



NWS Operations Proving Ground

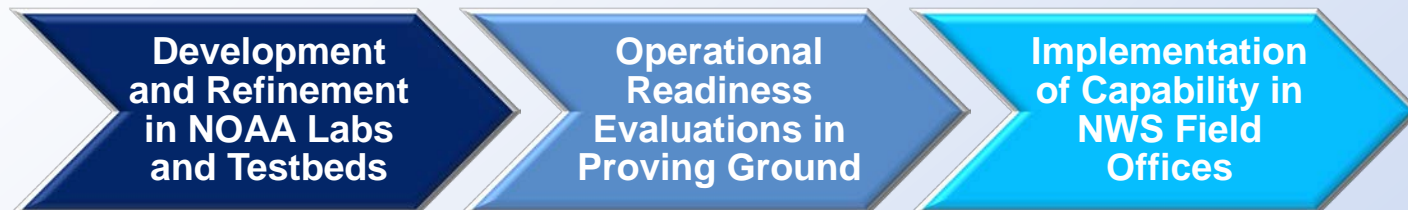
Preparing the NWS to Meet America's Growing Needs

GOES-R Proving Ground All Hands Telecon
9 July 2012

Prepare today's National Weather Service forecaster to support tomorrow's Weather Ready Nation by building capacity for superior impact-based decision support services.



- To advance processes and skill sets needed to generate, deliver, and communicate weather information by evaluating end-to-end service delivery in a realistic operational setting.



Streamline R20 & O2R feedback > Build Capacity & Proficiency in DSS Skill Sets

- In order to authenticate candidate capabilities, it is essential to involve core partners; exercise local, regional, and national linkages; assess impact on workload, workflow, and other human factors; and obtain objective social science validation of risk communication messaging.

Testbeds vs. Ops Proving Ground

Flight Simulator Training vs. Red Flag Combat Training

- **Testbeds**

- Focus on issues like scientific integrity, s/w maturity
- Typically concentrate on specific tool and datasets
- Include iterative feedback loop alongside developers
- Usually highlight warning/forecast process, not services
- Seldom involve partners in full operational mode



- **Operations Proving Ground**

- On S&T side, only eval tools approved by testbeds
- Eval in context of entire workload/production suite
- Inject realistic, unexpected disruptions into process
- Build skills for seasoned DSS, on-scene & remote
- Incorporate core partners in planning and facilitating



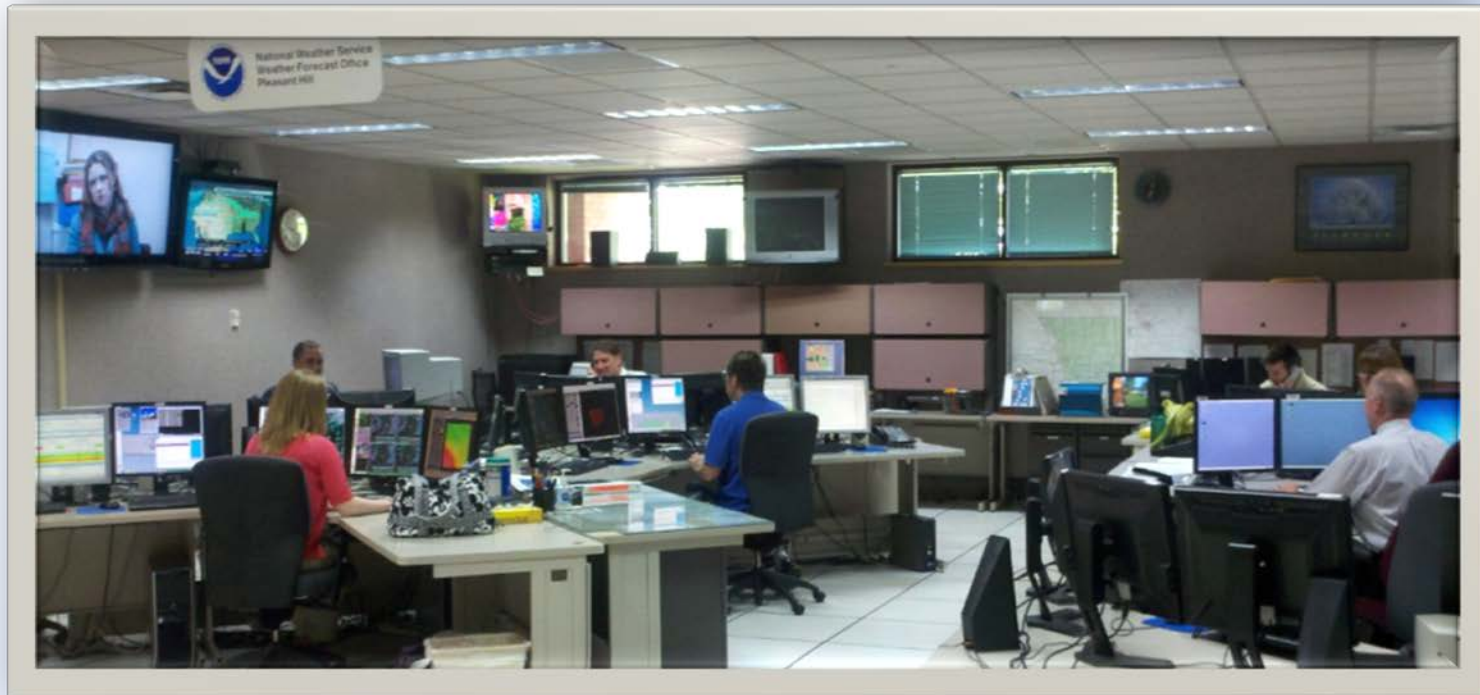
Candidate Capabilities

- **Candidate capabilities must successfully demonstrate substantive improvement to priority needs, such as:**
 - *effective decision support services*
 - *the warning and forecast process*
 - *collaborative decision making*
 - *risk communication*
- **Candidate capability examples:**
 - *DSS skill sets and best practices*
 - *tools that promote benefits to public safety, disaster response, etc.*
 - *advanced observing systems*
 - *better use of data in decision making*
 - *improved forecast models, techniques*
 - *applications which enhance services*



Formal ORE Sessions

- Tools, capabilities selected from testbeds and labs
- Test plans will cite specific objectives and metrics
- Eval Teams for each ORE session comprised of:
 - *NWS forecasters, OPG facilitators, Core Partners (as appropriate), SMEs, other relevant observers*



Typical OPG Schedule



- **Initial target: 3-4 formal ORE Sessions each year, including at least one DSS Boot Camp.**
- **Announcements of Opportunity issued to identify science and service areas of interest.**
- **Session summary reports highlight performance metrics, milestones achieved, recommendations concerning operational implementation.**
- **Full charter available on-line at: www.testbeds.noaa.gov**



OPG Staff



NAME	POSITION (Funding Source)
Kim Runk	Interim Director (NWS)
Chad Gravelle	Chief Met. / Science Coordinator (GOES-R, UW CIMSS)
Somer Erickson	Risk Com. / Soc. Sci. Research Associate (OU CIMMS)
Andrew Ansorge	IT / Applications Development (OU CIMMS)
Jack Richardson	Systems Administrator / Cloud Expert (OS&T, Qu-Tech)



OPG Upcoming Milestones



- **Real-time data flow into OPG – early August**
- **Situational Awareness Display – late August**
- **Decision Support Services Boot Camp – Sept 11-14**
- **Winter Weather Hazard Simplification Project – Fall**
- **AOs Issued – early 2013**

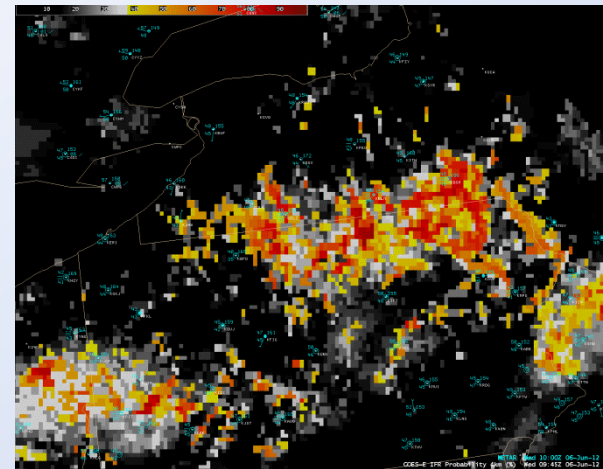
- **NWS CR GOES-R Fog / Low Cloud Evaluation**

- *15 July – 31 December 2012*

- **Products**

- *CIMSS GOES-R Fog / Low Cloud Products (Pavolonis)*

- *CIRA NSSL-WRF Fog / Low Cloud Band Difference Forecasts (Lindsey)*



- **Currently there are 9 offices participating and two others interested.**

- *DMX, EAX, ICT, IND, JKL, LSX, MPX*, MQT, OAX, PAH, and RIH*

- **Offices have been given until this coming Friday 7/13 to contact me if they are interested.**

OPG and GOES-R Proving Ground



- **Training will be provided to the participating offices by product developers over the next two weeks.**
- **Feedback will be gathered through a SurveyMonkey survey after forecasters use the products in operations.**
- **Preliminary results and cases will be presented at NWA in October 2012.**
- **This opportunity will be extended to Western, Eastern, and Southern Regions within the next few months.**

Summary

- The Operations Proving Ground is one of ten key principles in the Weather Ready Nation Roadmap.
- Formal readiness evaluations using NWS forecasters in a WFO setting will optimize transition of research to operations.
- Initiatives aimed at enhancing expert IDSS provision, including partner facilitated incident simulations, can be tested and validated prior to implementation.

