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# National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) Office of Dissemination

## Dissemination Portfolio 101

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# Dissemination Portfolio Overview



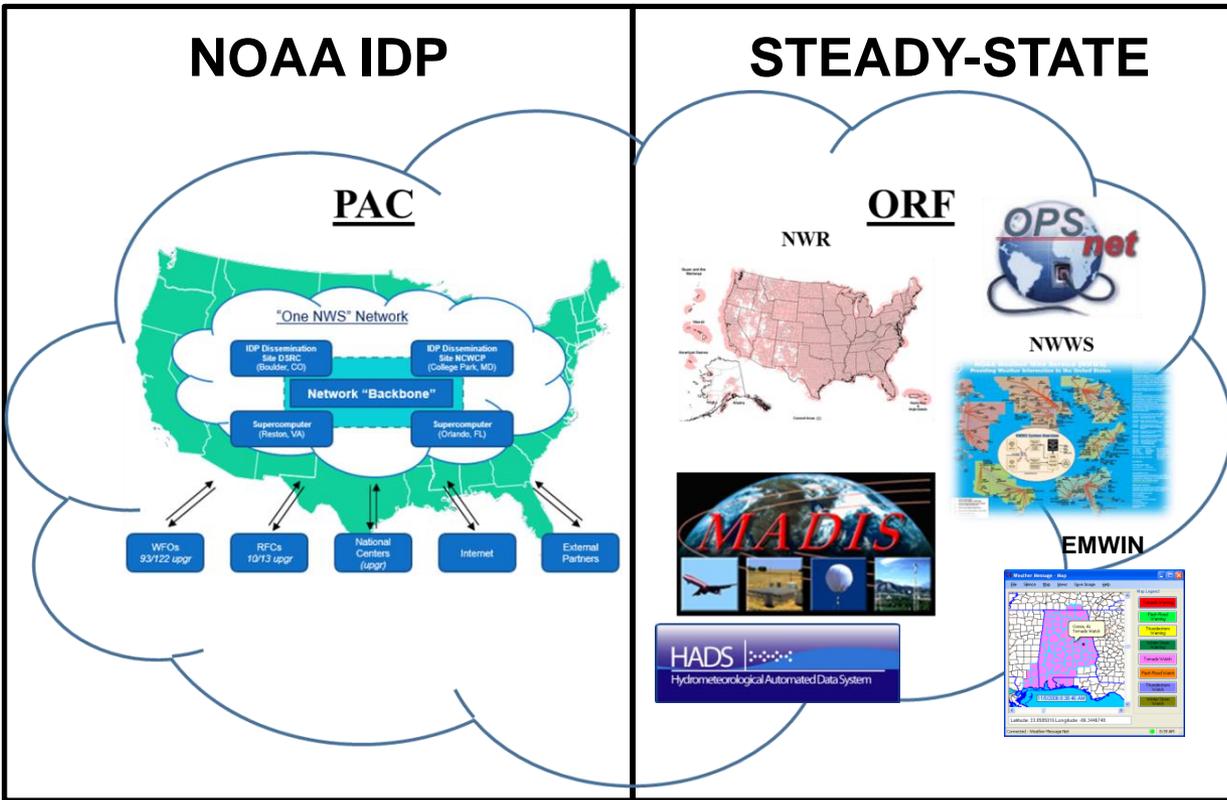
- Transforming NWS' enterprise dissemination services to provide timely and reliable dissemination of weather, water, and climate data, forecasts and warnings supporting NWS' mission to protect life and property and enhance the national economy
- FY 2015 omnibus \$85M
- Includes:
  - NOAA Integrated Dissemination Program (IDP)
  - NWS Internet Dissemination System (NIDS) (e.g., [www.weather.gov](http://www.weather.gov) & NWSChat)
  - NOAA Weather Radio (NWR)
  - NOAA Weather Wire Service (NWWS)
  - Emergency Managers Weather Information Network (EMWIN)
  - NWS Telecommunication Gateway (NWSTG)
  - NWS Operational System Network (OPSNet)
  - Meteorological Assimilation Data Ingest System (MADIS)
  - Multi-Radar/Multi-Sensor (MRMS)
  - Operational Enterprise GIS Services
  - Other dissemination systems



# NWS Dissemination Portfolio "Big Picture"



- Office of Dissemination  
Thrust Areas**
- **Service 1:** Dissemination IT Infrastructure and Virtualized Application Services
  - **Service 2:** Terrestrial and Satellite Networking Services
  - **Service 3:** Weather Information Distribution Services



- Fix and maintain the current operational telecommunication networks and dissemination systems
- Deliver near-term incremental capacity and reliability upgrades/improvements
- Plan and execute long-term dissemination upgrades to comprehensively move NWS from a collection of stovepipes to a single, reliable, end-to-end managed system



# NWS Dissemination Portfolio Services



## Service #1: Dissemination IT Infrastructure and Virtualized Application Services

Provide a scalable, robust, secure and commonly shared dissemination IT infrastructure

- Stand-up IDP Core Infrastructure
  - ✓ College Park, MD
  - Boulder, CO
- Onboard dissemination systems onto IDP Core College Park, MD and Boulder, CO
  - ✓ NOMADS
  - ✓ MAG
  - ✓ FTPPRD
  - ✓ MRMS
  - ✓ MADIS
  - ✓ VLAB
  - NWSTG Re-Architecture
  - MRMS/RIDGEII
  - Enterprise GIS
  - Impact Catalog
  - Space Weather Processing
  - nowCOAST
  - NIDS
  - Damage Assessment Toolkit

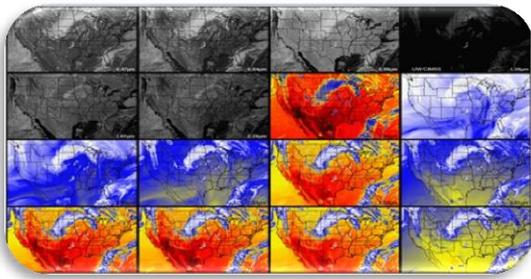


Impact: Ensures reliability of NWS Dissemination Infrastructure during critical weather events

## Service #2: Terrestrial and Satellite Networking Services

Provide networking capacity and resilience

- ✓ Upgrade SBN from 30 to 60+Mbps
- Implement GOES-R Rebroadcast/Himawari downlink antennas and ingest systems at eight NWS locations
- Stand up One-NWS Network
  - ✓ NWS Dissemination Network Single Point of Failures audit
  - CONUS Internet Capacity Upgrades at NWS Weather Forecast Offices
  - OCONUS Network Capacity and Resilience Upgrades
  - Mitigate network single points of failure up to approved funding levels
  - Merge FISMA network systems
  - Build out One-NWS Network
  - Decommission NWS Regional Networks



Impact: Provides NWS Field and customers with enhanced satellite & model data

## Service #3: Weather Information Distribution Services

Provide robust distribution services to help protect life and property

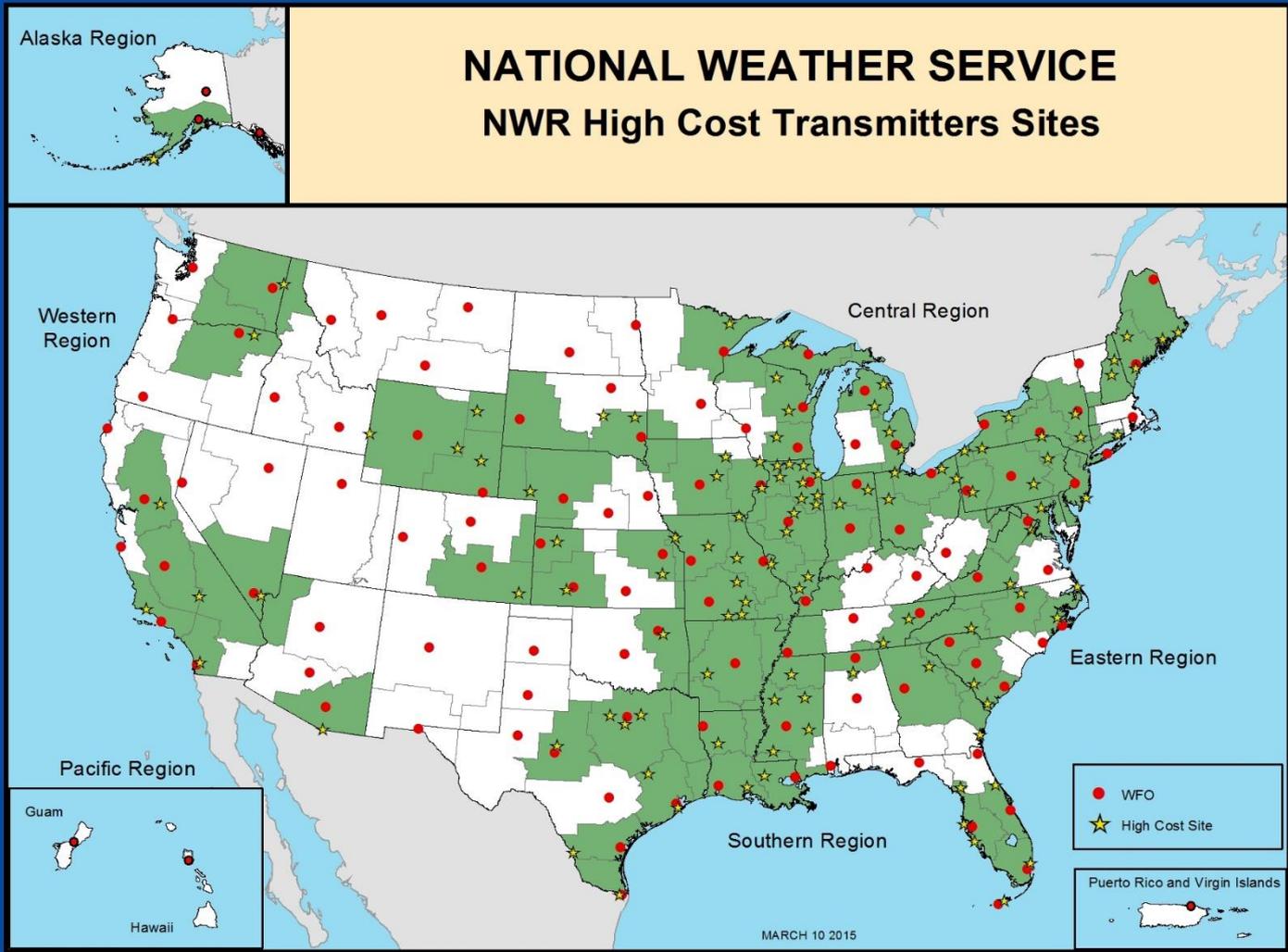
- Streamline NWS Dissemination Systems
  - Audit NWS dissemination systems
  - Upgrade mission critical dissemination systems
  - Decommission non-mission critical dissemination systems
- Sustain and Improve NWR services
  - Upgrade transmitters to solid state
  - Upgrade analog telecommunications circuits
  - Complete market research and analysis of alternatives to potentially outsource transmitter management
  - Develop and implement long-term Roadmap
- Improve operational NWS Field Office Websites resilience & capacity
- Operationalize NOAA Weather Wire Service (NWS) enterprise solution



Impact: Manages and Improves NWS warning dissemination capabilities to protect life and property



# NWS Dissemination Portfolio NOAA Weather Radio





# Dissemination Portfolio IDP Infrastructure Services



- Standup of Operational Dissemination Infrastructure
  - Scalable, robust, secure, and 7x24x365 operational dissemination infrastructure at the NOAA Center for Weather and Climate Prediction (NCWCP), College Park, MD, and the David Skaggs Research Center (DSRC), Boulder, CO
    - Critical NOAA and NWS operational dissemination applications including NWS Telecommunications Gateway (NWSTG), Multi-Radar/Multi-Sensor (MRMS), Meteorological Assimilation Data Ingest System (MADIS), NWS Information Dissemination System (NIDS), and GIS
  - Termination of obsolete dissemination programs, projects and systems
  - Continuous system scanning and monitoring for security vulnerabilities and detection of security threats or intrusions





# Dissemination Portfolio

## IDP Terrestrial and Satellite Networking Services

- Increase Network Bandwidth and Reliability of all Offices with NWS Nationwide
  - Network Upgrade and Optimization
    - Fixing and maintaining NWS operational networks
    - Delivering near-term incremental capability and reliability upgrades/improvements
    - Planning and executing long-term upgrade to comprehensively move NWS networks to a single end-to-end managed system that is reliable and meets capacity requirements
  - NWS Geostationary Weather Satellite Antenna
    - Deploying GOES-R and Himawari-8 rebroadcast antennas and product generation systems at NWS locations
  - Satellite Broadcast Network (SBN) Expansion
    - Increased NWS' SBN from 30 to 60+ Mbps
    - Disseminates crucial satellite, radar and model data to NWS field offices and to partners





# Dissemination Portfolio

## IDP Web and Geospatial Services



- Standup and Maintain an Operational Enterprise GIS Infrastructure
  - Leveraging web services and GIS to disseminate NOAA and NWS critical data to forecasters, NOAA users, Federal partners (Federal Aviation Administration (FAA) and Federal Emergency Management Agency (FEMA)), International community and public
  - Implementing net-centric weather information dissemination capability to fulfill NWS' role for the Next Generation Air Traffic System (NextGen)
  - Onboarding current GIS capabilities onto operational dissemination infrastructure
  - Establishing common format framework for operating GIS data sets
- Establishing consistent metadata and a consolidated catalog for discovery and access of NOAA and NWS geospatial content

