

# NWS Roadmap to a Weather-Ready Nation

*An Update for NWS Partners*

Chris Strager  
NWS Advisor for  
Science and Service Integration





# Since Last Year's Partners Meeting

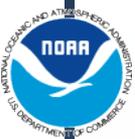
Back in January 2011

- **Process evolved from “Services 2020”**
  - *Have since added Science and Technology, Workforce Evolution, and Business Plans*
  - *Incorporated all four plans to become a singular NWS Roadmap in March 2011*
- **Development of nine Pilot Projects to test the concepts of the developing Roadmap**
- **NWS WRN Roadmap v1.0 delivered to NWS Corporate Board October 17, 2011**
  - *Currently adjudicating comments and feedback*

## Flexible response to meet contingencies

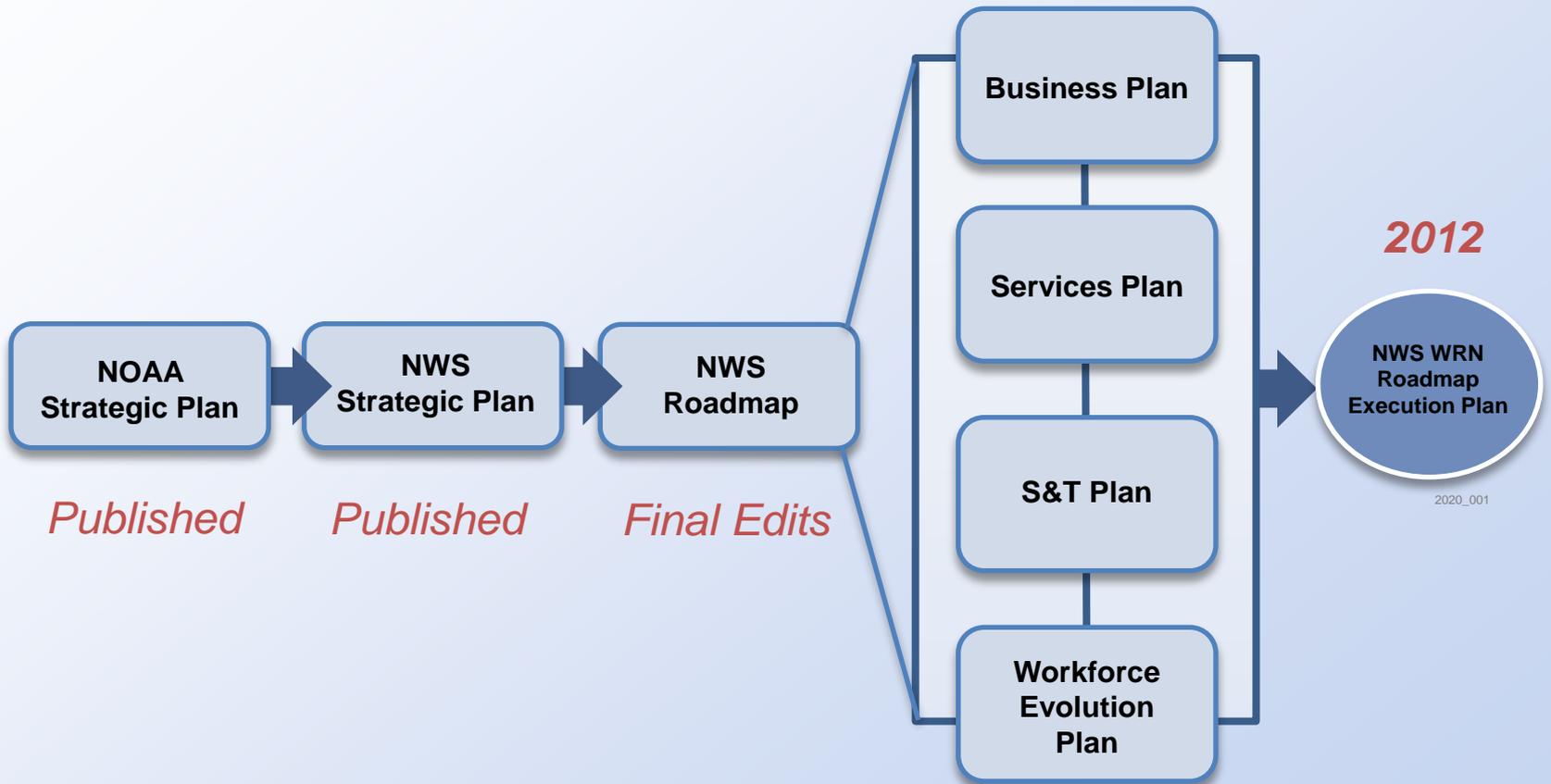


- **Provide superior decision support and foundational information services**
  - *NWS will use our unique, local relationships with Core Partners to help them to **better prepare our communities** for extraordinary events*
- **Empower our workforce**
  - ***Emergency Response Specialists (ERS)** are accessible on-site and through remote technologies to provide **Impact-based Decision Support Services (IDSS)***
  - *Workforce is trained and equipped to meet America's evolving needs*
- **Invest in Science and Technology**
  - *NWS uses **state-of-the-art technology** and **cutting-edge science** to provide the best service possible*



# Overview

## NWS Weather-Ready Nation Roadmap



# How the Roadmap Fits Together



# Need For a New Services Approach

- **A Weather-Ready Nation requires an integrated service approach**



- *Integrating multiple disciplines (climate, water, weather, public health, social science)*
- *Addressing impacts of extreme environmental events on increasingly vulnerable communities*
- *Enhancing IDSS: Partners want to know what we know*

- **Our Partners and the Weather Enterprise need better incorporation of science advancements into our operations**



# Services Plan

- Move toward **Impact-based Decision Support Services** through a framework of transformational concepts, including:
  - *Evolution to National Incident Management System (NIMS) Compliance*
  - *Integration of Social Science Principles*
  - *Testbeds, Proving Ground, Simulations*
  - *Next Generation Dissemination Requirements*
  - *Foundational Datasets*
  - *Emergency Response Specialists*

# Emergency Response Specialists

## A National Weather Service ERS will:

- *Provide enhanced 24x7 IDSS for decision-makers*
  - o Remote and on-site
- *Interface between Core Partners and NWS*
- *Create and maintain “Impacts Catalog”*
- *Regularly participate in Core Partner exercises and planning*
- *Incorporate and evaluate new technologies into IDSS*





# Business Plan

- **Be Sustainable**
  - *Measurable return on investment*
  - *Build a little, test a little, field a little*
- **Be Flexible and Agile**
  - *Increased responsiveness to better serve Core Partners*
  - *New services and S&T integrated into operations*
- **Increase Value/Demand**
  - *Customer satisfaction*
  - *More robust Weather Enterprise*



# Workforce Evolution Plan

- **Develop Training Programs**
  - *NWS Operations and Services Proving Ground*
  - *Focus on both production and decision support*
- **Develop Workforce Diversity Programs**
  - *Diversity of disciplines and cultures, recruitment, on-boarding personnel, retention, and career and succession planning*
- **Improve Work Environment**
  - *Work-life balance; flexible and adaptable work schedules*



# Science and Technology Plan

**S&T Plan outlines a requirements approach including the following capabilities:**

- Comprehensive Situational Knowledge
- Explore Quantifying and Disseminating Forecast Confidence
- New Service Delivery Methodologies
- Improved Data Processing, Management, and Dissemination
- Streamlined Research to Operations (R2O) and Operations to Research (O2R)



# Pilot Projects

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

- **NWS has built pilot projects to test key Roadmap concepts in our field offices**
- **Six pilot projects are getting underway:**
  - *NWS Operations Center*
  - *Regional Operations Center*
  - *Provision of IDSS in a Coastal Environment*
  - *Provision of IDSS in an Urban Environment*
  - *Integrated Environmental Services*
  - *Mesoscale Meteorology Science to Operations*



# Pilot Projects

- **NWS Operations Center**
  - *NWS Headquarters, Silver Spring, MD*
  - *One-stop shop for weather information and decision support for federal agency-level partners (e.g., DHS, FEMA HQ)*
  - *National situation awareness*
- **Regional Operations Center**
  - *Southern Region Headquarters, Fort Worth, TX*
  - *Work closely with regional government partners*
  - *Regional situation awareness*

# Pilot Projects

- **IDSS in a Coastal Environment**

- *WFO New Orleans – Baton Rouge, LA*
- *Port New Orleans, HAZMAT, Tropical Weather, Thunderstorms, Heavy Rain, Marine Forecasting Challenges, Strategic Petroleum Reserve*

- **IDSS in an Urban Environment**

- *WFO Baltimore, MD – Washington, DC*
- *High-Impact Area, Homeland Security, EM Support for Large Outdoor Events, Transportation, Winter Storms, Multi-state / multi-jurisdiction*

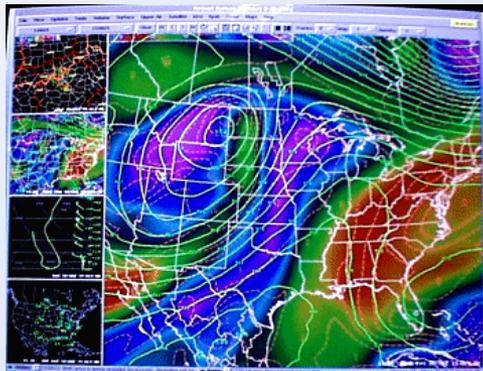


# Pilot Projects

- **Integrated Environmental Services**
  - *WFO Tampa Bay Area, FL*
  - *Sensitive ecosystem, Port of Tampa, Marine Navigation, Thunderstorms, Public Health*
- **Mesoscale Meteorology Science to Operations**
  - *WFO Charleston, WV*
  - *Thunderstorm Forecast Improvement, “Warn-on-Forecast”, Winter Storms, Flooding Rains, Rugged Terrain*

# Three Additional Pilot Projects

- **Environmental Info Systems / Aviation**
  - *WFO Boulder, CO*
- **Precipitation Forecasting**
  - *Mid-Atlantic RFC, State College, PA*
- **Aviation “Golden Triangle” Expansion**
  - *Center Weather Service Unit, Oakland, CA*



3:35P	On Time
3:45P	Cancelled
4:15P	On Time
4:24P	Delayed
4:30P	Cancelled
5:00P	On Time
5:12P	On Time
5:15P	On Time



# What's Next?

- **Complete WRN Roadmap v1.0**
  - *Spring 2012*
- **Implement Pilot Projects**
  - *Spring/Summer 2012*
- **National Academy of Sciences study**
  - *Late Summer 2012*
- **Begin work on Execution Plan**
  - *Fall 2012*

# Summary

- **The world is changing and the Nation's vulnerability to extreme weather is increasing**
- **The National Weather Service is making a roadmap to supporting a Weather-Ready Nation**
- **Improved Impact-Based Decision Support is a main goal**
- **Emergency Response Specialists will strengthen relationships with our critical partners**

