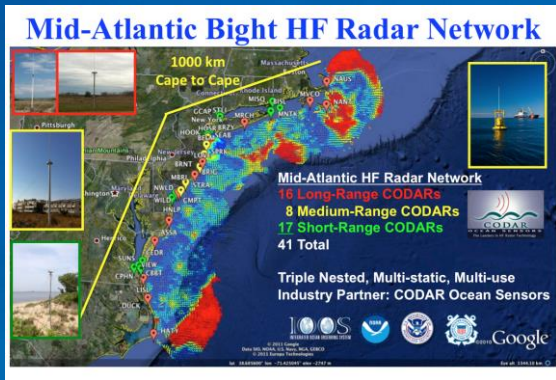


ADVANCING OCEAN OBSERVING IN THE CARIBBEAN CORRIDOR: CO-DEVELOPMENT PATHWAYS EXPLORED IN THE MID ATLANTIC BIGHT

SCOTT GLENN, RUTGERS UNIVERSITY, CENTER FOR OCEAN OBSERVING LEADERSHIP

Selected Highlights from the Mid Atlantic:



Mid-Atlantic Bight Integration Matrix

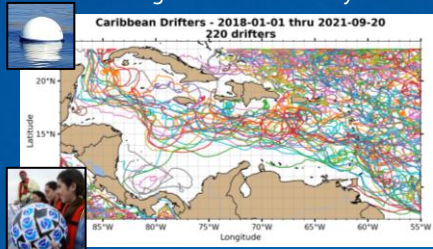
Regional Priority Themes	Regional Observation & Modeling Capabilities					
	Weather Mesonet	HF Radar Network	Statistical STPS	Satellite Imagery	Glider Surveys	Dynamical Atm-Ocean Forecasts
Theme 1. Maritime Commerce & Safety	Operational input to USCG SAROPS	Operational input to USCG SAROPS	Operational input to USCG SAROPS	SST for survivability planning	Assimilation dataset for forecast models	Surface currents for SAROPS
Theme 2. Fisheries	Weather forecast ensemble validation	Circulation and divergence maps for habitat		SST & Color for habitat	Subsurface T & S for habitat	3-D fields of T, S, circulation for habitat
Theme 3. Public Health & Water Quality	Winds for transport, river plumes, & upwelling	Surface currents for floatables, bacteria, spill response	Surface currents for floatables, bacteria, spill response	Ocean color for river plumes	Nearshore dissolved oxygen surveys	Surface currents for floatables, bacteria, spill response
Theme 4. Storms and Coastal Flooding	Weather forecast ensemble validation	Assimilation dataset for forecast models		SSTs assimilation into forecast models	Assimilation dataset for forecast models	Nested forecast ensembles
Theme 5. Offshore Energy	Historical analysis & wind model validation	Historical current analysis & wind model validation		Historical analysis surface fronts & plumes for siting	Whale and Fish monitoring	Coupled ocean-atmosphere models for resource estimates

Addressing the Theory of Change *(and Pathways to Success in the Mid Atlantic)*

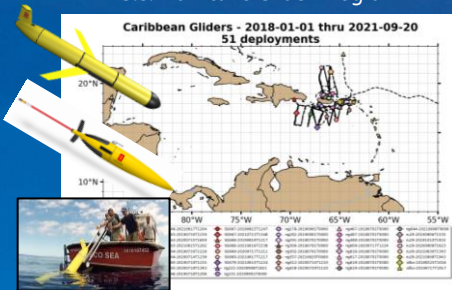
What needs to change in any observatory?	Pathways to success change in Mid Atlantic...
1. Transition from research only to research & operations	<i>Identify environmental drivers, establish ongoing R2O-O2R cycle</i>
2. Transition from technology focus to user-needs focus	<i>Adapted the Framework for Ocean Observing (2009)</i>
3. Establish inclusive structure across political boundaries	<i>GOOS, Ocean.US, IOOS frameworks for trusted best practices</i>
4. Pilot studies accelerate the co-development process	<i>Long-term pairing of data users with data providers for R2O</i>
5. Transition from observations to forecast products	<i>Invest in regional data assimilative model & gap filling data</i>
6. Transition local observations to coordinated networks	<i>Distributed field teams with unified data QC, flow & access</i>
7. Transition from single-use to multi-use observations	<i>Developed Mid-Atlantic Integration Matrix approach (2010)</i>
8. Transition to diversified funding	<i>Form government, academic, industry, foundation partnerships</i>
9. Establish a new workforce	<i>Develop training programs, establish training centers</i>
10. Engage the public	<i>Leverage Univer. Extension Services, NOAA Seagrant, NSF COSEE</i>

GOOS Observing System Elements at work in the Caribbean:

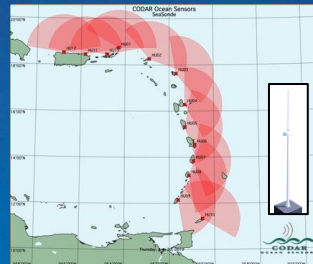
Existing Global Drifter Array



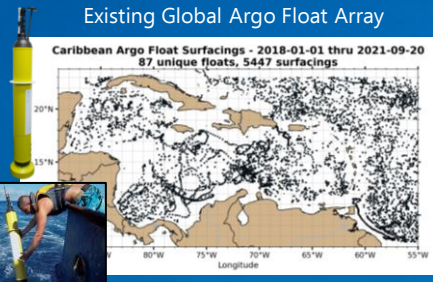
U.S. Hurricane Glider Program



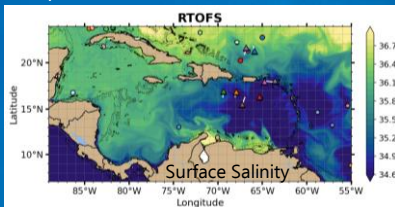
Potential Inflow HF Radar



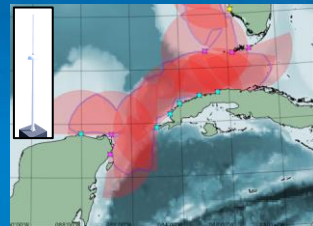
Existing Global Argo Float Array



Operational Global Ocean Forecasts



Potential Outflow HF Radar



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MUCHAS GRACIAS

.....
THANK YOU
.....

MERCI BEAUCOUP

One Planet, One Ocean / Un Planeta, Un Océano / Une planète, un océan

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