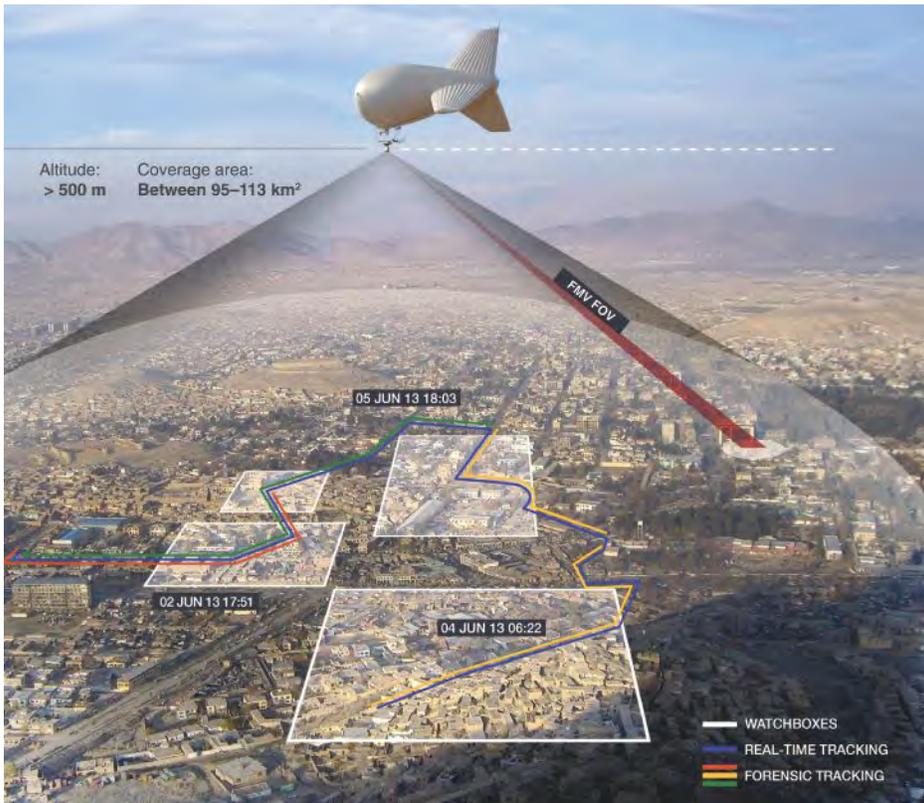


SEEING IT ALL!

Wide-Area Motion Imagery Gives Unique Perspective

By Susan Kerin, Communications Director, Logos Technologies



Imagine having the ability to monitor an entire city-sized area at once. You could track—from the air and in near-real time—multiple suspects scattering in different directions. You could see where they’re going, who they meet up with and where they’ve been. That’s the promise of wide-area motion imagery (WAMI) technology, first used by the U.S. Armed Forces in Iraq and Afghanistan and now available to law enforcement domestically and abroad in various configurations.

Four units of a new wide-area sensor have been exported to Brazil. Mounted on a tethered blimp, or aerostat, and operated in the air for days at a time, this 40-pound WAMI system will be used by the Brazilian Ministry of Justice to help protect crowds this summer at the 2016 Summer Olympics. The Games of the XXXI Olympiad are a major international multi-sport event that will take place in Rio de Janeiro, Brazil, from Aug. 5 to 21.

It’s the first time a non-U.S. government operator will be using WAMI at an international sporting event.

“Until now, these sensors have been used to protect U.S. troops against enemy improvised explosive device networks,” said John Marion, president of Logos Technologies based in Fairfax, VA. “This is the first time this sophisticated technology has been exported abroad.”



An entire WAMI system (aerostat and sensor) can be carried in two small trailers, and it can go from packaged to fully operational in just two hours. Individual operators can monitor various areas within an expansive field of view. They do so by both watching streaming video opened on a mobile device and by marking off areas with virtual tripwires that send automated alerts. Once a suspicious person, vehicle or activity has been detected by WAMI, the medium-resolution sensor cues a high-resolution full-motion video camera to take a closer look and identify the target.

While the WAMI system is monitoring an area from the air, it is also recording all activity happening below—even things not being actively looked at by operators. This serves as an imagery archive analysts can draw upon later or even when an event is still in progress. The leading WAMI systems are designed to handle multiple missions, from securing major sporting and other large events to protecting borders, ports, logistics hubs and disaster relief efforts.

For U.S. law enforcement agencies, small WAMI systems can weigh less than 35

pounds. The compact systems are compatible with cameras with a greater than 50-megapixel resolution as well as onboard processing and storage hardware.

WAMI sensors can be mounted on police helicopters, small fixed-wing aircraft and even tactical unmanned aircraft systems. This provides law enforcement with unprecedented surveillance capability during aerial patrol, suspect tracking and smart policing.



WAMI sensors can support 10 field operators at once, each able to open streaming video windows to watch a different area within the sensor's 2.5 mile-wide field of view. Leveraging focal planes developed for medical imaging, these systems can cost less than \$1 million a unit.

"In terms of price, capability and versatility, WAMI has a lot of potential both abroad and here in the U.S.," Marion said.

Security is of course an important aspect of any Olympic Games no matter where they are played in the world. It is estimated that more than 10,500 athletes from 206 countries will take part in 28 Olympic sports in Rio de Janeiro.

Since winning the bid for the 2016 Olympics, Rio's crime problems have received international attention. A police helicopter was shot down over a slum during one of the city's many drug wars, and the pilot was killed in the incident. Rio's mayor has admitted there are "big issues" facing the city in securing the Games from violence. The WAMI systems exported from the U.S. will be critical in helping overcome these issues. 