AN/TPS-80 G/ATOR Software Upgrade Boosts Air Surveillance Range and Fire Control Precision



USMC Lance Cpl. Tanner Angiletta readies a G/ATOR during a joint fire support rehearsal training in August. (Photo Credit: USMC Cpl. Evelyn Doherty)

BALTIMORE, Md. – Dec. 9, 2025 – A software update to Northrop Grumman Corporation's (NYSE: NOC) AN/TPS-80 Ground/Air Task-Oriented Radar (G/ATOR) has enabled new, extended range capabilities, allowing the U.S. Marine Corps (USMC) and U.S. Air Force (USAF) to detect threats at greater distances and respond more swiftly.

In addition to a new extended range mode, this update refines G/ATOR's identification friend or foe system and enhances

interoperability. These improvements enable the radar to better categorize detected threats and share intelligence with friendly assets through an open architecture command and control connection. All currently deployed G/ATOR systems received this update.

“G/ATOR’s extended range and improved identification systems provide U.S. and allied forces with a crucial tactical advantage,” said Bob Gough, vice president, maritime and land systems and sensors, Northrop Grumman. “Our radar system is designed to perform in the most complex air defense environments – detecting, tracking and targeting threats in real time.”

G/ATOR is a highly mobile, long range active electronically scanned array (AESA) radar system that operates in the S-band frequency range. G/ATOR provides precise fire control and real-time 360-degree, four-dimensional tracking of a wide range of airborne threats, including cruise missiles, hypersonic missiles, crewed aircraft and uncrewed aerial systems.

Currently, thirty-nine G/ATOR radars have been delivered to the USMC and USAF, with the 40th delivery anticipated later this year. The radar incorporates Northrop Grumman’s U.S.-manufactured microelectronics to support advanced multifunction and multi-mission capability.

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