



# 2022 Alaska Coastal & Ocean Mapping Summit

Welcome to Coastal Day!

.....  
November 16th, 2022



# Privacy

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# Logistics

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**Time Management:** We aim to stay to the agenda as much as possible to allow attendees to join at specific times of interest. You can find the full agenda in the attached documents in your GoToWebinar menu pane to the right.

## Questions and Discussion

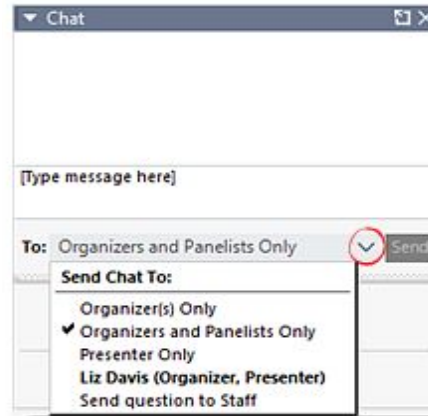
To facilitate transparent attendee interaction, all attendees will join as Panelists.

Please enter your questions and comments in the Chat box for all to see.




### Attendee Rules

- Mute yourself
- Turn off your camera



# Agenda



- |                    |  |
|--------------------|--|
| <b>9:00-10:00</b>  | <b>Welcome and Keynotes</b>                          |
| <b>10:00-11:20</b> | <b>Session #1: Agency Mapping Updates</b>            |
| <b>11:20-12:00</b> | <b>Session #2: 2022 Bering Sea Storm Recap Panel</b> |
| <b>12:00-12:30</b> | <b>Break for lunch</b>                               |
| <b>12:30-1:40</b>  | <b>Session #3: Technology Lightning Talks</b>        |
| <b>1:40-3:00</b>   | <b>Session #4: The Path Forward</b>                  |
- 





## Opening Remarks from Senator Dan Sullivan





# Alaska Mapping Executive Committee Update

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Rob Theiler – Woods Hole Coastal and Marine Science Center | U.S. Geological Survey



# Alaska Coastal and Ocean Mapping Summit

## Welcome

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Dr. Robert Thielert, USGS Center Director,  
Woods Hole Coastal and Marine Science Center and  
National Ocean Mapping, Exploration and Characterization Council Co-Chair



# Setting the Stage: National Mapping Plans

National Ocean  
Mapping, Exploring, and  
Characterization of the  
U.S. EEZ (NOMECS)

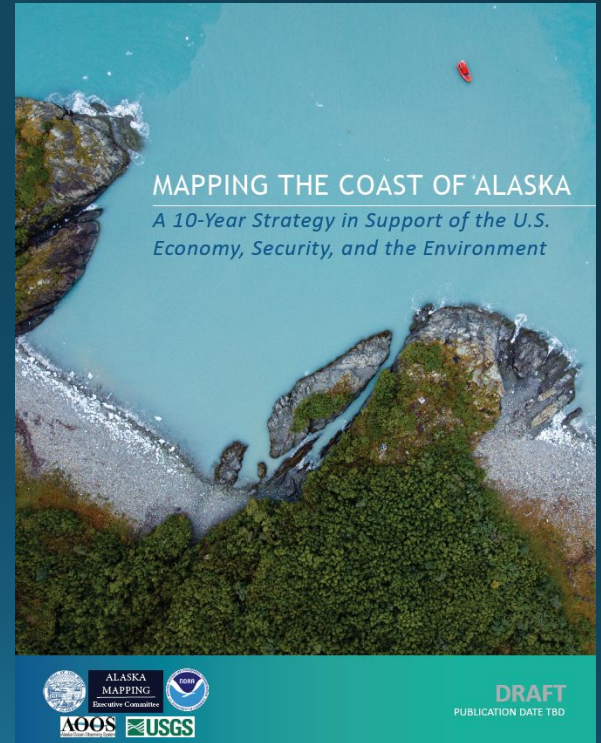
Alaska Coastal Mapping  
Strategy (ACMS)



<https://iocm.noaa.gov/about/strategic-plans.html>

# Alaska Coastal Mapping Strategy (ACMS) Goals

1. Build on existing mapping partnerships to meet Alaska's coastal mapping needs
2. Expand coastal data collection to deliver the priority geospatial products stakeholders require
3. Leverage innovation in mapping technology development
4. Conduct strategic communications to promote widespread stakeholder engagement



<https://iocm.noaa.gov/about/strategic-plans.html>

# Goals of the NOMECS Strategy/Implementation

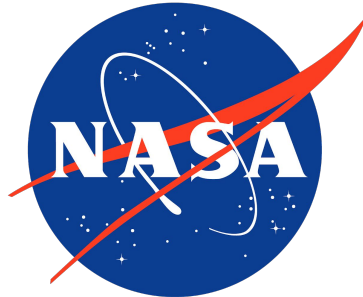
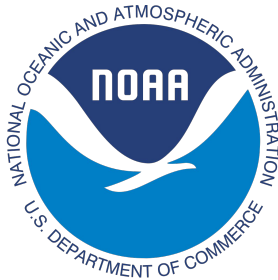
## GOALS

- 1 Coordinate Interagency Efforts and Resources to Map, Explore, and Characterize the United States EEZ
- 2 Map the United States EEZ
- 3 Explore and Characterize Priority Areas of the United States EEZ
- 4 Develop and Mature New and Emerging Science and Technologies to Map, Explore, and Characterize the United States EEZ
- 5 Build Public and Private Partnerships to Map, Explore, and Characterize the United States EEZ



# NOMEAC Council Structure

## Co-Chairs



# Coastal Hazards



Nome, AK



Shaktoolik, AK



Golovin, AK



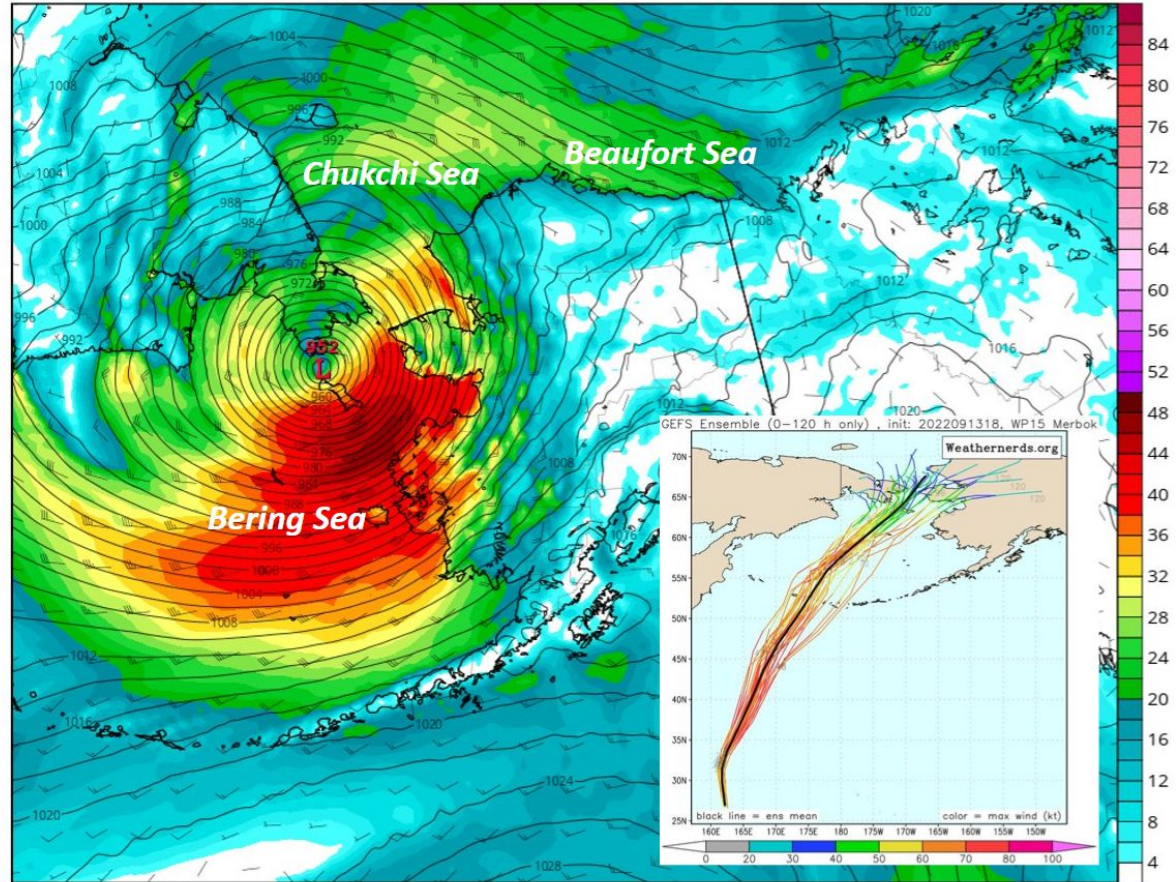
# Remnant Typhoon Merbok

- Merbok formed far east of Japan over record high warm ocean waters (>100years)
- Waves >15m (>50ft) high in the Bering Sea
- Storm surge waterlevels reached >5 m (17 ft) above MSL at communities
- Near-hurricane force winds (gusts @40m/s (90mph))

GFS MSLP (mb) & 10m Wind Speed (kt)

Init: 00z Sep 16 2022 Forecast Hour: [36] valid at 12z Sat, Sep 17 2022

TROPICALTIDBITS.COM







**End of Presentation**

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Thank you!



# Alaska Geospatial Council Update

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Dr. Leslie Jones – Alaska Geospatial Office





Alaska Geospatial Office

Geospatial  
Information Officer



Dr. Leslie Jones

## Mission

Coordinate the development and management of geographic information in Alaska

## Vision

Provide credible, timely and accurate geographic information to all decision-makers and Alaskans



# Modernization of Alaska's Spatial Data Infrastructure



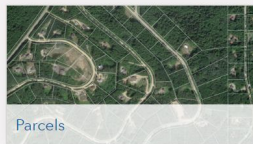
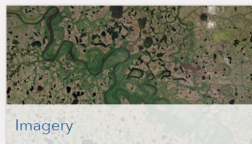
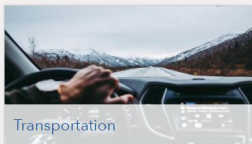
State of Alaska  
Open Data Geoportal

[Home](#) [Imagery](#) [Elevation](#) [Partnerships](#) [Alaska Geospatial Council](#) [Get Involved](#) [Terms](#)



*This is a cooperative project coordinated by the Alaska Geospatial Office. The data and services available are hosted by public agencies. Access to the data would not exist without coordination from contributing members.*

## Framework Datasets



- Complete statewide mapping of foundational framework datasets
- Comprehensive shared data framework



# Pathways for supporting the Coastal and Ocean Mapping Initiatives

ALASKA  
MAPPING  
EXECUTIVE  
COMMITTEE  
(AMEC)





## Coordination

ALASKA  
MAPPING  
EXECUTIVE  
COMMITTEE  
(AMEC)

## Prioritization and Planning

Coastal  
Subcommittee  
Co-chairs

## Leadership

**Ashley Chappell (NOAA)**  
**Leslie Jones (SOA)**

# Pathway for Engagement of all Stakeholders

**Independent Advisory Council**  
administered by Alaska Geospatial  
Office



## Alaska Geospatial Council

*Coordinating across agencies to provide public access to geospatial data and maps critical to decision-making  
Supporting economic development and the public safety and well-being of Alaskans*

**The Alaska Geospatial Council aims to put the best available geospatial data and technologies in the hands of Alaskans.**

### Charter

March 2022 - AGC released a new charter.  
[Click here to read](#)

### Vision

To create a sustainable statewide geospatial framework to provide technology, policies, standards, and human resources necessary to improve the availability of geospatial information to all Alaskans.

### Mission

To facilitate collaboration and communication between all public and private stakeholders based on a philosophy of shared responsibilities, shared cost, shared benefits, and shared control.

**The Alaska Geospatial Council is administered by the Alaska Geospatial Office.** [Learn More](#)

# ACMS Implementation Plan

## ACMS GOAL 3. Leverage Innovation in Mapping Technology Development

Objective 3.2. Monitor and Test New Technologies for Acquisition Efficiencies



## ACMS GOAL 4. Conduct Strategic Communication to Promote Widespread Stakeholder Engagement

Objective 4.1. Strengthen Stakeholder Communications to Grow Participation in the Alaska Coastal Mapping Campaign

Objective 4.2. Use Online Tools and Technologies to Communicate Plans and Performance

Regional and Local Coordination



# Alaska Geospatial Council

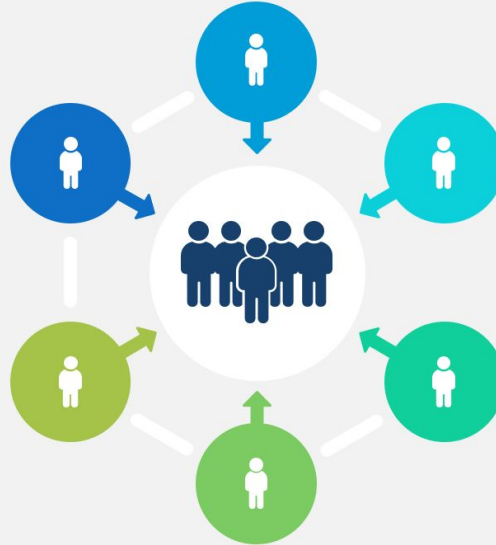
Local Government ●

Regional Government and Councils ●

State Government ●

Federal Government ●

Public and Private Utilities ●



● Non-Profits

● Professional Associations

● Private Industry

● Tribal Councils

● Academic Institutions

To have representation of all Stakeholders



# Be a part of the community

« Future lies with the PEOPLE and that belief in community and recognizing the value in sharing to solve problems and make decisions »

-- Dr. Jill Saligoe-Simmel

Ensure YOUR voice is heard!

## Explore AGC Working Groups

The AGC Working Groups are the **backbone of the Council**. These groups work to identify gaps in statewide data and coordinate amongst stakeholders to address mapping deficiencies.



Coastal & Ocean Working Group

[Learn More](#)



Wetlands Working Group

[Learn More](#)



Geodetic Working Group

[Learn More](#)



Vegetation Working Group

[Learn More](#)



Enterprise GIS Working Group

[Learn More](#)



Transportation Working Group

[Learn More](#)



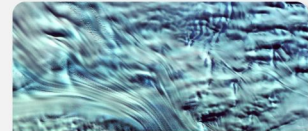
Cadastral Working Group

[Learn More](#)



Imagery and Elevation Working Group

[Learn More](#)



Hydrography Working Group

[Learn More](#)

# ACMS Implementation Plan

## ACMS GOAL 2. Expand Coastal Data Collection to Deliver the Priority Geospatial Products Stakeholders Require

Objective 2.3. Produce and Disseminate Key Datasets and Products from Alaska Coastal Mapping Data



Alaska Geospatial Office

State of Alaska  
Open Data Geoportal

Home Imagery Elevation Partnerships Alaska Geospatial Council Get Involved Terms

**M-PAK**  
ALASKA GEOSPATIAL OFFICE

*This is a cooperative project coordinated by the Alaska Geospatial Office. The data and services available are hosted by public agencies. Access to the data would not exist without coordination from contributing members.*

Search:

### Framework Datasets

- Transportation
- Imagery
- Parcels
- Geodetic Control
- Hydrography
- Boundaries
- Address
- Elevation

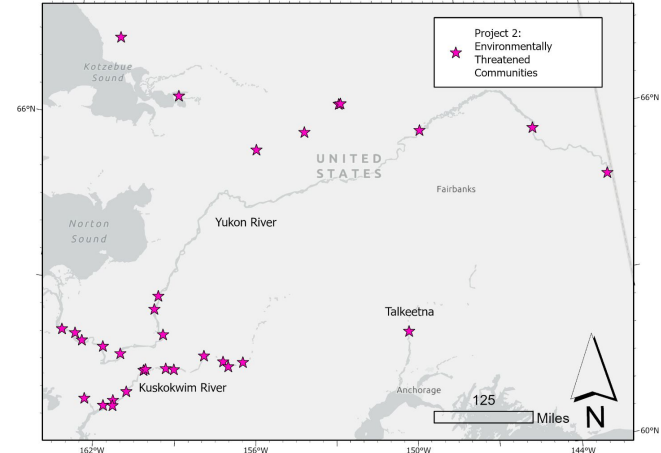
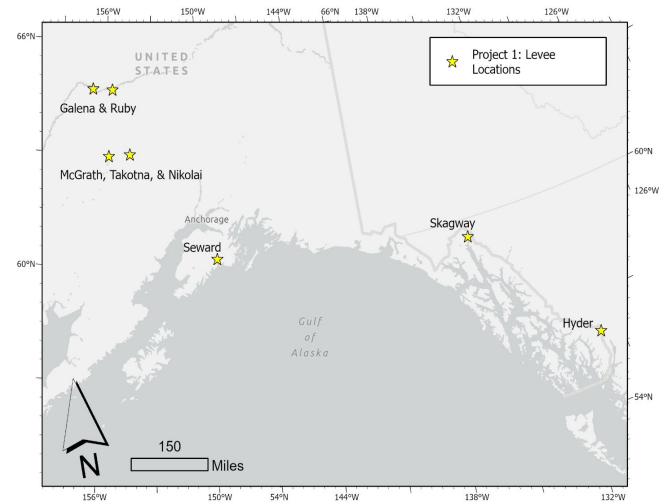


# LiDAR mapping for underserved and threatened communities

- Funding: FEMA Cooperating Technical Partners (CTP)
- \$2.96M towards LiDAR collection for:
  - Levee Communities
  - Environmentally Threatened Riverine Communities

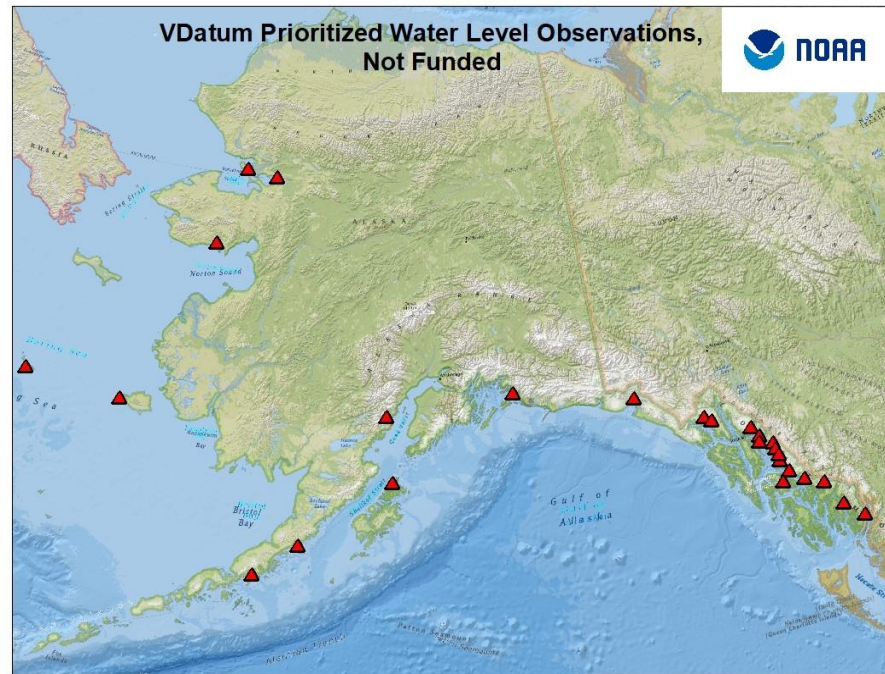


FEMA



# Enabling Coastal and Nearshore Mapping in Alaska with Statewide VDatum

- Funding: NOAA National Geodetic Survey
- \$5M towards development of statewide Vdatum coverage



# Pathways for supporting the Coastal and Ocean Mapping Initiatives

ALASKA  
MAPPING  
EXECUTIVE  
COMMITTEE  
(AMEC)



- 
- |                                    |                          |
|------------------------------------|--------------------------|
| <b>Coordination</b>                | <b>Data Governance</b>   |
| <b>Leadership</b>                  | <b>Data Acquisition</b>  |
| <b>Prioritization and Planning</b> | <b>Data Distribution</b> |





**End of Presentation**

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Thank you!



# Florida Coastal Mapping Keynote

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Cheryl Hapke – University of Southern Florida | Nicole Raineault – Florida Institute of Oceanography, OET



# The Florida Coastal Mapping Program (FCMaP): Coordination and Prioritization to Support Florida's Coastal Resources

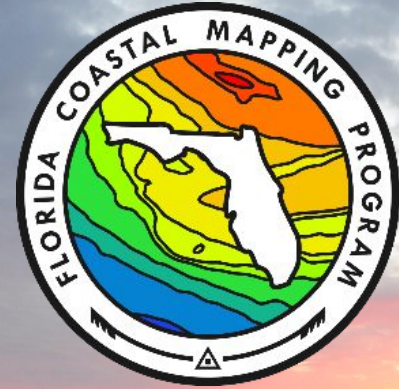
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**Cheryl Hapke, Ph.D.**

**Nicole Raineault, Ph.D.**

November 16, 2022

AK Coastal and Ocean Mapping Summit





# Florida Coastal Mapping Program (FCMaP)

## *What is FCMaP?*

A coordinating body of Federal and State agencies and institutions to promote and facilitate the collection and dissemination of Florida coastal seafloor data to fill priority areas and gaps within 10 years

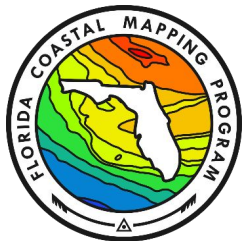
## *Vision*

Accessible, high resolution seafloor data of Florida's coastal waters to support infrastructure, benthic habitat mapping, restoration projects, resource management, emergency response, and coastal resiliency and hazard studies for the citizens of Florida

## *Mission*

Coordinate across Federal and FL State agencies, and other stakeholders, to build a comprehensive understanding of the Florida coastal seafloor





# Florida Coastal Mapping Program

## *Science and Technical Advisory Council*

**Chair:** Cheryl Hapke, University of South Florida St Petersburg College of Marine Science

**Co-Chair:** Rene Baumstark, FL Fish and Wildlife Conservation Commission - Fish & Wildlife Institute

**Co-Chair:** Ashley Chappell, NOAA Office of Integrated Ocean and Coastal Mapping

Florida Institute of Oceanography  
Monty Graham  
Nicole Raineault

Florida Department of Environmental Protection  
TBD

Florida Fish & Wildlife Research Institute  
Rene Baumstark

Florida Department of Transportation  
Brett Wood

Florida Division of Emergency Management  
Jason Ray

U.S. Army Corps of Engineers  
Jennifer Wozencraft  
Lauren Reichold

National Oceanic and Atmospheric Administration  
Ashley Chappell  
Paul Turner

U.S. Geological Survey  
Xan Fredericks

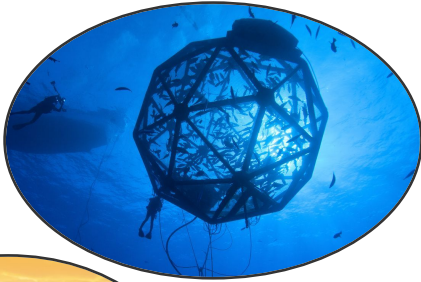
U.S. Bureau of Ocean Energy Management  
Jeff Reidenauer

# Why Map Florida's Coastal Waters?

- Extremely valuable coastal zone (> \$30 billion in revenue per year); 1,300 miles of coastline, longest in the lower 48 states.
- Greatest number of recreational boats and saltwater fisherman in the US
- Large concentrations of people and infrastructure in the coastal zone
- The coast is highly vulnerable to hurricanes and sea level rise impacts
- Many areas of the Florida coastal seafloor have not been mapped, or existing maps are old and of low resolution
- High resolution maps of the seabed are a necessary for a strong “Blue Economy” - aquaculture and alternative energy
- Increase scientific information about the floor of the world's oceans (Seabed 2030)



# Florida Coastal Mapping Program – Who Benefits?



*Aquaculture*



*Environment*



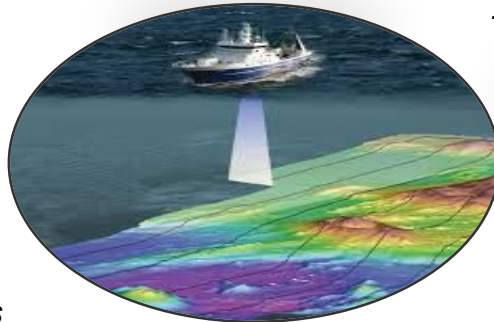
*Tourism*



*Research*



*Energy*



*Fisheries*

*Sand Resources*



*Safety*



# FCMaP Accomplishments



2017: Form Steering Committee and identify agency Technical Team

- Compile inventory of existing coastal seafloor mapping data
- Populate portal with footprints and metadata
- Conduct gap analysis

2018: First Stakeholder Workshop – led to decision to undertake statewide Prioritization

- 5 regional workshops
- Solicitation of priorities via online participatory GIS tool

2020: Analysis of prioritization and gap analysis

- FCMaP HUB created – Inventory, prioritization results, Story map
- March 2020 Mapping Summit and Dec 2020 Mapping Forum

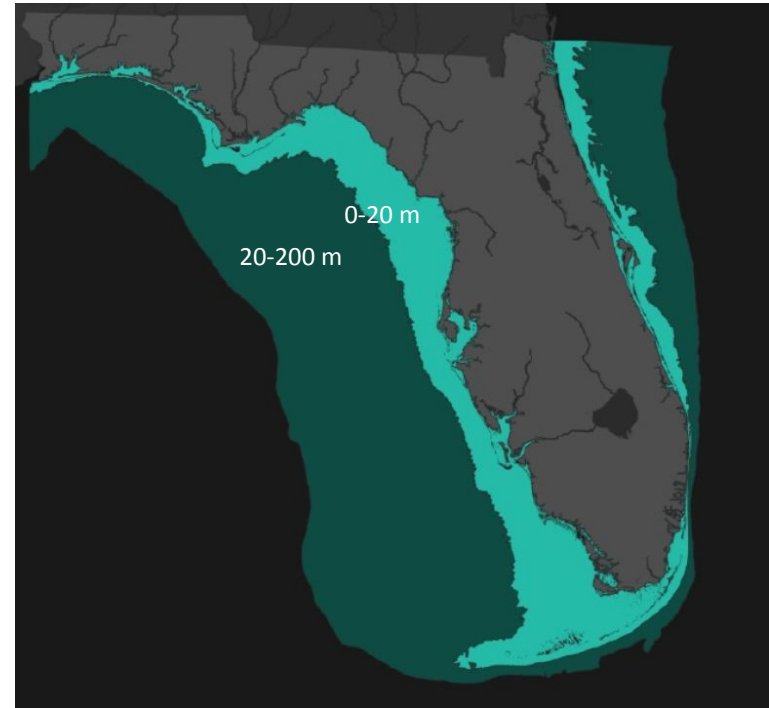
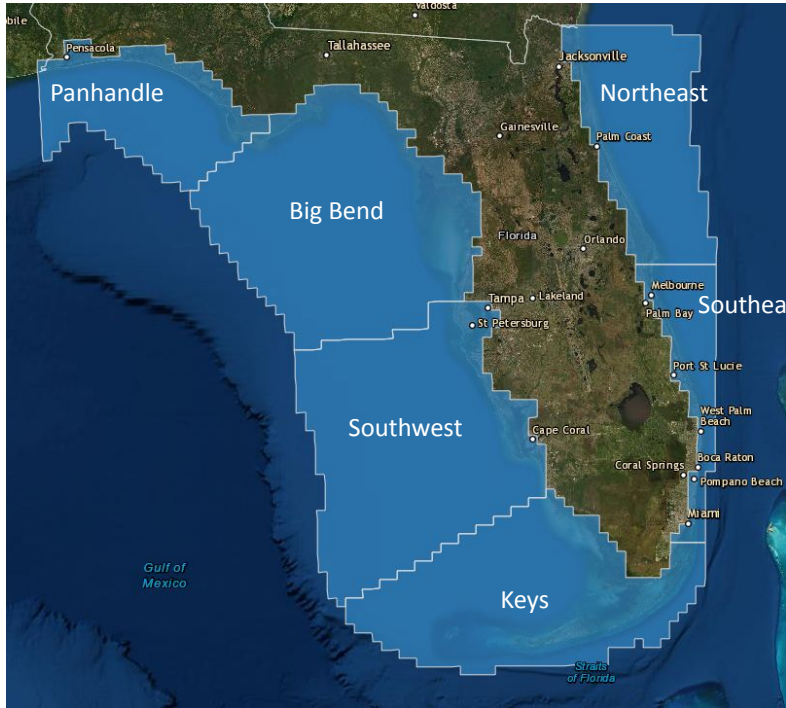
2021: FL Legislature awards \$100M to FDEP for seafloor mapping

- Create FCMaP STAC, dissolve steering committee
- FCMaP Office established within FIO
- Dec 2021 Mapping Summit

2022: Develop strategic plan

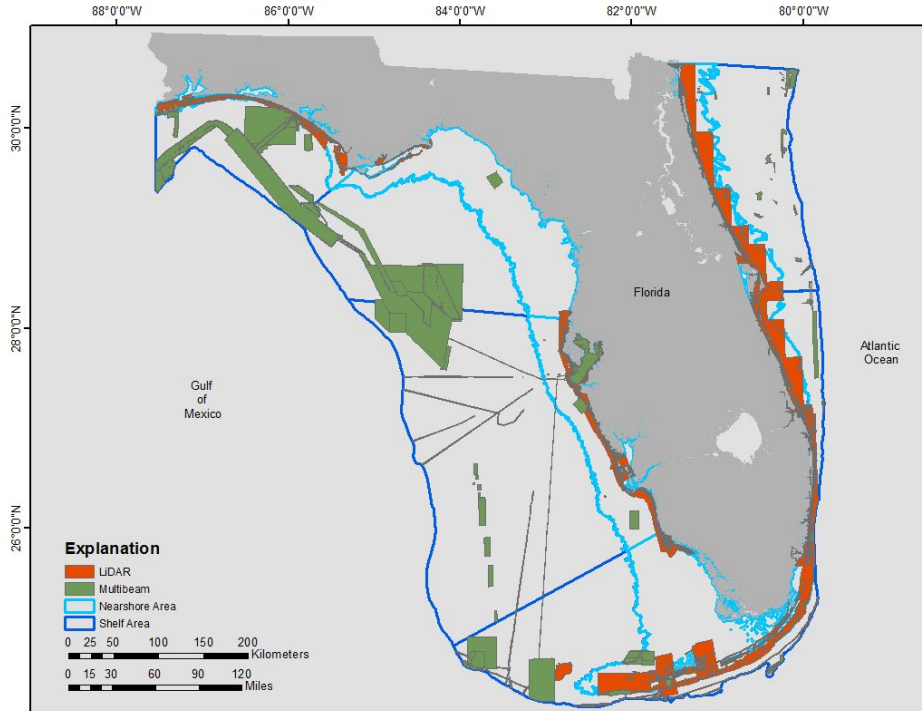
- Coordinator position, regular newsletter to stakeholders
- Dec 2022 Mapping Summit (hybrid)
- Yearly inventory updates

# FCMaP Prioritization Regions and Depth Zones





# Lidar and Multibeam Bathymetry: 2017 Gap Analysis

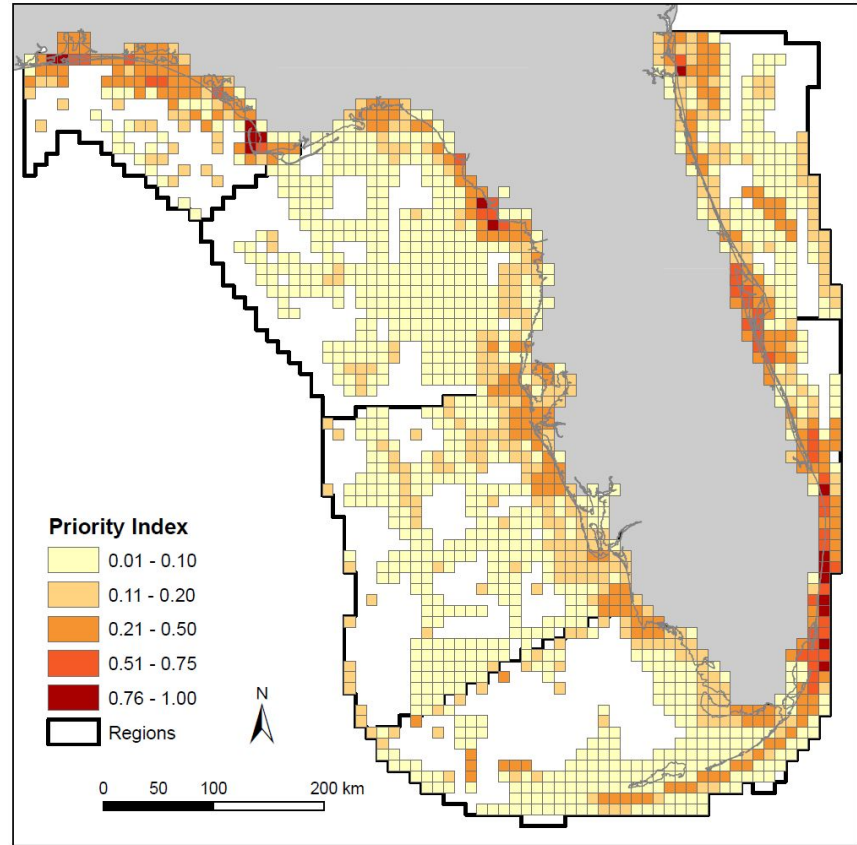
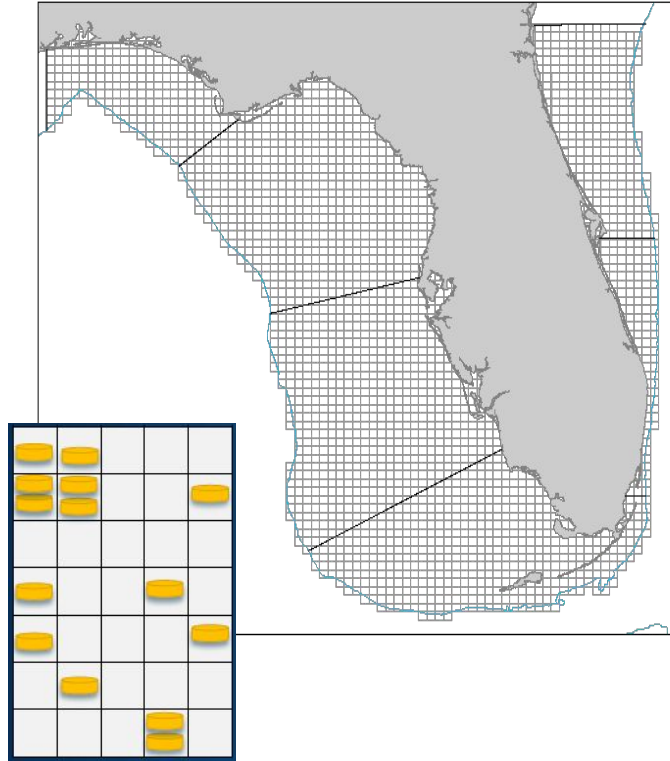


## Inventory and prioritization

- 0-20m depth (nearshore)
- 20m-shelf edge (shelf)

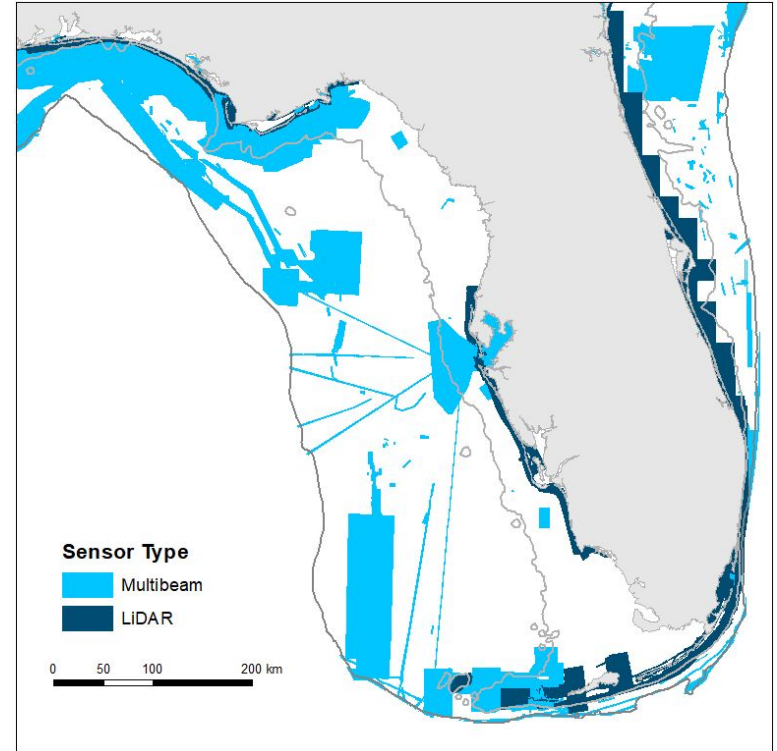
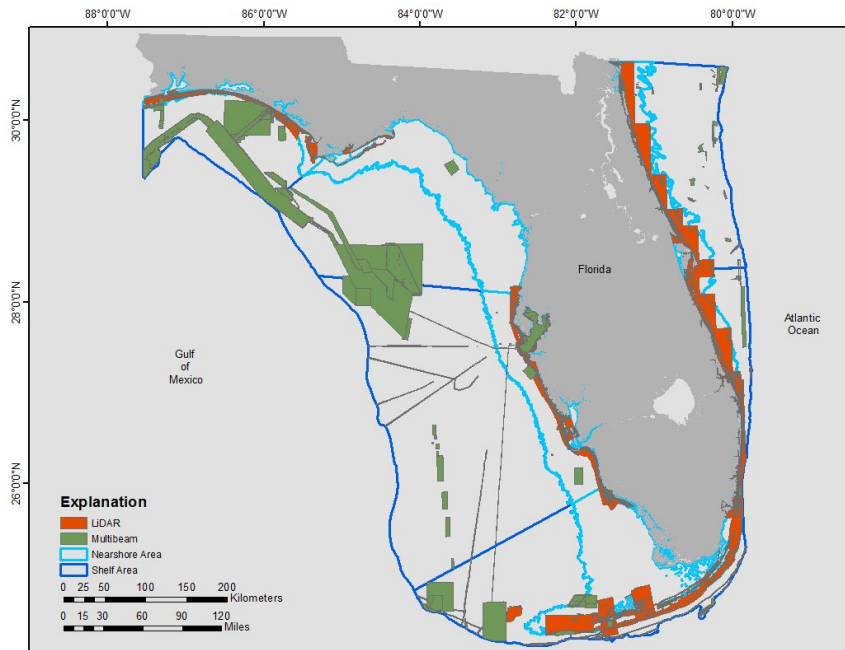
Regions	percent mapped	
	Nearshore	Shelf
<b>Panhandle</b>	<b>44%</b>	<b>43%</b>
<b>Big Bend W FL</b>	<b>3%</b>	<b>23%</b>
<b>Peninsula Keys</b>	<b>28%</b>	<b>8%</b>
<b>Southeast FL</b>	<b>83%</b>	<b>20%</b>
<b>Northeast</b>	<b>60%</b>	<b>4%</b>
<b>All Regions</b>	<b>27%</b>	<b>16%</b>

# Stakeholder Mapping Prioritization



# 2021 Inventory update

## 2017 Inventory







# FCMaP 5-year Strategic Plan (Draft)

## FCMaP Portfolio of Coordination

### Data Awareness

Provide access to and promote awareness of data archives, information and tools relevant to bathymetric mapping

1. Maintain data portal to provide access to coordination efforts (i.e. prioritization results, project footprints)
2. At the completion of the FSMI\*, undertake a new gap analysis
3. Maintain an inventory of mapping data and products resulting from FSMI and other efforts
4. Advocate for standardized mapping protocols that meet stakeholder requirements
5. Advocate for data archiving in a centralized national repositories (i.e. NCEI)

### Community of Practice

Coordinate across a diverse portfolio of private and public stakeholders in the realm of bathymetric mapping

1. Encourage collaboration across public and private entities
2. Provide guidance on policies and procedures on data quality standards
3. Enable the broadest array of data collection to meet multiple stakeholder uses
4. Coordinate with related efforts including NOMECS, Seabed 2030, AK Mapping Program, and 3D Nation
5. Provide technical assistance for regional and statewide mapping programs such as FSMI
6. Engage related communities of practice

### Innovation

Encourage innovation throughout data collection and processing

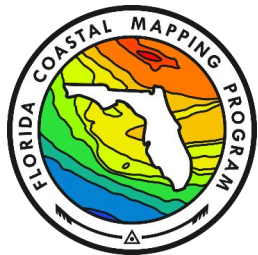
1. Champion the development, testing, deployment, and/or use of cutting-edge technologies and techniques
2. Develop incentives for testing, evaluating and adopting new technologies
3. Encourage involvement of vessels of opportunity
4. Facilitate innovation in data applications (i.e. derivative products)

### Engagement

Provide forums to facilitate sharing of information, knowledge exchange, and partnerships across stakeholder community

1. Organize and facilitate stakeholder meetings at least yearly for information sharing
2. Be an effective vehicle for communication among partners
3. Maintain a web presence to inform community of mapping updates, events, publications, and products
4. External communication advocating the importance of seafloor mapping and data products
5. Identify and engage nontraditional stakeholders

\*Florida Seafloor Mapping Initiative (FDEP)



## Florida Institute of Oceanography

- Enabler, facilitator & coordinator across ocean academic, state, and federal agencies & the private sector
  - 32-members including 12 State University System institutions
- FCMaP Annual Summit: November 30-December 1, 2022
- Hiring Program Coordinator
  - Communication
  - Coordination of efforts

*"Enabling excellence in coastal and ocean science and education"*

# Stakeholder re-engagement







**Thank you!**

[chapke@usf.edu](mailto:chapke@usf.edu)

[nicoleraineault@usf.edu](mailto:nicoleraineault@usf.edu)

A campfire is burning brightly on a beach at dusk. The fire is made of driftwood and is the central focus of the image. The background shows a calm body of water, likely a lake or bay, with mountains in the distance under a twilight sky. The beach is covered in small pebbles and larger pieces of driftwood.

## Questions for Presenters?

Please enter questions and comments in the chat box.