

Wind Science and Engineering Research Center

Bi-Weekly Newsletter: Faculty, Staff and Ph.D. Student Updates

Farewell, Dr. Mehta!

Dr. Kishor Mehta, P.W. Horn Professor and one of the founders of the Wind Science and Engineering Research Center, has accepted a new position with the prestigious National Science Foundation (NSF) in Washington, D.C., and has left to start his new position.

Dr. Mehta is recognized worldwide as the authority on wind engineering, and was instrumental in the development of the Enhanced Fujita Scale (EF scale) now used to measure the intensity of tornadoes and other high wind events. He was also on the team who developed the ever-evolving nationwide design standards for wind loads (the ASCE 7).

Thank you for your service, Dr. Mehta! We couldn't have done it without you!



Welcome new WiSE Ph.D. students



We're glad you are here!

Welcome all, Welcome Fall! 2nd Annual WiSE BBQ



Starving students, staff and faculty heralded the arrival of the Fall semester with the annual WiSE BBQ. Thanks to all involved.

UK film company visits WiSE

(Below) WiSE affiliate Dr. Darryl James works with the camera crew to set up the best angle for filming VORTECH.



WiSE alum Amber Reynolds reports on research with the NASA MC3E field campaign

Amber Reynolds spent nearly 3 weeks earlier this spring in Ponca City, Oklahoma, and Omaha, Nebraska, as part of the Mid-latitude Continental Convective Clouds Experiment (MC3E: <u>http://mc3e.nsstc.nasa.gov</u>). While in Ponca City, she served as radar scientist for the NASA Polarimetric (NPOL: <u>http://radarmet.atmos.colostate.edu/mc3e/npol</u>), which operated for the first time in a field campaign since a major upgrade to its antenna.

While in Omaha, she worked at Offutt Air Force Base with the High Altitude Wind and Rain Profiler (HIWRAP: <u>http://har.gsfc.nasa.gov</u>) that was mounted on the NASA high-altitude ER-2 aircraft that flies at 60,000+ feet. The data collected from this field campaign will be used to improve algorithms for estimating rainfall at the surface from the Global Precipitation Measurement (<u>http://gpm.gsfc.nasa.gov</u>) satellite that will launch in 2013.



(Above) - Image of HIWRAP mounted into a wing pod on the NASA highaltitude ER-2 aircraft.



A HIWRAP image of a cross-section taken through a storm overflown by the NASA ER-2 on May 24, 2011. The surface is denoted by a dark red line at approximately 19 km range.

The lack of reflectivity near the surface during the time 21:39 to 21:40 UTC is due to attenuation (scattering) of the signal by strong precipitation.

The short pulse at the bottom of the image will allow for the removal of sidelobes that occur near the surface as seen in the top panel. These preliminary images of Ku-band reflectivity are uncalibrated at this point.

Thanks to Dr. Amber Reynolds for the info. Want to let WiSE know what you're doing? Email the editor with your info. All welcome.