



L3HARRIS™
FAST. FORWARD.

AIRSPACE SURVEILLANCE CAPABILITIES





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L3Harris delivers technology and service capabilities that enhance air domain situational awareness, inclusive of new airspace users such as autonomous and unmanned aircraft systems (UAS), aerostats, supersonic and hypersonic aircraft, and commercial space flight. We employ advanced surveillance technologies to enable precise, real-time tracking and airspace monitoring to enable air traffic safety and management as well as homeland security and defense capabilities.

SURVEILLANCE INFRASTRUCTURE AS A SERVICE

L3Harris engineers and builds complex air domain surveillance infrastructure to deliver reliable and secure surveillance information as a managed service to air navigation service providers, government agencies and the transportation and logistics industry. Our open system design flexibility allows capability and capacity growth to meet performance goals and adapt to different mission applications, with enhanced security features.

SURVEILLANCE TECHNOLOGIES

For airspace surveillance, L3Harris builds and integrates sensors for ground, air and space to enhance airspace situational awareness. We deliver cooperative surveillance technologies to transmit and receive radio frequencies as well as non-cooperative electro-optical, infrared, motion imagery, video, and mobile radar units. Our integrated approach delivers best-fit technologies, data processing, and distribution networks to achieve mission needs and deliver a common airspace picture in real time.

AIRSPACE SURVEILLANCE IN A CHANGING ENVIRONMENT

L3Harris adapts surveillance technologies to meet today's ever-changing airspace environment to identify, track, monitor and deliver the most comprehensive airspace domain awareness for air traffic management and safe aircraft separation as well as airspace monitoring for national security, border protection and critical infrastructure protection.

ADS-B TECHNOLOGY

L3Harris supported the initiation of the Automatic Dependent Surveillance Broadcast (ADS-B) system in the United States. ADS-B involves aircraft transmitting GPS-derived aircraft position, heading, and identification information to ground receiving stations.

ADS-B has modernized air traffic management through its high precision and more frequent position updates, compared to radar. In addition to the terrestrial network system, L3Harris also supported Aireon with the development of space-based ADS-B receivers and ground infrastructure to collect and distribute ADS-B information.

L3Harris also provides in-cockpit Lynx® ADS-B In/Out displays and transceivers, giving general aviation and helicopter pilots traffic, weather, and terrain information on screen. Our SafeRoute+ provides pilots a precise forward field-of-view of surrounding aircraft.

WIDE-AREA MULTILATERATION

L3Harris is initiating wide-area multilateration (WAM) surveillance applications to expand surveillance coverage in remote or rugged terrain areas where radar coverage is ineffective. Using the ADS-B transmissions, the WAM system calculates precise aircraft location, speed and trajectory.

NEW AIRSPACE ENTRANTS

As airspace becomes more crowded with UAS, advanced air mobility vehicles, commercial space flight and the return of hypersonic flight, advanced surveillance capability is needed to keep pace.

Technologies that enhance the current airspace view include:

- > **Radar:** L3Harris delivers tactical air surveillance radar, mobile radar and long-range 3D radar systems as well as air-to-air radar subsystems.
- > **Remote sensing:** Our WALRSS infrared cameras provide long-range surveillance and security capability. Our NightHawk HP electro-optical and infrared sensors enable day and night surveillance. We provide long-range laser range finders and patented image processing for real-time object identification.

UNMANNED AIRCRAFT SYSTEMS

L3Harris supports UAS operations from delivering the aircraft to command and control and UAS network solutions, to onboard sensors and processing payloads.

- > **Aircraft:** Our FVR family of aircraft includes the FVR-90, FVR-55 and FVR-10 autonomous systems for military and civilian missions.
- > **Command and Control:** 3rd Gen C2 systems, detect and avoid technology, rack mount and mobile ground control stations.
- > **Onboard sensors and processing:** L3Harris delivers a variety of equipment including detect and avoid systems, flight data recorders, command and control systems, as well as onboard sensors including our WESCAM-MX™ series technologies, infrared, motion imagery and electro-optical sensors, and onboard processing capabilities for real-time data collection.

- > **Surveillance:** Mobile radar detection, electro-optical and infrared remote sensing systems enable identification and tracking of UAS and our beyond-visual-line-of-sight networks enable safe operations within approved corridors. Our FarSight advanced image processing system features automatic classification in real time for aircraft detection and tracking.
- > **Anti-drone security:** L3Harris' Drone Guardian is a passive remote sensing solution to detect UAS in and around a monitored perimeter using radio, electro-optical, infrared and long-range laser sensors, such as our Coppola Tracker and X-band or L-band radar systems.
- > **UAS countermeasures:** To deter UAS activities within a monitored perimeter, our countermeasures enable command and control takeover, communication signal identification and operator location, and GPS jamming.

Integrating new surveillance technologies into a common surveillance system supports shared situational awareness for all aviation stakeholders and delivers trusted information to efficiently manage air traffic and protect critical infrastructure.

LEARN MORE

[L3Harris.com/atm](https://www.l3harris.com/atm)

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

