



NWS Operations Proving Ground Status Report for Testbed Roundup

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April 2014

Background

Seed money provided in 2012 to:

- ▶ Spin up facility
- ▶ Establish governance model
- ▶ Initiate GOES–R R2O project
- ▶ Conduct DSS Boot Camp
- ▶ Produce ERS PDS
- ▶ Publish initial AO



2013 Budget Drought

Aligned Priorities to Resource Limitations

- ▶ DSS Training
- ▶ GOES-R FLS
- ▶ ORE Planning
- ▶ System Config
- ▶ Functional Needs (Staffing & Op Costs) submitted to OMB for FY16–20 budget



Scope and Focus

“BOTH Science AND Services”

- ▶ Human Factors
- ▶ Realistic Simulation
- ▶ All Office Types
- ▶ All Service Sectors
- ▶ Partner Involvement



The Concept



Pilot Office
Limited Field Testing

HWT
Developmental Testing

Field Offices
Real World Operations

OPG
Ops-Like Simulation

HT to Lans Rothfusz for Roundabout Metaphor

Connection to Recent Service Assessments

Ongoing OPG projects relate directly to at least 14 recommendations and 3 best practices.

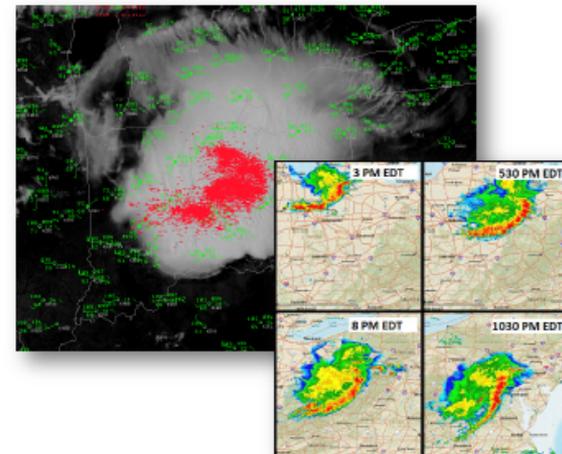
Hurricane/Post-Tropical Cyclone Sandy, October 22–29, 2012



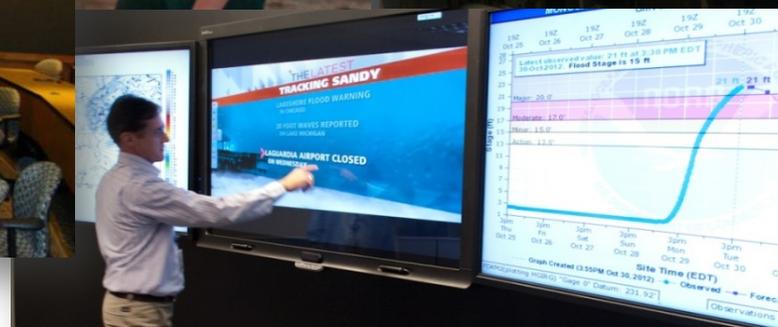
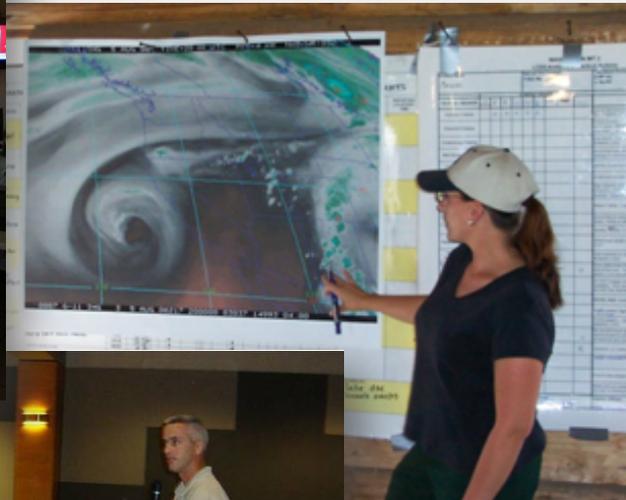
Hurricane Irene

Service Assessment

The Historic Derecho of June 29, 2012



DeFacto DSS Testbed



Critical Driving Forces

- ▶ WRN priority to expand DSS capacity and skill sets
- ▶ Increasingly active in disaster response
- ▶ NIMS compliance and risk communication proficiency essential



DSS Deployment Boot Camp

- ▶ Experiential workshop: on-site DSS skill set focus
- ▶ Culminates in full-day incident simulation exercise



ERS Competency Guide



- ▶ Emergency Response skill set development
- ▶ Diverse representation of viewpoints on team
 - All Regions, NWSEO, WDTB, IMET Program, WRN Pilots
- ▶ Version 1 posted to NWS Training Portal December 2013

National Weather Service
Building a Weather-Ready Nation

Home PCU 1 PCU 2 PCU 3 PCU 4 Boot Camp Task Books Common Docs Announcements Sitemap Recent Site Activity

ERS Professional Development Series

Emergency Response DSS PDS

Weather-Ready Nation is about building community resilience in the face of increasing vulnerability to extreme weather. To achieve this goal, it is imperative that the NWS expand its capacity to provide superior decision support services in all phases of the disaster life cycle. This Professional Development Series (PDS) focuses on identifying professional competencies needed to perform the responsibilities of an Emergency Response Specialist, along with an inventory of instructional components available to build those skill sets.

PCU 1: ICS Foundation

Demonstrate and apply knowledge of National Response Framework principles and Incident Command System structure, operations, and nomenclature.

PCU 2: Critical Information (Partnership Building & Designing Services)

In coordination with the local WCM/SCH and management team, integrate scientific expertise and knowledge of incident priorities, to identify critical, event-specific decision thresholds, and design services to meet the needs of the community. This is predicated on a commitment to develop and nurture effective collaborative relationships with key partners.

PCU 3: Risk Communication

Identify key elements and best practices of the Crisis & Emergency Response Plan, and communicate useful weather or hydrology information to decision makers in a clear, understandable, and actionable manner.

PCU 4: Service Evaluation

There is a need to critically evaluate and assess the effectiveness of the service activities recorded to improve future service activities. Evaluation is specifically defined as the process of assessing behaviors or activities against exercise objectives, and noting strengths and weaknesses to determine the overarching need in this PCU for NWS personnel engaged in DSS to be able to meet the needs of the community.

Job Tasks and Knowledge

- Ability to perform thorough post-mortem process with stakeholders to identify areas of improvement
- Review quality and substance of services post-event; apply lessons learned to improve services
- Ability to conduct effective debriefing processes to improve teamwork and communication
- Ability to identify areas of workplace performance factors for services rendered
- Ability to apply lessons learned.

Instructional Components

- IS-1.A: Emergency Management
- IS-15.b: Special Events
- IS-102.c: Preparing for Emergencies
- IS-775: EOC Management

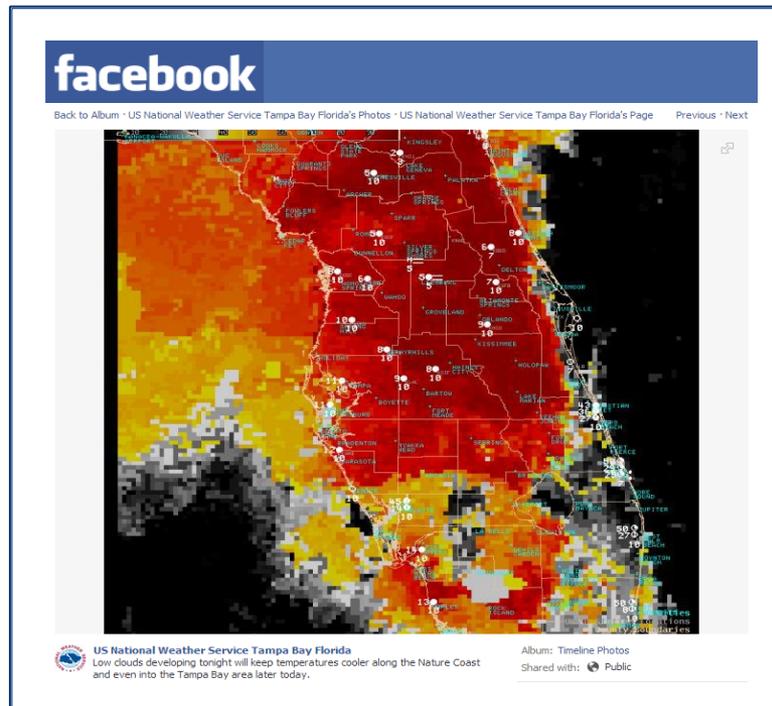
Optional Training to Enhance Competency

- CDC CERCC - Crisis and Emergency Response Plan (CERP) Assessment
- IS-704: NIMS Communicable Disease Preparedness
- IS-42: Social Media in Emergency Preparedness
- AFH 33-337: US Air Force Incident Command System

Early R2O Projects

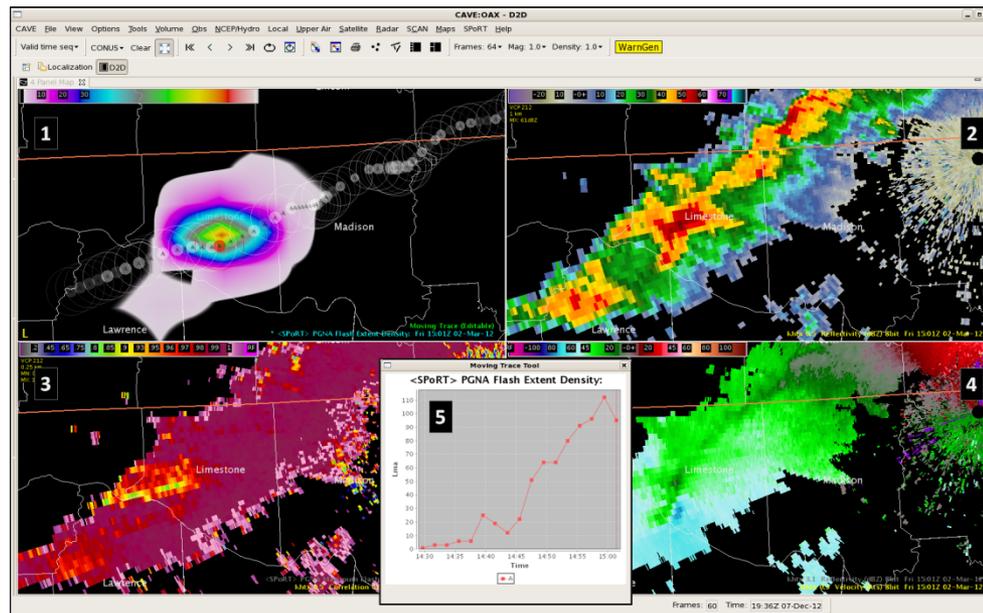
GOES-R Fog/Low Stratus Products

- ▶ Early testing conducted at 18 NWS offices
- ▶ Assisted NWS Tampa Bay Pilot Project
- ▶ Feedback to GOES-R to improve products
- ▶ Project expanding to 30+ offices this year
- ▶ Field implementation targeted FY15



Early R2O Projects

NASA SPoRT / MDL Tracking Meteogram



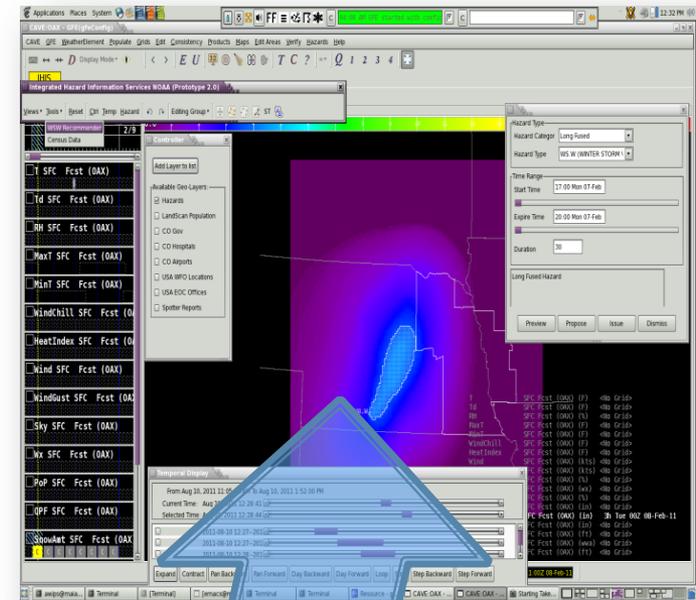
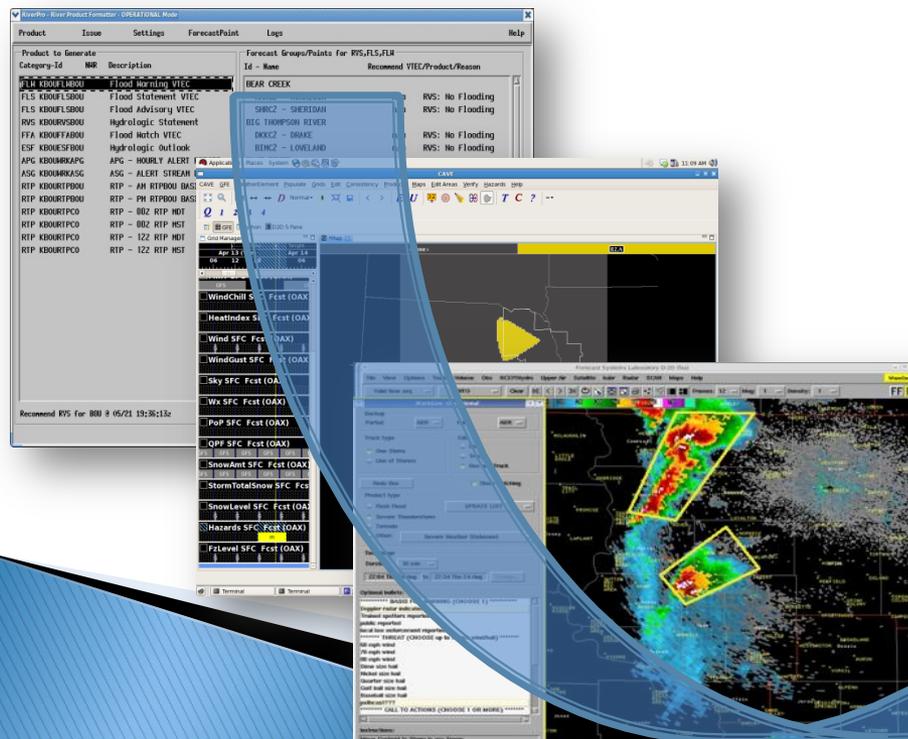
- ▶ ORE scheduled for May 2014
- ▶ Finalizing System Config and Test Plan with NASA

(Image courtesy of NASA SPoRT)

Early R2O Projects

Hazard Services Hydrologic Warning Tool

- ▶ AWIPS Dev Project
- ▶ Initial Stages of ORE Plan
- ▶ Aiming for FY14-Q4

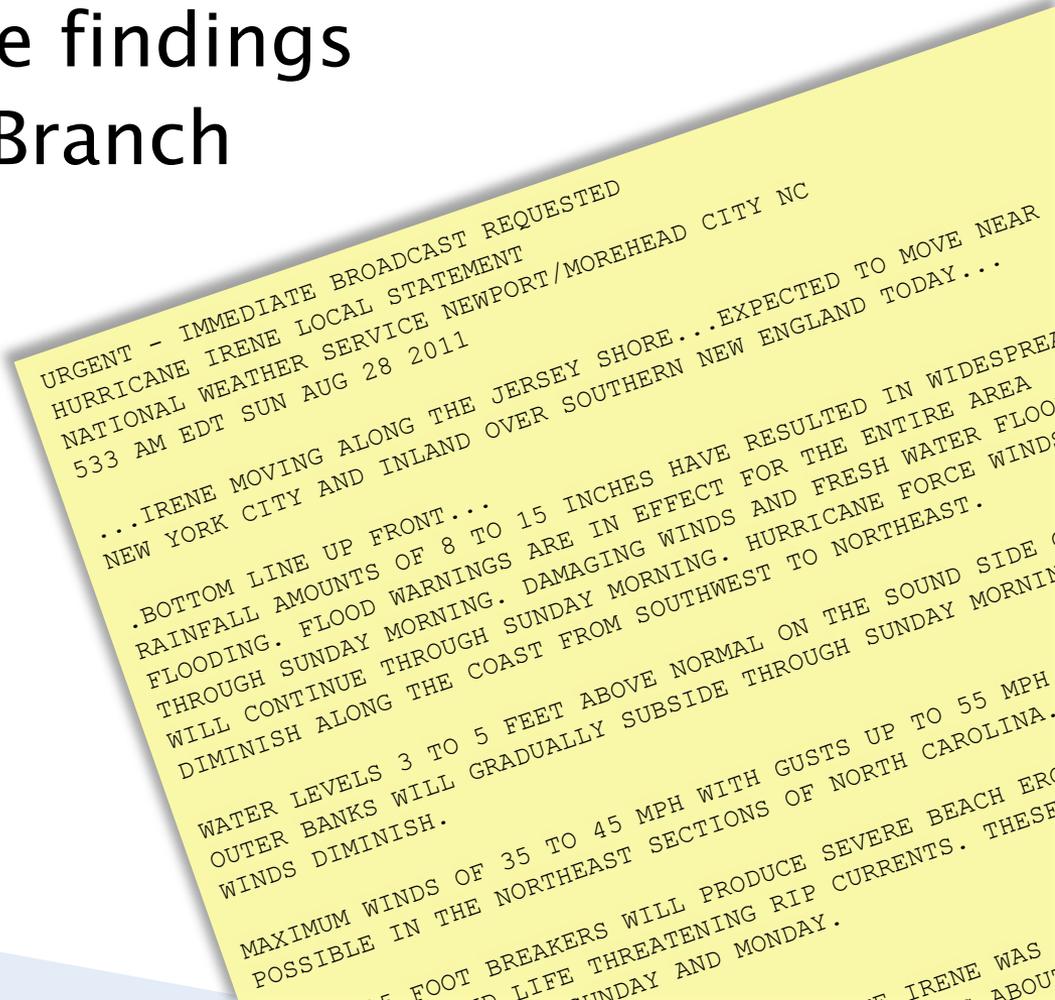


Early R2O Projects



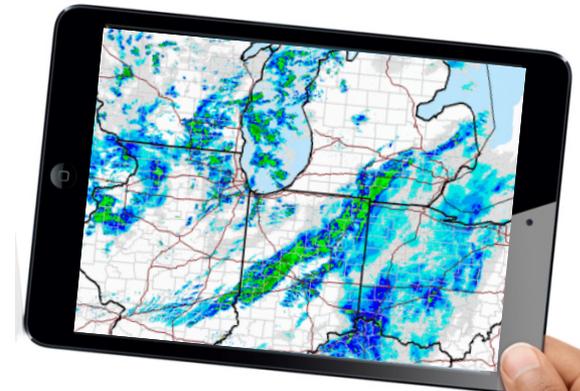
Hurricane Local Statement Demonstration

- ▶ Borne of Sandy/Irene findings
- ▶ Led by NWS Marine Branch
- ▶ Risk Comm experts engaged for new format, language
- ▶ Involve partners in Post-demo eval



Systems

- ▶ Baseline AWIPS-2 to support OREs
- ▶ Prototype cloud solutions and virtualization options



Goals:

- *Enhance ops flexibility*
- *Reduce refresh costs*
- *Fewer processing centers*

Plans for 2014

- ▶ 4 DSS Boot Camps, 3 OREs
- ▶ Pilot mobile version of DSS curriculum
- ▶ Cultivate collaborative partnerships
- ▶ AO for FY15 proposals?

“Those who learn to collaborate and improvise effectively are the ones that prevail.”

~ Charles Darwin

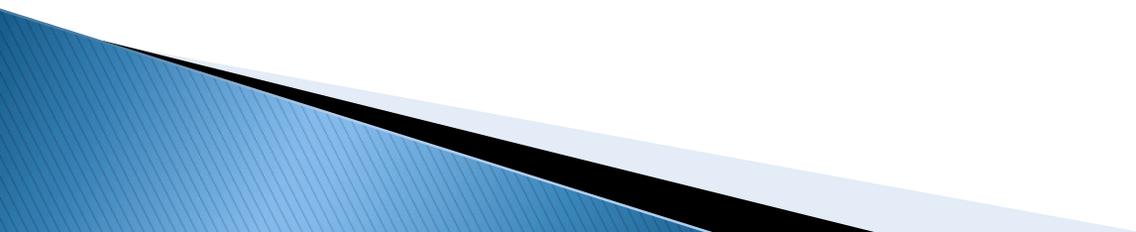


Key Sustainment Issues

- ▶ Expand involvement of stakeholders
- ▶ Clarify NWSEO role in ORE process
- ▶ Strengthen linkage to other testbeds and V-Lab development environment*
- ▶ Long term organizational structure and resources for growth

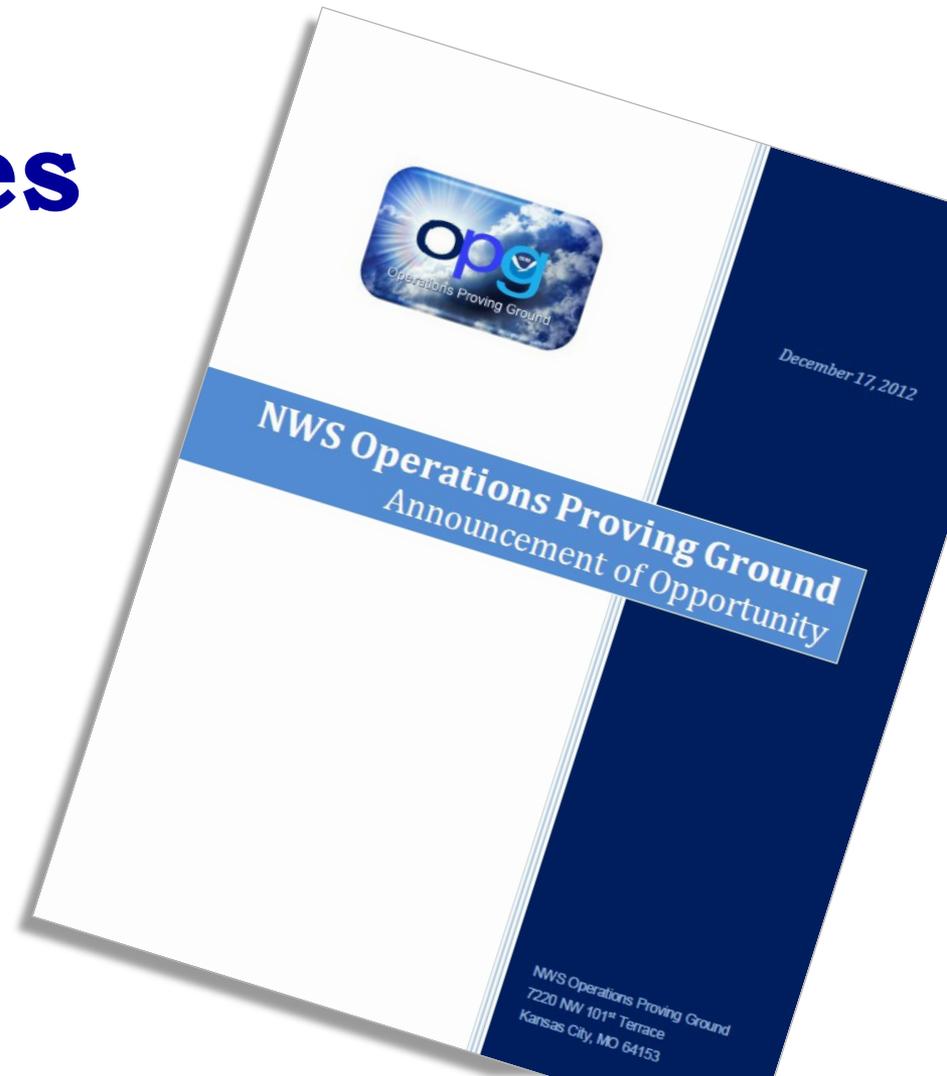
** Need to revisit existing governance model and refine project flow process*







Back-up Slides





OPG Staff



NAME	POSITION <i>(except GOES-R, all positions funded by OCWWS)</i>
Kim Runk	Interim Director (NWS, TDY from CRH ISD)
Dr. Chad Gravelle	Chief Meteorologist/GOES-R Science Coordinator, UW-CIMSS
Andrew Ansorge	OU-CIMMS Research Associate – Meteorologist/Programmer
VACANT	OU-CIMMS Research Associate – Social Scientist (Risk Comm)
Jack Richardson	ITO/Systems Engineer/Cloud Expert (Qu-Tech contract)





10 Key WRN Priorities



Transformational Concept Identified in WRN Services Plan	OPG link?
Evolution to NIMS Compliance	✓
Integration into PPD8 and the National Response Framework	✓
Integration of Social Science Principles into NWS Operating Model	✓
Emergency Response Specialists - Training and Certification	✓
Foundational Data Sets	
Customer Impacts Catalogs	
Linking of Climate and Weather via IDSS	✓
Test Beds, Proving Grounds, and Simulation Training	✓
Communications Strategy for High-Impact Events	✓
Dissemination Requirements	

