

# National Oceanic and Atmospheric Administration

***Weather-Ready Nation  
Saving Lives and Livelihoods***



Unidata Policy Committee – May 14, 2012  
LeRoy Spayd – NOAA/NWS



# Outline

- **NWS Weather Ready Nation**
- **NOAA Budget**
- **Profilers**
- **Network of networks**
- **GOES status**

# A Changing World

## *2010: Unprecedented Disasters*



**Deepwater Horizon**  
*Over 100 days' deployment*



**"Snowmageddon"**  
*DC – Baltimore Paralyzed for 7 days*



**Iceland Volcanic Ash**  
*\$2B Aviation Impacts*

# A Changing World

## 2011: A Year of Extremes

### 14 Weather and Climate Billion Dollar Disasters





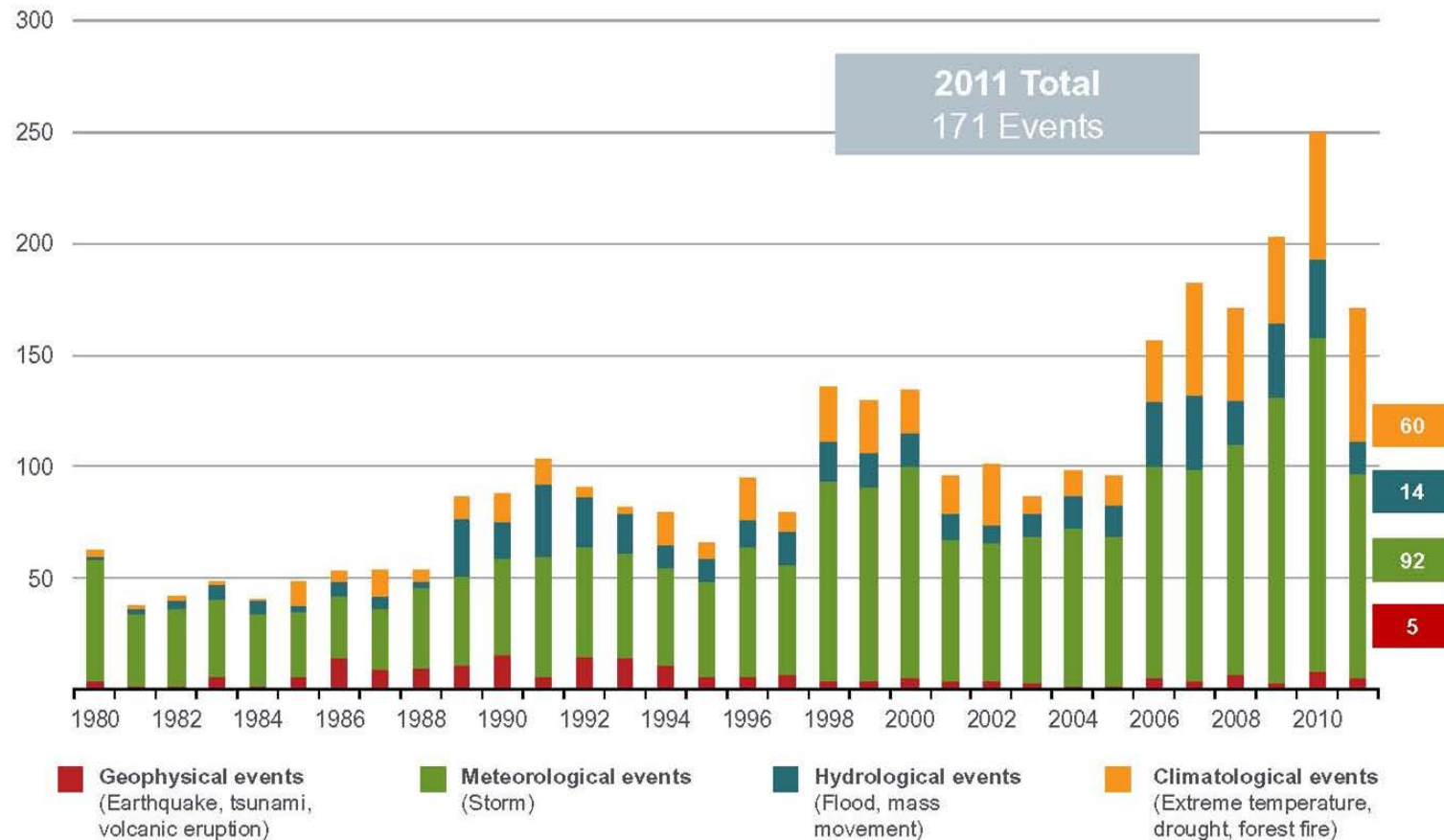
# A Changing World

## *Increased Vulnerability to High-Impact Weather*

U.S. Natural Catastrophe Update

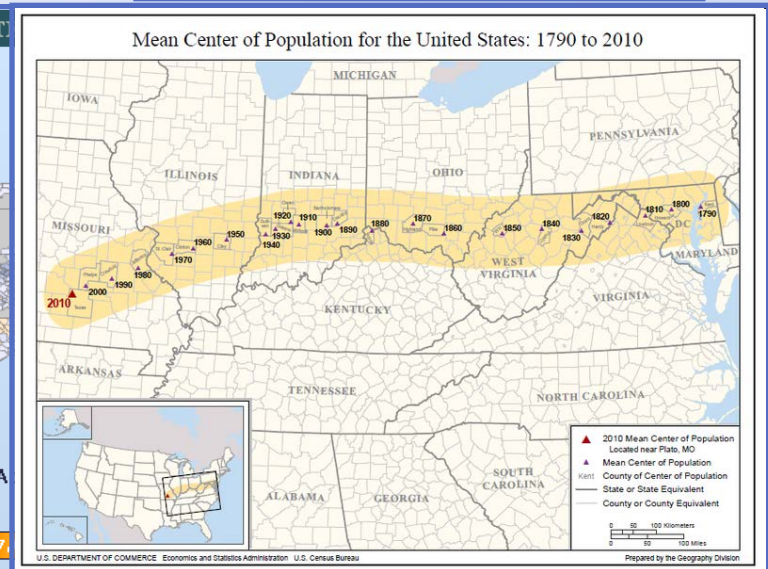
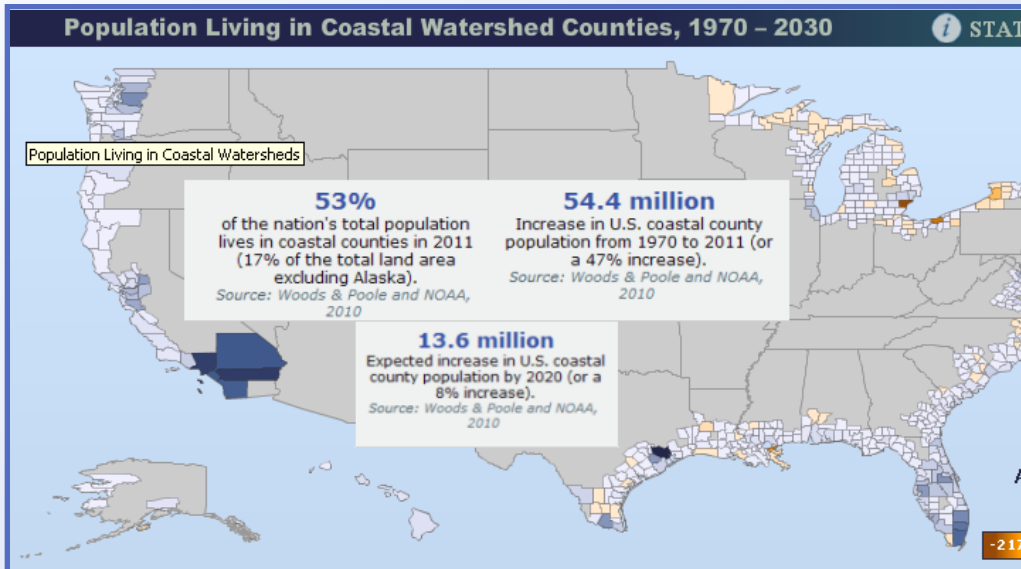
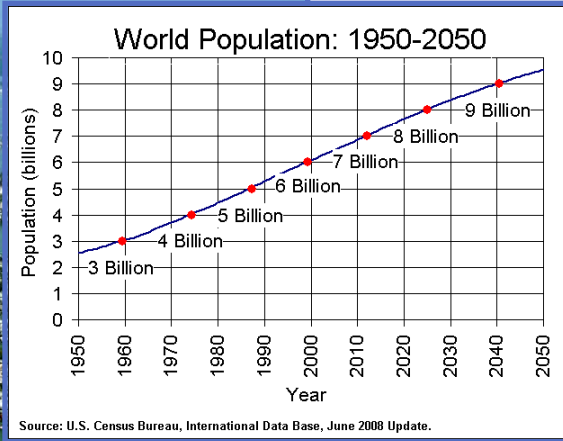
Natural Disasters in the United States, 1980 – 2011

Number of Events, Annual Totals



# A Changing World

## Population Shifts, Technological Dependence





# NOAA's Response to the Challenge

## *Four Pillars of NOAA's Success*



**COMPUTATION  
& MODELING**



**RESEARCH**



**OBSERVATIONS**



**PEOPLE**



# NOAA's Response

## Build a Weather-Ready Nation

### What is a Weather-Ready Nation?

- **Society is Prepared for and Effectively Responds to Weather-Dependent Events**

### What will it take to build a Weather-Ready Nation?

- **NOAA Evolves Operations**
  - Enhanced decision support services, a common operating picture from latest observation platforms and models, community risk assessments
  - NOAA leads integration of Weather, Water, Climate IDSS with help from social scientists
- **NOAA Energizes Partners in National Movement for Weather-readiness**
  - National Dialogue with partners: series of symposiums to assess why the nation is more vulnerable and identify how to improve preparedness
  - NWS leads partnered public education initiative to improve societal response to weather information and warnings
  - Americans will know how and when to take action



# NOAA Evolves Service Operations

## *Six NWS Pilot Projects:*

- **Impact-Based Decision Support Services (IDSS):**
  - *Urban region – Sterling, Va.,*
  - *Coastal region – New Orleans*
  - *Regional level – Fort Worth*
  - *National level – Silver Spring*
- **Integrated environmental services – WFO Tampa, FL**
- **Mesoscale Science – WFO Charleston, WV**



***Build a Little, Test a Little, Field a Little***

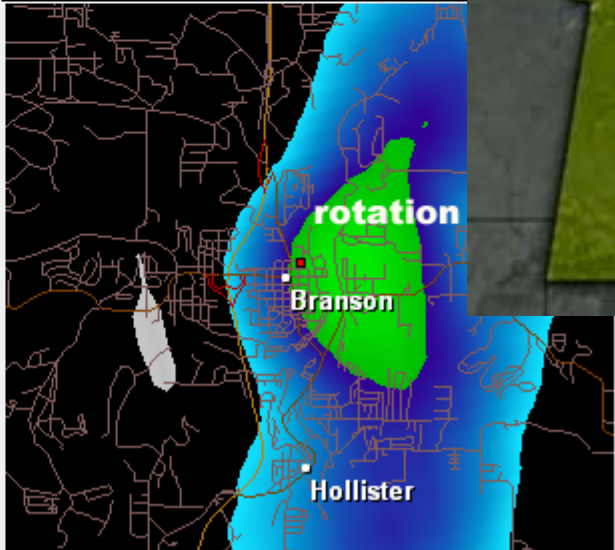
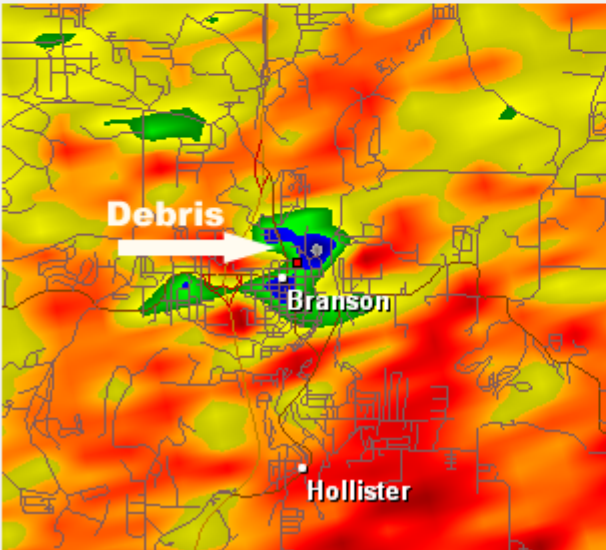
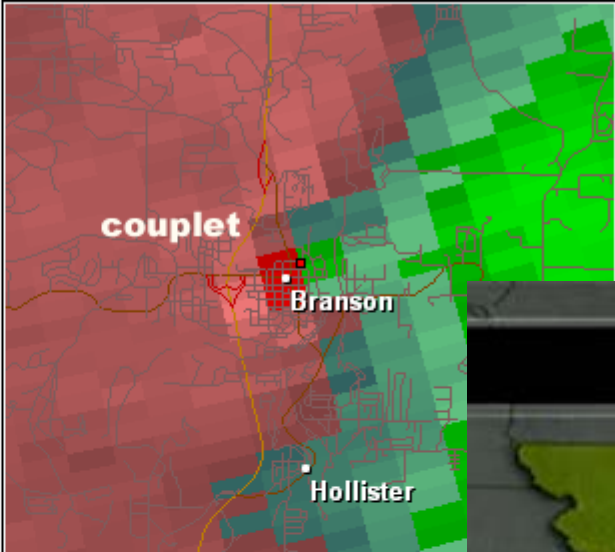
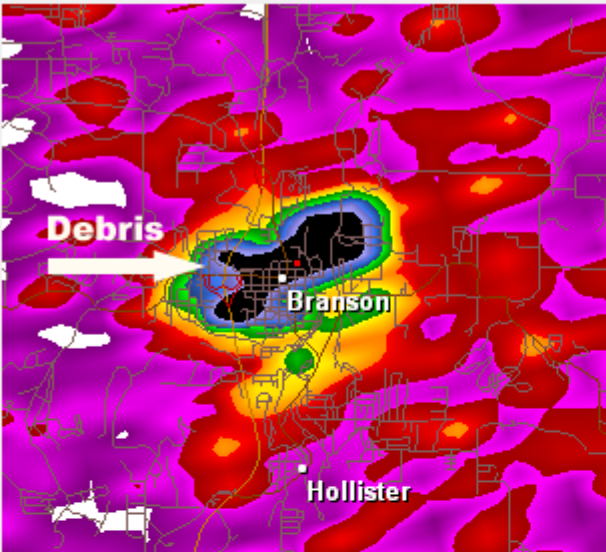
# Building a WRN through Technology

## Satellites and Hurricane Irene



# Building a WRN through Technology

## Dual Pol Radar and Branson Tornado





# Initiated a National Conversation



Improve public understanding of increasing vulnerability to extreme weather

Stimulate discussion with public, partners, and stakeholders on solutions for reducing impacts

**Evaluate opportunities for improving:**

- **User-driven impact-based forecasts/warnings**
- **Integration of social and natural sciences into services**
- **Service delivery across the weather enterprise**
- **Community planning and impacts mitigation**

# Norman WRN National Conversation

## *Key Actions*

- 1. Integrate social and physical sciences – from research to operations**
- 2. Review strategies to reduce false alarms**
- 3. Update warning dissemination strategy**
- 4. Advance physical modeling of severe weather (Warn on Forecast)**
- 5. Improve outreach and education to supported agencies and groups: FEMA, emergency managers, threatened communities.**
- 6. Evolve the NWS Service Assessment following major severe weather outbreaks into one more like the NTSB assessments following major transportation disasters.**

# **NOAA Budget – FY 12**

- **Enacted Budget \$ 4.9M**
- **NWS Reprogramming notice sent to Congress to support BASE budget**
- **If Reprogramming not approved, NWS has a \$28M problem in FY 12**
- **NWS dealing with structural deficit by significantly reducing HDQ budgets and travel. Lapsed labor increased from 9 to 11% of positions in FY 12.**



# NOAA Budget – FY 13

- **Total request of \$ 5.1B**
- **The FY13 budget request includes some painful sacrifices such as program reductions and, in a few cases, the cancellation of valuable programs.**
- **Steps we're taking to minimize negative impacts to NOAA's workforce**

- \* We'll offer voluntary early retirement authority and voluntary separation incentive payments to select positions;

- \* We'll rely more on internal hires, rather than external hires, which will allow us to fill the highest-priority positions while offering options to affected employees;

- \* We'll manage hiring carefully to use attrition to help us reach our funded personnel levels.

# FY 13 Budget (Congress)

- **The Senate CJS bill would move the procurement and management of NOAA's satellite programs to NASA, with NOAA maintaining operations.**
- **According to Subcommittee Chairwoman Barbara Mikulski (D-MD), this move would eliminate duplicative satellite management among the agencies and finally deal with the "continual cost overruns" in NOAA which have resulted in cuts to other parts of the agency in recent years, including research accounts. Chairwoman Mikulski stated that satellite costs now equal 37 percent of the total NOAA budget and "NOAA and the Department of Commerce have shown little will to rein in those costs."**
- **The Subcommittee expects this movement would save \$117 million in FY 2013. Chairwoman Mikulski also noted that NOAA has "eaten up its goodwill with the Subcommittee,"**
- **Budget reduced to \$ 3.4B**
- **House keeps satellite procurements in NOAA**

# FY 13 budget NWS

- **FY 12 ORF - \$ 731.5M**
- **FY 13 PB - \$ 729.2M**
- **FY 13 Senate - \$ 741.1M**
- **FY 13 House - \$ 740.6M**
- **NWS has ongoing structural deficit issues for O&M funding for observations and increasing facility costs**



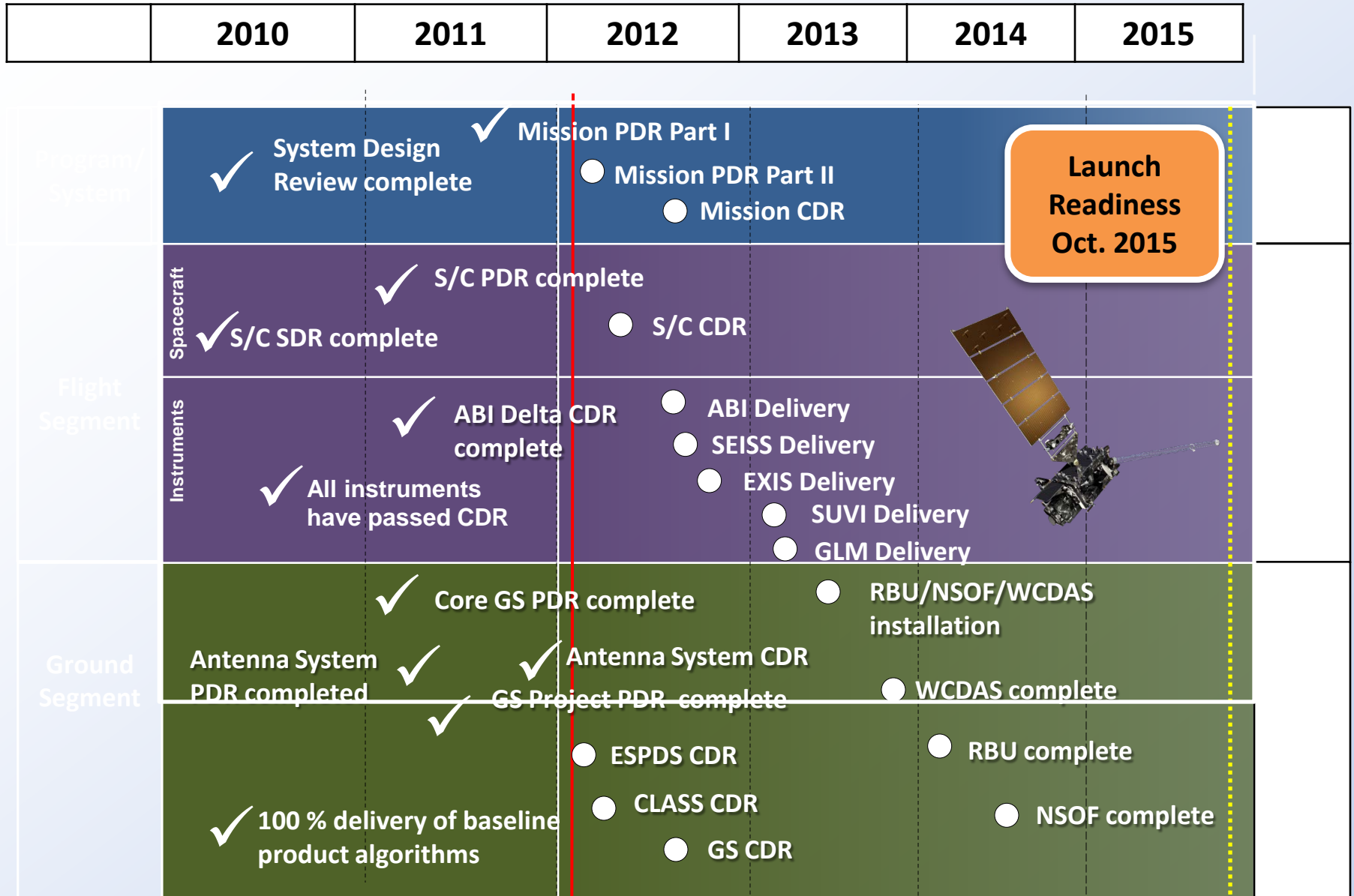
# Profilers

- **FY 12 reprogramming request still at Congress asking to use O&M funds from Profilers to cover BASE shortfall**
- **FY 13 presidents budget requests a decrease in funding of \$ 2.4M**
  - *To maintain Profilers (3) in Alaska for volcanic ash*
  - *Due to frequency interruptions once European Galileo satellites are launched*

# Network of Networks

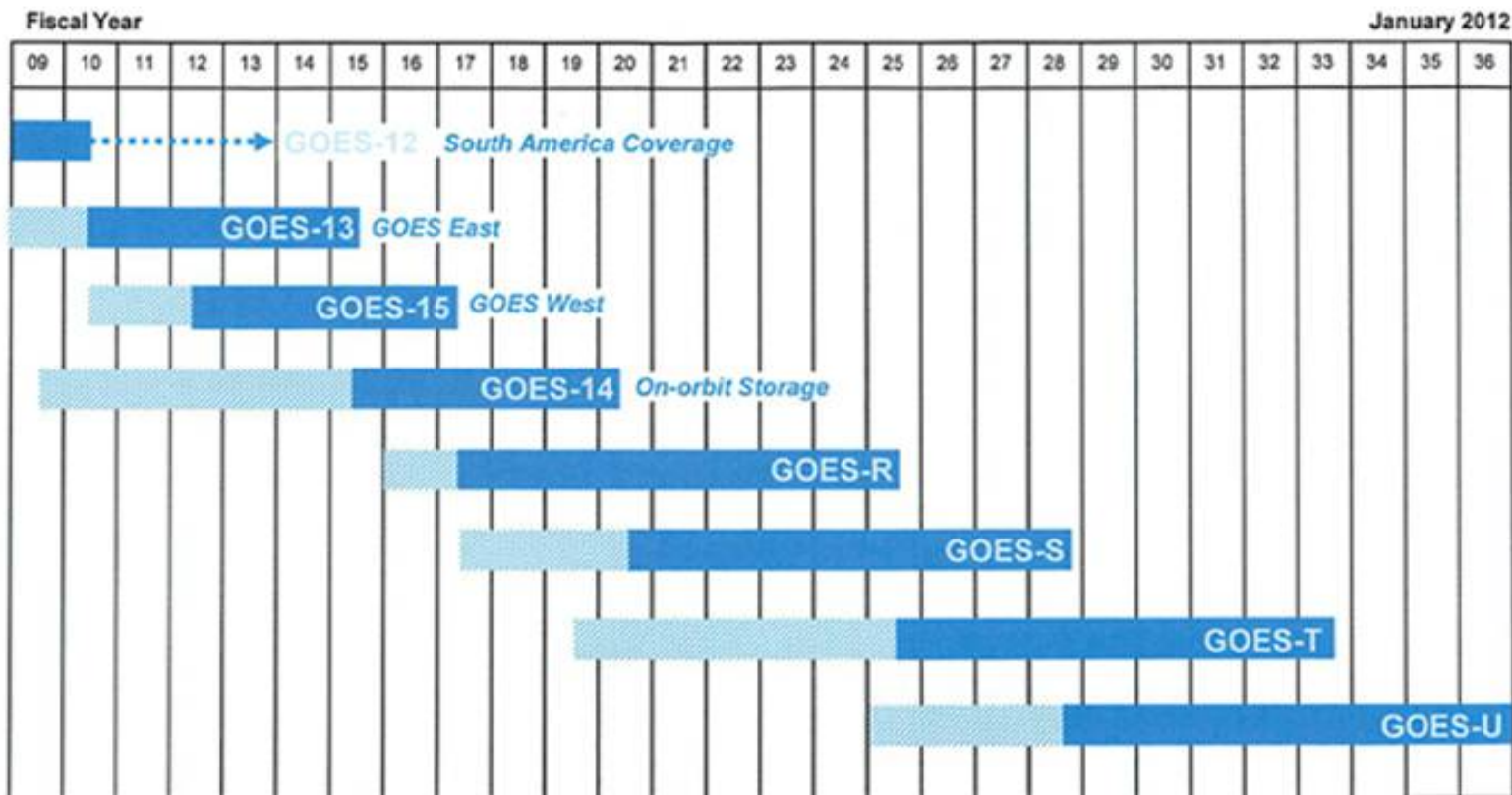
- **NWS awarded a contract in late February to a consortium of networks representing all of the mesonets that have been partners in the National Mesonet effort since 2010.**
- **This consortium represents about one-dozen state mesonets and two private companies that operate nationwide networks (Earth Networks and Weatherflow).**
- **Data is provided from ~8K sites, 1500 of which are mobile. In addition to standard meteorology, many networks provide soil moisture/temp, and solar radiation.**
- **There are many networks that are "going vertical" and test technologies that provide PBL profiles of wind, q, and T.**
- **Envision this continuing to be a thrust of growth for the program so long as Congress continues to direct the money.**

# GOES-R Milestones





# GOES timeline



Approved: Mary E. King  
 Assistant Administrator for  
 Satellite and Information Services

Signed on: 1/25/12

.....> Satellite is operational  
 beyond design life

Post Launch Test / On-orbit  
 storage

Operational