NORTHROP GRUMMAN

Tactical Transport Radar AN/APN-241

AN/APN-241 Multifunction Heavy Lift/Transport Radar

Northrop Grumman's AN/APN-241 radar delivers game changing mission capability to the transport community worldwide, supporting both military and humanitarian missions. With almost one thousand systems delivered and a customer base of more than 20 nations, the AN/APN-241 remains the most versatile multi-mode radar at the best value in the industry.

Unmatched Capability

The AN/APN-241's capability remains unmatched by the competition as the only radar in the transport class with a high-resolution SAR mapping mode. In addition to meeting needs for precision navigation, this unparalleled mapping capability enables operators to execute landing missions with confidence on unimproved runways without aid from ground-based landing systems.

As baseline radar for the Lockheed Martin C-130J, the AN/APN-241 has a solid, long-term production base.

No other radar in the industry can compete with the range and accuracy of the AN/APN-241. It is the only radar with a 10 nm range Windshear mode and its unique two-bar can technology eliminates false alarms. And, unlike other systems, the AN/APN-241 windshear mode is not restricted by altitude.

With the development of a second antenna, the AN/APN-241 is now also the baseline for the Alenia C-27J and an option on the EADS/CASA C-295.

At 20 nautical miles, the AN/APN-241 provides the longest range air-to-air situational awareness mode of any transport radar. The Skin Paint mode also features computer generated target-sizing, a clutter-free display, and hands-free operation to the crew.

Proven Versatility

The highly adaptable AN/APN-241 is currently fielded on four aircraft: C-130H, C-130J, C-27J and C-295. Northrop Grumman has integrated the AN/APN-241 with five different avionics architectures and two antenna systems. As the baseline radar for the LMCO C-130J and Alenia C-27J it has a solid, long-term production base with logistics and maintenance support through 2030 and beyond.

More than 850 AN/APN-241 ship sets have been delivered to a customer base of more than 20 nations.

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Simultaneous Multifunction Capability

The AN/APN-241 is designed to allow pilots to focus on the mission rather than "working" the radar. Automatic tilt and gain adjustments reduce operator tasking, and with simultaneous mode interleaving, crews can select independent radar modes according to mission requirements. For example, the radar lets a pilot view the weather while the co-pilot or navigator views a ground map or wind shear alerts. The AN/APN-241 provides overlays of flight plan or Traffic Collision and Avoidance System (TCAS) information on weather or ground maps for greater situational awareness. Operators may also 'freeze' the AN/APN-241 into a non-emitting mode to gain a tactical advantage.

Engineering Meets Mission Effectiveness

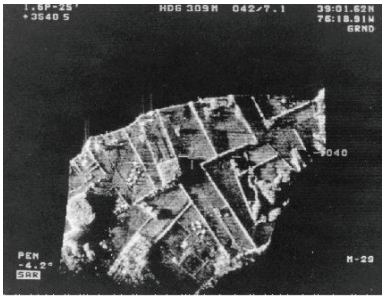
Northrop Grumman continues to meet every customer mission requirement with innovative engineering. The AN/APN-241 is the only radar in its class with Terrain Following/Terrain Avoidance capability. Short range weather modes, color displays, and new range scales have been added to meet customer requirements. Our engineers have proven the size adaptability of AN/APN-241 by creating a smaller antenna to fit the C-27J and C-295 without loss of modes or capabilities.

Best Value – Reduced Operational and Maintenance Costs

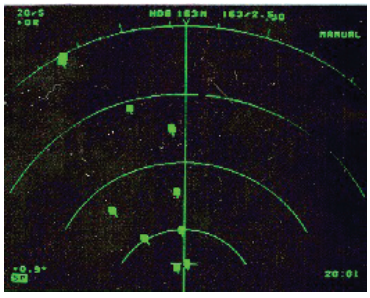
The AN/APN-241 provides extreme operational reliability with a predicted Mean Time Between Failures (MTBF) of one thousand hours (predicted). With the 'built-in-test' design and no need for additional special training, customers maintain a small logistics foot print, customers can eliminate costly interim-level maintenance. The system's automatic bore-sighting capability further reduces cost by eliminating the need for annual recalibration. Northrop Grumman operates a dedicated depot facility to provide customer support and spares and repairs. Long term sustainability of the AN/APN-241 is ensured through continuing technology upgrades.

Multimission - Radar of the Future

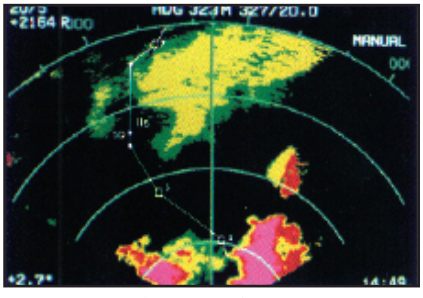
The AN/APN-241 was built with growth in mind. Future capabilities will allow operators to engage in a wider variety of missions. Modifications to current modes and technologies will provide a maritime patrol capability suitable for fisheries protection, smuggling interdiction, and Search and Rescue missions. With the development of 'Ballistic Wind' mode, a modification to wind shear which will measure drop zone winds, the AN/APN-241 provides a unique air drop capability to support both military and humanitarian missions.



The AN/APN-241 is the only transport radar with a Synthetic Aperture Radar (SAR) mode.



The Skin Paint mode provides a clutter-free display and automatic tilt and gain operation.



Aircrews can select ground map or weather map mode and use the overlay capability to increase situational awareness.

For more information, please contact:
Northrop Grumman Corporation
Avionics Systems
P.O. Box 746, MS 495
Baltimore, Maryland 21203 USA
Telephone: 800-443-9219
www.northropgrumman.com
CLC-6641

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