Lockheed Martin To Install Second WindTracer Lidar System At Hong Kong International Airport

Laser Radar System Detects Wind Hazards, Improving Takeoff and Landing Safety

Lockheed Martin announced the Hong Kong Observatory has purchased a second WindTracer(R) Doppler lidar system which will be used at the Hong Kong International Airport. Developed and produced by Lockheed Martin Coherent Technologies, WindTracer provides air traffic control personnel with advanced warning of wind hazards such as wind shear, microbursts, gust fronts, turbulence and crosswinds which enables them to offer precise, timely direction to pilots during takeoff and landing.

The lidar system uses an eye-safe laser with precision pointing and scanning capabilities to reflect off aerosols 100 times smaller than the width of a human hair, collecting wind data over a broad volumetric area. The first WindTracer at Hong Kong International Airport was installed in 2002.

Using the WindTracer, the Hong Kong Observatory has developed the world's first Lidar Windshear Alerting System (LIWAS). This system has been operating at the Hong Kong International Airport since end of 2005, continuously scanning approach and departure corridors, providing minute-to-minute warnings to aircraft landing and taking off at the airport.

"The Observatory is a pioneer in the deployment of laser-based remote sensing technology for airport wind shear alerting systems," said Wai Hon-gor, assistant director of the Hong Kong Observatory. "WindTracer combined with a Terminal Doppler Weather Radar gives the airport a comprehensive picture of wind hazards. Adding the lidar to our program has increased the detection rate of wind shear to more than 90 percent."

"The Hong Kong Observatory is well respected for making aviation safety a priority," said Dr. Stephen Hannon, Products Group director for Lockheed Martin Coherent Technologies. "The first WindTracer we installed has truly proven itself and has become an integral part of its meteorological monitoring program. This second system will further enhance a robust system. Terminal Doppler Weather Radar is an effective technology for detecting wind events during a storm, but in clear weather its detection rate drops substantially. Laser radar, on the other hand, is ideal for clear air. And combining the two gives you the best of both worlds."

The Hong Kong Observatory is a department of the government of the Hong Kong Special Administrative Region, and is one of the world's leading meteorological organizations. It forecasts weather and issues warnings on weather-related hazards at the airport and within a designated airspace over the northern part of the South China Sea.

Headquartered in Bethesda, Md., Lockheed Martin employs about 135,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The corporation reported 2005 sales of $37.2 billion.

NOTE TO EDITORS: for a low- and high-resolution JPEG image of a WindTracer, please visit our WindTracer web page at: http://www.lockheedmartin.com/windtracer.

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