

ICONOS in its ninth year

—by Gary Napier

Nine years in orbit, Lockheed Martin-built IKONOS continues to provide high-resolution imagery of the Earth to commercial and government customers around the world. The IKONOS remote sensing satellite is owned and operated by GeoEye of Dulles, Va.

The world's first commercial high-resolution imaging system was launched Sept. 24, 1999, with an anticipated life expectancy of five to seven years. In 2007, Lockheed Martin performed a life expectancy analysis for GeoEye and determined the spacecraft may continue to be fully operational into the next decade.

The spacecraft simultaneously collects 0.82-meter resolution black-and-white imagery and better than four-meter resolution multispectral data. These map-accurate images are used for applications in land management, environmental monitoring, local and regional government, national security, disaster relief, news gathering, and many other geospatial applications. IKONOS has collected the world's largest archive of commercial, high-resolution Earth imagery.

"We take great pride in the spacecraft's sustained record of performance as well as in the amazing ways the imagery has been used over the past nine years," said Jim Crocker, vice president of Sensing and Exploration Systems at Lockheed Martin Space Systems. "From high above, IKONOS truly broke ground on a new commercial industry."

IKONOS's achievement demonstrates the viability of commercial remote sensing as a means to addressing the many important requirements

government and commercial customers have for high-quality, map-accurate satellite imagery.

IKONOS is based on the Lockheed Martin LM900 LEO, three-axis stabilized, remote sensing bus. At a weight of 1600 pounds (720 kg), it's a stable, highly agile, precision-pointing spacecraft ideally suited for high-resolution remote sensing missions.

The small spacecraft and associated command and control and the mission planning ground system were developed by Lockheed Martin Space Systems Company. The Maryland-based company is engaged in the research, design, development, manufacture, integration, and sustainability of advanced technology systems, product, and services. ■



IKONOS image of Venice, Italy