ZP11 Weekly Notes
8/12/15

VISIT TO THE NATIONAL WATER CENTER (email to: brad.zavodsky@nasa.gov/256-961-7914): In late May 2015, the National Oceanic and Atmospheric Administration (NOAA) opened the National Water Center (NWC) in Tuscaloosa, AL on the campus of the University of Alabama. The NWC is a research to operations center focused on developing coupled land surface, hydrologic, and atmospheric modeling and analysis to support real-time flood forecasting. The broader National Water Center objective is to collaborate with other operational agencies (Federal Emergency Management Agency, United States Geological Survey, and Army Corps of Engineers) to develop a single, national response to flood emergencies. Staff members from the Short-term Prediction Research and Transition (SPoRT) Center visited the NWC on Tuesday, August 4 to discuss ways that SPoRT and MSFC Earth Science scientists could collaborate with researchers at the NWC. The SPoRT team members met with NWC management, toured the new building, and presented an overview of land-surface modeling activities at SPoRT. Both parties agreed to a return visit in Huntsville for relevant collaborators in the fall.

LIS LIGHTNING PAPER PUBLISHED IN JOURNAL OF CLIMATE; PREVIOUS PAPER REMAINS #1 AT ATMOSPHERIC RESEARCH (email to: daniel.j.cecil@nasa.gov/256-961-7549): A new paper on lightning climatologies derived from the Lightning Imaging Sensor (LIS) on the Tropical Rainfall Measuring Mission (TRMM) satellite has been published in the *Journal of Climate*. "TRMM LIS Climatology of Thunderstorm Occurrence and Conditional Lightning Flash Rates" by Daniel J. Cecil (ZP11), Dennis E. Buechler (ZP11/UAH), Richard J. Blakeslee and (ZP11) presents the most detailed global maps ever of how often thunderstorms occur in particular places, including animations by month of year and by time of day. It also maps the conditional mean flash rates when thunderstorms do occur. Some of the places with high total annual flash rate have disproportionately high rates of thunderstorm occurrence (e.g., Central Africa and other deep tropical locations) *or* disproportionately high conditional flash rates when storms do occur (northern Argentina and other subtropical locations). A previous paper "Gridded lightning climatology from TRMM-LIS and OTD: Dataset description" by the same authors mapped total lightning flash rates and described MSFC's LIS climatology products. That paper remains #1 on *Atmospheric Research*'s list of most downloaded articles for a 12th non-consecutive month. It has ranked in the top five since spring 2013.