NWS Roadmap

Building a Weather-Ready Nation

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The NWS Roadmap: The Vision

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

Making the extraordinary ordinary ** PRE-DECISIONAL **
The National Dialogue

• NWS has started a National Dialogue with:
  – Broadcast meteorologists, researchers, Emergency Managers, and the Weather Industry

• National Dialogue enables us to:
  – Assess the 10 billion-dollar disasters in 2011 alone – all deadly events with 600+ fatalities and staggering economic impacts
  – Better prepare for the extreme and high-impact events striking areas of increasing population density

• By our 150th anniversary, we want a Weather-Ready Nation
  – We can accomplish this by working with our partners and customers to continue and improve our abilities to protect lives and livelihoods
Building A Weather-Ready Nation

Flexible response to meet contingencies

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

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Moving Forward

- Obtain NOAA endorsement
- Collaborate with NWSEO
- Secure Leadership approval

- Aligned with S&T Roadmap
- Assigns major milestones

- Communicates Vision
- Identifies Core Partners

- Internal and external
  - Supports culture change

- Aligned with Core Partners’ needs
- Aligned with Human Capital Plan

- Assign tasks to complete deliverables and achieve milestones

Begin process

IDSS Continuous Cycle

Draft Roadmap Document

Communications Plan

Training Plan

Draft Implementation Plan

Implement Services Roadmap

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Schedule - 2011

Flexibility is key

- Initial Roadmap to be completed in October 2011

NOAA Strategic Plan → NWS Strategic Plan → NWS Roadmap → Business Plan
→ Services Plan → S&T Plan → Workforce Evolution Plan → Implementation Plan

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Business Plan

• Build a sustainable business model for NWS operations and services
• Develop cost model for NWS operations and new services
• Promote an environment of continuous improvement
• Develop a Quality Management System
• Conduct periodic audits to ensure that NWS activities align with core mission
Services Plan

• Move toward IDSS through nine concepts:
  – Evolution to National Incident Management System (NIMS) Compliance
  – Integration of Social Science Principles
  – Emergency Response Specialists
  – Integration into the National Response Framework
  – Foundational Datasets
  – Impacts Catalog
  – NWS Operations and Services Proving Ground
  – Communications Strategy for High-Impact Events
  – Dissemination Requirements

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Services Plan (cont’d)

- Framework approach vs. a “catalogue of unique services” approach
- Adoption of NIMS-compliant method for NWS operations
- Interoperable foundational data sets enable existing and new service sectors
- IDSS = NWS in 2020
Science and Technology Plan

- Situational Awareness: An enhanced awareness and commonly shared view of the current (and forecast) environment and related hazards
- Numerical Guidance: State-of-the-science improvements in predictability; storm scale modeling; earth system framework modeling; space weather
- Forecast Confidence: High-quality forecast confidence estimates from analyses and forecasts for customized risk assessment and decision making
S&T Plan (cont’d)

- Forecast Knowledge Management Platform: New capabilities and enhancements to AWIPS II and CHPS platforms to support future forecasting and IDSS
- IT: High-performance computing upgrades for operations and research; extensible, scalable and cost-effective infrastructure; discoverable, interoperable data and information
- Research to Operations (and O2R): Successfully leverage cross-cutting and R2O/O2R efforts
Workforce Evolution Plan

• Updating Staffing Profiles and Developing Training Programs

• Developing Workforce Diversity Programs
  – Diversity of disciplines and cultures, recruitment, on-boarding personnel, retention, and career and succession planning

• Improving Work Environment
  – Work-life balance, flexible and adaptable work schedules

• Communications Strategies/Planning Underway
  – Strategic communications plan under development
  – Communications tools (INWS, NWSNews, others)

• Developing Quality Management System
  – Establishing framework for continuous service performance audits
  – Adopting continuous improvement model

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Pilot Projects

• A total of nine pilot projects have been planned to support the key concepts of the NWS Roadmap

• Plans are underway to launch four of them by the end of the calendar year:
  – National Operations Center
  – Regional Operations Center
  – WFO Provision of IDSS in coastal environment
  – WFO provision of IDSS in urban environment
National Operations Center

• Based in NWSHQ Silver Spring
• Defines the new decision support model
• Represents the first formal integration of decision support; allows NWS to reach out to external partners to enhance operations during emergencies
• NWS central point of contact for nationwide, high-impact meteorological and hydrological events on a 16x7 basis with surge capacity to 24x7 as needed.
NOC (cont’d)

• Coordinates NWS resources at the national level.

• Proactively works in partnership with public affairs and legislative affairs to communicate high-impact weather events.

• Coordinates with Core Partners’ operations centers to ensure timely, accurate information and decision support.
Regional Operations Center

- Based at NWS Southern Region HQ-Ft. Worth, TX
- Defines the new decision support model and represents the first formal integration of decision support
- Allows NWS to reach out to external partners to enhance operations in the event of an emergency situation
- Serves as NWS’s regional point of contact for high-impact meteorological and hydrological events
- Works in partnership with state-level public and legislative affairs to communicate high-impact weather events
- Covers field operations in long-term backup situations or to provide IDSS
- Informs NWS senior management, NOAA, and DOC

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WFO Provision of IDSS in Urban Environment

- Based in Sterling, VA
- Aligns urban Decision Support Services in a high-impact area
- Promotes further collaboration and both the national and local levels with external partners
- Emergency response services specifically tied to urban area IDSS; Federal agencies, urban environment, dispersion, transportation
- Provides opportunities for direct embedding with customers in the District of Columbia
- Integrates emerging decision support technology, as well as remote briefings, into operations

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WFO Provision of IDSS in Coastal Environment

• Based in New Orleans, LA
• Extends IDSS principles to a WFO, specifically targeting a marine/tropical environment
• Aligns with NOAA’s Strategic Goal of Resilient Coastal Communities and Economies
• Emergency response service outlet designed to test HAZMAT, chemical, and health IDSS concepts
• Integrates IDSS with area Coastal Zone Managers
• Integrates emerging decision support technology, as well as remote briefings, into operations
Anticipated Outcomes

• Align with NOAA’s long-term goal of a Weather-Ready Nation
• Better integrate into Core Partners’ response needs
• Test IDSS concepts in a pilot program
• Identify societal/economic impacts of our services
• Better integrate with other NOAA Line Offices
• Enhance our collaboration with the Weather Enterprise
• Create a comprehensive agency-wide Quality Management System
NWS Chat

Message -

(3.24 PM) media-doug peters: with the pm update?
(3.24 PM) nwsbgm-forecaster: nothing yet doug
(3.24 PM) media-doug peters: if you hear anything... lemme know
(3.25 PM) media-doug peters: we're doing a 4pm update/cutin
(3.25 PM) nws-forecaster/met: Still waiting but we expect significant increases in stages
(3.25 PM) nws-forecaster/met: Major flooding in places
(3.25 PM) nwsbot: BGM: Maine [Broome Co, NY] nws employee reports FLASH FLOOD at 03:21 PM EDT -- route 26 just north of the town of maine...approximately 3 feet of water was in a country store and just south of maine... approximately 4 feet of water over route 26
NWS Chat

Message:
(4:55 PM) nws-forecaster/imet: Thanks Doug - I'll note that in the log
(5:00 PM) nwsbot: BGM: 4 S Greene [Chenango Co, NY] public reports FLASH FLOOD at 04:51 PM EDT -- page brook road is flooded at the chalker creek culvert. chalker creek has breached the culvert and is flowing down the road.
(5:02 PM) media-brent.mcgrady: From above... "SUNY Oneonta almost cut off on the hill above the flooding," what does that mean exactly, BGM?
(5:03 PM) media-erick.adame: I was just wondering the same thing.
(5:04 PM) media-brent.mcgrady: Does that mean the hill is giving way or that the flooding is all around the hill and the college is cut off from exit...
(5:04 PM) nws-forecaster/imet: The emergency manager reported that access to the campus is cut off by flood waters
NWS Chat

Message -

(10:57 AM) nwsbot: National Hurricane Center issues DISCUSSION #4 for TROPICAL STORM MARIA

(11:57 AM) nwsbot: FWD issues Graphcast

(12:15 PM) nwsfox-eric j martello: Smoke from east Texas wildfires are causing minor restrictions to visibility across areas mainly along and southeast of a Waco...Hillsboro...Arlington...DFW...Paris line. The smoke will likely result in some air quality issues as well through mid afternoon. Hope is that a backing of winds to the northeast from southeast by afternoon with a weak continental surge will disperse the smoke by early-mid afternoon.

(12:43 PM) media-robert d.goosmann: FYL...I went for a run...really had hard time breathing due to this light smoke...

(12:44 PM) nwsfox-eric j martello: Thanks for the report, Robert. We’re just awaiting the winds to shift.

(1:40 PM) nwsbot: Hurricane Katia Intermediate advisory 38A issued.
Contact

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