

Fixed Direction Finding



Techtest DF System for ELT Tracking: Enhancing Search and Rescue Efficiency

The Techtest Direction Finding (DF) system stands as a beacon of innovation in reducing emergency response times and enhancing the efficiency of tracing emergency locator beacons. Traditional homing systems, with their high fuel consumption and prolonged flight times, are rendered less efficient and cost-effective in comparison to this cutting-edge solution.

Key Features:

1. Compatibility:

- Works seamlessly with both 121.5MHz swept tone distress beacons and 406MHz COSPAS-SARSAT transmissions.
- Future-proof design accommodates current and upcoming frequencies.

2. Frequency Monitoring:

- Monitors four frequencies simultaneously.
- Detects emergency transmissions and assigns a unique identification for detailed information.

3. Detailed Information Display:

- For 121.5MHz, provides relative bearing details.
- For 406MHz, records and decodes COSPAS-SARSAT messages, offering distress beacon details and, if available, GPS beacon location.

System Components:

1. Antenna (10-246-1):

- Facilitates signal reception for efficient detection.

2. Control Unit (406-28):

- Manages frequency switching, signal detection, and recording processes.

3. Display (407-3):

- Visualizes detailed information and facilitates user interaction.

Detection Mechanism:

- Cyclically switches between 121.5, 156.8, and 243 MHz for signal detection.
- Records a snapshot upon detecting a signal above the threshold.
- Monitors 406 SARSAT frequency continuously for immediate switching and recording.

Direction Finding/Homing:

- Provides a 360° direction finding feature for precise navigation.
- If GPS navigation systems are onboard, integration offers absolute bearing and distance information.
- Homing mode sequentially scans distress frequencies, providing a visual display of left/right steer information.

Cockpit Controller/Indicator:

- Mounts in the cockpit for easy access.
- User-friendly controls: push-button mode selector and rotary click/push selector.
- Minimal user input required, designed for seamless operation.

Elevate your Search and Rescue capabilities with the Techtest DF System, a technological marvel in ELT tracking and emergency response.