

**SSEC/CIMSS
Seminar**

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**Tropical Cyclone Tracking
It's (a lot) more than location, location, location...**

The problem of analyzing tropical cyclone (TC) vortex structure in the models (and in reality) is of obvious importance to both forecasting and climate change studies. However, the problem is often cast (solely) as one of location -- where's the storm? This "realtor" view of TC tracking is not consistent with the magnitude and quality of today's' observing system and global numerical weather prediction models; i.e., the models can now accurately resolve all but the TC inner-core (order 50 km).

The talk will first give current tropical SA (situational awareness) as a demonstration of how the trackers and models depict active TCs and the tropics in general. Next will be an application of TC tracking to low frequency TC activity where a clear decadal downward trend in global activity will be highlighted as well as the 'crash' of 1999.

Current applications of TC tracking under development at ESRL through the Hurricane Forecast Improvement Project (HFIP) are TC genesis/formation (<http://ruc.noaa.gov/hfip/tcgen>) and intensity forecasting using dynamical-statistical models (<http://ruc.noaa.gov/hfip/tcdiag>). Deficiencies in the tracking schemes for these applications will be discussed, and it will be argued that a comprehensive tracker is needed -- a tracker that both locates the cyclone and analyzes surface wind structure and other vortex properties such as the Hart Cyclone Phase Space.

Wednesday, 3 August 2011

11:00 a.m.

Room AOSS 351