

Reese Technology Center: Research powerhouse in Lubbock

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12/20/2010 - LUBBOCK, Texas (AFNS) -- Pilots trained to fly at the former Reese Air Force Base here may remember the "interesting crosswinds" in the area. The military pilots are gone, but the blustery winds are placing this northwest Texas city on the renewable energy map.

These winds, as well as other hallmarks of the area, such as cotton and tornados, are key research subjects at Reese Technology Center, where cutting-edge science flourishes.

Reese has a few things you don't find most places, such as the world's largest tornado simulator, part of the Wind Science and Engineering Research Center operated by researchers at Texas Tech University. It is used to test "safe rooms" and other products marketed to protect consumers during hurricanes and tornados.

Then there's an enormous wind turbine university students use for research. Texas Tech leads the country in wind efficiency research, and is the only school in the country to offer a PhD in wind science.

At the former military installation, military research into developing new surveillance radar systems is performed by Department of Defense engineers and subcontractors using funds from the Defense Advanced Research Projects Agency and from the Air Force Research Lab.

Cotton research by a Texas Tech assistant professor already has yielded a product called FibertectR, a biodegradable sandwich of raw cotton and activated carbon fibers which can protect soldiers and firefighters from chemical vapors or absorb up to 15 times its weight in spilled oil.

And the main issues impacting the wind power industry -- storing and transporting the power -- are being tackled at the National Institute of Renewable Energy, created by Texas Tech officials.

Reese closed as an Air Force base in 1997. The Air Force Real Property Agency, which has overseen the cleanup at Reese, maintains an office there. The cleanup is noteworthy because it was one of the fastest in the Air Force. The final environmental remedy was in place by 1999.

Bill Miller, executive director of Reese, says, "Paul Carroll of AFRPA has been an asset to the cleanup, the transition from base to private enterprise and the revitalization and future success of Reese."

The cleanup not only was fast, it was innovative and cost-effective. The Air Force is realizing cost savings of more than \$22 million due to implementation of a fence-to-fence guaranteed fixed-price remediation contract. And in 2006, contractors augmented the original pump-and-treat groundwater treatment system with an enhanced reductive dechlorination process designed to accelerate cleanup activities by more than 20 years.

All of Reese's nearly 3,000 acres were transferred in 2006 to the Lubbock-Reese Development Authority. The Reese Technology Center has 21 tenants, including South Plains College, a community college with nearly 3,400 students, and The Institute of Environmental and Human Health with some 110 students and run by Texas Tech.



The Alstom wind turbine at Reese Technology Center at the former Reese Air Force Base in Lubbock, Texas, is 110 meters tall from the tip of its outstretched blade to the ground. The turbine, which has been operating since Nov, 2010, generates 1.67 megawatts of power. It is used for research in the Texas Tech University wind science and engineering program and for training in South Plains College's wind technician program. (Courtesy photo)

Another tenant is Zachry Engineering High Voltage Division, a company developing quick-start generators and other technology to make wind power more versatile.

The Reese campus has become a regional center for education, research, technology and engineering inclusive of collaborations between tenant customers. The airfield remains a viable asset in use today by Reese customers.

About 700 people work at Reese Technology Center, according to Mr. Miller. "We're creating about 40 new jobs a year," he said.

Todd Reno, director of business development at Reese, calls it "one of the most successful redeveloped bases in the country." He explains that the former base is "basically a city" with roads and other infrastructure. Reese officials contract with the city of Lubbock for water and sewer, and with local fire departments for fire protection.

"We have not received any funds from the city of Lubbock, the county of Lubbock, the state of Texas or the federal government," Mr. Reno said. "The only money we get is from our customers: land leases and leasing buildings."

They have sold some land, including a golf course but have no plans for future land sales, he noted.

Mr. Miller, executive director of Reese, said that "just as Reese Air Force Base was the premier facility in its area of service, we at the Reese Technology Center want it to be the best it can be by taking care of our current customers, continuing to enhance our campus in ways large and small, creating jobs and providing economic development to our region."

The Air Force Real Property Agency is responsible for remediation and property transfer at 40 former Air Force installations throughout the United States under the Base Realignment and Closure program. At the height of BRAC, AFRPA officials managed 87,000 acres, which is about 137 square miles of property. Since the first BRAC in 1988, the agency has transferred 88 percent, or more than 116 square miles of land -- twice the area of Washington, D.C -- to local communities for public use.