

## Unprecedented Imagery and Operational Control

ASTOR is the state-of-the-art airborne ground surveillance system. An enhanced member of the Raytheon family of surveillance radars that includes the ASARS-2A for the U-2, the ASTOR Dual Mode Radar provides high resolution at altitudes above 40,000 ft. The system enables aircraft and crew to stay out of harm's way, seeing but unseen.

With three workstations onboard, ASTOR can process near-real-time images either onboard in flight or transmitted via a secure data link to ground stations and other networked platforms in the battlespace. Its reliable software architecture and processing rapidly convert collected data into actionable intelligence. In addition, ASTOR is interoperable with U.S. J-STARS and NATO assets.

The ASTOR system uses the proven and dependable *Bombardier Global Express* aircraft, militarised and fully tested to meet demanding operating environments, and capable of high cruising altitudes. Fully laden, the *Global Express* ASTOR possesses a mission endurance of over 10,000 km.

ASTOR mission support includes a comprehensive training program, with dedicated training facilities located at the main operating base. Training has been under way since January 2005.

## ASTOR Airborne Stand-Off Radar System



Delivering Decision Superiority,  
Protecting the Warfighter

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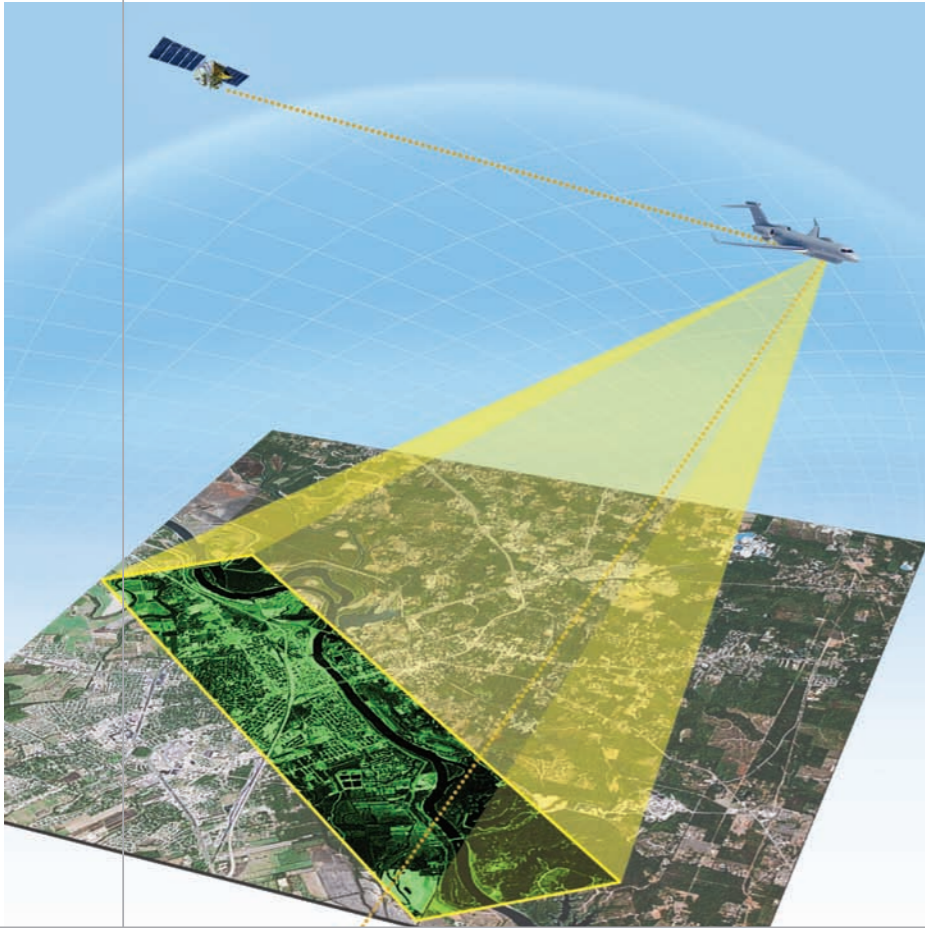
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### Superior Surveillance Capability

Network-enabled, adaptable, and task-ready, ASTOR affords the commanding view. The radar platform remains at high altitude over safe territory, providing an excellent "look-down" angle to the target area.



## Revolutionary capabilities and proven technology for optimal mission support.



Aircraft and aircraft operate at a safe distance.



Advanced operator capabilities are onboard and on the ground.



Operational level ground stations provide connectivity to the airborne system.



Ground stations support U.K. forces in the field and provide interoperability with other assets.



Equipped for rugged terrain, ASTOR's tactical ground stations travel with forces in the field.



### Advanced Radar Technology

The ASTOR Dual-Mode Radar is the most sophisticated of its type in the world today. Combining Synthetic Aperture Radar (SAR) and Moving Target Indicator (MTI), the system is the heart of a reliable 24-hour, all-weather intelligence, surveillance, target acquisition, and reconnaissance (ISTAR) capability. The radar provides unparalleled surveillance and reconnaissance technology for both tactical and strategic mission applications.

### Mission-critical Capabilities

In today's complex, fast-paced battlespace, timely information,

analysis, and action are critical. With its advanced ISTAR capabilities and long stand-off range, ASTOR makes time an asset, not an operational liability. Delivering wide area, all-weather surveillance and reconnaissance imagery in near-real time, the system gives pilots and battlefield commanders the edge in any situation or theatre.

### Versatility

The ASTOR system uses a flexible, highly capable integrated communications architecture that provides rapid tasking and data dissemination. A versatile mission-critical asset, the system is designed to respond to battlefield and peace-keeping requirements.

The ASTOR system accommodates strategic and real-time tasking in any operating state in which it is used. Common workstation software allows mission planning in any Sentinel aircraft as well as in ground stations at the forward operating base (FOB) and main operating base (MOB).

In peacetime and in civil applications, ASTOR data collection tasking will typically occur far in advance of a mission sortie. Urgent intelligence information requirements that arise while an ASTOR sortie is in progress may be introduced via direct communication with the Sentinel, and the

mission can be retasked as a quickfire event. This retasking capability is key to successfully handling today's rapidly changing missions.

ASTOR system workstations incorporate a broad range of SAR and MTI imagery exploitation tools. These tools are part of the common software kit hosted on all ASTOR workstations, onboard the Sentinel or on the ground.

### Superior Mission Support

Far-sighted, long-legged, and networked for command, the ASTOR

system stands ready to meet the varied needs of forces in transformation. Its advanced features and capabilities will provide superior mission support—now and into

the increasingly network-centric future.



The ASTOR Dual Mode Radar provides SAR swath, SAR spot, and moving target indicator imagery for U.K. forces.

