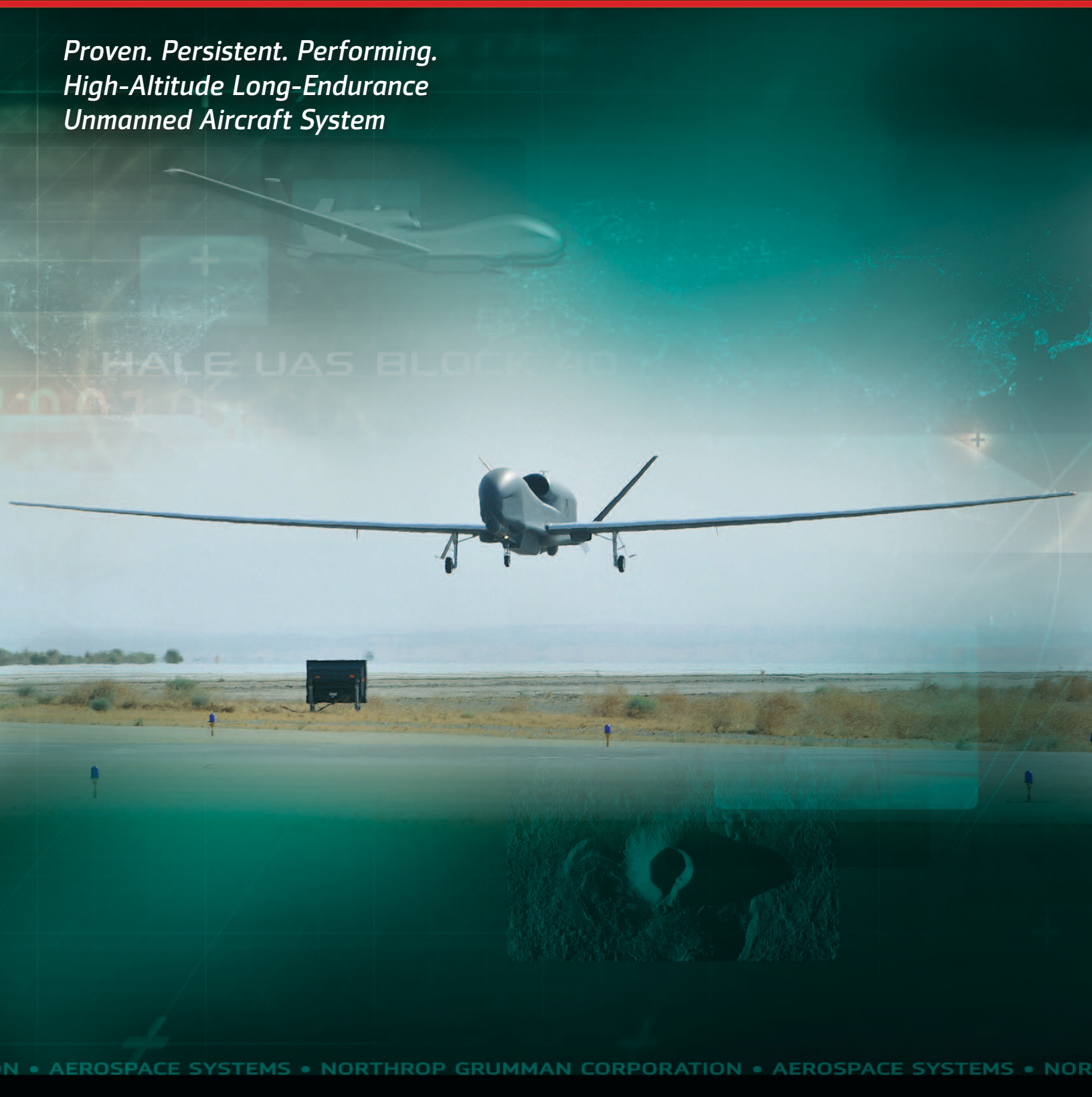
RQ-4 Block 40 Global Hawk

Proven. Persistent. Performing.
High-Altitude Long-Endurance
Unmanned Aircraft System



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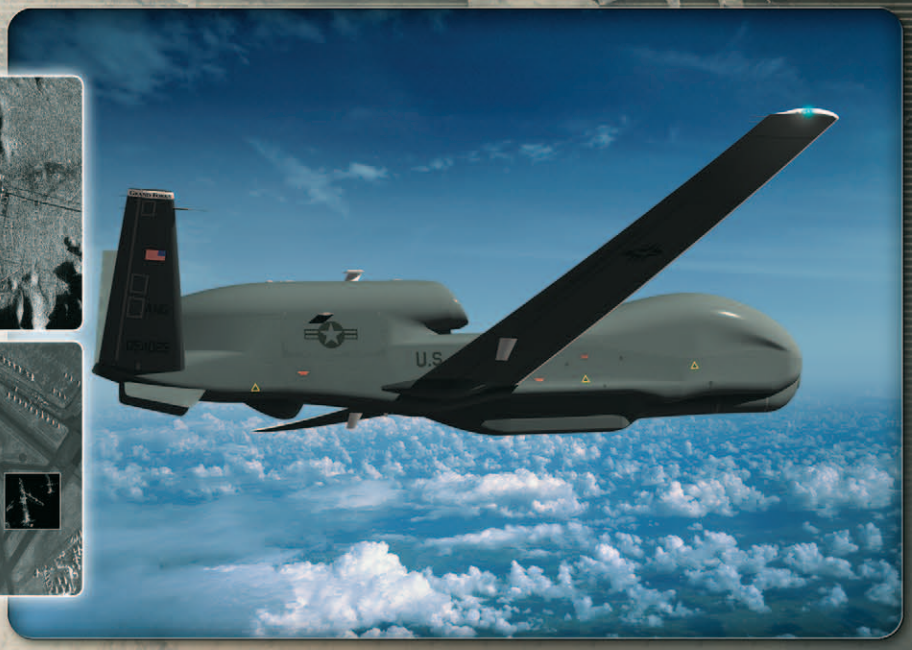
RQ-4 Block 40 Global Hawk

High-Altitude Long Endurance Unmanned Aircraft System

Global Hawk is a high-altitude, long endurance (HALE) unmanned aircraft system (UAS) designed to provide military field commanders with comprehensive, near-real-time Intelligence, Surveillance and Reconnaissance (ISR), plus detection of moving targets over a large geographical area for battle management, targeting and situation awareness of enemy actions. The superior performance of the Global Hawk's system significantly enhances the U.S. military's ability to prevail in all types of operations from sensitive peacekeeping missions to full-scale combat.

The RQ-4 Block 40 aircraft provides a new generation of surveillance capability to monitor large areas in all weather with the AN/ZPY-2 Multi-Platform Radar Technology Insertion Program (MP-RTIP) sensor, which is an advanced air-to-surface-radar for wide area surveillance of fixed and moving targets. MP-RTIP provides game-changing situational awareness and targeting information for warfighters.

The Block 40 Global Hawks are based at Grand Forks Air Force Base, N.D.



Payload and Communication

- *Active Electronically Scanned Array (AESA) Radar designated AN/ZPY-2 MP-RTIP*
- *Mission Plan: Aircraft and MP-RTIP collect and distribute radar data*
- *Fixed Targets: Synthetic Aperture Radar (SAR) "Spot and Swath" Imagery*
- *Moving Objects: Ground Moving Target Indicator (GMTI) of vehicles and others*
- *Distribution: Wideband Ku SATCOM and line-of-sight connectivity*
- *Data stored: Ground servers store data for worldwide network access*
- *GMTI service: Ground services correlate GMTI detection to form target tracks*

Use of Radar Data By Intelligence

- *U.S. Air Force and Army Distributed Common Ground Station (DCGS) analysts receive and exploit MP-RTIP Radar Imagery (SAR Spot and Swath)*
- *DCGS and Battle Management Nodes view GMTI tracks to monitor enemy*
- *DCGS uses data from sensors to find, identify and locate both stationary and moving targets*

Battle Management Command and Control (BMC2) Future

- *Directs Global Hawk MCE crew to alter collection in real-time to support battle plans*
- *DCGS nominates targets for battle management nodes to consider for attack*
- *BMC2 directs weapons to attack both stationery and moving targets from SAR and GMTI data*
- *Weapon systems use Global Hawk radar cues to find and attack target*

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www.northropgrumman.com/globalhawk

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Q4 ENTERPRISE

Block 40 with MP-RTIP Specifications:

Wingspan:	**130.9 ft (39.9 m)**
Length:	**47.6 ft (14.5m)**
Height:	**15.4 ft (4.7m)**
Gross Takeoff Weight:	**32,250 lbs (14,628 kg)**
Maximum Altitude:	**60,000 ft (18.3 km)**
Payload:	**3,000 lbs (1,360 kg)**
Ferry Range:	**12,300 nm (22,780 km)**
Loiter Velocity:	**310 knots TAS (True Air Speed)**
On-Station Endurance at 1,200 nm:	**24 hours**
Maximum Endurance:	**32+ hours**