

From Vision to Value: Unlocking the Power of NWS Transformation

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National Weather Service

From the Surface of the Sun to the Bottom of the Sea...



Space Weather



Winter Weather



Severe Weather: Tornadoes, Hail, Damaging Winds



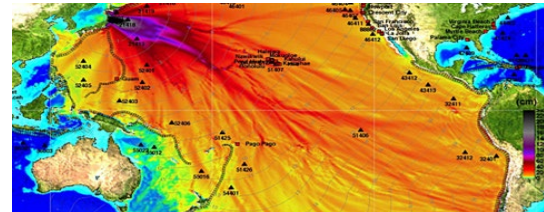
Extreme Heat



Floods/Water



Fire



Tsunami Warnings



Tropical Weather



Drought



Aviation



Ocean Prediction

NWS work saves lives, protects property, and drives the American economy

Why We Do What We Do - 2025 Recap

2025 Watch/Warning Stats



23,434 Severe Thunderstorm Warnings

643 Tornado / Severe Thunderstorm Watches



3,014 Tornado Warnings



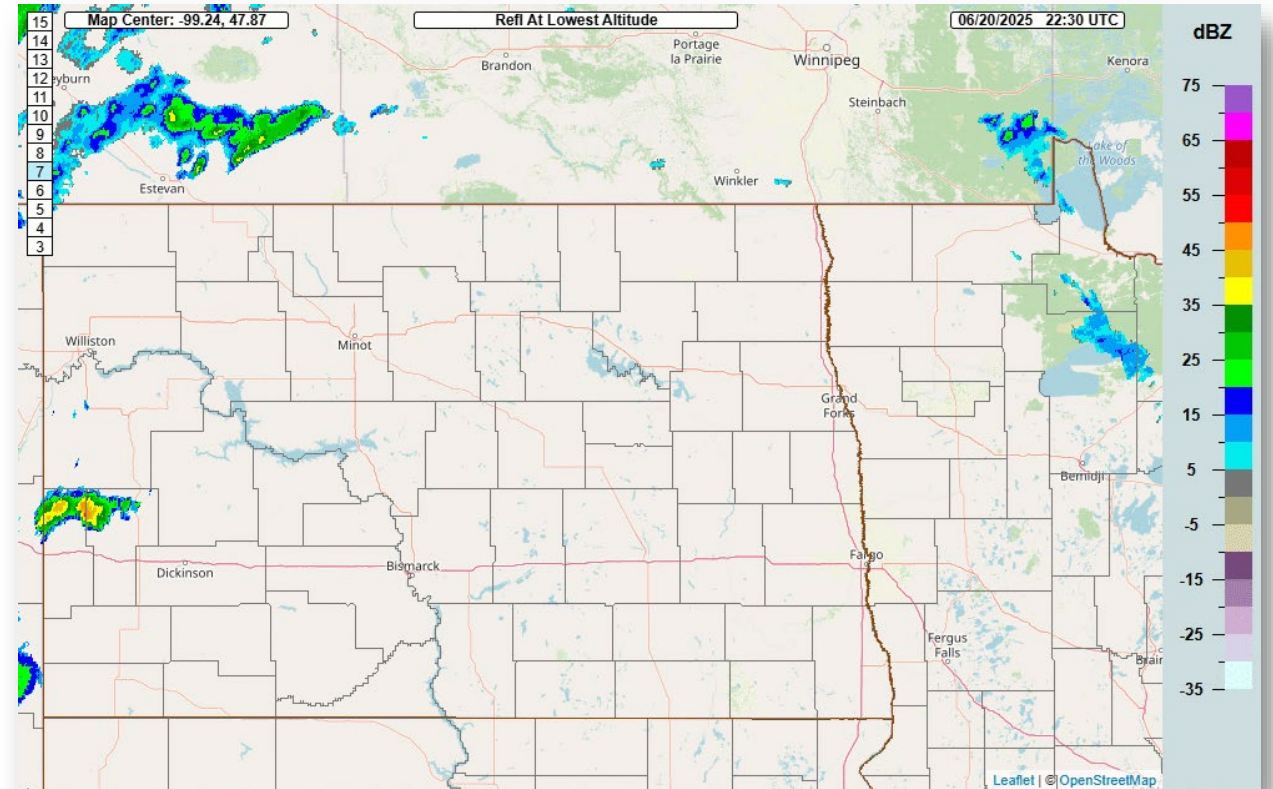
5,230 Flash Flood Warnings

2,787 River Flood Warnings



35,610 Spot Forecasts (Record breaking!)

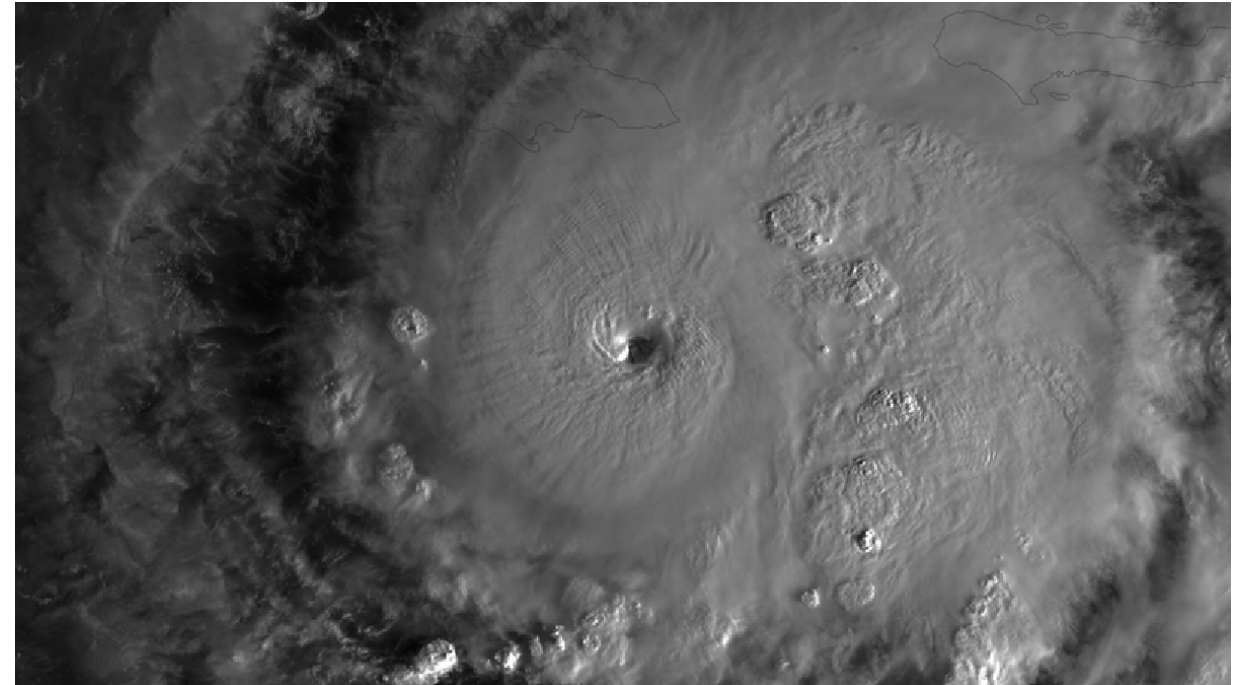
141 IMET Missions



June 20-21, 2025 North Dakota derecho radar loop.

Recent NWS Accomplishments

- OPC Full Basin Grids: **~10x more coverage** and supporting **20-25K vessels**
- **3 day lead time** of rapid intensification into a Category 5 with historic Hurricane Melissa
- **154 lives** at Charlotte-Douglas Airport (eye to eye IDSS in Mayday situation)
- Modernized NWR, **\$12 million/year savings** by moving away from copper
- Leading **AI integration** into hybrid ensembles
- April 1: **Fully probabilistic grids**



Hurricane Melissa swirls in the Caribbean Sea, as seen by the GOES-19 weather satellite operated by the National Oceanic and Atmospheric Administration (Courtesy of CIRA)

NWS Return on Investment to the U.S. Economy



Agriculture

Forecast accuracy leads to better crop management and production which yields hundreds of millions of dollars to the agriculture sector each year.



Aviation

Forecast accuracy leads to better scheduling, reducing ground time and flight delays for airlines. This saves over 30 billion dollars each year to the aviation industry and their customers.



Ground Transportation

Forecast accuracy increases productivity for road management which yields a value of nearly \$60 million a year, especially for the trucking industry.

Energy

Forecast accuracy leads to better management of energy production which yields a significant value to the energy sector - approximately one hundred million dollars annually.

Hurricanes

When evaluating the cost from the most damaging hurricanes (2005-2016), our improved forecasts today would have saved 12 billion dollars of infrastructure loss.



A World Leader in Science and Service: Taking Our Mission to the Next Level

The world has changed and as a result the NWS is transforming to an agency that is nimble, flexible, mobile, and eye-to-eye.

Best NWP in the World

Right Staffing in Communities

Right Mix of Cloud Technologies

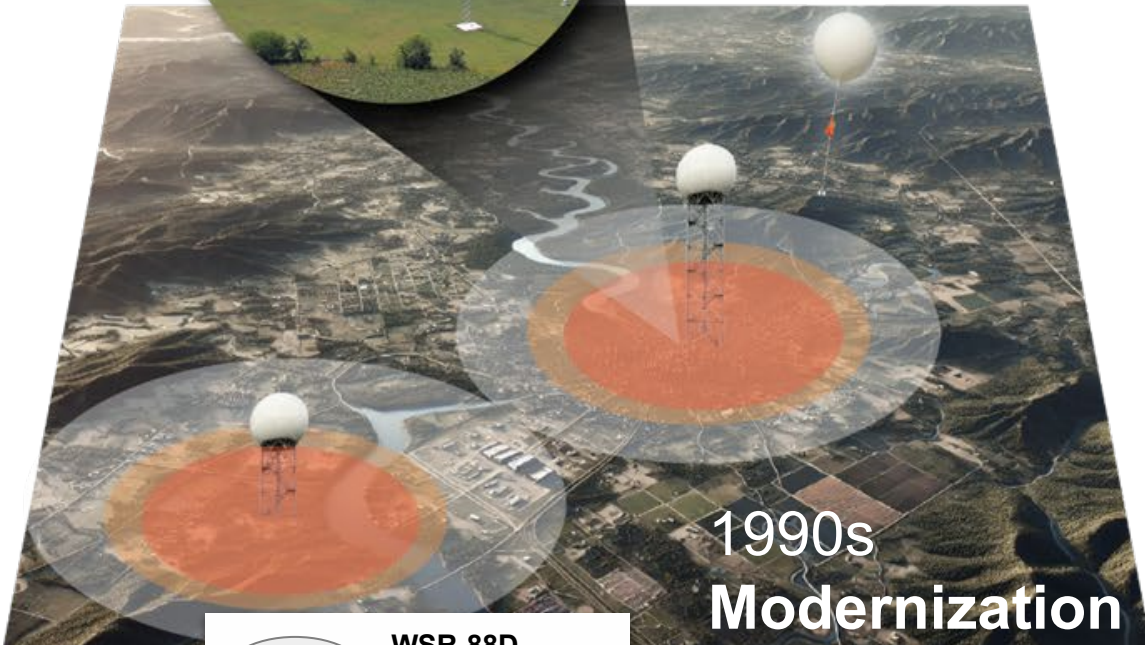
Observations that have the most value



A New Operating Model



In the 90s, we built an Operating Model around our radars and County Warning Areas



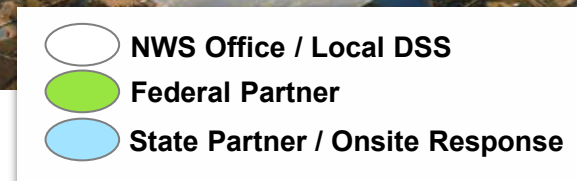
1990s
Modernization



Today, we're building it around the needs of our partners and the communities we serve



2020s
Transformation

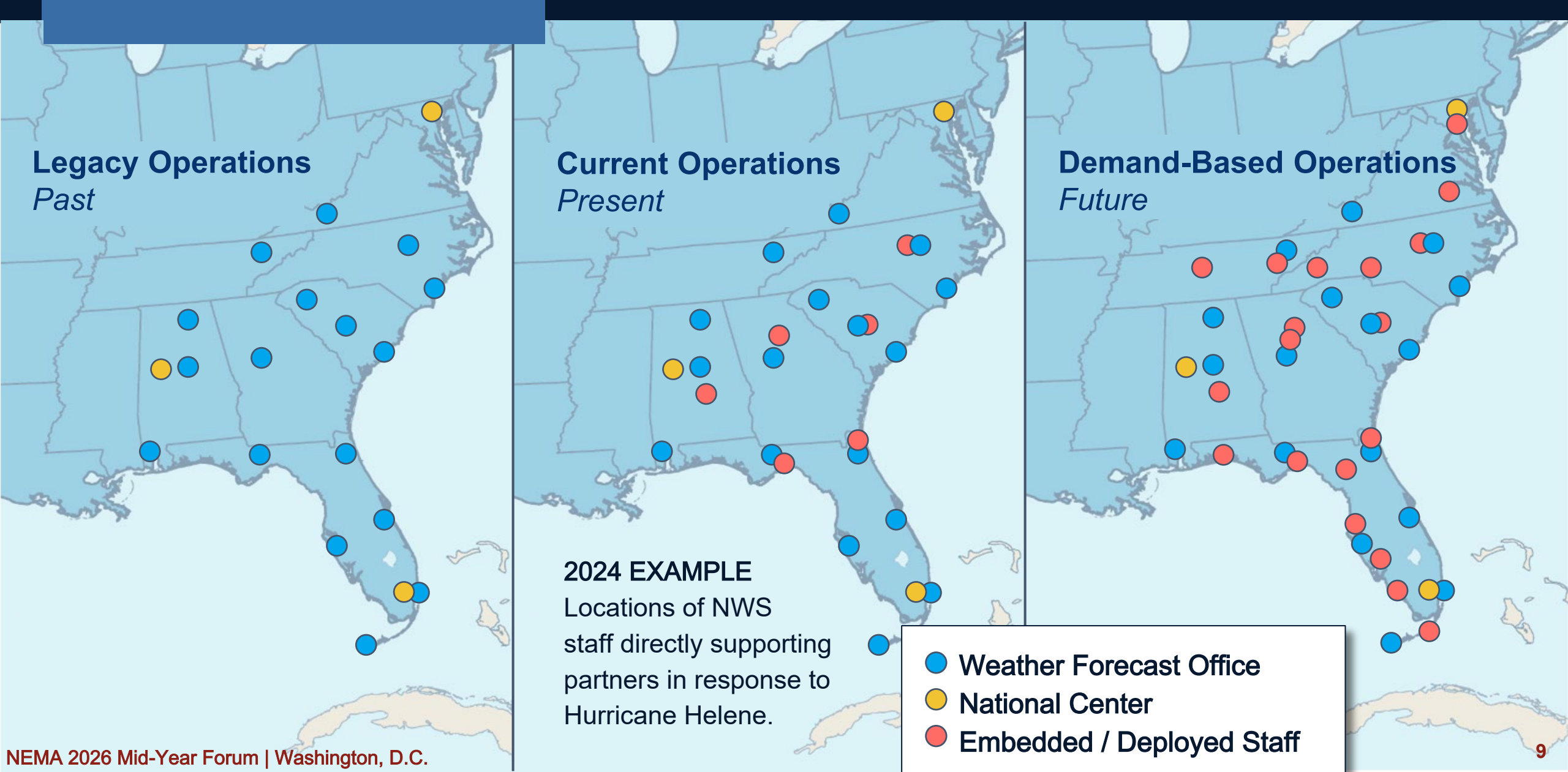


Nimble, Flexible, Mobile, Eye-to-Eye...

Allows us to provide life-saving science and service to every community



National Weather Service - Future “Demand-Based” Staffing





Ken's 10 NWS' Path to Transformation

Focused priorities to propel
NWS Transformation toward 2030



**Workforce
Hiring**



**NWS Dissemination
Systems**



**Standardized
PCS**



**Foundational
Observing Systems**



**Cloud
AWIPS**



**World Leader
in NWP**



**Next Generation
of Radars**



**Reorganize &
Transform**



**NOAA Weather Radio
Modernization**



**Reinvent
Training**

Learn More



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