

NWS Partners Meeting

Observations Status Update

January 11, 2018

Kevin J. Schrab
Portfolio Manager, NWS Office of Observations

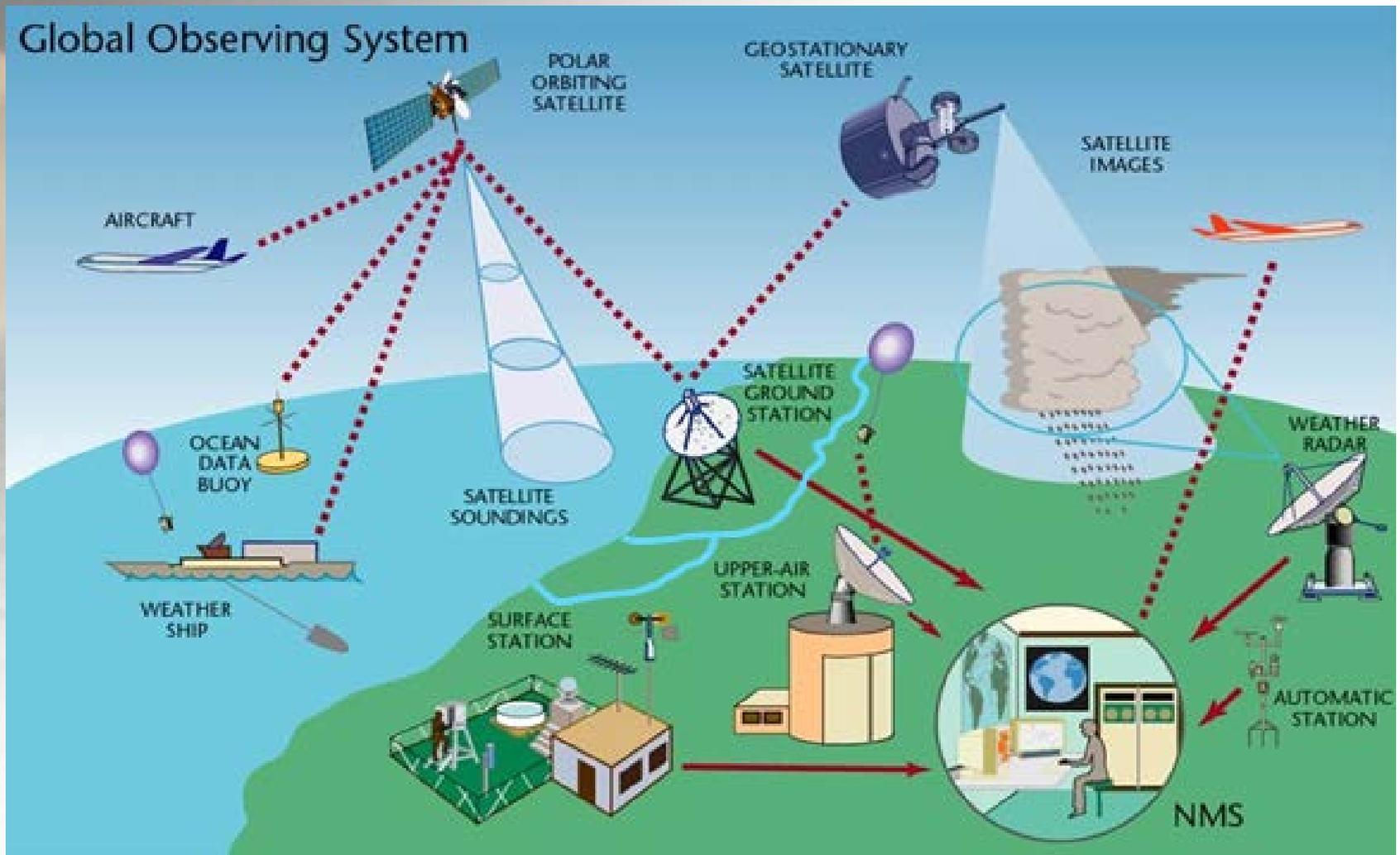
Agenda

- **Observations Overview**
- **Investing in Observational Infrastructure**
 - Satellites
 - Radar
 - Surface
 - Upper Air
- **Leveraging Smart Data Buys**
- **Observing Portfolio Management**
 - Guiding Principles
 - Emerging Technologies
 - Coordination / Collaboration
- **Discussion**



Observations Portfolio

Responsible for the collection of space, atmosphere, water, and climate observational data owned or leveraged by the NWS



Investing in Observation Infrastructure - Satellites

GOES-16

- Became operational as GOES-East on Dec 18, 2017

JPSS-1 (now NOAA-20)

- Launched Nov 18, 2017
- ATMS and CrIS radiances in models within next few months



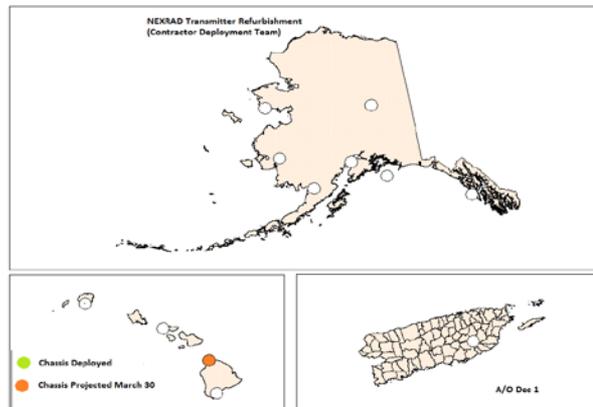
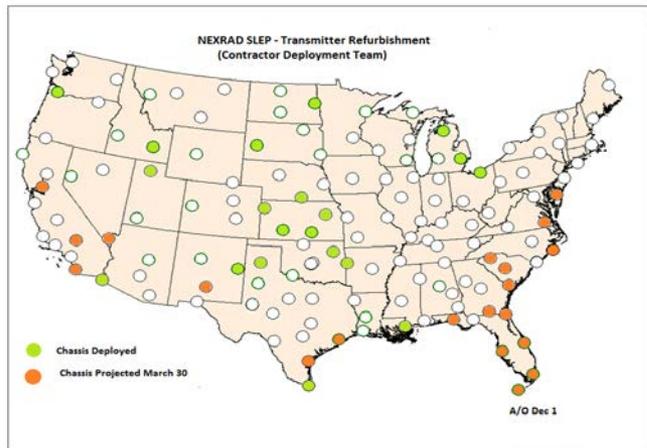
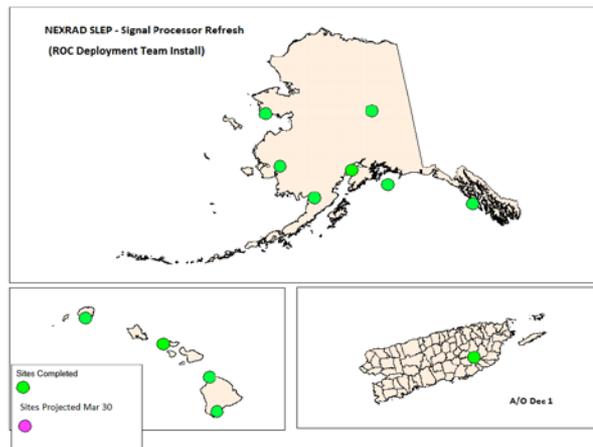
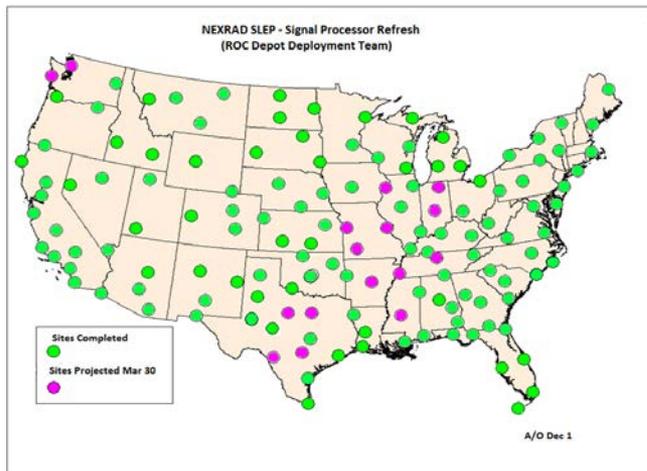
GOES-S

- Revolutionary capability for Western U.S. and Pacific
- Launch in March 2018

COSMIC-2A

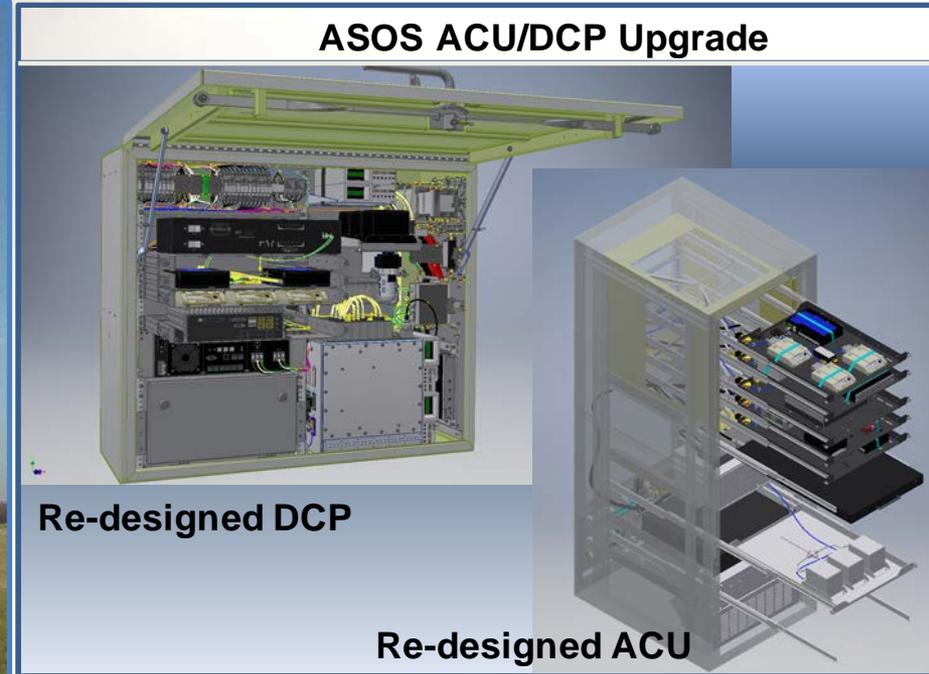
- 1800 soundings a day in the tropics is eagerly anticipated

Investing in Observation Infrastructure – NEXRAD SLEP



- **NEXRAD Service Life Extension Program (SLEP)** ensures viability thru at least 2030
- Signal Processor Suite Technology Refresh scheduled to be complete in February 2018
- Transmitter Refurbishment (second of 4 projects), 20 sites completed all phases of refurbishment as of Nov 2017
- Pedestal Refurbishment contract award expected in 2018
- Overall, the project is ahead of schedule and within budget

Investing in Observation Infrastructure – ASOS SLEP



- **Automated Surface Observing System (ASOS) SLEP** aims to extend system viability thru 2040
- Most critical components:
 - Acquisition Control Unit / Data Collection Platform (ACU/DCP) replacement
 - Telecommunications upgrade
- Will facilitate cost-effective Commercial-off-the-Shelf meteorological sensor solutions, increased data flow, improved system security posture, and remote maintenance capabilities
- Funded in the FY 2017 Omnibus Appropriation and in FY18 Continuing Resolutions

Investing in Observation Infrastructure – Radiosonde Network



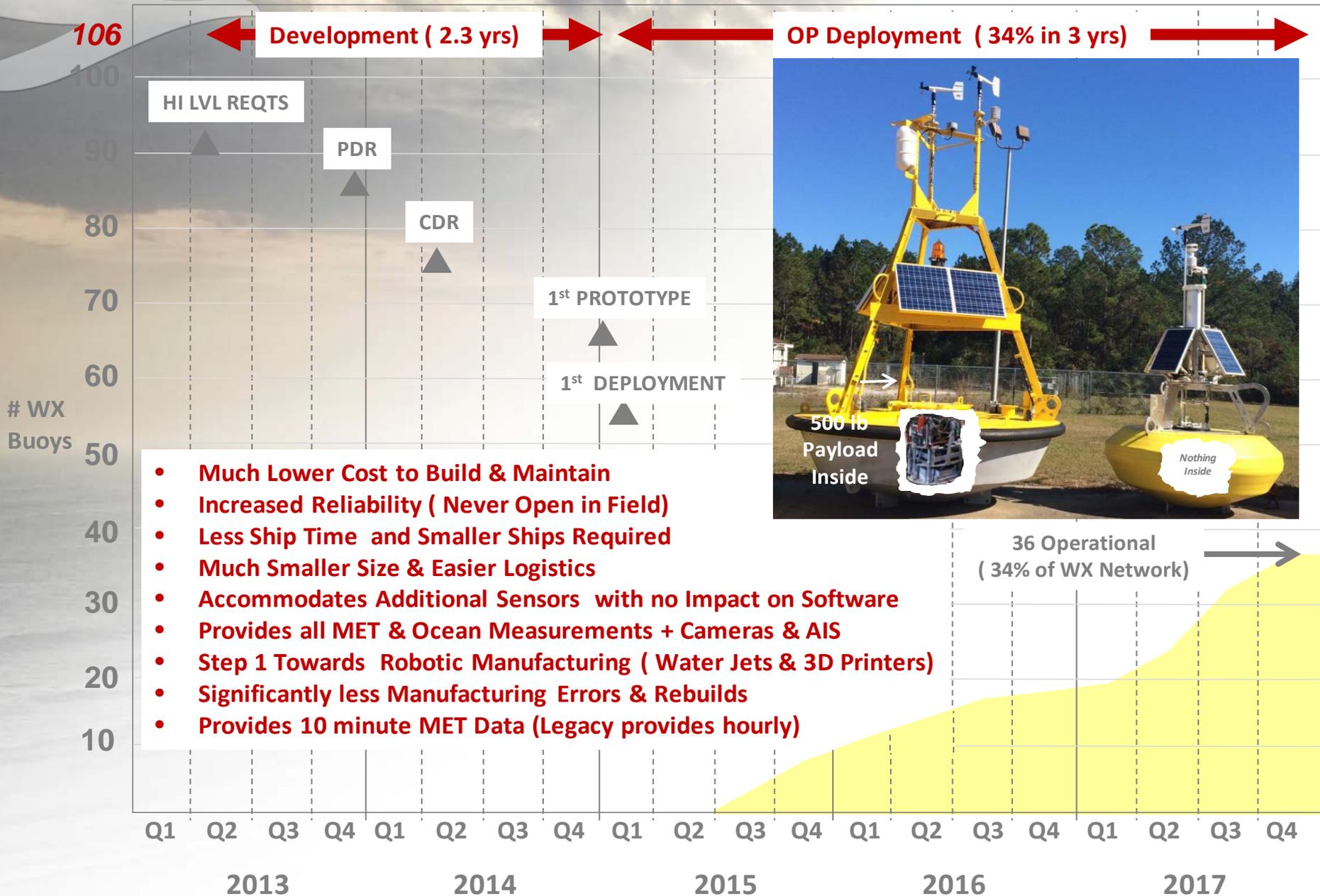
Radiosonde Autolauncher



Radiosonde Manual Launching Operation

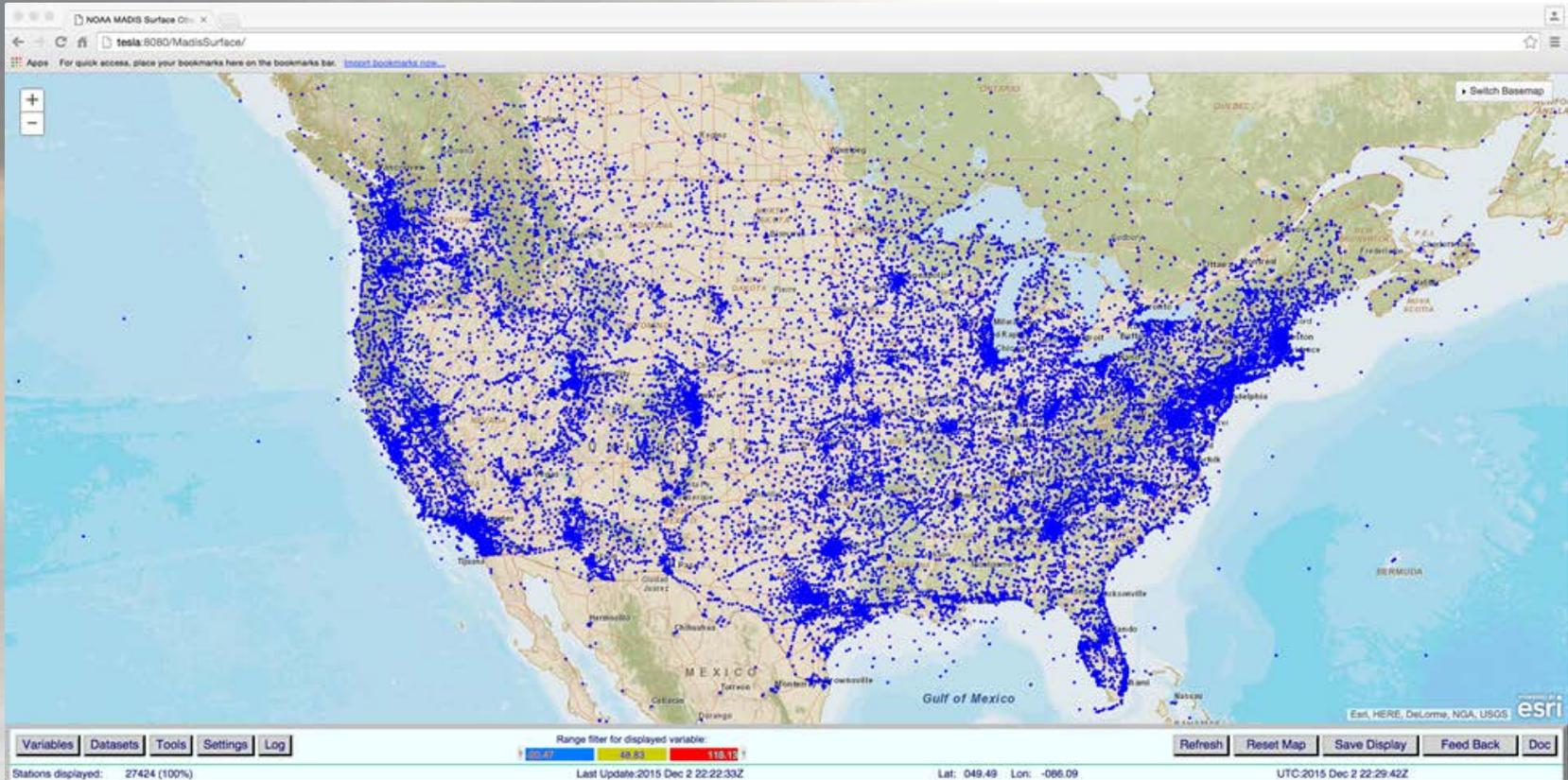
- Due to sale of “spectrum,” the **Radiosonde Frequency Migration Project** will move radiosondes from the 1680 MHz band to the 403 MHz band. Funding from the spectrum sale is supporting this infrastructure investment.
- Developing knowledge and experience for autolaunching radiosondes under Demonstration Project in Alaska Region while recapitalizing the rest of the network with new manual launch systems
- Approximately 25% of the network will be autolauncher while the remaining ~75% of the network will continue manual launches with newly acquired systems

Recapitalizing WX Buoy Network with SCOOP at NDBC



Leveraging Smart Data Buys

- National Mesonet Program



- Aircraft Based Observations (MDCRS, WVSS-water vapor)
- Lightning Data
- GPS-Met
- Commercial Weather Data Pilot – evaluating Radio Occultation data from commercial satellite providers

Observing Portfolio Management – Guiding Principles

- **Vision:** NOAA’s vision is to achieve and sustain an observing system portfolio that is *mission-effective, integrated, adaptable,* and *affordable*.
- Superior Service and Reputation
- Adaptability
- Cost-Effectiveness, Affordability & Sustainability
- Integration
- Global Context and Commitments (*Data Sharing*)
- In-House Expertise
- *Well-governed, Understood & Trusted*

NOAA's Emerging Technologies for Observations Workshop 2017

Theme: *“Technology toward a mission-effective, integrated, adaptable and affordable observation portfolio”*

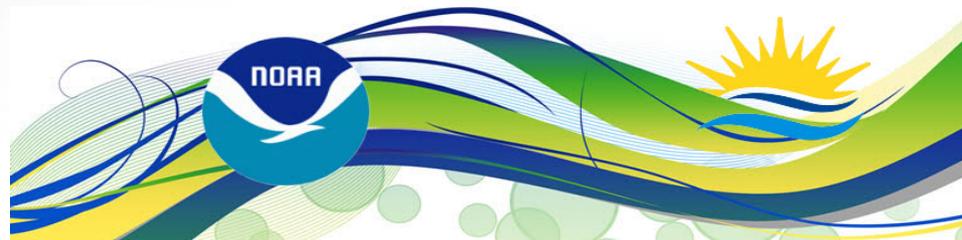
When: August 22-23, 2017

Where: NOAA Center for Weather and Climate Prediction (NCWCP), College Park, MD

Why: The NOAA Observing Systems Council is seeking to identify emerging technologies for Earth and space observation, and develop recommendations to help NOAA infuse new technology into the observing systems portfolio.

How: 5 Internal Sessions – Space, Atmosphere, Terrestrial, Oceans, and Data Management/Analytics
2 External Requests for Information that was open to all Inter-governmental / Partner Panel as the last session

Report: https://nosc.noaa.gov/public_docs/ETW_Report_2017_FINAL-v10.pdf





Future Partner Discussion

- IDSS and Dissemination had focused day-long workshops in December 2017
- Planning for Observations focused day-long workshop to include NOAA's portfolio management processes



Questions?

Contact: kevin.schrab@noaa.gov
301-427-9320