

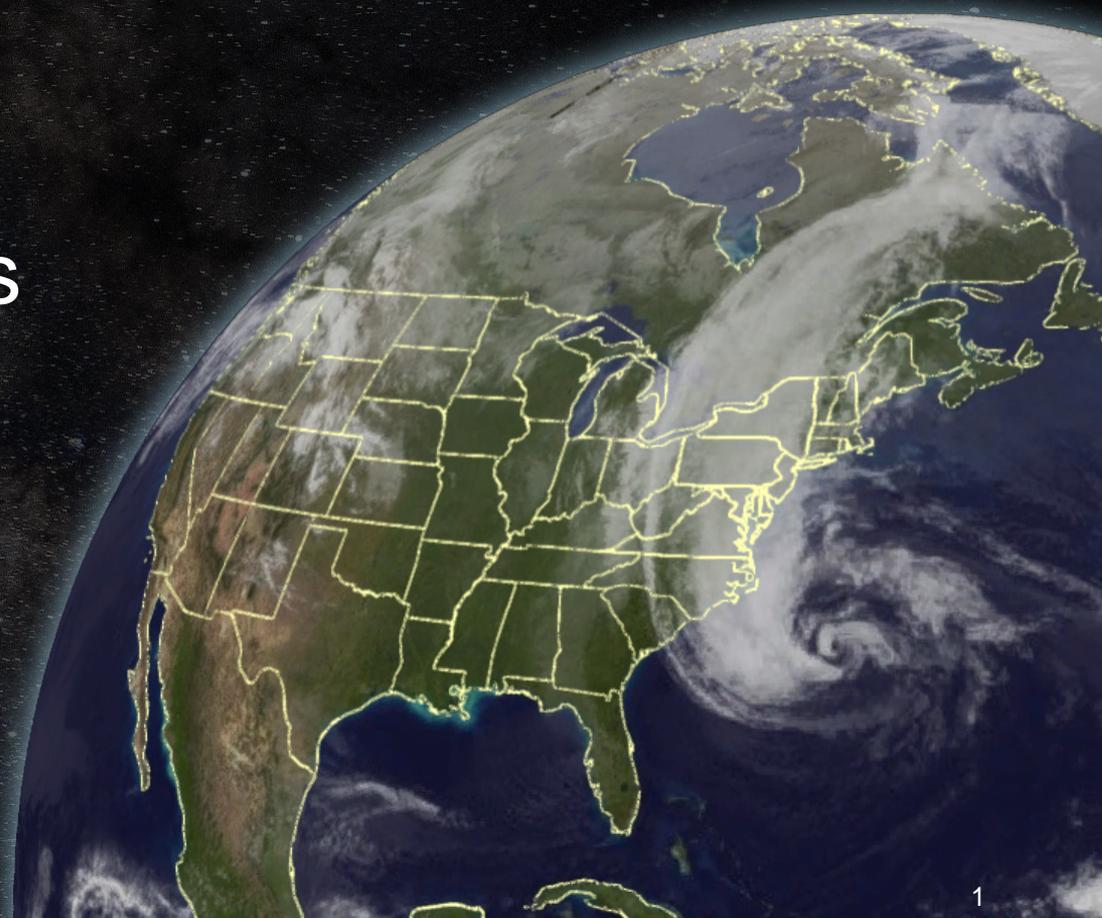
A Busy Day at Forecast Offices

Michael Kraus

NOAA/ESRL/GSD



GSD Science Review
3-5 Nov 2015



GSD helps forecasters do their job:

- Understands the process
- Knows their needs
- Develops tools

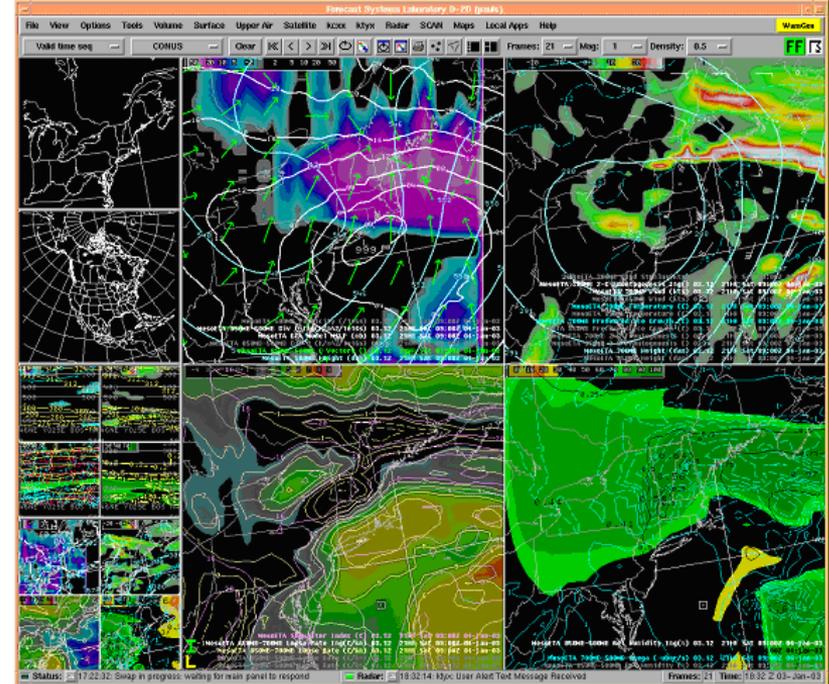
Grand Challenge #3:

Provide the most accurate environmental information, including uncertainty and probabilities, to the right people at the right time for optimal decision-making, and develop tools to help decision makers best utilize the information provided.



Our Story

- GSD has developed workstations and tools for decades
- Major increase in data from observations and models
- Make the job possible
- Data into information



Current research

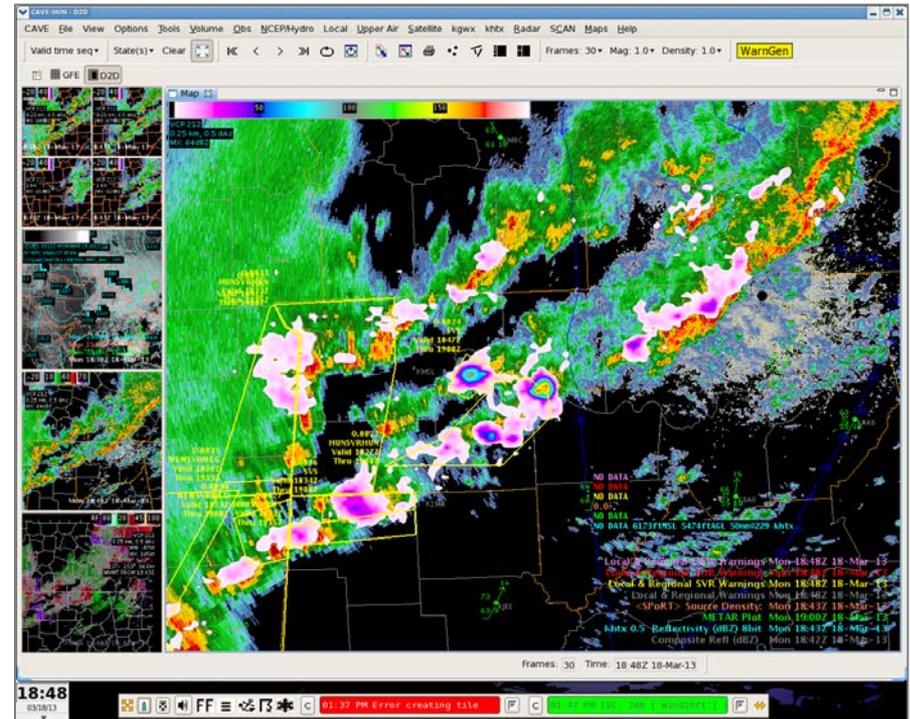
- Making meteorologically consistent sense of ensemble model output
- Using recent observations to refine forecast guidance
- Tools for tropical storm and aviation weather forecasting



GSD understands the forecast process, and the needs of meteorologists in the field

Tech Transfer – AWIPS Enhancements

- Prototype tools in the field
- Continual feedback
- Acceptance into operational software
- Primary operational tools for forecasters
- 7 Invited talks



Performance

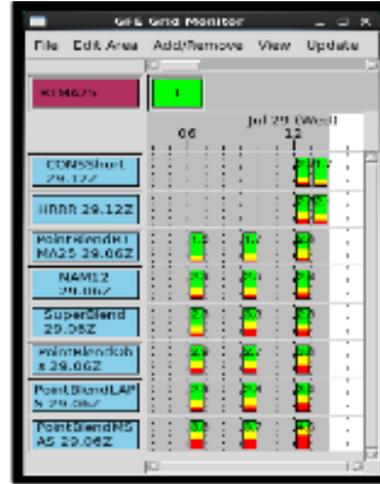
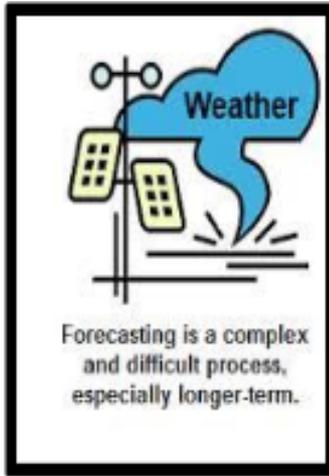
- In line with NWS field office and FAA requirements
- Development driven by sponsor needs
- Effectiveness gauged by:
 - sponsor satisfaction
 - operational implementation
 - continued support



- **Co-author:** Weather-Ready Nation Roadmap
“Society is prepared for and responds to weather-related events”
- **Objective:** Reduced loss of life, property, and disruption from high-impact events
- **Relationships**



Theme 2 Session 4 Talks



To Be Continued ...

Ensemble
Forecasts and
Uncertainty
(Paul Schultz)

Forecast Monitoring
& Short-Term
Updates
(Kevin Manross)

Tropical
Hazards
(Tom LeFebvre)

Theme 2 Session 4 Talks



**Unified and Consistent
Hazardous Weather
Forecasts
(Tracy Hansen)**

**Sharing the Wealth:
Forecaster Tools for
Our Partners
(Joe Wakefield)**



ePoster Stations

| Presenter | Station |
|---|---------|
| Paul Schultz Ensemble Forecasts and Uncertainty | 1 |
| Kevin Manross Forecast Monitoring and Short-term Updates | 2 |
| Tom LeFebvre Unified and Consistent Hazardous Weather Forecast | 3 |
| Tracy Hansen Unified and Consistent Hazardous Weather Forecasts | 4 |
| Joe Wakefield Sharing the Wealth: Forecaster Tools for Our Partners | 5 |