Lockheed Martin To Provide Surveillance Radar To United Kingdom For World's Largest Offshore Wind Farm

Lockheed Martin will deliver a long-range air surveillance radar system to the United Kingdom that overcomes sensor performance issues commonly caused by the rotating blades of wind turbines.

The advanced electronics of Lockheed Martin's TPS-77 radar mitigate interference, or "clutter," that commonly obscure radar targets in and around wind farms. The new radar system will provide reliable air defense surveillance capabilities for the U.K. Ministry of Defense (MoD) and allow the nation to move forward with aggressive plans to install some 924 turbines along England's east coast.

The radar will provide surveillance over five planned wind farms in the Greater Wash Strategic Area -- Sheringham Shoal, Race Bank, Dudgeon, Triton Knoll and Docking Shoal -- that are expected to generate more than 5,500 megawatts of sustainable power.

Under contract with Serco, Lockheed Martin will deliver this new TPS-77 system by November 2011. In the U.K., Serco has served as Lockheed Martin's in-country Contractor Logistic Support partner for the MoD's FPS-117, or Type 92 radars, delivering greater than 98 percent operational availability.

The TPS-77 radars' capabilities in "green" wind field environments has been demonstrated in tests at land-based wind farms near the company's outdoor test range in Cazenovia, NY, as well as in trials with the Horns Rev offshore wind farm in the North Sea. The radar itself is also highly energy-efficient, delivering top performance while using just half the power of comparable S-band radars.

The new TPS-77 radar system supports the goals of the U.K. Department of Energy and Climate Change to reduce fuel consumption. In 2009, the U.K. established the Low Carbon Transition Plan to reduce emissions 34 percent from 1990 levels by 2020. The plan calls for an 80 percent reduction by 2050. With more than 200 operational offshore wind farms, wind power is the nation's biggest renewable energy source. In 2008, the U.K. surpassed Denmark as the largest offshore wind generator in the world.

"Lockheed Martin continually incorporates state of the art technology into its TPS-77 and FPS-117 family of ground-based radars," explained Carl Bannar, vice president and general manager of Lockheed Martin's Radar Systems business. "This investment allows us to provide new capabilities and enhanced performance for customers while leveraging the field proven architecture and 30 years of operational experience with our family of long range radars."

Lockheed Martin's TPS-77 is the latest configuration of the world's most successful 3-D solid-state radar design. This fixed site or transportable radar provides continuous high-quality 3-D surveillance on aircraft targets at ranges out to more than 250 nautical miles.

Lockheed Martin's TPS-77 shares a high degree of logistics commonality with the FPS-117 (Type 92) radar. Today, 33 TPS-77s and 134 FPS-117 systems are operational in 25 countries. Many have performed for years completely unmanned in remote areas, and in a wide range of operational environments.

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 140,000 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 2009 sales of $45.2 billion.

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