



AN/ALQ-251 Radio Frequency Countermeasures (RFCM)

Spectrum Protection for Large Aircraft

Northrop Grumman's AN/ALQ-251 provides superior situational awareness and protection against electronic warfare systems and radar-guided weapons, often in contested and congested electromagnetic spectrum environments. As more advanced radio frequency threats proliferate, this level of protection will be essential for safe operations.

The modular, open systems approach to the suite is designed to provide radar warning, threat identification and countermeasure capabilities, with the flexibility to adapt to future threats. The ultra-wideband architecture can detect more advanced and agile threats, including millimeter wave systems. Commonality with other programs of record ensure affordable sustainment and rapid response to evolving threats.

The system is applicable to the large aircraft in service with U.S. and international operators, such as the C-130 and C-17.

Northrop Grumman has deep expertise in electronic warfare systems for land, sea and air. Covering the full spectrum of operations from self-protection to electronic attack, the company's systems are preparing warfighters for multi-domain operations.

AN/ALQ-251 Benefits

- Digital receiver greatly improves sensitivity and tuning speed. The digital receiver also provides high fidelity RF signal measurement for tighter mission data programming to characterize emitters and reduce ambiguities
- Handles new and complex emitters, including millimeter wave frequency
- Displays signal Angle of Arrival (AOA) for signals
- Supports precision AOA and geolocation
- Provides capability to use a robust set of user-programmable techniques to engage the full spectrum of RF threats



C-130J cockpit

- Provides capacity to countermeasure multiple RF threats simultaneously
- Includes high-power ultra-wideband transmitters
- Includes an integrated RF countermeasure processor
- Supports multiple interfaces available to meet the user's current and future requirements
- Advanced processing and discrimination capability to perform detection, direction determination, classification and response
- Flight line reprogrammable Operational Flight Program and threat library
- Reduces crew workload through easy-to-understand threat symbology and digital voice audio

System is capable of supporting displays that are bright light/night vision goggles compatible, also of supporting alphanumeric symbology (for non-MFD-equipped aircraft).

AN/ALQ-251 RFCM Processor Interfaces

The AN/ALQ-251 RFCM Processor supports a large number of communication standards, such as Ethernet and MIL-STD-1553, as well as electrical interfaces, such as RS-422/485 and 28V discrete. It also supports numerous system interfaces for aircraft survivability equipment.

For more information, please contact:

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