

NWS Roadmap

Building a Weather-Ready Nation in the Year 2020

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NWS Roadmap: The Vision for 2020

Making the Extraordinary Ordinary

- **America is a Weather-Ready Nation through superior Impact-Based Decision Support Services (IDSS)**
- **Our accurate and timely forecasts, warnings, and information save lives and enhance the U.S. economy**
- **NOAA/NWS is the authoritative source for Federal, State, and Local Government partners for environmental information**

A Changing World



- **A Weather-Ready Nation requires more integrated environmental services**
 - *Extreme environmental events increasing in frequency and intensity*
 - *Coastal population growth and climate change increase community vulnerability*
- **Partners want to know what we know**
 - *Probabilities, accuracy, timeliness, and accessibility*
- **Our partners and the Weather Enterprise need better incorporation of science advancements into our operations**

Opportunities to Provide IDSS

IDSS of 2010: Eastern Region

- **March 2010 MA/CT/RI Floods**
 - *Catastrophic flooding; FEMA and state EOC support*
- **Washington, DC Independence Day Support**
 - *Highly weather-sensitive event, direct EOC support*
- **Hurricane Earl**
 - *Minimal impact, excellent “dry run” for a hurricane landfall event*
- **Holiday Travel Season – NY TRACON Staffing**
 - *“Boots on the ground” at NY TRACON*
- **Dec 2010/Jan 2011 NYC Snowstorms**
 - *Weather expert available to key decision-makers in the NYC EOC*

Making the Extraordinary Ordinary

Significant events of 2010



Deepwater Horizon
Over 100 days'
deployment



"Snowmagedon"
DC – Baltimore Paralyzed
for 7 days



Iceland Volcanic Ash
\$2B Aviation Impacts

**Supporting these events *singularly* stretched NWS
resources and capabilities**

Building A Weather-Ready Nation

Flexible response to meet decision-makers' needs



- **Provide superior Impact-Based Decision Support**
 - *Utilize our unique relationship with Emergency Management to help them to better prepare our communities for extraordinary events*
 - *Empower our workforce: accessible on-site and through remote technologies*
 - *Improve our understanding of societal impacts*
 - *Shift our focus from a product-centric environment to a services-centric paradigm*

Roadmap Alignment

Close coordination is key to success

- Careful alignment of four “pillars” of NWS support enables us to provide better services in the future



1: Business Plan

Build a little...test a little...field a little

- Increase capabilities while driving down costs
- Engage new customers through smarter use of partnerships
- Leverage developments in S&T
- Empower our workforce



2: Services

Proactive Support – Where and When Needed

- **Improved predictive capabilities to address an increasingly weather-sensitive country**
- **Growth in emerging sectors**
- **Increased accessibility and interoperability of data**
- **Quantification and communication of forecast uncertainty**
- **Growing service needs among Government partners**

3: Science & Technology

Leveraging S&T for success

- **Science Infusion – Transition capabilities to improve understanding and prediction of high-impact weather, water, and climate**
- **Information Technology – Improve underlying IT**
- **IDSS Tools & Technologies – Infuse cutting-edge impact-based decision support tools and technologies**
- **R2O/O2R – Improve Research-to-Operations / Operations-to-Research**

4: Workforce

Developing new capabilities to advance decision support

- **Meteorologists/Hydrologists with varying expertise to support a wide variety of partners**
 - *Training: NIMS, simulation, sector-specific*
 - *Maintain proficiencies through continuous learning*
- **Follow a tiered services model**
 - *Levels of support to best respond to an event*

Building Blocks

Laying the foundation for the future

- **Develop and demonstrate IDSS concepts through pilot projects at NWS field offices**
- **Produce and begin implementation of an action plan to determine requirements for the Renewable Energy sector**
- **Begin initial efforts to develop National Water Center (NWC)**
- **Implement a more user-friendly weather.gov**



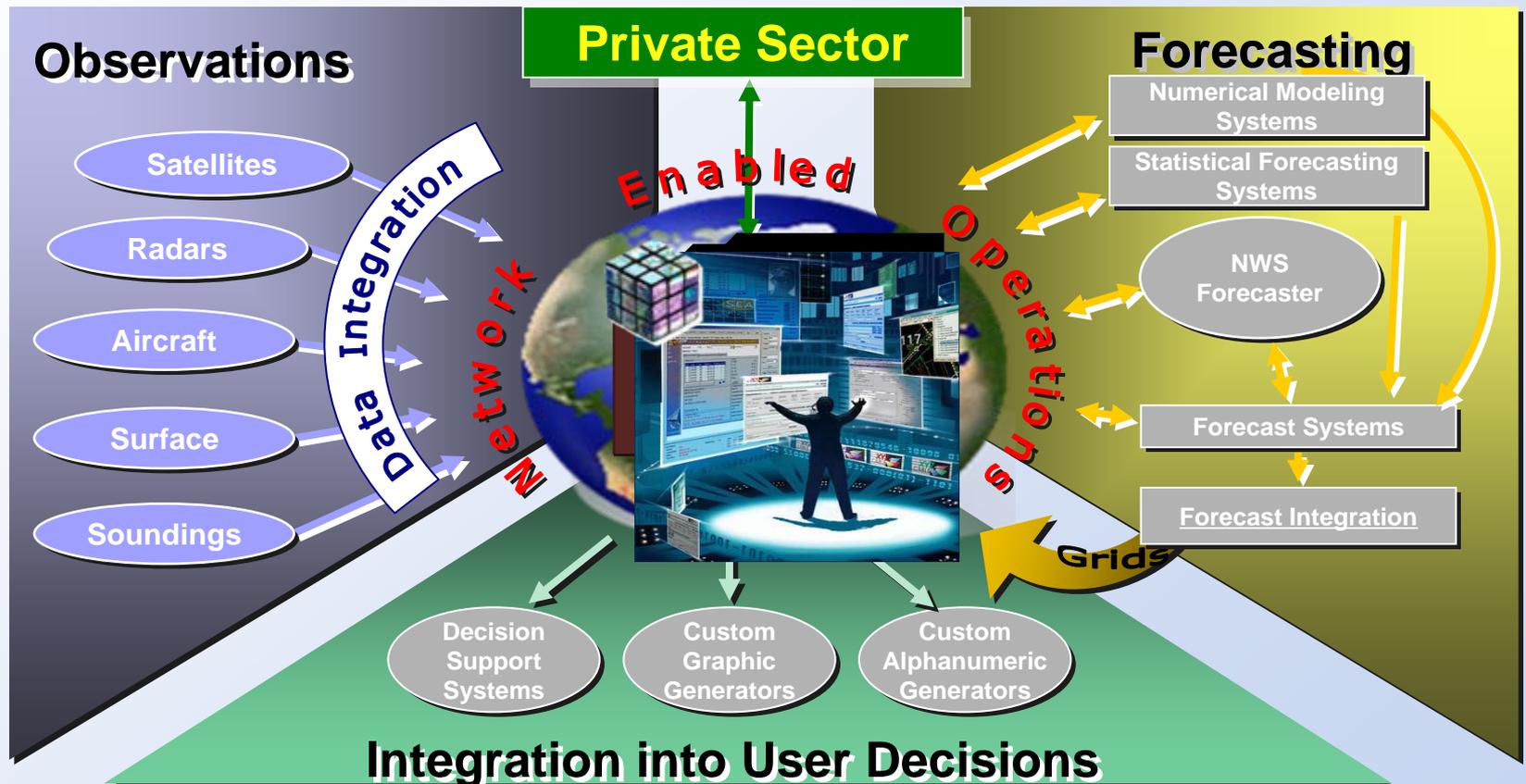
A Day in the Life: DWH 2020



- Extraordinary response becomes routine
- Both NOAA and Incident Command Post connected remotely through local WFO *minutes* after incident
- Mobile observing equipment deployed
- Forecaster adds local expertise and helps communicate information to partners
- Incident Meteorologists (IMETs) deployed to Command Center within hours, not days

Data & Information Available Anytime, Anywhere

“Information without Borders”



Making the extraordinary ordinary

State-of-the-Art Forecaster Tools

- Improve collaboration with EMs via virtual environment
- Innovation center approach: testing comms technologies, rapid prototyping of IDSS applications, and incorporating social sciences



Making the extraordinary ordinary

Where We Are...



- **NOAA Endorsement**



- **Draft Engagement Strategy**



- **Draft Business Plan – April/May 2011**



- **Draft Services Roadmap – June 2011**



- **Draft S&T Roadmap – June/July 2011**



- **Draft Workforce Roadmap – June 2011**

