



WiSE Wednesday Lecture Series Presents:

Research, Testing, and Designing for Disaster

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ABSTRACT:

Since 1970, the Wind Science and Engineering Research Center has investigated over 185+ storms in the US and four different countries and territories. 52 of these were hurricanes or tropical depressions. Storm mitigation investigations such as this provide research to help overcome myths about wind speeds, concluded that max ground-level wind speeds seldom exceed 200 mph, concluded that about 90% of all tornadoes have wind speeds less than 150 mph, developed knowledge base for tornado resistant design...wind pressures and debris impact resistance.

The Debris Impact Facility's newest research initiation, being led by Mr. Tanner, consist of aerial mapping of storm damage using quadcopters and a single-wing/single-engine Unmanned Aerial Vehicles, commonly referred as UAV's or drones to map storm paths and conduct volumetric studies of the path and of the debris. This research will survey the quality with precision of 1-in. from an altitude of 200 feet.

BIOGRAPHY:

Larry Tanner, P.E., R.A. has 30 years of service to TTU which includes: 20 years as Adjunct Professor in the College of Engineering and College of Architecture, 10 years as Director of Facility Planning & Construction, and 20 years of overlapping service as Storm Damage Researcher and Manager of the Debris Impact Facility. Mr. Tanner has been the Manager of Debris Impact Facility (DIF) for 19 years, performing work for national, international clients and individual tests doing tornado and hurricane shelter research and testing.

As the DIF Manager, Mr. Tanner led his lab into ISO 17025 International Accreditation from the American Association for Laboratory Accreditation (A2LA). Mr. Tanner has 20 years working with FEMA doing storm research and co-authoring original publications and updates. Mr. Tanner has conducted 13 Total Storm Investigations and 3 Testimonies to Texas State House and Senate Subcommittees regarding the use of building codes for mitigating the damage from severe storm storms.