Engagement of Customers, Stakeholders, and Users

Collaborative Research Environments

Alan Gerard, Chief, WRDD
Collaborative Research Environments enable...

Dynamic interactions between researchers and practitioners that support a true iterative R&D environment
Various Efforts

- Lead and operate NOAA’s Hazardous Weather Testbed (in partnership with NWS)
- Strong partnerships and relationships with other NOAA testbeds (AWC, HMT, OPG)
- Collaborative relationships with NWS at all levels of the organization (NWS, regions, field offices)
NOAA’s Hazardous Weather Testbed

- **Experimental Warning Program**: Detection/prediction of hazardous weather events up to several hours in advance
- **Forecasting Research**: Prediction of hazardous weather events from a few hours to a week in advance
- **Experimental Forecast Program**: Satellite-based Research
HWT in the Literature

A Real-Time, Virtual Spring Forecasting Experiment to Advance Severe Weather Prediction

HWT in the Literature

102 peer reviewed publications since 2016
Why is Research in the Naturalistic Environment Important?

Testing and evaluation

Evaluate experimental product for many events and by many users

Develop longitudinal collaborations and deeper user engagement

Real-time access to experimental products

A strong desire to incorporate available information into the forecast process

Observe operational challenges and limitations

Considerations for operationalization

Research-to-Operations-to-Research
An Example: Warn-on-Forecast in Operations

- Co-location of NSSL/OU CIWRO with the Norman Forecast Office
- Warn-on-Forecast guidance is available during the real-time run season
- Impromptu science support during weather events
- Learning together about the real-time applications of Warn-on-Forecast guidance

Images courtesy of WFO Norman
Impacts and successes...
Questions for the panel?