Kestrel provides 360 degree, day-night, wide-area persistent surveillance (WAPS) and works in conjunction with a high resolution, full-motion video sensor to deliver a precise, penetrating look at target areas. Imagery, both from full field of view and “watch boxes” set up for special monitoring, are available in near real-time and from archives. Kestrel is a high-performance, adaptable system that offers the reliable real-time and forensic data needed to make critical assessments and take decisive action in the field.

Today’s Threats Require Comprehensive Surveillance Tools

In today’s complex world, both domestically and abroad, there is a growing need for the ability to identify and classify threats, monitor activity, and take swift and appropriate action.

Typically, surveillance systems provide a choice: a wide area perspective or a narrow field of focus. The combination of these two vantage points, however, often offers the key to understanding context, progression of events, and the development of patterns.

In addition, access to near real-time information as well as historic data enables field operators to analyze situations and deliver the crucial knowledge needed for commanders to make life-saving decisions.
Kestrel Serves as a Force Multiplier: Wide-Area Persistent Surveillance with Enhanced Tracking Capability

Kestrel is an innovative, flexible system designed to provide broad area coverage while offering the capability to investigate “point targets” in detail.

• Provides full field of view in near-real-time and archived data for further analysis
• Offers 360 degrees of near-real-time situational awareness
• Continuously collects and records images, day and night
• Records and stores motion imagery for up to 30 days, which is accessible in DVR mode
• Adaptable system allows for customization and rapid deployment
• Easily integrates with high resolution, full-motion video sensors for a closer look
• Produces optimized resolution to track vehicles and detect moving dismounts
• Offers unlimited pan and zoom within entire field of view
• Enables operators to create “watch boxes” to monitor designated areas
• Provides automatic alerts to track movement through specified areas
• Allows operators to monitor multiple areas of interest at once, in both near real-time and forensically
• Supports multiple users
• Allows “bookmarking” of operationally relevant events
• Ruggedized system is easy to operate and maintain

Kestrel equipped aerostats provide constant coverage in a commander’s area of responsibility (AOR). Kestrel, with a weight of just 150 pounds, is the only wide-area motion imagery system light enough to fly on tethered aerostats. Kestrel is a technologically advanced yet affordable system that provides relentless coverage with maximum flexibility to meet a variety of mission-critical needs.

Kestrel Offers Range of Application Options

Kestrel was funded by the Army G2 and was developed in 2011 in cooperation with the United States Naval Air Systems Command (NAVAIR) for forward operating base protection. The Kestrel system also supports a variety of essential efforts, including:

• Force protection
• Base defense
• Operational surveillance

• Pattern-of-Life analysis
• Significant activity exploitation
• Patrol/route reconnaissance and overwatch
• Named area of interest surveillance

Kestrel also offers valuable support in a number of law enforcement and domestic security applications.
The Kestrel system’s expansive field of view is optimized to track vehicles and detect moving dismounts and is able to cue to a high resolution sensor for a closer look.

Kestrel's intuitive interface shows the situation map, which includes system status panel, bookmarks, range ring, elevation model, and viewer windows. Kestrel's viewer windows include frames color-coded to SitMap, current altitude, direction arrows, and MGRS grids indicating cursor locations.
Kestrel Ground System

- Equipment rack mounted in PSS-T ground systems
- Video streaming
  - Three clients simultaneously (GCS and TOC)
  - Up to four windows per client
  - Up to 30 days instantaneously accessible data
- System components
  - Ten gigabit Ethernet switch
  - Rack-mounted client with day-to-day system controls
  - Command, capture, archiving, and processing servers
  - 252 terabyte archive
  - Six kW UPS provides backup in case of power loss
  - Can optionally cue onboard sensors for US systems

About Logos Technologies

Logos Technologies LLC is a diversified science, technology, operations, and defense company that delivers innovative, mission-critical solutions. Core competencies include: sensor systems, large data management, advanced analytics, cyber operations, platform development, and bio-based chemicals. Customers include government agencies and commercial companies.

Learn more at: www.logos-technologies.com
2701 Prosperity Avenue, Suite 400, Fairfax, VA 22031 | T (703) 584-5725

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