



Remote base uses natural energy to power facilities

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7/27/2009 - **ASCENSION ISLAND, St. Helena (AFNS)**
-- A small Air Force Space Command base on the British-owned island of Ascension uses natural energy to help power its facilities.

Called Ascension Auxiliary Airfield, the small base serves as a satellite tracking station for the 45th Space Wing.

Located in the South Atlantic Ocean several thousand miles from the coast of Africa, it is the most southerly tracking facility for space launches from Cape Canaveral, Fla.

The base uses a number of environmentally friendly methods to produce power, including wind turbines and a solar farm.

The environmental achievements accomplished on Ascension Island aren't going unnoticed. The base has received numerous awards, the most recent was the 2008 Gen. Thomas D. White Environmental Quality Award for an overseas base.

This award is presented by the Air Force chief of staff to an installation located outside the United States that demonstrates exceptional environmental achievement with consideration given to the host country environmental standards and the level of cooperation between the installation and the local community.

"We have a great relationship with the people of Ascension and the Royal Air Force," said Maj. Jay Block, commander of the 45th Space Wing's Detachment 2 on the island. "We've worked hand-in-hand to accomplish a lot of our environmental and conservation programs."

In 1996, Air Force Space Command officials installed four 225-kilowatt wind turbines on the island to supplement the station's electrical power supplied by fuel-driven generators. The idea to build a wind farm was actively pursued because of the island's remote location, its steady winds and the high cost of fuel oil shipments.

"We're in an isolated location here, so we're pretty self-sufficient when it comes to power generation," Major Block said.

Once the turbines were operational, the base became the first to use wind energy in the Department of Defense.

"Once the turbines were up and running, no one really knew what to expect," said Damien Cuello, who works at the airfield's power plant.

But, the results were almost immediate.

During its first four months of operation, the four three-blade turbines produced more than 1 million kilowatt hours of electricity. And, with an average wind speed on the island of 16 to 17 miles per hour, the wind generators produce an estimated 2.5 million kilowatt hours of energy each year. Fuel oil consumption is also down by nearly 300,000 gallons for an annual savings of \$350,000.

"In fact, the project, which cost around \$3 million, has already paid for itself," said Jim Henning, the base's utilities supervisor.



Four 225-kilowatt wind turbines help produce power for Ascension Auxiliary Airfield, a small base belonging to the 45th Space Wing. The base is located on the British-owned island of Ascension, which is positioned in the South Atlantic Ocean several thousand miles from the coast of Africa. (U.S. Air Force photo/Lance Cheung)

And the base isn't only using wind to help power its grid; it's also using the sun. Located near the flightline, the base installed a solar farm that helps power the lights lining the runway.

"Sure, saving money is nice, but showing that wind and solar energy work will hopefully make other people and other bases think, 'Hey, maybe we should look into that,'" Mr. Jennings said.