AMS 2011

91ST ANNUAL MEETING
23-27 JANUARY 2011
Seattle, Washington
AMERICAN METEOROLOGICAL SOCIETY

Weather Fest

SUNDAY
JANUARY 23

EXHIBIT HALL 4F
12:00 PM
91st Annual Meeting
American Meteorological Society
Welcome To Seattle!
Who and What is the AMS?

- Founded in 1919, AMS has a membership of more than 14,000 professionals, professors, students, and weather enthusiasts.
- Promotes the development and dissemination of information and education on atmospheric, related oceanic and hydrologic sciences.
- Advances the professional applications of these sciences through publication of atmospheric and related oceanic and hydrologic journals.
- Holds 12 conferences annually, and offers numerous...
Poster Sessions & Career Fair
CAREER & EXHIBIT FAIR
NOAA
www.noaa.gov

CHART THE
future

CLIMATE ADAPTATION
AND MITIGATION

An informed society anticipating
and responding to climate and its impacts

NOAA
Science

www.noaa.gov
LECTURE

PRESENTATIONS
Conclusions

- The CDF bias correction removes 10-m wind speed bias more effectively on average than the additive or linear techniques. Overall, an additive or CDF bias correction works best for 2-m temperature.

- Fire threat days exhibit cooler model temperature biases and less of a positive wind speed bias than the warm season average. Therefore, using similar days to bias correct high fire threat events (conditional training) is more effective than using the most recent consecutive (sequential training) days.

- Furthermore, conditional training with BMA improves ensemble calibration when compared to sequential training.

- Proper post-processing may be a valuable technique to more effectively detect and calibrate an ensemble for extreme events.

Questions to Be Addressed

- Choice of bias correction matter, by variable with forecast variable?
- Can post-processing be used to improve biases associated with a particular flow type/high fire threat days?
Impact Weather 2010
Tornadoes & Convective Storms

Dr. Russell S. Schneider
Greg Carbin
NWS Storm Prediction Center

January 2011

8 inch Hailstone: Vivian, SD - 23 July 2010

Largest ever in US by both diameter (8.0 in.) & weight (31 oz.)
Tornado (Watches) of 2010

Tornadoes of 2010

1130am-2:30pm - Saturday - April 24 – 2010:
An intense tornado tracks for 149 miles across Mississippi.
2010 Season Records/Facts

- Third most number of named storms and second-most number of hurricanes (2005 had 38 and 15, respectively)
- The Accumulated Cyclone Energy (ACE) index for the season was 190% of the long-term median (a "hyperactive" season)
- Three tropical storm impacts in the U.S. (Bonnie and Hermine, with Earl bringing sustained TS conditions to the Outer Banks)
- Alex was the strongest June hurricane since Alma of 1966
- Julie became the strongest hurricane so far east (previous was Fred 2009)
- Most number of hurricanes without a U.S. landfall in the historical record.

2011 and beyond

- Landfall Intensity Probabilities
  - chance a storm will be a particular category at landfall
  - Current product does not accurately provide this information
- Improved timing uncertainties of onset of tropical storm, 50-k, and hurricane force winds
  - uses existing wind speed probabilities
  - could provide range (hours) or chances of when tropical force winds will begin and end
- Determine the need for 6- and 7-day forecasts
  - Model are producing skillful long range forecasts
  - Is there a need?
  - At that range, most folks will remain in a monitor, not action phase
- Watches/Warnings before tropical cyclone formation
  - Currently NWS/NHC does not have the technical means to issue Watches/Warning before formation
  - Watches/Warnings currently tied to advisories
  - Would it be beneficial?
The SCAN Program

Need a cell tracker
- Needed for time series
- Best for lightning jump
Currently
- Mentally assemble trend
- Can be subjective
- Slow to do
91st ANNUAL MEETING
OF THE AMERICAN
METEOROLOGICAL
SOCIETY
AWARDS BANQUET
PROGRAM
See You Next Year

22-26 January 2012 • New Orleans