



Overview

For more than 40 years, Texas Tech University has been a leader in wind research. First looking at wind hazard mitigation, wind engineering and wind science, and most recently moving into the wind energy field.

To combine the university's varied wind research and education efforts, the National Wind Institute (NWI) was established in December 2012 to bring all things wind under one umbrella.

Texas Tech wind research has always taken an interdisciplinary approach, drawing on multiple engineering disciplines, atmospheric science, economics, business and law, among others, to address the nation's energy needs and continue to mitigate the damage to lives and structures from wind events.

The doctoral degree program maintained by the former Wind Science and Engineering (WiSE) Research Center, the Bachelor of Science degree in wind energy, and various professional development activities and certificate programs administered by the Texas Wind Energy Institute (TWEI) will now be integrated into one entity—the National Wind Institute.

NWI integrates ongoing wind hazard and wind energy research and educational opportunities to create the next generation of wind scientists and engineers. NWI will open doors to larger collaborative research projects with private and public entities and industry partners.

NWI is home to state-of-the-art research facilities and instrumentation situated on a 67-acre research field site that includes the new Scaled Wind Farm Technology (SWiFT) facility, a partnership between academic, industry and government, focusing on turbine-to-turbine interaction research and innovative rotor technologies.

For *All Things Wind*, consider TTU's National Wind Institute.

Anna Young, associate managing director, National Wind Institute,
(806) 834-3015 or anna.t.young@ttu.edu



NWI's Debris Impact Cannon can produce simulated wind speeds over 250 mph. It launches different types of simulated wind-born debris in a controlled environment to provide valuable impact resistance data.



VorTECH is designed to simulate tornadic winds in the mid-Enhanced Fujita Scale three (EF3) range or less or about 150 miles per hour or less, the maximum speed of approximately 92 percent of all tornadoes.



The SWiFT Facility recently finished construction at NWI's 67 acre research field site. SWiFT is a partnership between the Department of Energy, Sandia National Laboratories, NWI/TTU, Vestas and Group NIRE.