

NOAA Comments on the Tropical Atlantic Observing Systems (TAOS) Review

Requirements and support

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Ocean Observing and Monitoring Division (OOMD)

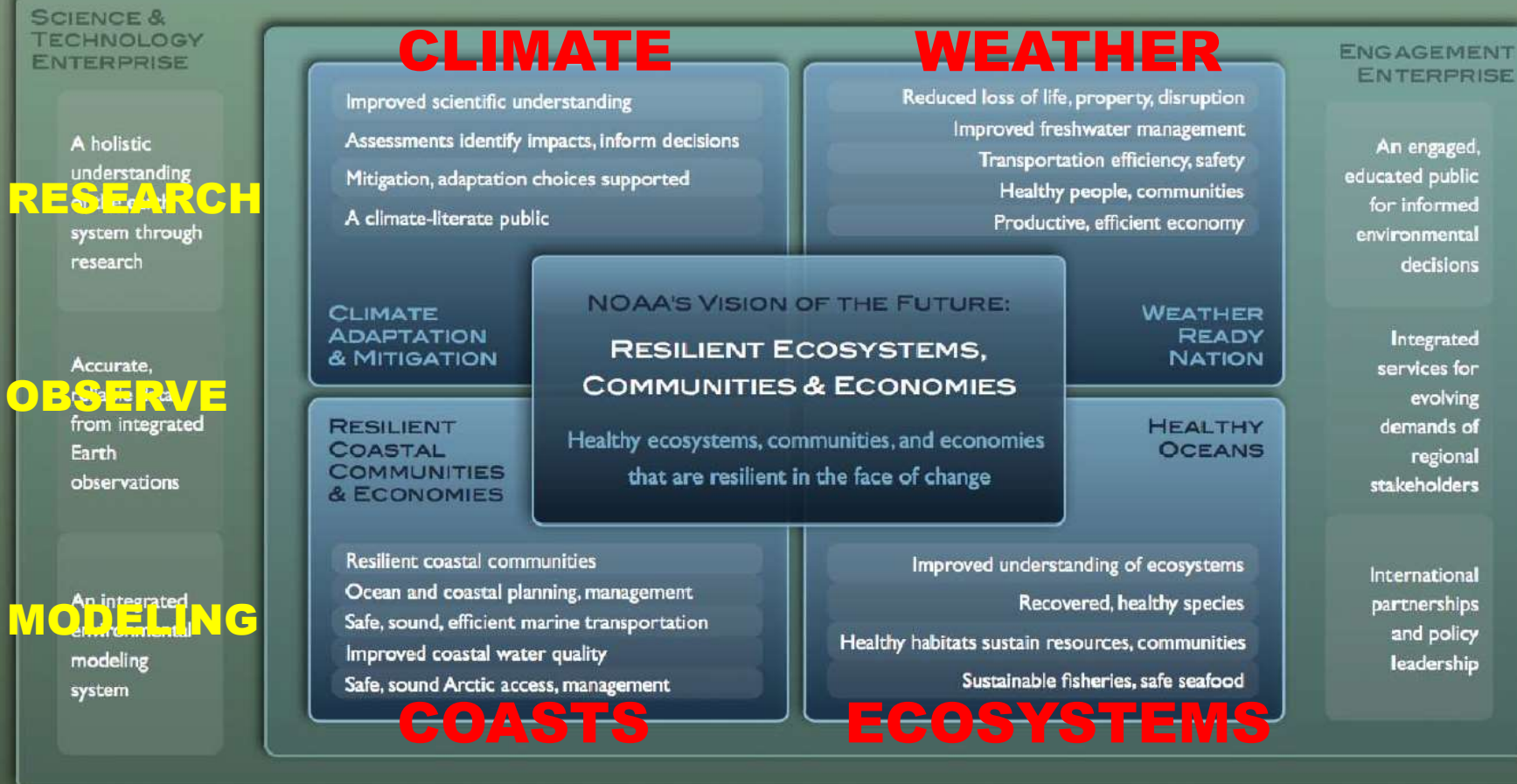




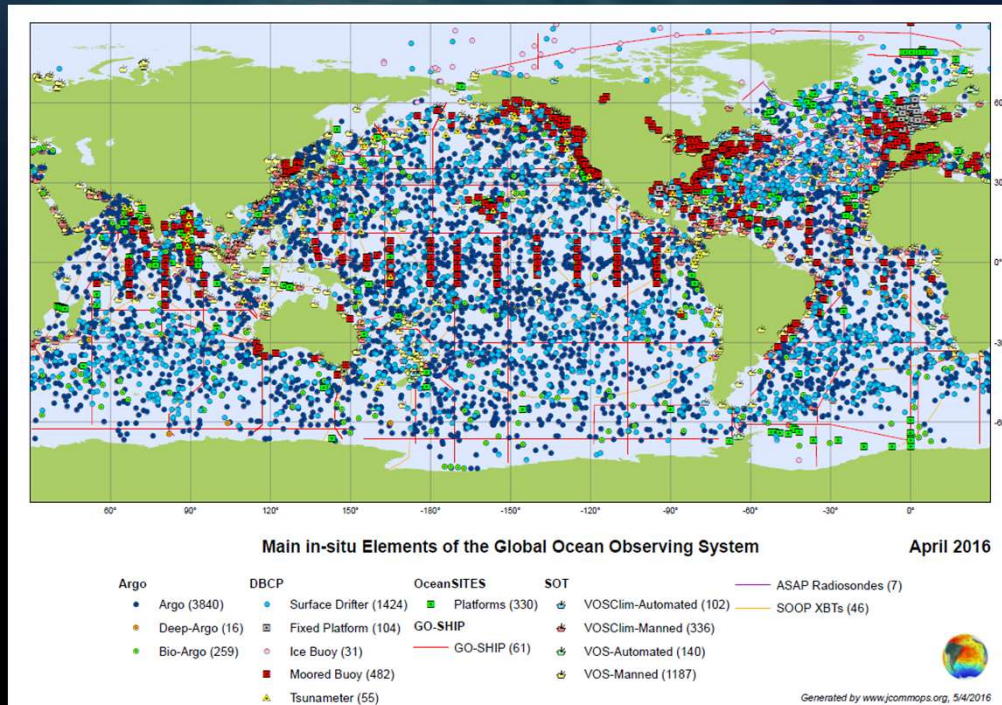
NOAA'S MISSION:
SCIENCE, SERVICE & STEWARDSHIP



To understand and predict changes in climate, weather, oceans, and coasts,
To share that knowledge and information with others, and
To conserve and manage coastal and marine ecosystems and resources



Global In-Situ Sustained Ocean Climate Observing



Essential ocean variables:

temperature, salinity, currents/circulation, carbon/Ph, sea-level, sea-ice, air-sea fluxes, waves, ocean acoustics, and surface meteorology

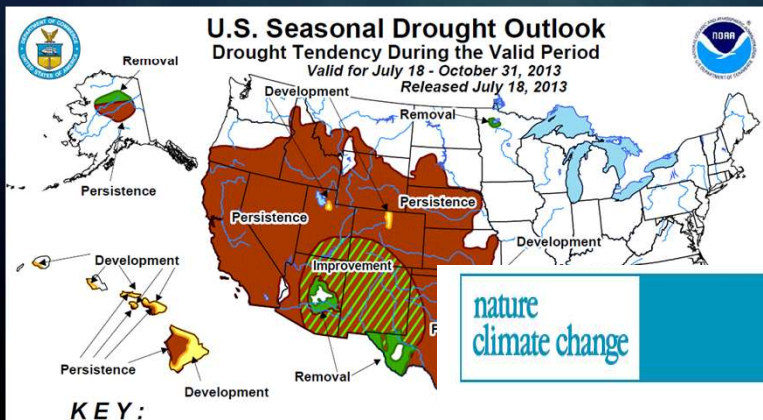
Major Observing Networks

- Argo, surface drifters, RAMA, PIRATA, Oceansites, GLOSS Tide gauges, SOOP/XBT, gliders, pCO₂, GO-SHIP, etc

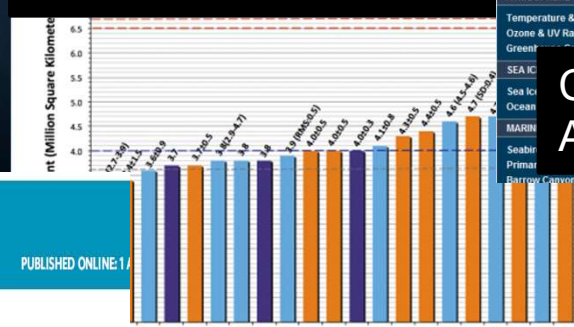
Key Attributes

- Global in coverage, fixed and Lagrangian/autonomous platform strategy
- International effort (dozens of countries contribute)
- Data reported in real-time (over 5000 platforms)

Providing high-quality long-term global observations, climate information, and products to researchers, forecasters, and other users to inform and prepare society for environmental challenges



SEA ICE OUTLOOK



Arctic Report Card: Update for 2012
Tracking recent environmental changes

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Executive Summary
ATMOSPHERE
Temperature & Clouds
Ozone & UV Radiation
Green
SEA ICE
Sea Ice
Ocean
MARIN
Seabird
Primat
Barrow Canyon Ecosystem

STATE OF THE CLIMATE IN 2013

Climate Assessments

nature climate change

PUBLISHED ONLINE 1

135 years of global ocean warming | Challenger expedition and the Argo

Dean Roemmich^{1*}, W. John Gould² and John Gilson¹

Changing temperature throughout the oceans is a key indicator

Referred Publications

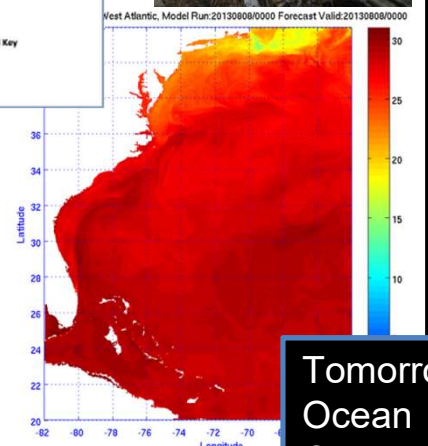
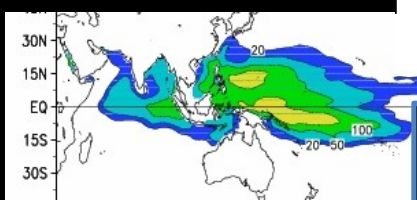
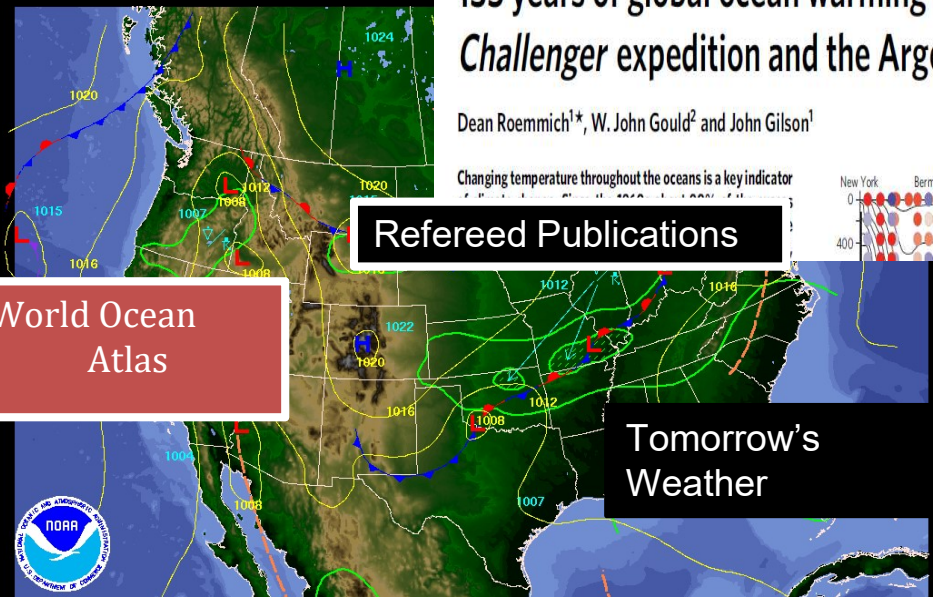


World Ocean Atlas

Tomorrow's Weather

Tropical Cyclone Heat Potential

Tomorrow's Ocean Conditions





Requirements and Activities

- Requirements for tropical Atlantic observing are numerous and compelling (refer to day 1)
 - Weather, extremes, climate, marine ecosystems, etc.
- Observing system should evolve/improve to address widening range of stakeholder needs (Demonstrated ability to address stakeholder needs is paramount)
- NOAA has significant observing, research, and services investments in the Atlantic (focused in the tropics)
 - NOAA's Research (\$M's), Weather (\$M's) and Satellite (\$100M's) programs contribute towards TAOS
 - **Downward budget pressure expected to continue/increase**

NOAA Advice to TAOS Review

- The tropical Atlantic Observing system is not just a *collection* of networks, it's should be an integrated enterprise delivering data, information, and providing demonstrable value to its stakeholders
- Framework for Ocean Observing & EOY-framing are essential guides
- Approach and lessons-learned from TPOS should and must be considered
 - Think strategically...the decade ahead
 - Requirements: Identify them and determine how to meet them.
 - Integrated approach, operations, and delivery of information
 - Observing systems can and must evolve
- Be mindful of AtlantOS planning and policy-level attention/interest (e.g. Galway and EU/US/Canadian agreements, G7, etc)
- TAOS as a standalone entity... or part of something bigger? (governance discussion)
- This meeting is not the end. It is likely the beginning....



NOAA Support for TAOS Review

- NOAA is supportive of a planning efforts to improve the tropical Atlantic ocean observing system (as part of the Atlantic observing system)
 - Travel support for several at this meeting
 - Jim Todd (NOAA CPO) and Renellys Perez (NOAA AOML) have central roles for future planning efforts
 - David Legler (NOAA CPO) and Molly Baringer (NOAA AOML) involved in higher-level activities (AtlantOS, G7, etc)
- Modest resources for travel, etc can be expected
- **What is the path ahead for TAOS Review? Next Steps?**

Many opportunities ahead...

Thank You

