

U.S. IOOS Office Updates

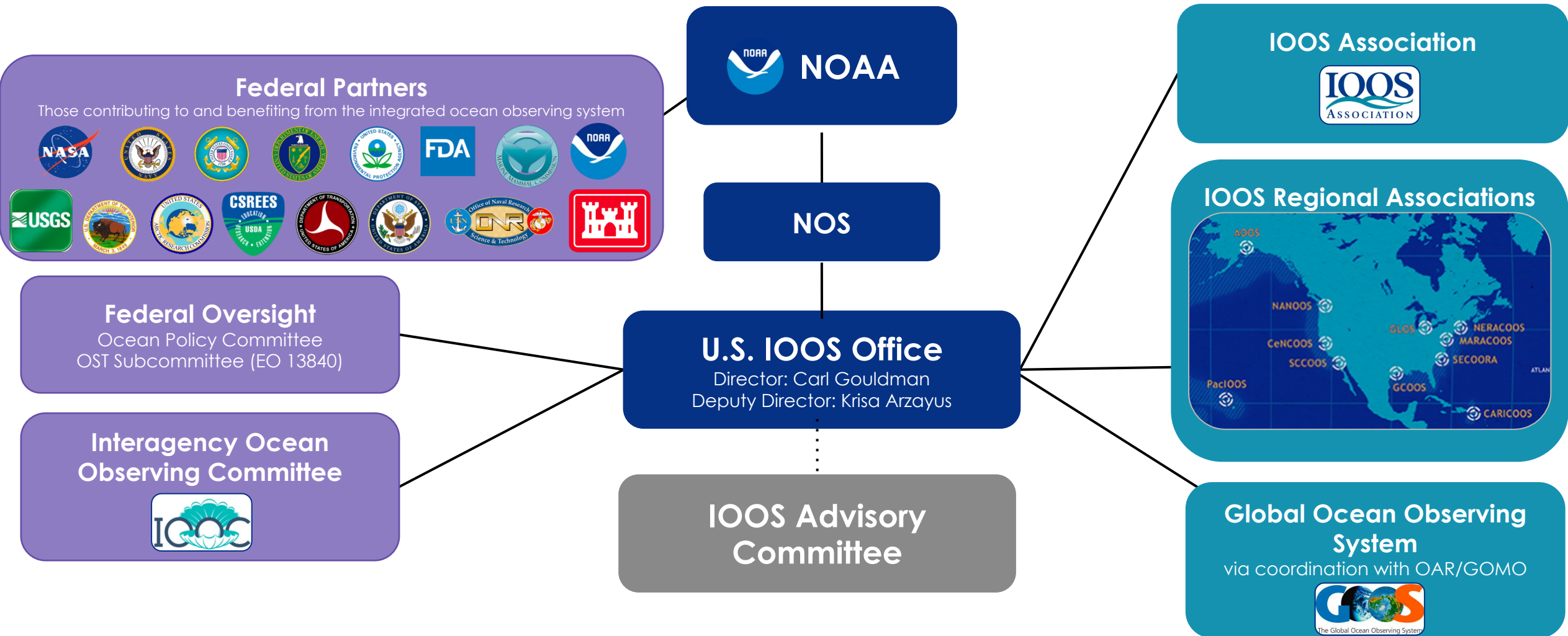
Carl Gouldman
Director, U.S. IOOS Office

May 9, 2024



WHO/WHAT IS THE IOOS ENTERPRISE?

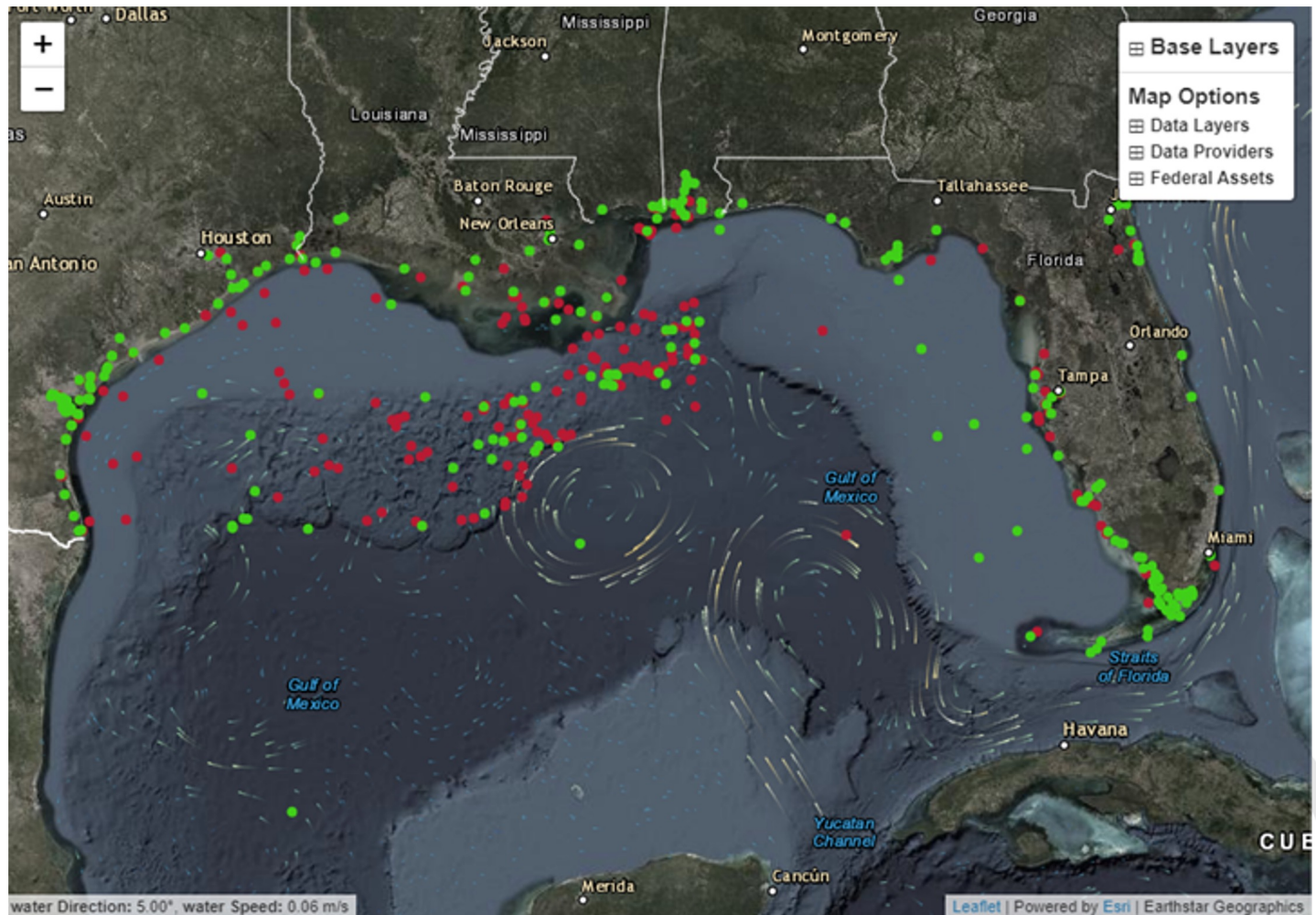
A cooperative, coordinated network of **federal** and **non-federal** observing networks since 2009



Legend: Federal (purple) and non-federal (teal)

Congrats to GCOOS for:

- **Partnership** with CARICOOS and SECOORA on sargassum project
- **Leadership** on glider work with the Navy
- **HFR** partnership with LSU to close data coverage gap
- IRA **\$100M** funds: IOOS Req. for Applications



Program Highlights and Plans for FY24

- **OTT:** 6 awards last fall, 7 IRA funded awards start imminently
- **HFR:** HFRNet DAC; HFRs to telemeter surface wave measurements at test sites
- **Gliders:** MOA for Navy/IOOS hurricane glider collaboration; Sep. UG2 Workshop
- **COMT:** Awardees notified in June, awards will start in FY25
- **Modeling/Cloud Computing:** Coastal coupling applications in the NOAA Cloud Sandbox
- **Marine Life:** Releasing National Ocean Biodiversity Strategy at CHOW Jun 6.
- **NHABON FY24 \$3.5M:** Awardees selected and RAs notified
- **Grant Support:** Moving as much funding as possible and planning for executing in FY25 as needed



INFLATION REDUCTION ACT: COASTAL RESILIENCE SERVICE DELIVERY

- **Improve coastal ocean observing** systems performance, reliability, coverage, and accuracy.
- **Strengthen the delivery of data and predictions** to provide more equitable services that address coastal resilience needs; and
- **Enhance partnerships** that deliver services and products to a wide range of users for lasting impacts.



IOOS Office and Inflation Reduction Act Planning

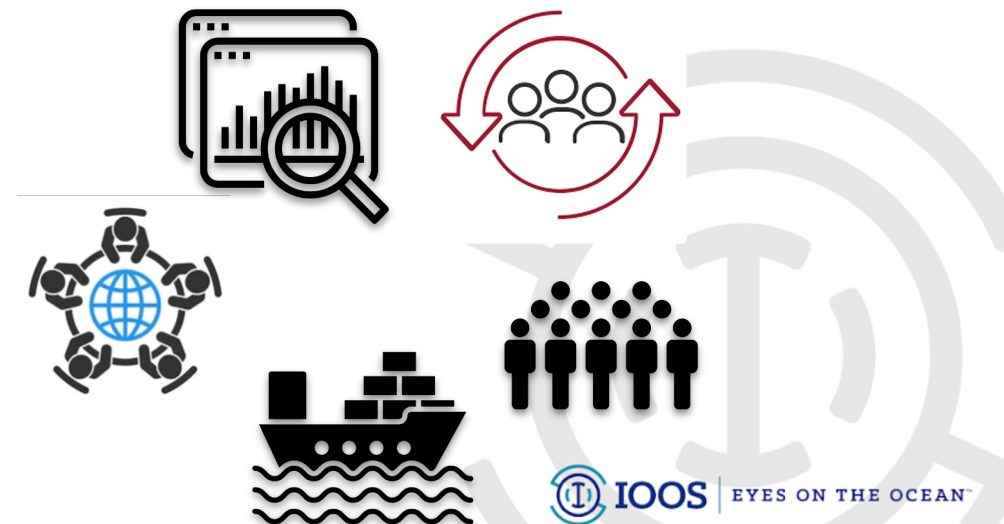
IOOS: \$215 M w/in Climate Ready Coasts and Communities

- **\$100 M Request for Applications for IOOS RAs**
- **\$60 M** NOFO Ocean-based Climate Resilience Accelerators
- **\$40 M** existing NOAA competitive funding opportunities
 - Incl. U.S. MBON, Marine Carbon Dioxide Removal, Ocean Technology Transition, Effects of Sea Level Rise, Climate Impacts in Marine Sanctuaries to Support Management, and BAA
- **\$15M** Technical Assistance and Mgt & Admin.



Timing

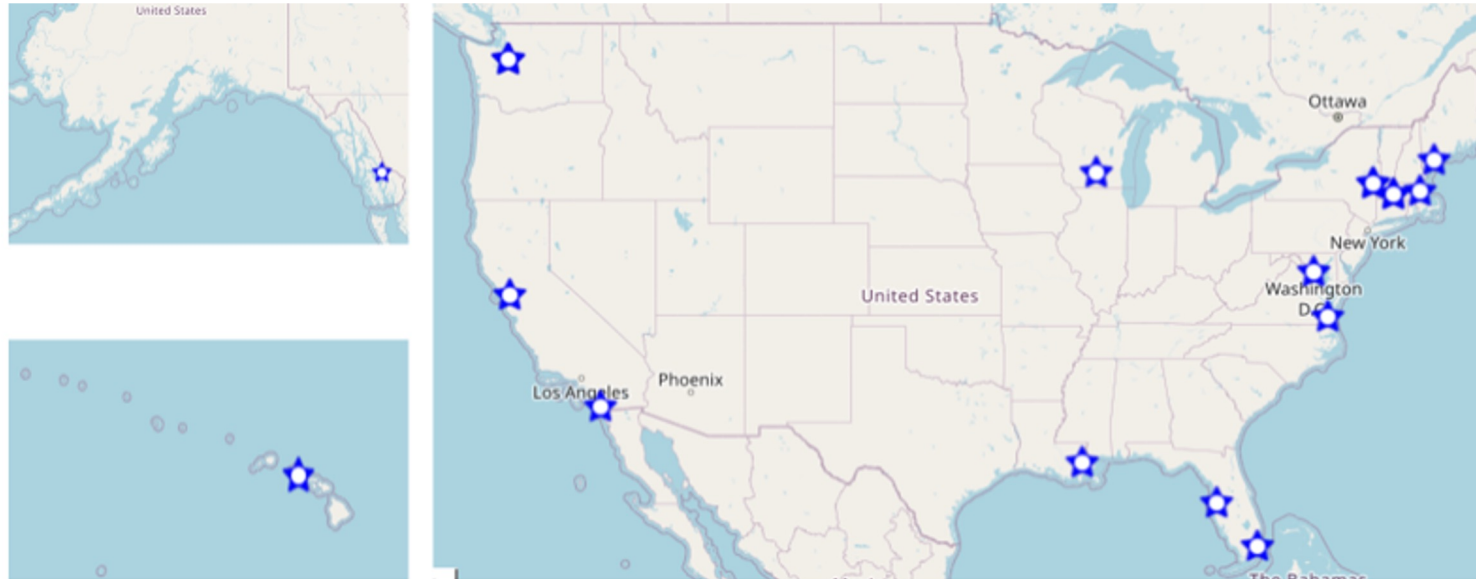
- All funding must be obligated by end of FY26.
- Implement grants as soon as reasonable.



Ocean-based Climate Resilience Accelerators

\$60M new Notice of Funding Opportunity

- **Feb 20, 2024- Phase 1 awardees announced ! (~\$4M awarded to 16 selections)**
- **Phase 2-** Request for Applications released to awardees. Applications are due **July 31**.

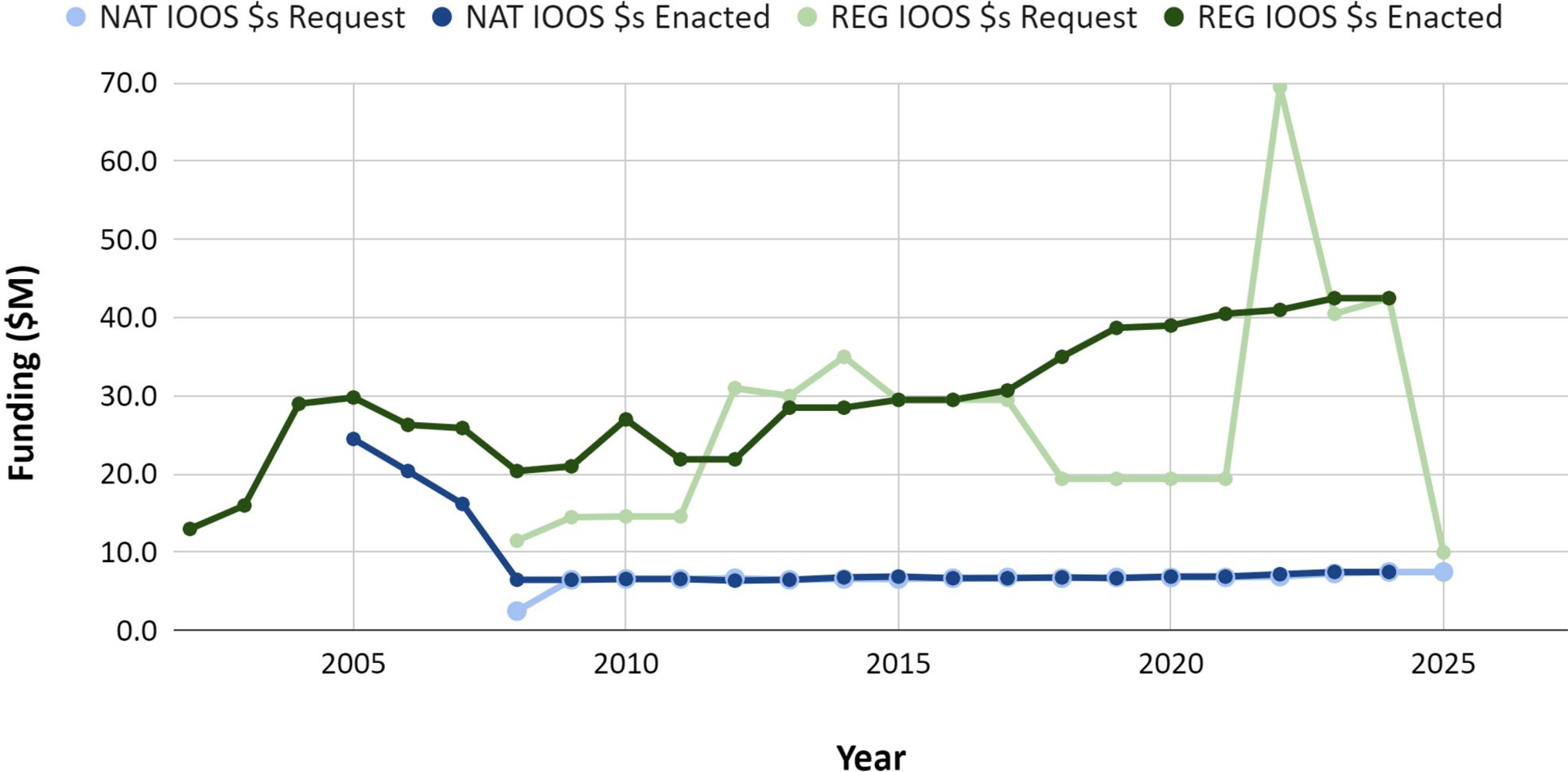


Map of Phase 1 Accelerator Awards

Theme Areas

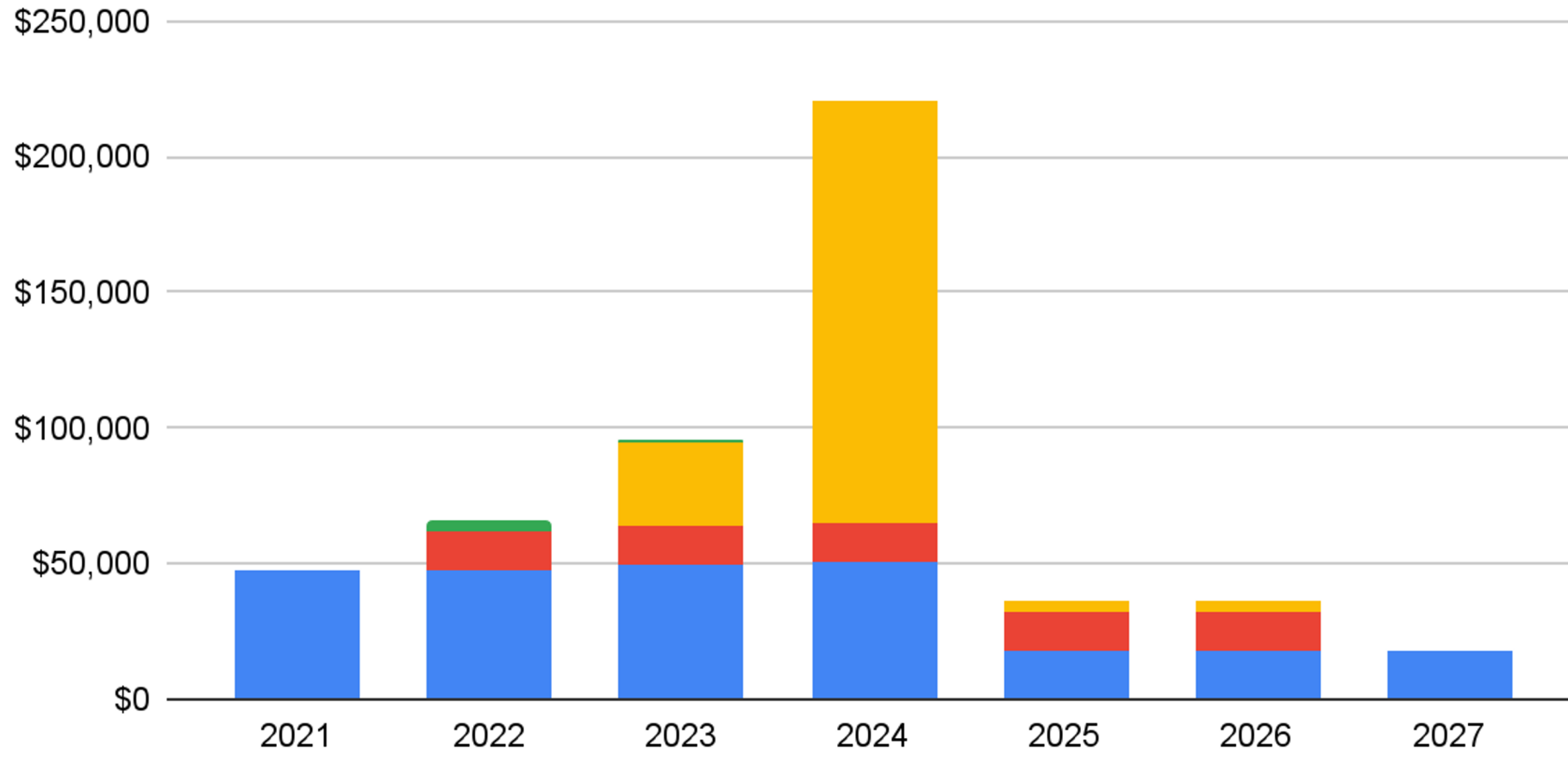
- Ocean Renewable Energy
- Coastal and Ocean Carbon Sequestration Monitoring and Accounting
- Hazard Mitigation and Coastal Resilience
- Ecosystems Services, Including Change Detection, Change Analysis, and Change Adaptation/Mitigation
- Other theme areas

IOOS Funding History



IOOS FY 2021 - FY 2027 Budget

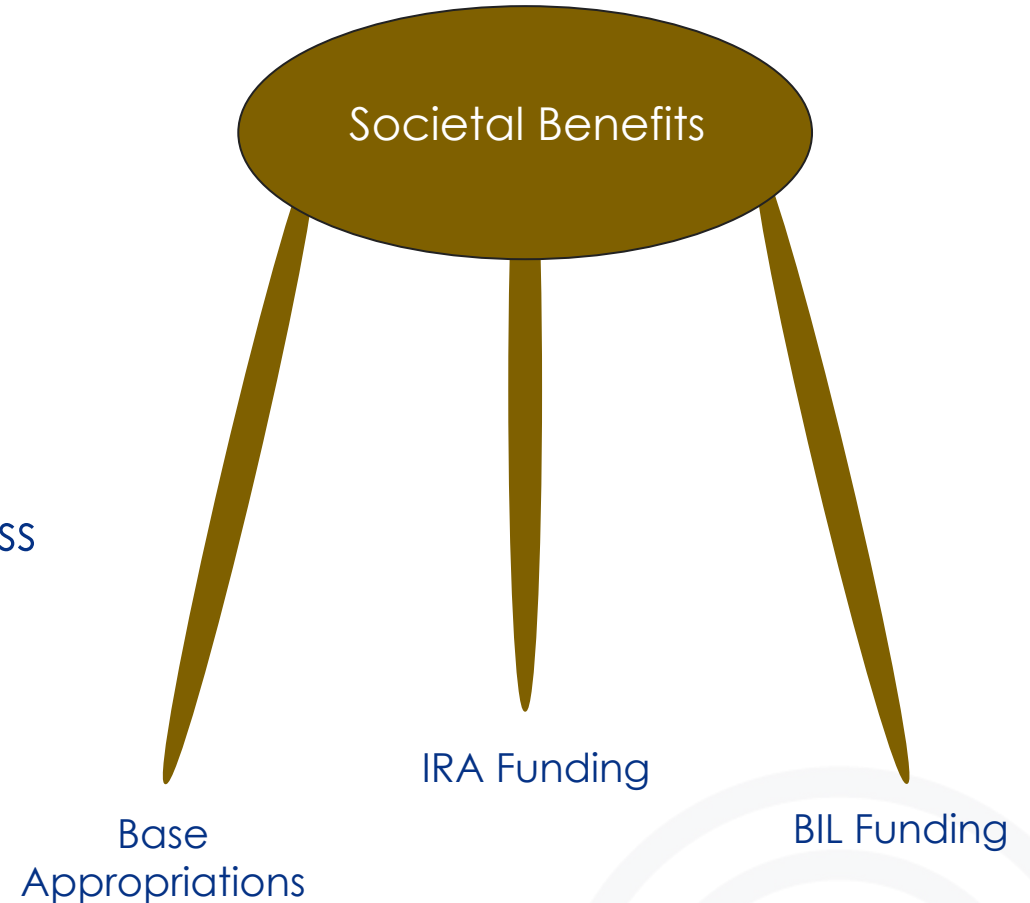
Disaster IRA BIL Base Funding



BIL, IRA, & 'Base': Characterizing Successes

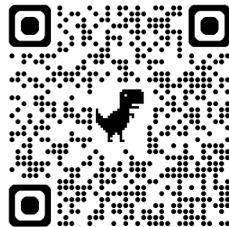
Shifting the Conversation about IOOS Funding

- What are the high level impacts of having healthy Base, IRA, and BIL funding?
- What impactful projects have we completed that weren't possible before, and how do we tell those stories?
- Quantifying success with measures, milestones, success stories, and engagement opportunities



The "Three-Legged Stool" Analogy

“While many of the effects of climate change...are already with us, some of the most alarming consequences are hiding beneath the surface of the ocean.”



The Washington Post

“Galveston, TX has experienced an extraordinary rate of sea level rise - 8 inches in 14 years.”



GAUGE NAME	CITY	SEA LEVEL RISE 1980-2009	SEA LEVEL RISE 2010-2023
Galveston Pier 21	Galveston, Tex.	6.1 in.	8.4 in.
Fort Pulaski	Tybee Island, Ga.	3.7 in.	7.3 in.
Charleston	Charleston, S.C.	3.5 in.	7.1 in.
Wilmington	Wilmington, N.C.	2.7 in.	7.0 in.
Dauphin Island	Dauphin Island, Ala.	3.5 in.	6.7 in.

Some gauges lack complete enough records to calculate sea level rise for the 1980-2009 period. Changes in inches are relative mean sea level.

Source: NOAA, Washington Post analysis

THE DROWNING SOUTH

WHERE SEAS ARE RISING AT ALARMING SPEED

By Chris Mooney, Brady Dennis, Kevin Crowe and John Muyskens

April 29, 2024 at 6:00 a.m.

Share Comment Save

Scroll to continue



Questions?





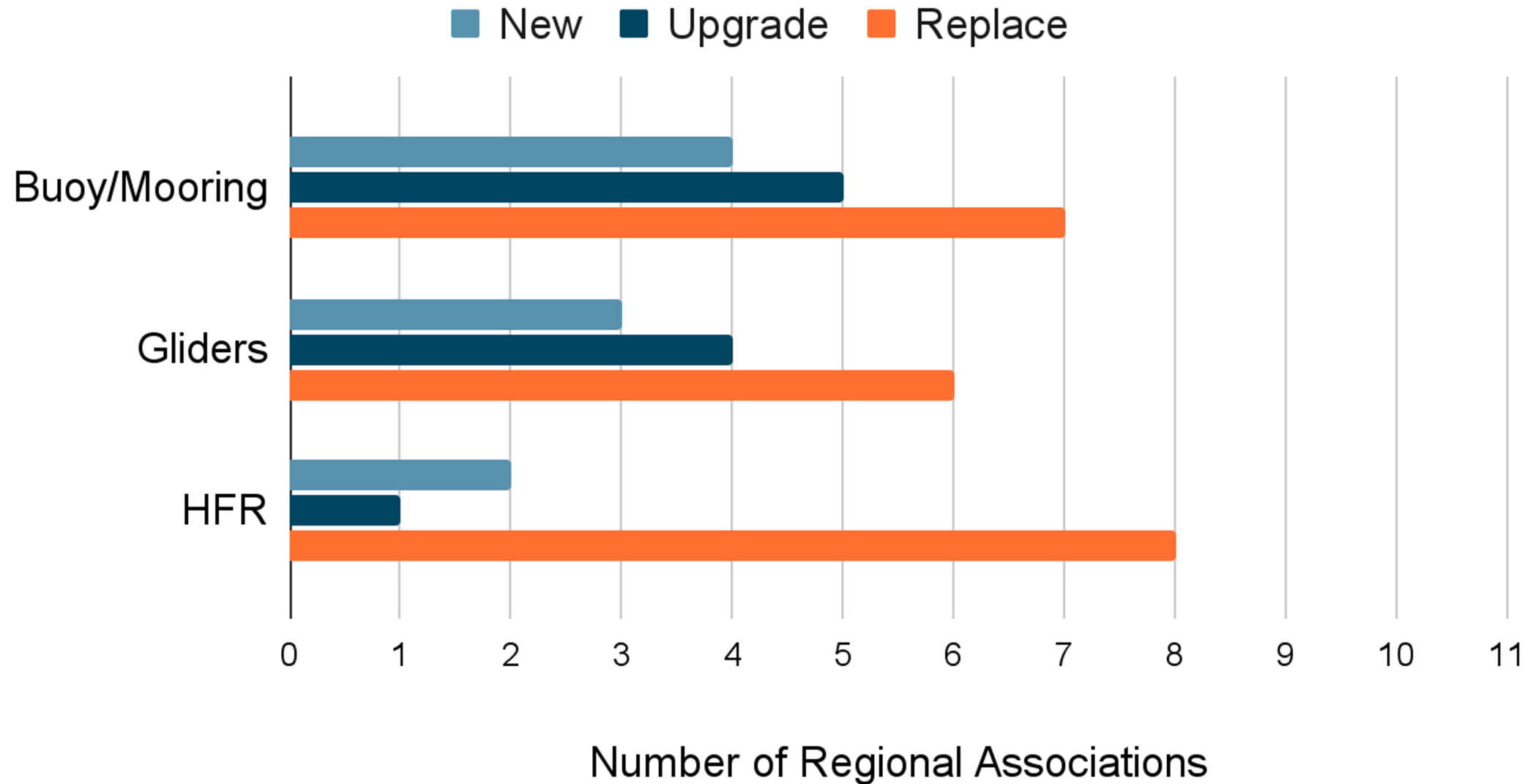
IOOS

Questions?



Backup

BIL Provision 11- Core observing platforms



BIL Provision 11- Other Projects

*Number of RAs in

New

Upgrade

Replace

Animal Tags (2)

Water Quality Sensors (1)

Shore/coastal Station (1)

DMAC (2)

Shore/coastal Station (3)

Water Quality Sensors (1)

Passive Acoustic Monitoring (1)

Ocean Acidification (2)

Passive Acoustic Monitoring (1)

DAC (2)

Water Level Station (1)

Water Level Station (2)

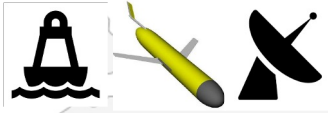
Modeling (1)

Hire/support staff (4)

Other

BIL Provision 11 Projects by Region

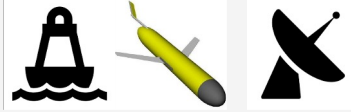
Alaska (AOOS)



- PAM
- DAC

West Coast

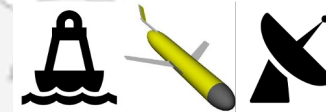
(CenCOOS, NANOOS, SCCOOS)



- Animal tags
- Shore/coastal stations

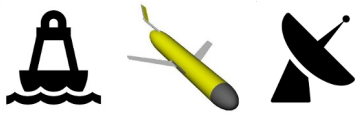
Northeast

(MARACOOS, NERACOOS, GLOS)



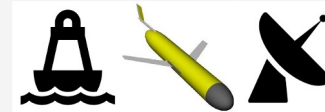
- Water level stations
- Shore/coastal stations
- DMAC
- DAC
- Staffing

Islands (CARICOOS, PacIOOS)

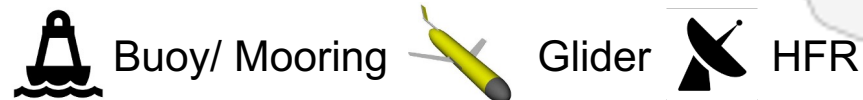


- Animal tags
- Water quality
- Modeling
- Ocean Acidification
- Staffing

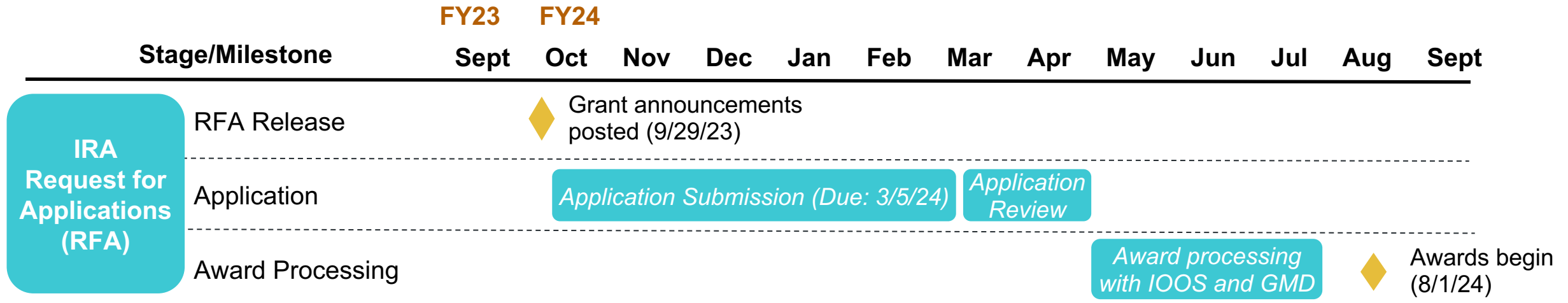
South (GCOOS, SECOORA)



- Water level stations
- Shore/coastal stations
- Ocean Acidification
- DMAC



Inflation Reduction Act - IOOS Request for Applications

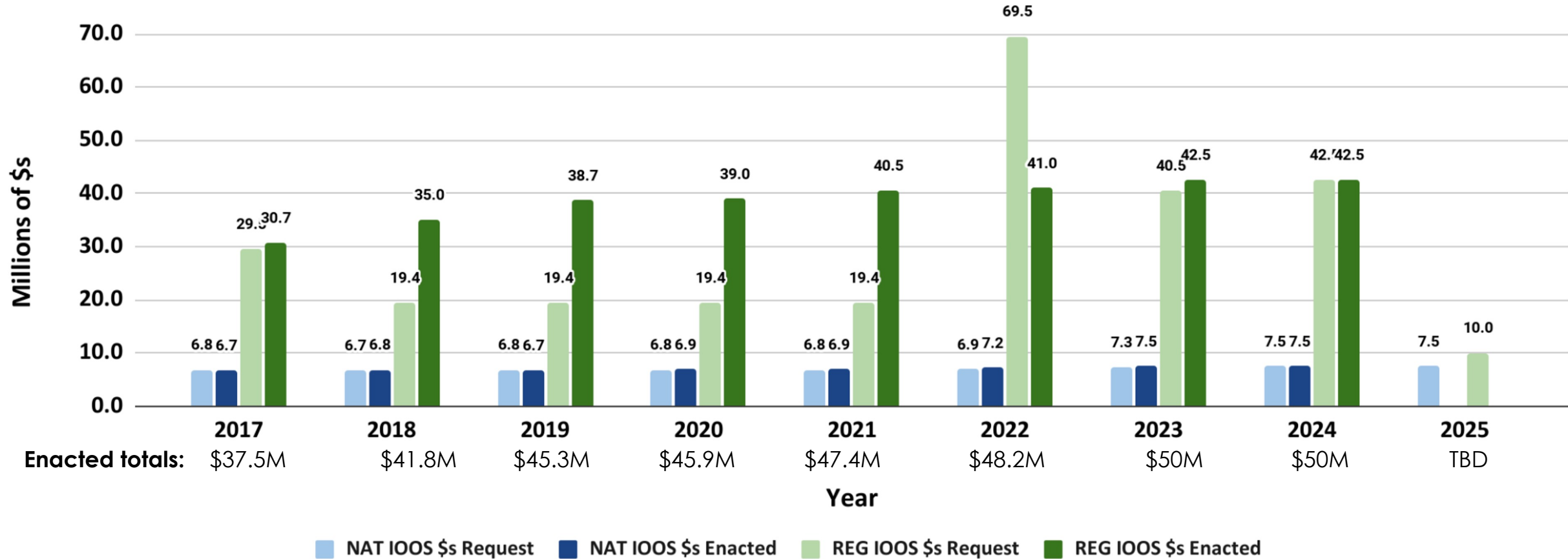


- Status: **proposals received! THANK YOU!**
- **\$100 million** on new, 5-yr projects
- Address coastal climate resilience, advance equitable service delivery to frontline and overburdened communities, and expand the traditional reach of IOOS
 - **Topic Area 1:** Increase impact within regions
 - **Topic Area 2:** pan-regional and national scale



NOS IOOS Request & Appropriation History

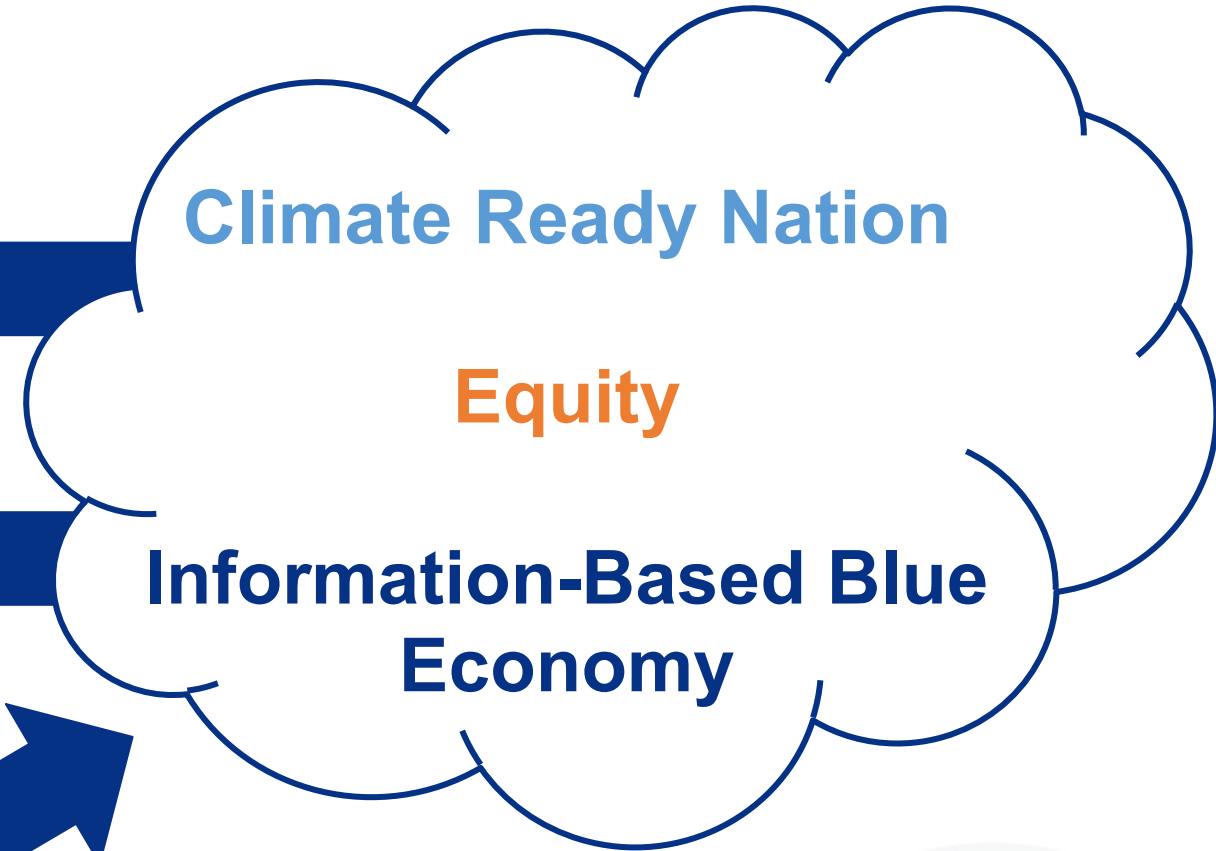
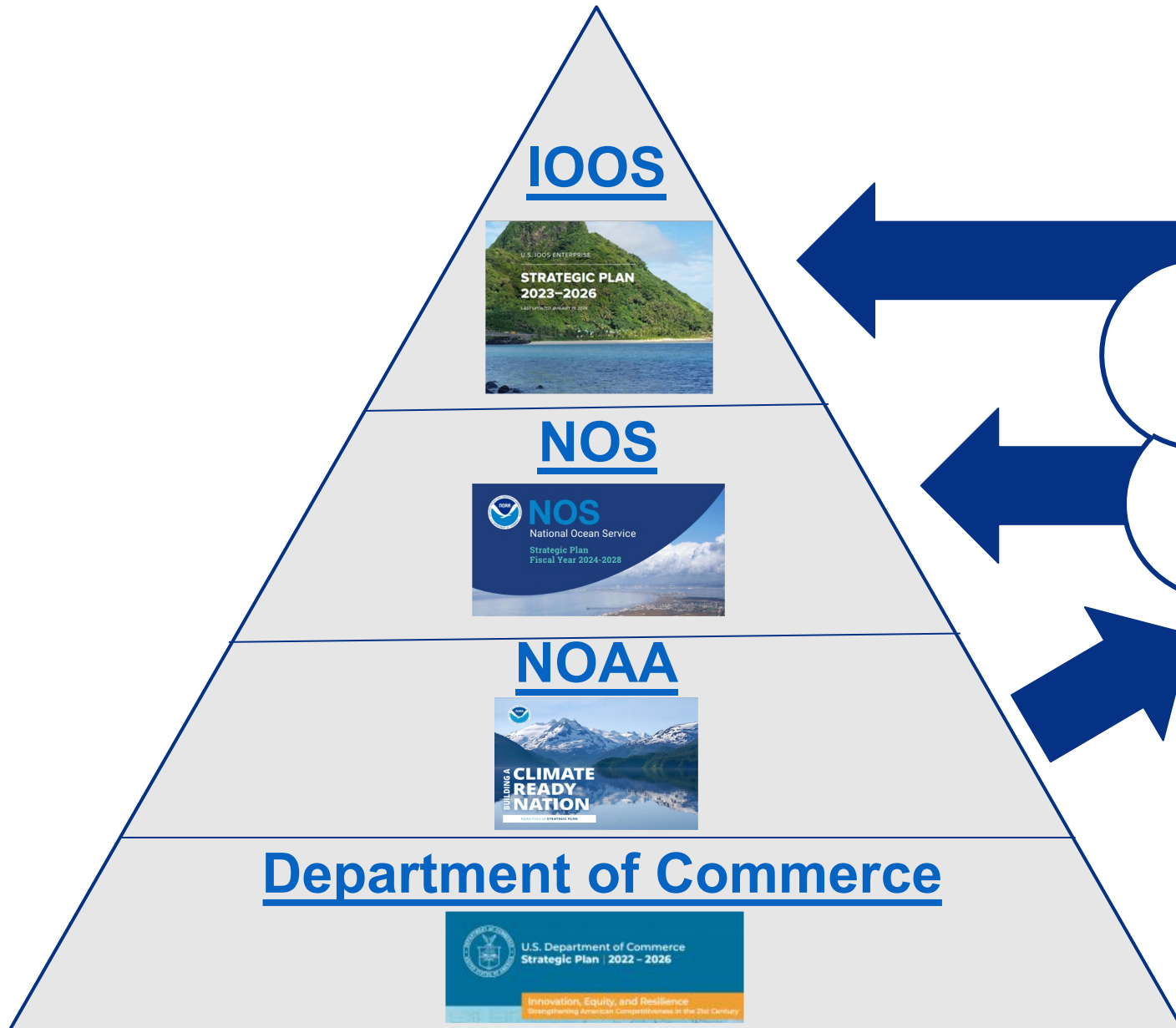
Part of the Story - not including 'backbone and global'



NOAA National Ocean Service - Navigation, Observations, and Positioning:
 'National IOOS' & 'Regional IOOS Observations'

- Estimated Enacted levels are 'post rescission' totals for each year
- 'Request' = the President's Budget Request

DOC/NOAA / NOS / IOOS Strategic Alignment



NOS FY24-26 Strategic Goals



Increase U.S. Coastal Resilience

Make Equity Central to Our Mission

Accelerate Growth of Ocean Enterprise and Blue Economy

Conserve, Restore, and Connect Healthy Coastal and Marine Ecosystems



Federal Advisory Committee Updates

- **Membership**

- 10 openings by September 2024
- Actively reviewing applications

- **Meetings**

- March 18 (virtual)
 - Approve recommendations on NOPP and Marine Life
 - IOOC Strategic Plan
- June 12-14 (Hawaii, hybrid)
 - PACIOOS session
 - Present final recommendations to NOAA Leadership



NHABON Pilot Projects

Year	Award	# Pilot Projects	# RAs Involved
FY20	\$1M	5	6
FY21	\$1.5M	7	8
FY22	\$2.5M	10	11
FY23	\$3.0M	9	11
FY24	\$3.5M*	TBD	11

* Some funding may be used for a data management workshop, Congressionally mandated activities, and NHABON coordination

FY23 pilot projects -
<https://cdn.ioos.noaa.gov/media/2023/09/NHABON-Funding-Awards-FY23.pdf>

- March 2024 - FY24 omnibus budget passed
- April 17th - Project ideas due
- April 17th - 26th IOOS-NCCOS confer on projects
- April 23rd - 26th Possible consultation with RAs and adjustments to projects
- early May IOOS internal approval - Carl/Krisa
- mid May RA directors informed
- Funds transferred via RA funding letter

Current NOAA IRA Funding Opportunities



Climate Resilience Regional Challenge

\$575 million

1. Risk reduction
 2. Regional coordination and collaboration
 3. Equity and inclusion
 4. Enduring capacity
- Track 1: Regional Collaborative Building and Strategy Development (\$25M)
 - Track 2: Implementation of Resilience and Adaptation Actions (\$550M)



Ocean-based Climate Resilience Accelerators

\$100 million

- Support businesses in commercializing technologies related to NOAA's mission to help communities prepare for, adapt to, and build resilience to climate challenges
- Renewable energy
- Carbon sequestration monitoring and accounting
- Hazard mitigation and coastal resilience
- Ecosystem services, incl. change

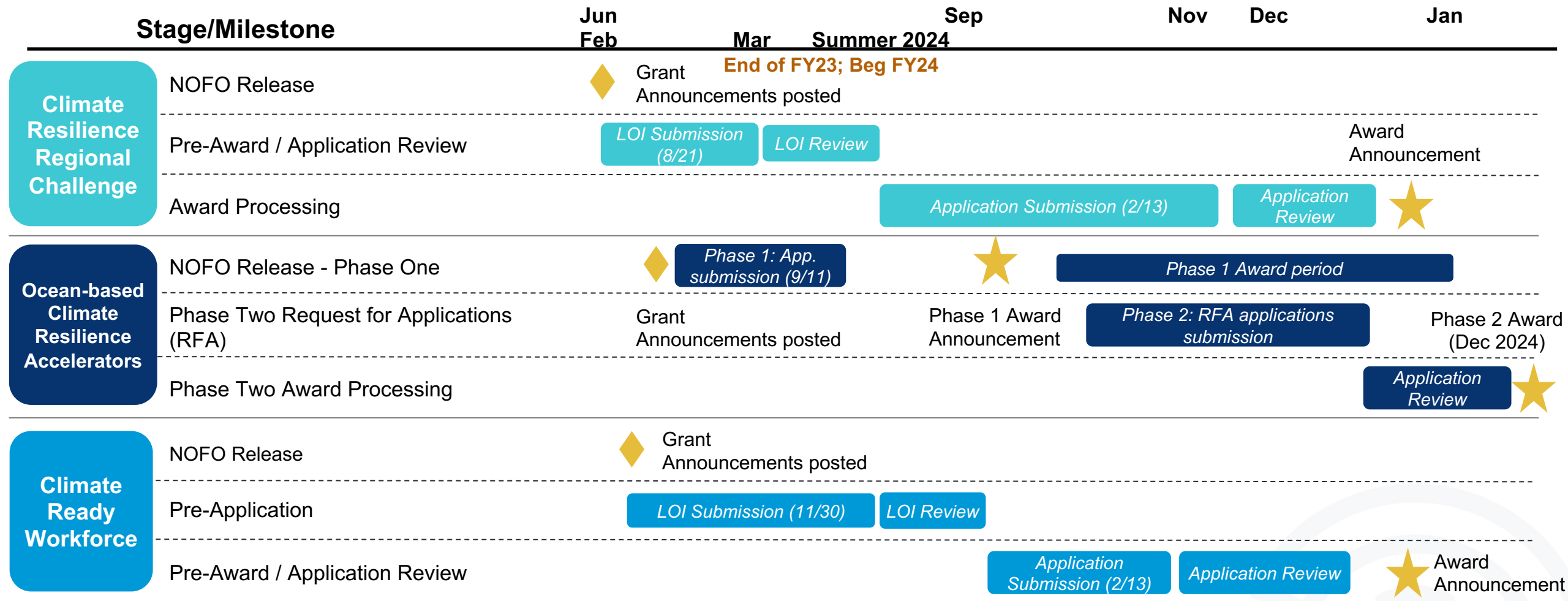


Climate Ready Workforce

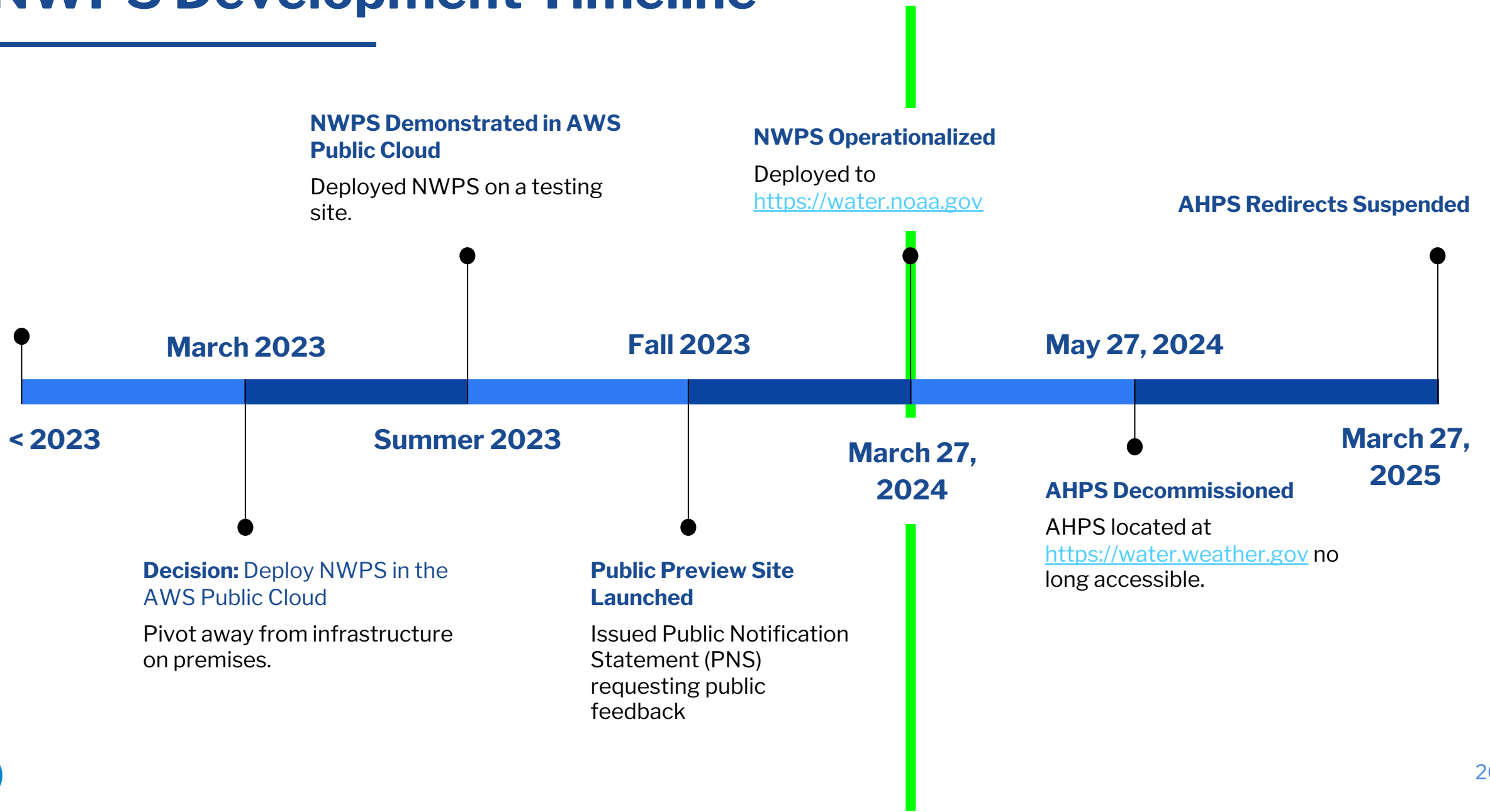
\$60 million

- Training and support services to help American workers advance their careers and implement climate resilience efforts within public and private sectors

Timeline for Published NOAA IRA Funding Opportunities



NWPS Development Timeline



IOOS Coastal Climate Resilience

Eligible uses of funds include:

- **\$100 million** on new projects with 11 IOOS Regional Associations
- Up to 5 year awards to address coastal climate resilience needs and priorities, advance equitable service delivery, and expand the traditional reach of IOOS

Two Topic Areas

- Regional-specific outcomes
- National and/or pan-regional outcomes, RA collaboration

Emphases

- Community resilience, especially frontline and overburdened
- Stakeholder engagement
- New partnerships
- Equitable service delivery
- Advanced ocean information network capacity
- Services addressing challenges society faces



IOOS Grants Calendar

Grant Title	2023				2024				2025				2026				2027				2028							
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
COMT	COMT																											
Disaster Supplemental	Disaster Supplemental																											
DMAC	DMAC																											
RA 5yr Awards	RA 5yr Awards																											
BIL Prov 11/ Prov 11&12 Years 1& 2	BIL Prov 11/ Prov 11&12 Years 1& 2																											
BIL Prov 3 Yr 1&2 Awards	BIL Prov 3 Yr 1&2 Awards																											
IRA Ocean-based Climate Resilience Accelerators (OCRA) Phase 1 Applications					IRA Ocean-based Climate Resilience Accelerators (OCRA) Phase 1 Applications																							
IRA RFA Open					IRA RFA Open																							
BIL Prov 3 Yr 3-5 Applications					BIL Prov 3 Yr 3-5 Applications																							
BIL Prov11/ Prov 11&12 Yr 3-5 Applications					BIL Prov11/ Prov 11&12 Yr 3-5 Applications																							
IRA OTT Awards					IRA OTT Awards																							
IRA OCRA Phase 1 Awards					IRA OCRA Phase 1 Awards																							
IRA MBON Awards					IRA MBON Awards																							
IRA OCRA Phase 2 Applications					IRA OCRA Phase 2 Applications																							
IRA RFA Awards					IRA RFA Awards																							
BIL Prov 3 Yr 3-5 Awards					BIL Prov 3 Yr 3-5 Awards																							
BIL Prov11/ Prov 11&12 Yr 3-5 Awards					BIL Prov11/ Prov 11&12 Yr 3-5 Awards																							
IRA OCRA Phase 2 Awards					IRA OCRA Phase 2 Awards																							

NOAA FY22-26 **STRATEGIC GOALS**



01

**BUILD A CLIMATE
READY NATION**



02

**MAKE EQUITY CENTRAL
TO NOAA'S MISSION**



03

**ACCELERATE GROWTH IN
AN INFORMATION-BASED
BLUE ECONOMY**

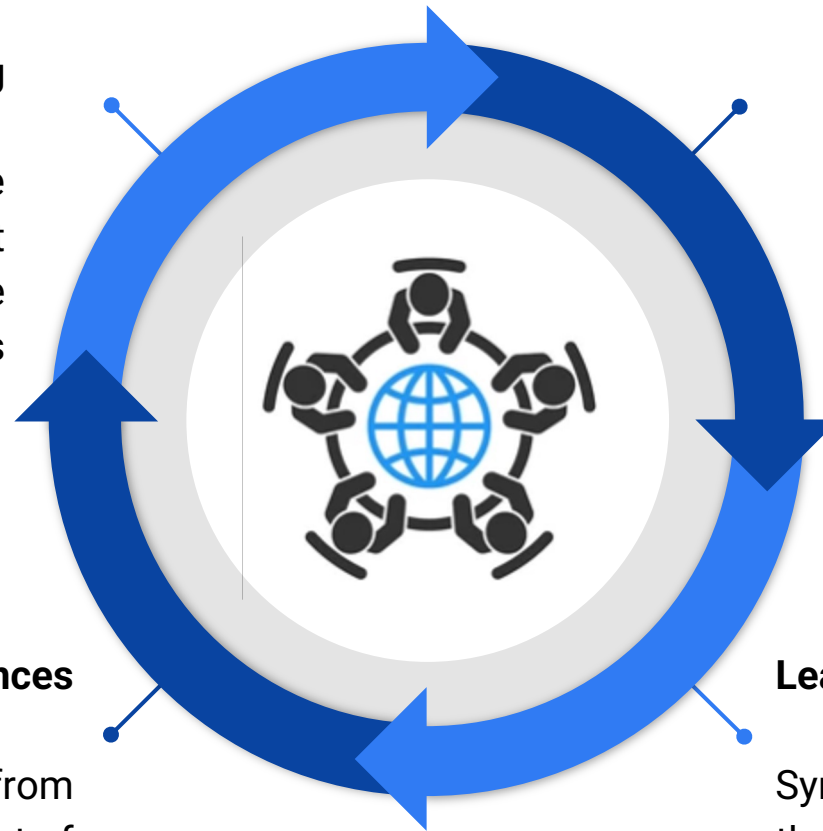
Establishing IOOS (Ocean Enterprise) repeatable engagement process

Learning

Synthesize the information collected at the ocean-related conferences and sketch out the questions to bring back to the technical workshops

Technical Workshops

Focused on exchanging requirements, market opportunities, and needs assessments



Ocean-related Conferences

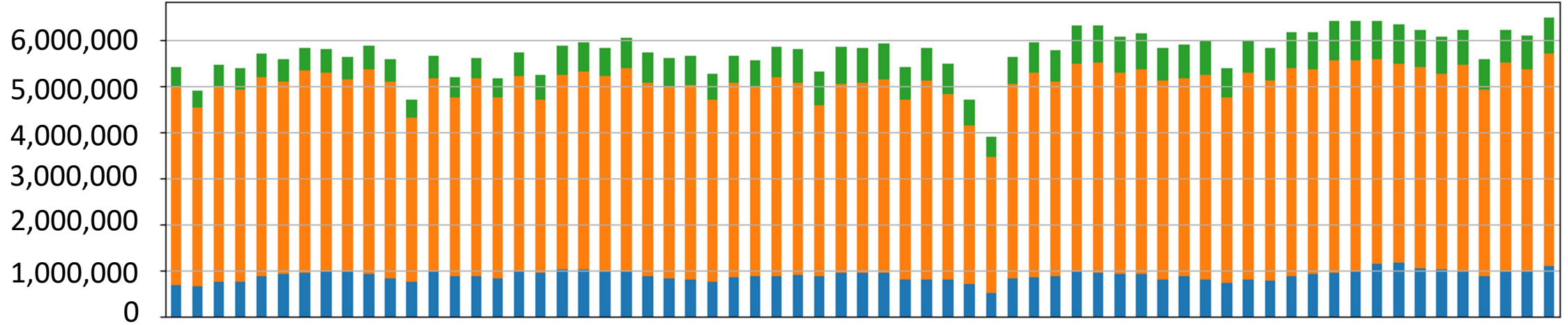
Test the outcomes and outputs generated from the Technical Workshops with a broader set of stakeholders

Learning

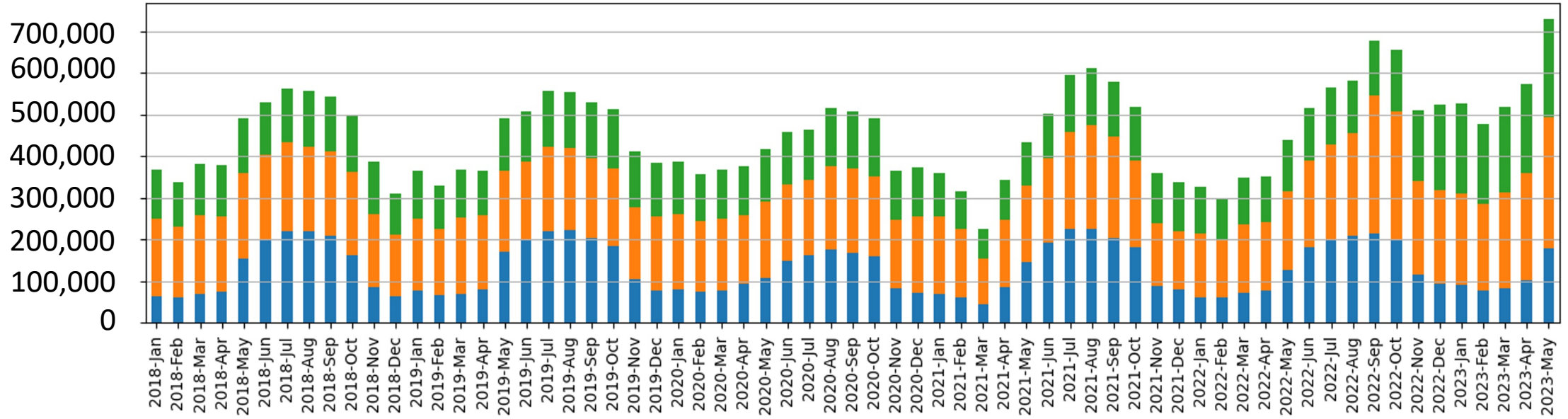
Synthesize the information collected from the Technical Workshops and sketch out new/improved tools and services

Real-time observations delivered to GTS via NDBC

Met



Wave

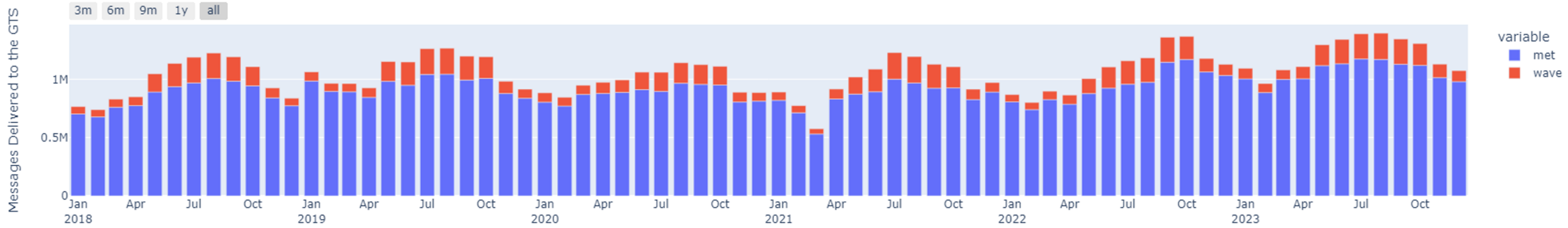


IOOS non-NDBC NDBC

Date

Real-time IOOS observations delivered to GTS via NDBC

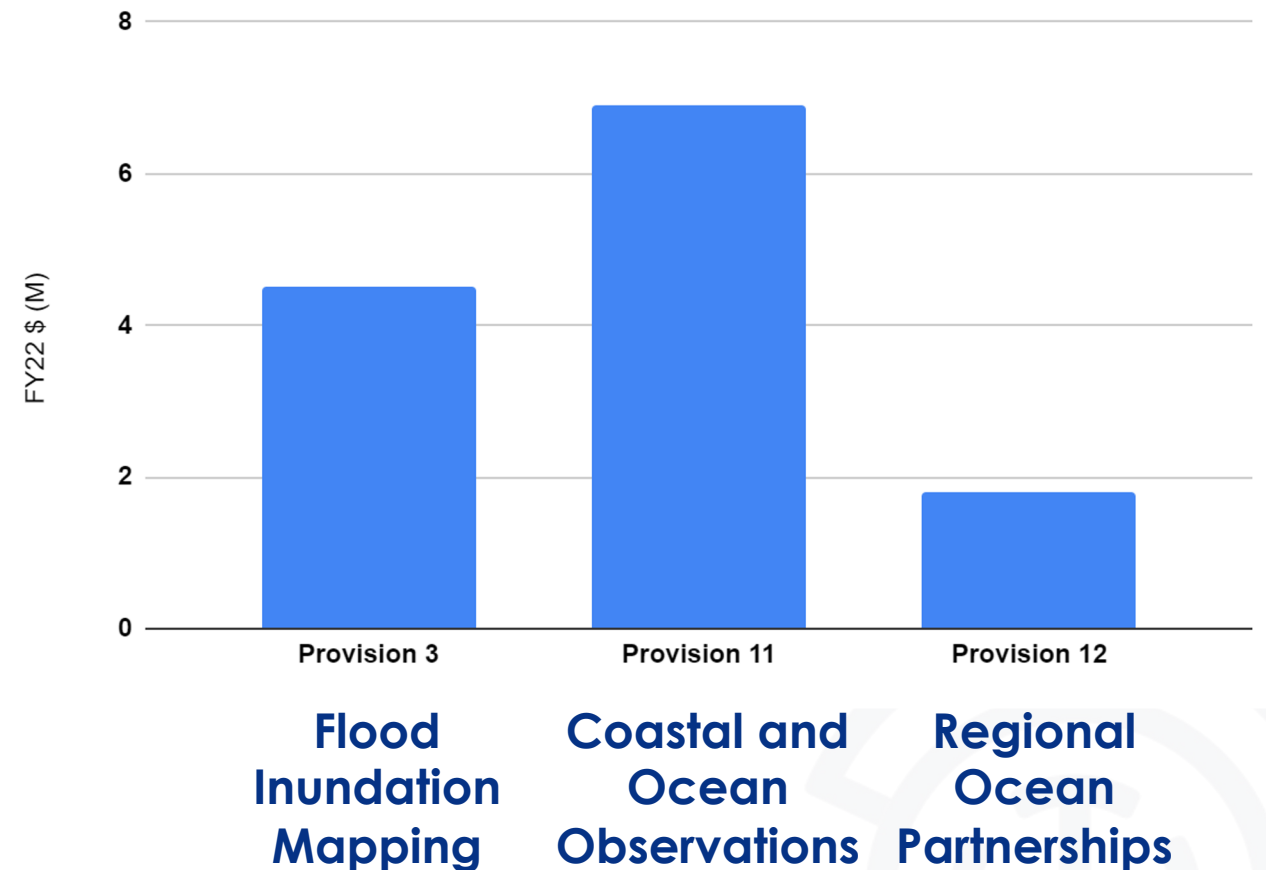
Number of IOOS Regional Observations sent to the GTS via NDBC



Bipartisan Infrastructure Law - IOOS specific funding

- **\$13.6M year 1 of 5** from the Bipartisan Infrastructure Law
 - **\$7.3M** for high-priority infrastructure refresh needs in the regional network
 - **\$1.7M** for National Water Model coupling & predictions on the East Coast and Gulf of Mexico
 - **\$2.8M** for a cloud computing environment for community coastal coupling
 - **\$1.8M** for Regional Ocean Partnership Data Sharing in RAs

FY22 Bipartisan Infrastructure Law \$ (M)



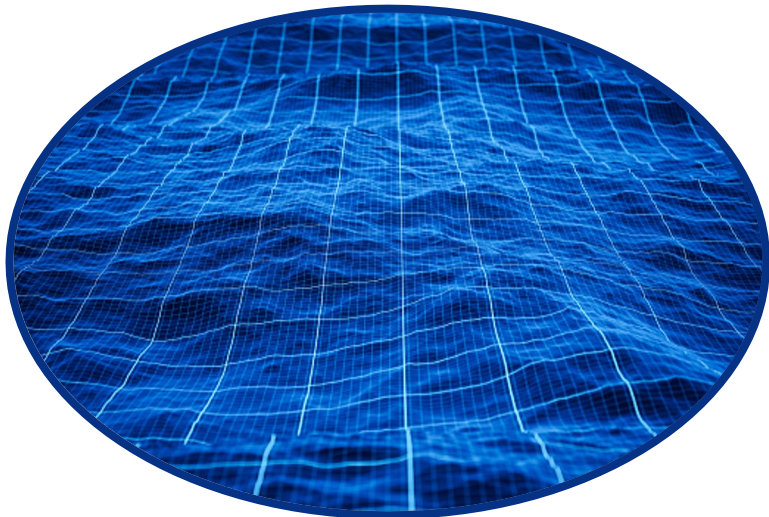
BIL = Infrastructure Investment and Jobs Act (IIJA)

A Time of Change



Environmental Change

Biological Change

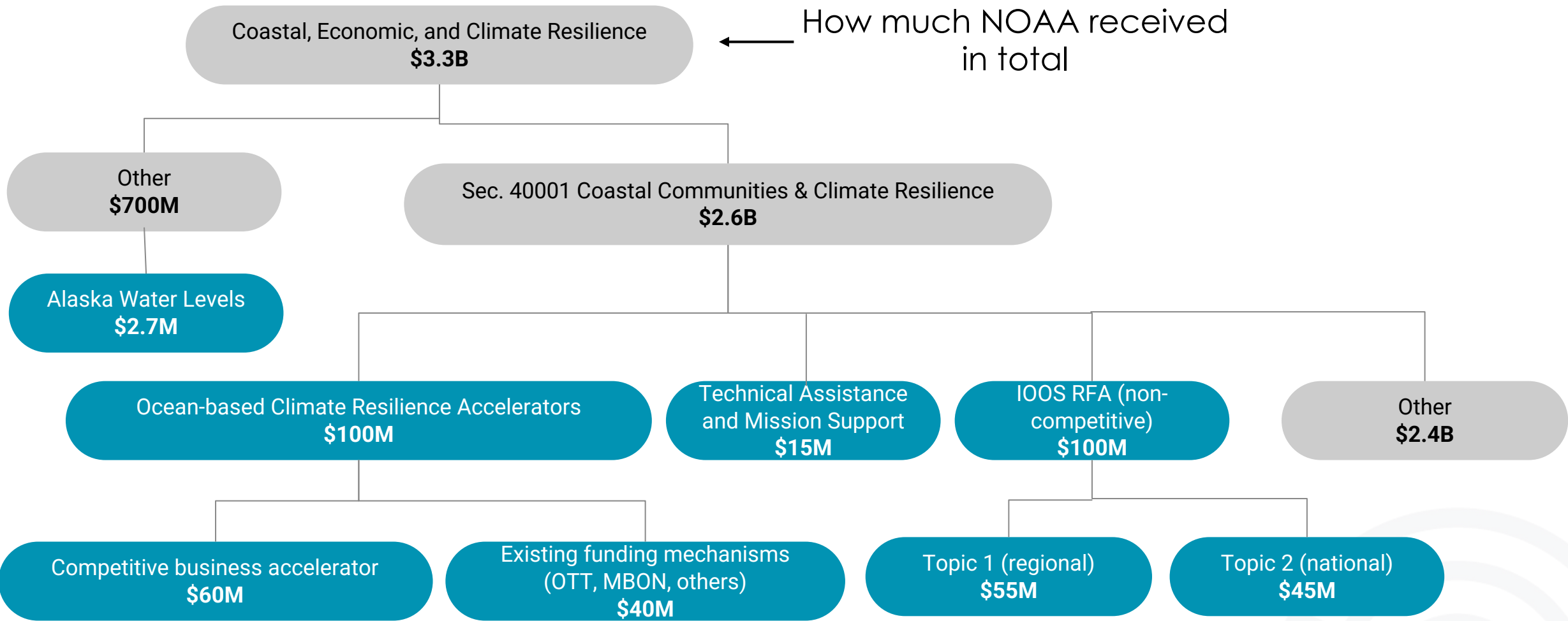


Technological Change

IOOS Grants Portfolio 2017-2023

Year	IOOS Total Existing Awards	IOOS New Awards	IOOS Total Amount
2017	17	5	\$32,820,943
2018	15	9	\$38,845,305
2019	22	9	\$45,744,078
2020	23	13	\$50,200,908
2021	12	17	\$46,075,769
2022	23	10	\$52,707,763
2023	37	27	\$83,274,817

IRA Funding Breakdown



← How much NOAA received in total

 = IOOS involvement

Ocean-based Climate Resilience Accelerators



National Oceanic and
Atmospheric Administration
U.S. Department of Commerce

Search NOAA sites



[Home](#) / [News & Features](#)

Biden-Harris Administration invests \$3.9 million for Ocean-based Climate Resilience Accelerators through Investing in America agenda

Funding will bolster NOAA's efforts to support climate resilience through new and emerging technology

Focus areas: [Ocean & Coasts](#) **Topics:** [climate](#), [Inflation Reduction Act](#)

Share: [Twitter](#) [Facebook](#) [Email](#) [Print](#)

Accelerators and IOOS Regional Engagement

- Several regions have been identified as partners on accelerator projects.
- Others have indicated an interest in learning more about the IOOS regions and how they may partner with or leverage RA resources.
- How might the RAs connect with the Accelerator awardees to partner or provide assistance? What would RAs need to make that happen in a meaningful way?