Joint STARS
E-8C Joint Surveillance Target Attack Radar System
The Northrop Grumman E-8C Joint Surveillance Target Attack Radar System (Joint STARS) is the premier airborne command, control, intelligence, surveillance and reconnaissance (C2ISR) platform for air-to-ground battle management operations.

Persistent Surveillance
First deployed as a developmental program in 1991 during Operation Desert Storm, Joint STARS quickly became one of the most trusted, reliable surveillance systems in the world. The platform provides long endurance, all-weather surveillance and targeting of moving and stationary targets, helping U.S. and coalition forces shorten the decision and attack chain.

Through persistent and wide area surveillance, warfighters use the platform to detect, locate, classify, track and target hostile ground movements, communicating real-time information through secure data links with command posts.

As a collaborative U.S. Air Force and U.S. Army program, Joint STARS is managed by the Air Force at Robins Air Force Base, Ga.

Standard of Excellence
The platform has accrued more than 83,000 combat hours in support of operations in Kuwait, Bosnia, Kosovo, Afghanistan, Iraq and Libya. Joint STARS frequently operates in hot spots around the world, supporting military, disaster relief, peacekeeping, and counter-drug operations.

The commitment to excellence is not limited to the aircraft. Joint STARS crews have been awarded the Air Force Association’s Airborne Battle Management Crew of the Year award each year since 2004.

Flexible Development
The Joint STARS test aircraft (T-3) routinely tests new capabilities and technology. These test activities ensure Joint STARS remains the premier platform for gathering and disseminating information to the warfighter. Recent examples include the Joint STARS Radar Modernization (JSRM) and a radar data exchange test with the RQ-4B Global Hawk.

The JSRM replaces two current radar receivers with a new single fifth generation receiver. This change provides better resolution of images and improves identification and tracking of targets on the ground, allowing the operator to assess the situation more quickly and provide improved data for forensic analysis.

On Feb. 25, 2013, Northrop Grumman completed a successful exchange of radar data during a flight test involving Joint STARS and the U.S. Air Force’s RQ-4B Global Hawk Block 40 unmanned aircraft system. The exchange was the first collaborative effort to stream ground moving target radar data from a Global Hawk Block 40 to a Joint STARS aircraft. Information could then be relayed from Joint STARS to ground forces.

Combining the capabilities of these platforms unlocks increased battle management potential, not only by expanding coverage of the surveillance area, but also by compressing the targeting and attack decision chain for warfighters.

The Air Force also has successfully installed, tested and fielded the first of its Multifunctional Information Distribution System Joint Tactical Radio System (MIDS JTRS) terminals. This accomplishment makes Joint STARS the first Air Force airborne system with the new terminals to improve warfighter communication.

Specifications
- Engines: Four Pratt and Whitney TF33-102C
- Ceiling: 42,000 feet (12,802 meters)
- Range: 9 hours unrefueled
- Crew: (flight crew) four; (mission crew) normally 15 Air Force and three Army specialists (crew size varies according to mission)
- Communications: SATCOM, JTIDS, IDM (to Apaches), SINCgars, CENTRIX, MIRC Chat, full SIPRNET, and Data Links (Link 16 & SCDL) to communicate and coordinate activities among ground, air, and sea elements or with other ISR sensors/platforms
- Radar: 24’ APY-7 radar, detects nearly all ground movement and low, slow-flying aircraft of military significance

For further information, please contact:
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