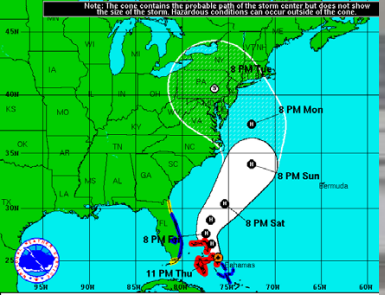

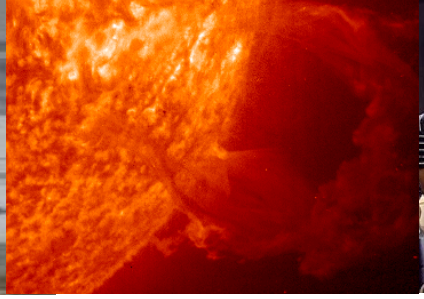

National Weather Service

Fostering a Weather-Ready Nation.

NOAA's National Weather Service (NWS) is the Nation's first line of defense against severe weather. The NWS mission is to provide weather, water, and climate data, as well as forecasts and warnings for the protection of life and property and enhancement of the national economy.

With approximately 4,600 employees in 122 Weather Forecast Offices (WFO), 13 River Forecast Centers, 9 national prediction centers, and other support offices around the country, NWS provides the critical national infrastructure to gather and process data worldwide from the land, sea, and air. This infrastructure enables data collection using technologies such as recently-upgraded dual-polarization radars, satellites, data buoys, and surface observing systems. These data feed sophisticated environmental prediction models running on supercomputers. A highly trained and skilled workforce uses powerful workstations to issue forecasts and warnings. The tele-communications hub allows for the exchange of current data and products between NOAA and its public and private partners and is used to rapidly distribute forecasts and warnings via a diverse dissemination infrastructure including NOAA All-Hazards Weather Radio.

NWS has made tremendous strides in forecast and warning services over the past decades due to research advances from other parts of NOAA. For example, the development of dual-polarization radar technology with the Office of Ocean and Atmospheric Research (OAR) and the tide gauge network operated by the National Ocean Service (NOS) that contributes to the tsunami warning system are part of a NOAA-wide operational system. Platforms for observations, such as National Environmental Satellite, Data, and Information Service (NESDIS) satellites and Office of Marine and Aviation Operations (OMAO) aircraft, routinely demonstrate how NOAA science and service work together and rely upon each other to save lives and for the stewardship of coastal and marine ecosystems and resources.

Across the U.S. in 2011, powerful tornadoes and other storms claimed more than 1,000 lives and caused more than $55 billion in damage despite timely and accurate forecasts. NWS has known for some time that simply issuing excellent forecasts and warnings is not enough to save lives, so the NWS is challenging itself to do more. Catalyzed by these events, NOAA launched the "Weather-Ready Nation" (WRN) initiative in late Summer 2011 to build community resilience in the face of increasing extreme weather events. NWS is on a path to measure its efforts based on the extent to which people responded effectively to its warnings, and not solely by the accuracy and timeliness of its forecast. .

NWS, in partnership with other parts of NOAA, other government agencies, researchers, and the private sector, is leading the way towards a Weather-Ready Nation—not only through improvements to our observations, forecasts, and warnings, but also through innovative ways of communicating risk to local authorities such as providing information to users when and how they need it, strengthening partnerships to enhance community preparedness, and working with the emergency management community to enhance safety.

Currently, NWS is completing an upgrade to our national radar network. Dual-polarization radar technology now enables tornado detection even when storm spotters can't see the tornado due to darkness or when heavy rain is in the way**.** Better ways of communicating severe weather risks are being demonstrated in our products and services, including embedding NWS meteorologists in emergency operation centers. NWS is also taking advantage of social media and reaching the public on mobile devices through innovative partnerships with other government agencies, universities, and the private sector.

Weather-Ready Nation is an effort to build community resilience in the face of increasing vulnerability to extreme weather and water events. Record-breaking snowfall, cold temperatures, extended drought, heat waves, severe flooding, violent tornadoes, and massive hurricanes have all combined to reach the greatest number of disasters causing at least a billion dollars of damage in the Nation's history. The devastating impacts of extreme events can be reduced through improved readiness. In 2012, NWS initiated six pilot projects as part of the WRN campaign to improve demand-driven support services, provide innovative technology, and offer specialized training of our workforce. These innovations will help pave a path forward for the stronger, more agile NWS. The President's FY14 budget proposal for the National Weather Service moves us further down this path to the future.

For more information, visit: www.noaa.gov

FY 2014 Budget Request Highlights

The FY 2014 President's Budget Request for NWS is $1,050.1M. This budget request supports NOAA's efforts to build a Weather-Ready Nation. The NWS budget request will fill critical forecast office vacancies, employ cutting-edge technology to provide weather, water, and climate data, and issue forecasts and warnings for the protection of life and property and for the enhancement of the national economy. The increases and decreases noted below are program changes from the FY 2014 budget request.

- **NWS Labor and Operations +$22.9M:** ensures the NWS is able to provide the weather, water and climate forecasts and warnings the Nation relies on. Funding for labor and operations is essential to maintain the current level of services and ongoing operations necessary to issue warnings and forecasts to protect life and property. These positions directly provide meteorological and hydrological services to the American public.

- **NWS Telecommunications Gateway Legacy Replacement +15.0M:** allows the NWS to transform its Telecommunications Gateway and its backup into a modern, scalable, extensible, and reliable system. The Telecommunications Gateway is the hub for collection and transmission of hydrometeorological observations and products for NOAA's customers.

- **Ground Readiness Project +$15.4M:** increases NWS information technology infrastructure capacity to ensure processing of the three-fold data volume increase expected from satellites, radar, and models coming online from FY 2013-2017. This investment will continue to enable NWS to meet the requirements of its stakeholders for improved forecasts and warnings.

- **Expanding & Accelerating Weather Forecasting Research to Operations +$14.8M: e**xpands and accelerates the transition of critical weather research to operations to address stakeholder demands and increase the accuracy of weather forecasts. Incorporation of scientific developments and state-of-the-art technology into service delivery will strengthen our ability to mitigate the effects of significant weather events.

- **Enhancement of Operational High Performance Computing System +$3.8M**: enables the NWS operational weather supercomputer to become a competitive, world class system leading to enhanced accuracy of NOAA's operational environmental prediction suite. This investment allows NOAA to meet the growing demand for critical forecast products that decision makers rely on.

- **Strengthen U.S. Tsunami Warning Program +$3.8M:** expands partner funding for tsunami education and awareness programs and provides funding for sustainment of the Deep-ocean Assessment and Reporting of Tsunami (DART) buoy network.

- **Regional Enterprise Application Development and Integration teams ($9.8M):** creates regionalized information technology (IT) collaboration teams enabling higher consistency of service delivery. The consolidated teams will be comprised of 24 ITOs. NWS, through previous IT investments and increased efficiencies, now has the ability to remotely fulfill the IT Officers responsibilities.

- **Next Generation Weather Radar Product Improvement Completion ($5.9M):** reflects the planned completion of the NEXRAD dual polarization upgrade by the end of 2013. This modification improves precipitation estimation accuracy and rain, hail, and snow discrimination.

- **Future Forecast Office Initiative (-$3.5M):** reduces the time forecasters spend on the production of forecast products and information in order to spend more time supporting Impact-Based Decision Support Services. NWS will restructure its Advanced Weather Interactive Processing System program to reduce costs while re-prioritizing resources to fund the Future Forecast Office initiative.

NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION

For more information, please visit: http://www.noaa.gov/budget