

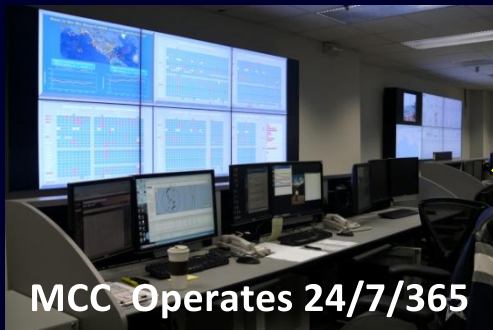
National Data Buoy Center

Overview for
NASA Enterprise Park Industry Day

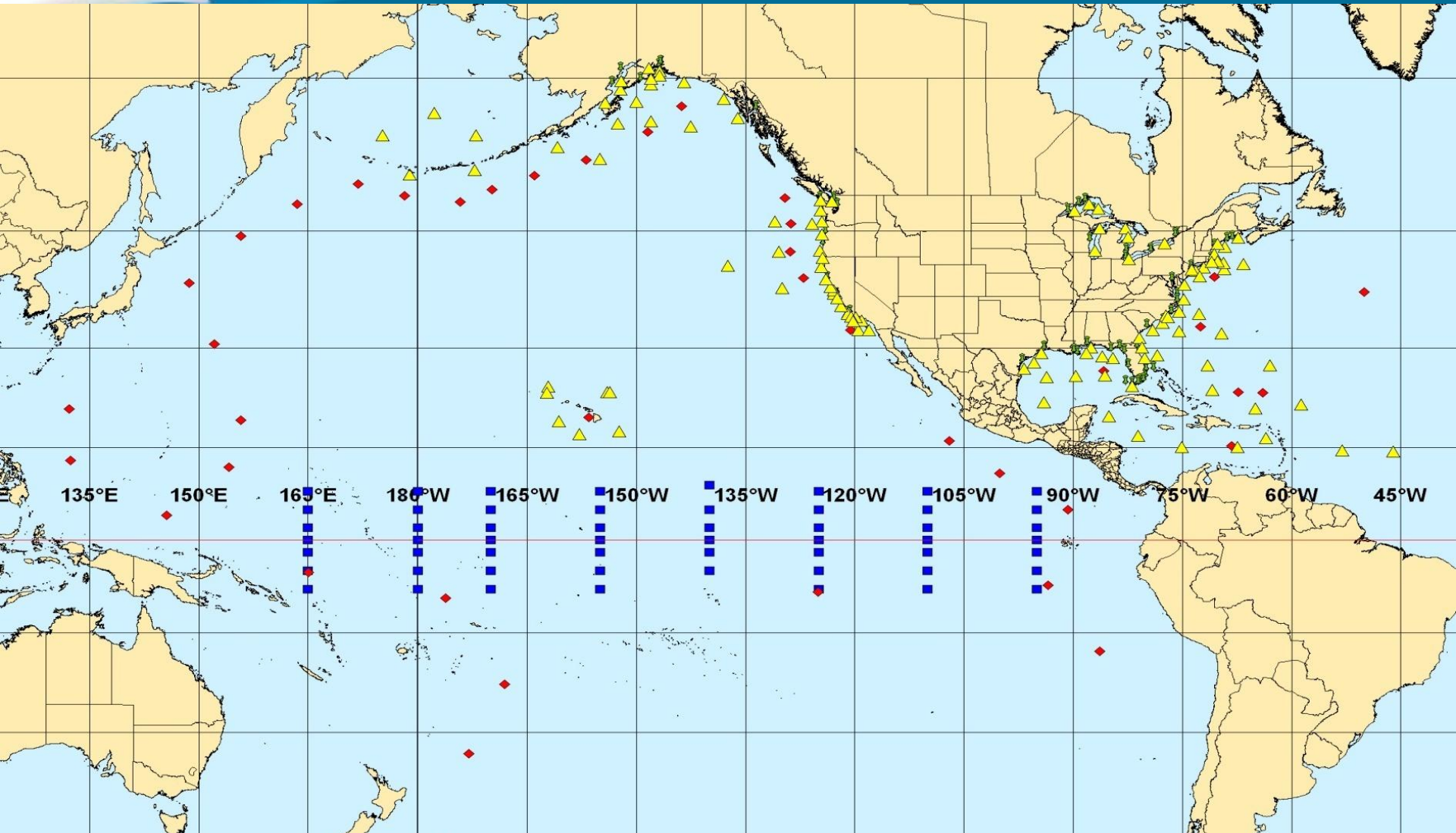
February 7, 2018



National Data Buoy Center Facilities at SSC, MS

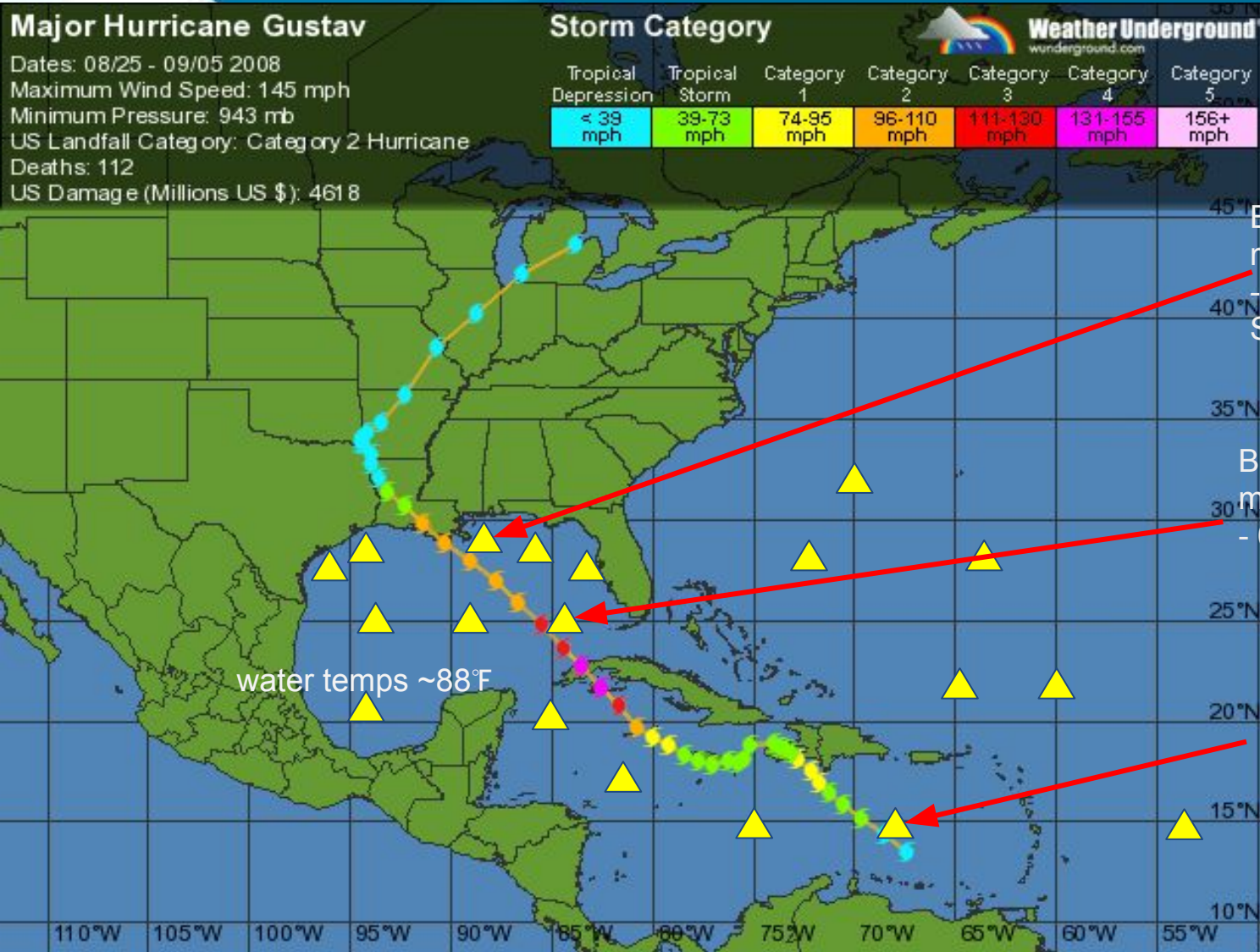


NDBC's Observing Network



Hurricane Gustav

Aug 25-Sept 3, 2008



Buoy 42040 measured 63 mph winds and 33 ft seas - 120 mile east of Storm Sept 1, 2008

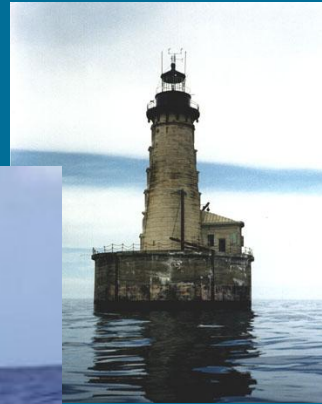
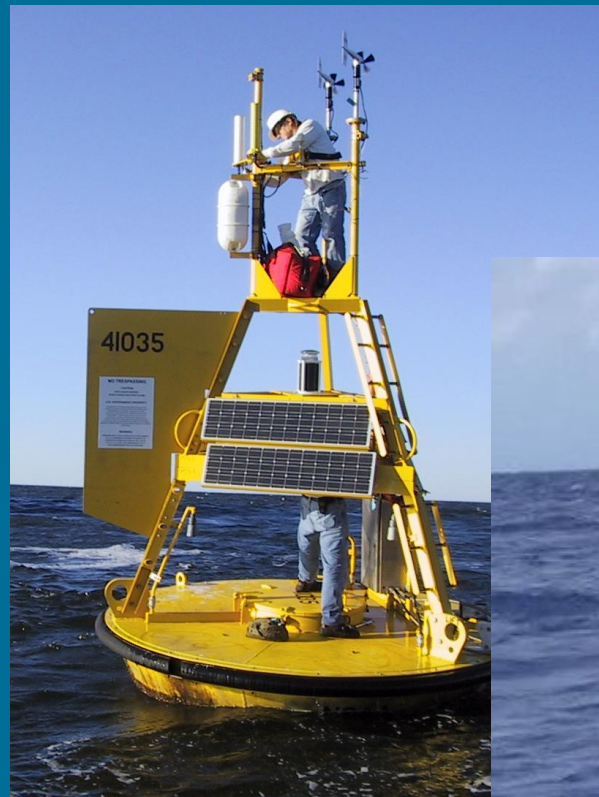
Buoy 42003 measured 85 mph winds and 34 ft seas - 65 mile east of Storm

Buoy 42059 measured 50mph winds and barometric pressure drop just prior to forming TS

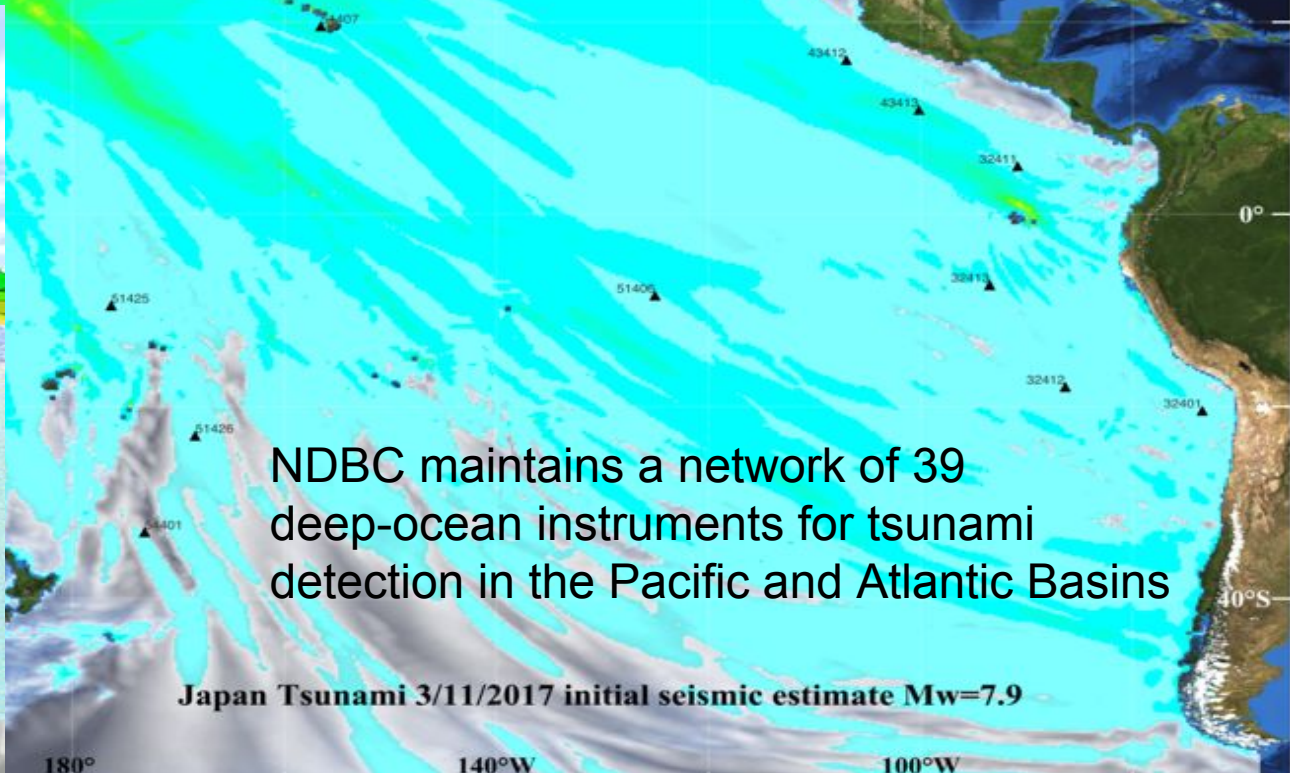
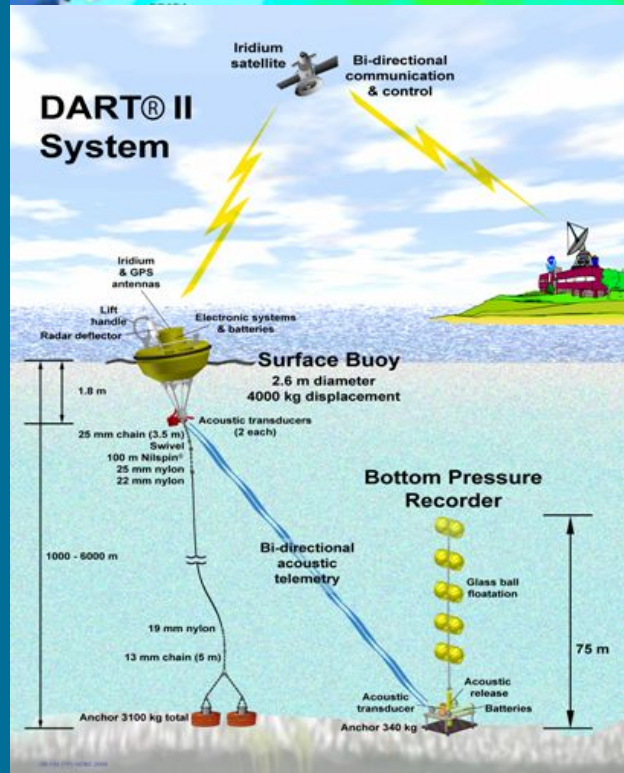
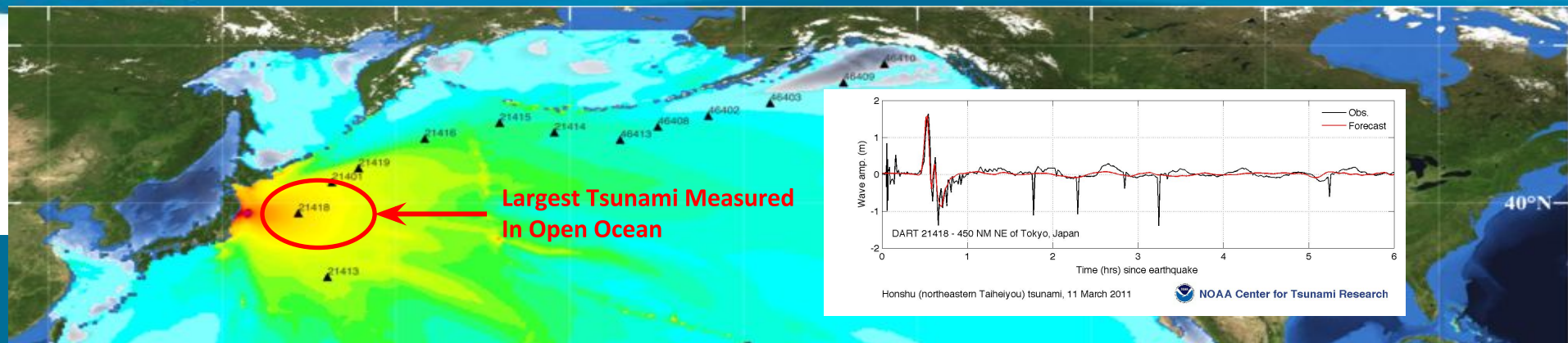
NOAA's "Weather Buoys"

106 Weather-Ocean buoys

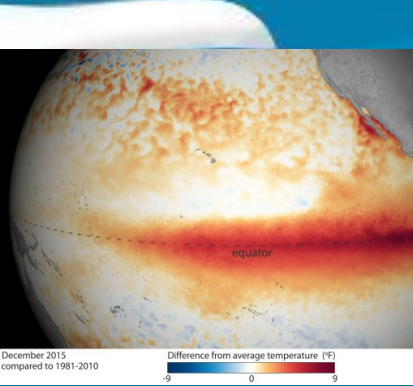
45 Coastal-Marine Automated Network
(On Lighthouses, offshore structures, fishing piers)



Tsunami Assessment

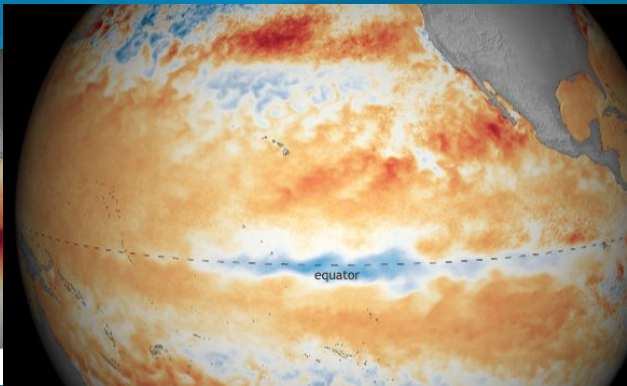


El Niño - La Niña Detection



December 2015 compared to 1981-2010

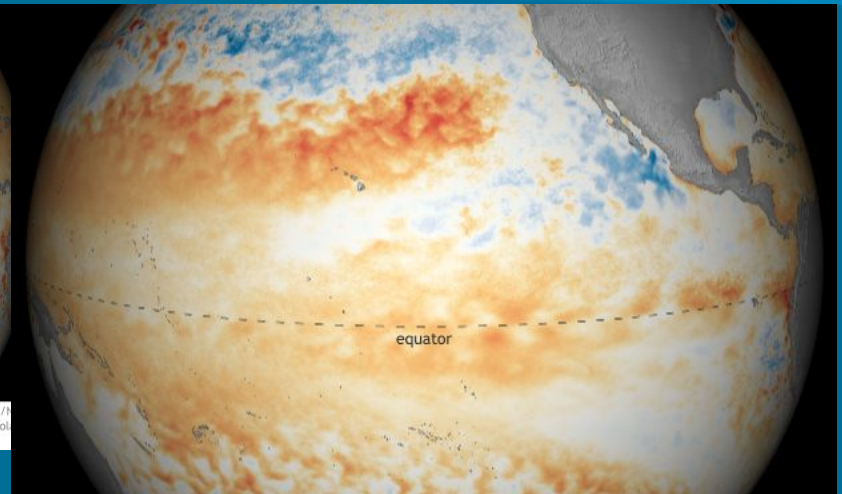
Difference from average temperature (°F)



July 2016 compared to 1981-2010

Difference from average temperature (°F)

Climate.gov/NNVL
Data: Geo-Polar SST

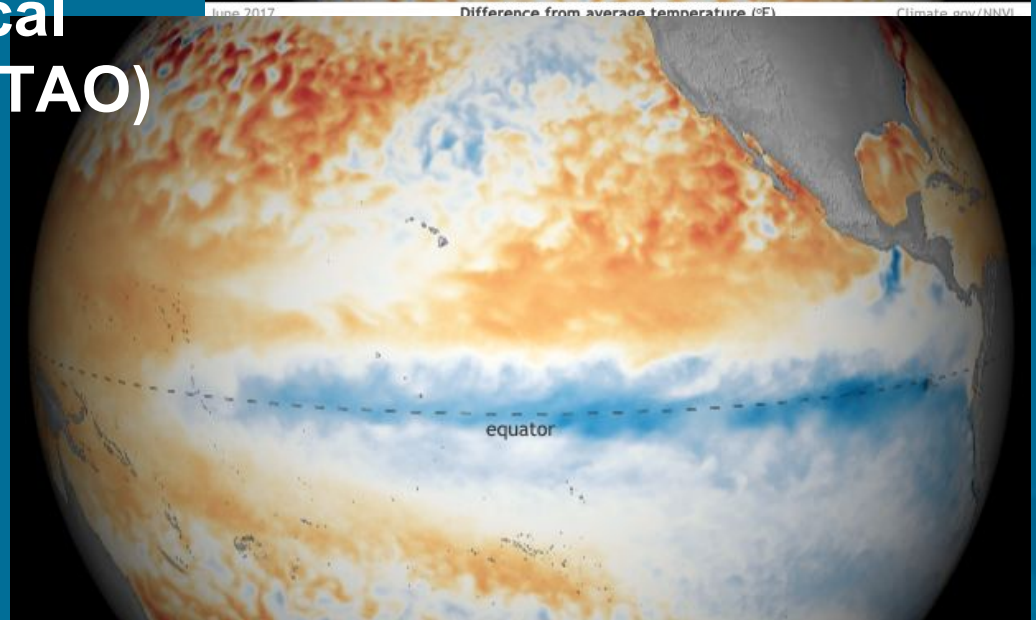


June 2017

Difference from average temperature (°F)

Climate.gov/NNVL

NDBC maintains the Tropical Atmosphere Ocean Array (TAO) in the tropical Pacific



December 2017 compared to 1981-2010

Difference from average temperature (°F)

-9 0 9

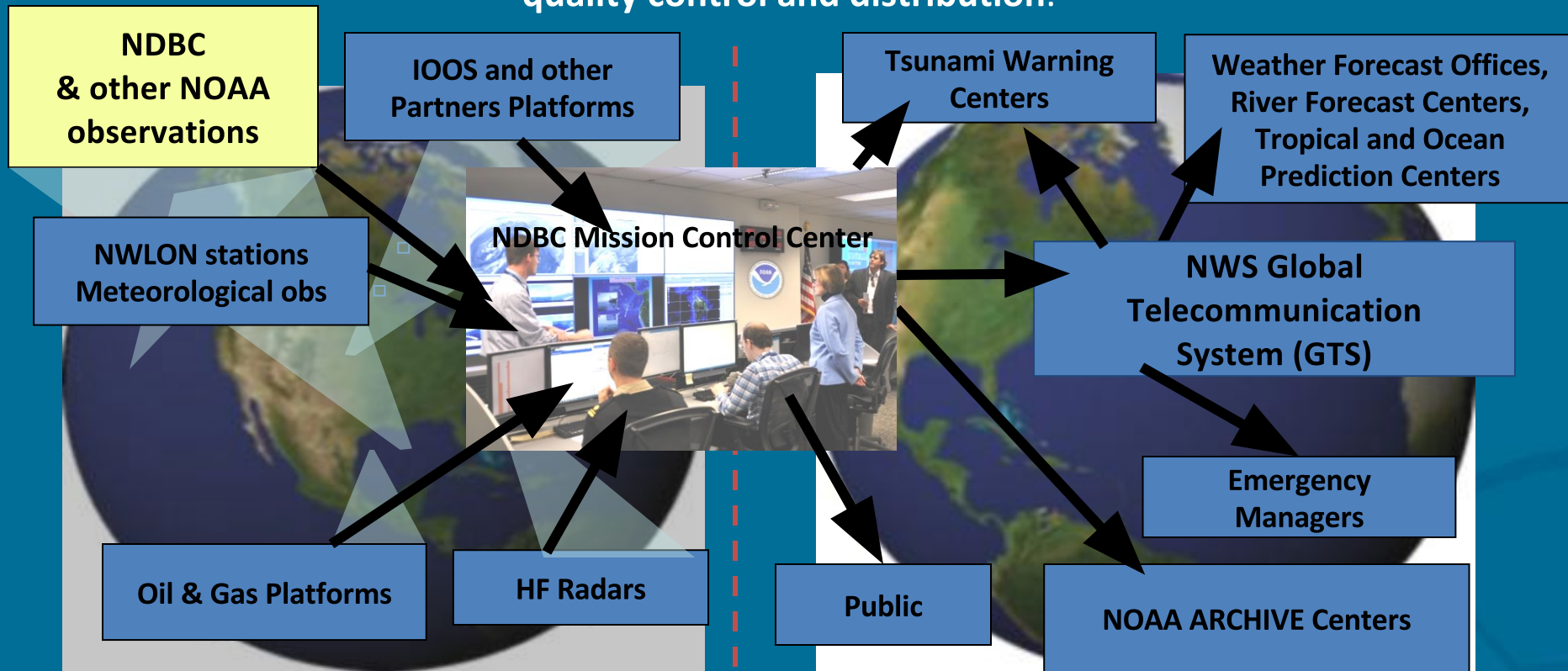
Climate.gov/NNVL
Data: Geo-Polar SST



National Data Buoy Center

Stennis Space Center on the Mississippi Gulf Coast

To provide a **real-time**, end-to-end capability beginning with the **collection** of marine atmospheric and oceanographic data and ending with its transmission, **quality control and distribution**.



DATA COLLECTION

DATA DELIVERY

NDBC Staff



NDBC Federal staff - 40 FTE's

USCG Liaison Office - 4 Officers and 1 Civilian

NOAA Corps Officer

Tech Services Contract currently with Pacific Architects and Engineers

Broad SOW across all NDBC activities

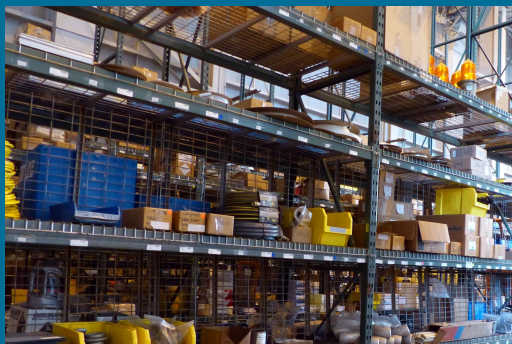
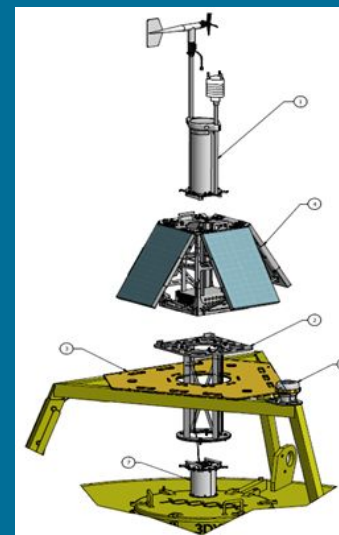
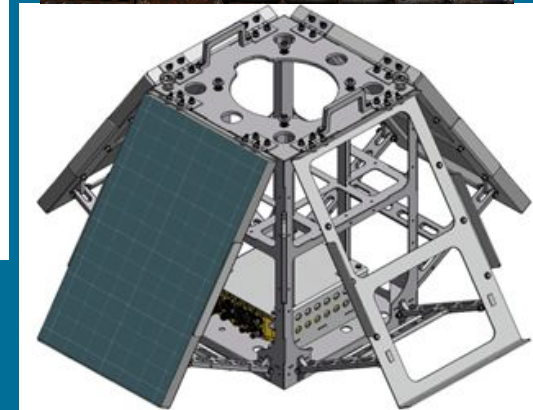
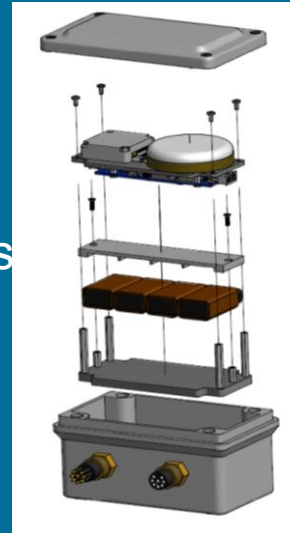
Level of Effort is about 130 FTE's including subcontractors



Outsourcing of Technical Expertise, Services & Buoy Components



- Buoy structure - hulls, masts, racks
- COTS ready to deploy buoy systems
- Circuit boards
- Common and Specialized parts and materials
- Sensors
- Power generation and storage technologies
- Communications technologies
- Materials analysis and testing
- Destructive and non-destructive testing
- Buoy deployment - vessel services
- And on and on...





NOAA

SCIENCE. SERVICE. STEWARDSHIP.



What questions do you have?

National Data Buoy Center
Stennis Space Center, MS