 - 407 MHz
- Antenna: Omni-directional, vertically polarized

Receiver characteristics
- 30 - 407 MHz coverage
- All VHF and UHF frequency bands including the distress frequencies:
  - 30 - 87.975 MHz: 25 kHz steps
  - 108 - 118 MHz: 25 kHz steps
  - 118 - 136 MHz: 25 kHz steps
  - 136 - 173.975 MHz: 25 kHz steps (compatible with 99 channels sonobuoys)
  - 225 - 399.975 MHz: 25 kHz steps
  - 121.5 MHz, 243 MHz distress and 406.025 MHz frequencies
  - ARGOS and COSPAS-SARSAT frequencies

- Precision figures: Bearing intrinsic accuracy <3° over 360° for the whole frequency range 30 - 407 MHz
- Bearing intrinsic stability <±5° at the sensitivity limit
- Bearing acquisition delay: Bearing acquisition time <200 msec

Physical and environmental characteristics
- Weight:
  - ANT-430: 3.0 kg
  - BC-125: 0.8 kg
  - RPU-430: 3.3 kg
  - MT-125: 0.93 kg

- Size/dimensions:
  - ANT-430: 266.7 mm diameter / 97.7 mm height
  - BC-125: 146 x 120 x 65.5 mm
  - RPU-430: 57.2 x 367.15 x 193.5 mm (for 1/4 ATR processor)
  - MT-125: 80 x 120 x 347 mm

- Operational temperature:
  - ANT-430: -50°C to +55°C
  - BC-125: -20°C to +70°C
  - RPU-430: -40°C to +75°C

- Storage temperature:
  - ANT-430: -55°C to +90°C
  - BC-125: -55°C to +85°C
  - RPU-430: -55°C to +90°C

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Building trust every day.

Rockwell Collins delivers smart communication and aviation electronic solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

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