



CROWD THE BAY



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Crowd the Bay

Overview



Phased pilot in Tampa Bay with an eye towards a sustained, diverse crowdsourced bathymetry program in coastal Florida.

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Why Here?

Tampa Bay has two of the state's top five counties for vessel registration.

- High vessel traffic and economic impact
- Large (shallow) areas of poor coverage
- St. Petersburg, FL is home to one of the largest marine science complexes in the Southeast.

AXIOS Tampa Bay

Latest stories

Membership

Jobs

Mar 22, 2022 - News

More than 1 million boats are now registered in Florida

 Selene San Felice

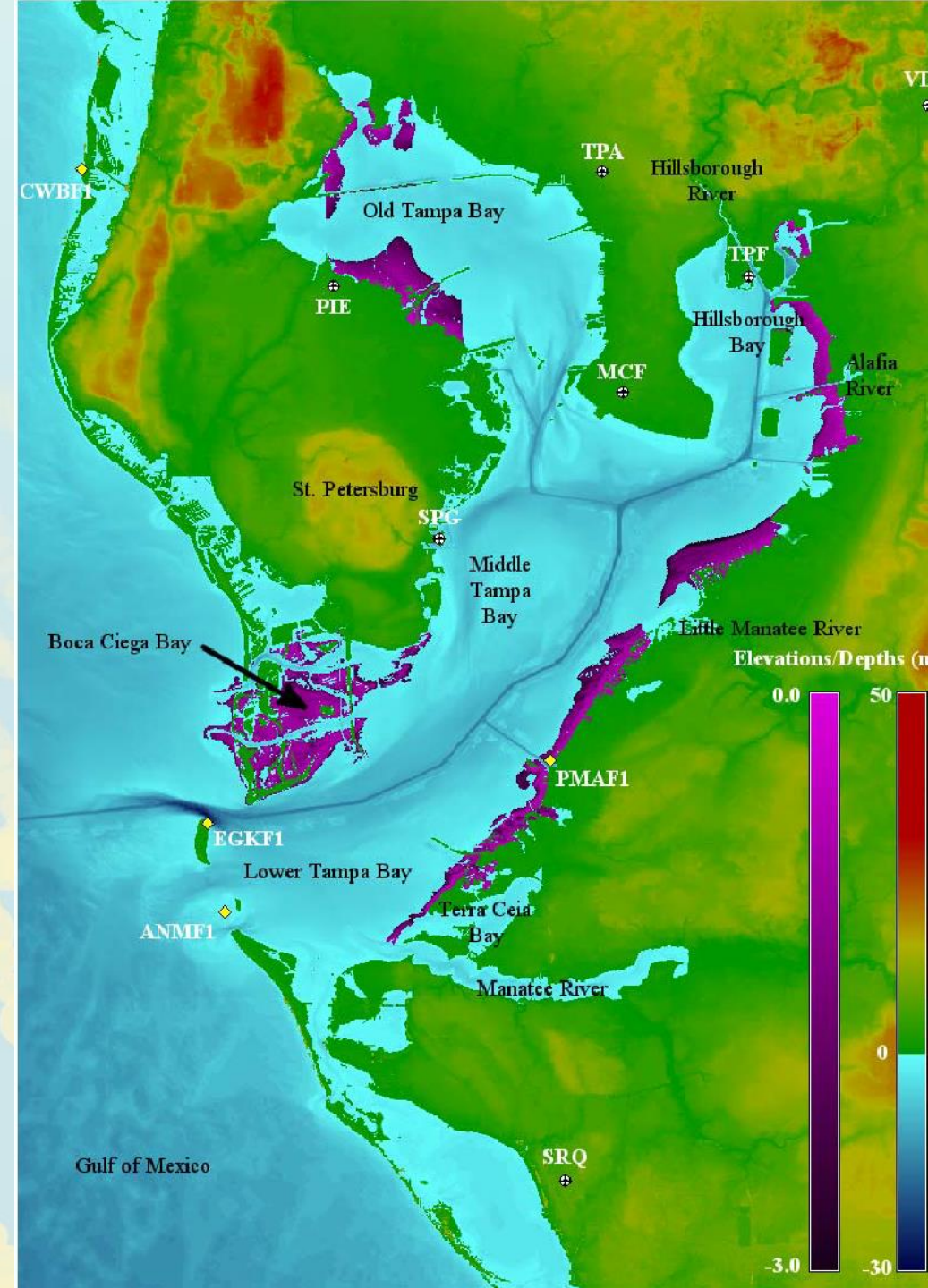


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Why Here?

Motivations:

- Coastal management
- Storm preparedness/response
- Safer navigation
- ??



St. Petersburg, FL



St. Pete Innovation District

USGS

USF St. Pete
Campus

FWRI

Florida
Institute of
Oceanography

USF College of
Marine Science

Maritime & Defense
Technology Hub

US Coast Guard

NOAA
SEFSC/OR&R

Albert Whitted 0.75NM

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Pilot Program Roadmap



 [Bitly.com/comitcsb](https://bitly.com/comitcsb)
(Full Roadmap Text)

Phase I

Foundations & Relationship Building



Sept. 2022 – June 2023

Phase II

Outreach & Expansion



July 2023 – March 2024

Phase III

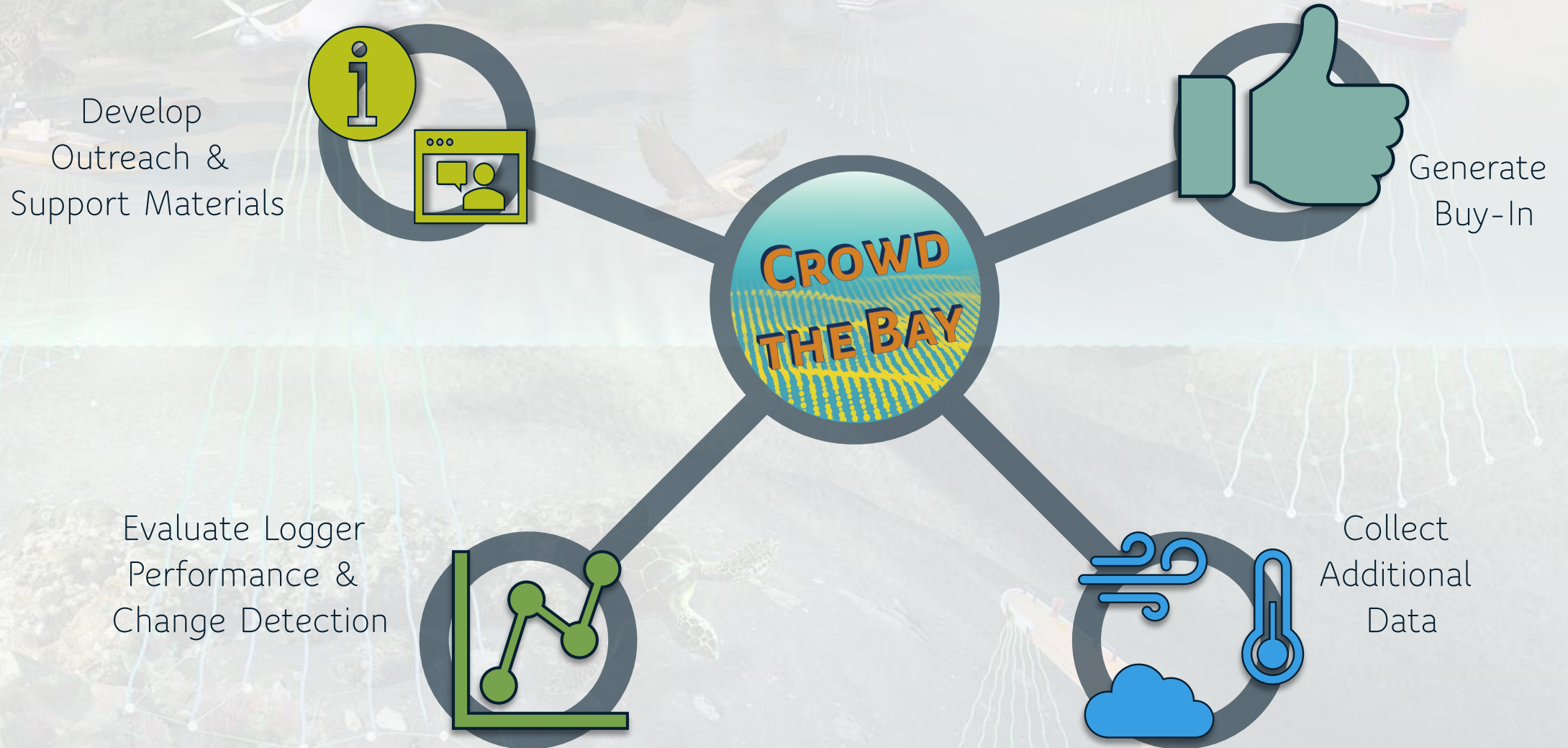
Regional-Scale Demonstration



April 2024 – September 2025

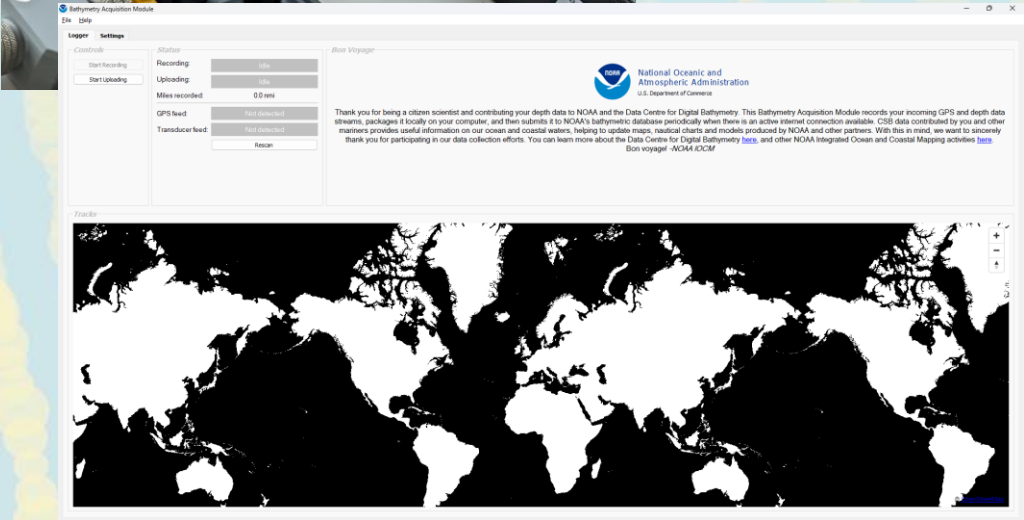
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Pilot Program Priorities



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Status Check



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Stakeholder Engagement

A crowdsourced bathymetry pilot program in Florida



inaugural

STAKEHOLDER MEETING

September 21, 2023

@USFSP



RSVP by
Aug. 31



COMIT CENTER FOR OCEAN MAPPING
AND INNOVATIVE TECHNOLOGIES



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SOUTH FLORIDA
College of MARINE SCIENCE

Confirmed attendees from:

- US Coast Guard
- FL Institute of Oceanography
- Gulf of Mexico Coastal and Ocean Observing System (GCOOS)
 - UNH/CCOM-JHC
- Florida Fish and Wildlife Research Institute
 - Seabulk Towing
- Tampa Bay Ports Authority
 - Freedom Boat Club
- US Army Corps of Engineers
 - International SeaKeepers
- Awaiting final responses from: Marine Industries Association, Hubbard's Marina, Captains for Clean Water

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Stakeholder Engagement

Goal:

- Engage local stakeholders in the process of creating a crowdsourced bathymetry (CSB) network in Tampa Bay.

Objectives:

- Raise awareness about the Center for Ocean Mapping and Innovative Technologies (COMIT) crowdsourced bathymetry Tampa Bay pilot program
- Acquire input from local stakeholders about the value of crowdsourced bathymetry in Tampa Bay/FL, their willingness to participate in data collection, and concerns they have about hosting data loggers on their vessels.
- Gather direct input on stakeholder's ideas and views on tools, outreach materials, and incentivization measures

Deliverables

- Pre-and post-meeting baseline knowledge and opinion survey about CSB in Tampa Bay
- Evaluation of existing products and materials as well as ideas for future development
- Compilation document of lessons learned and main takeaways



Stakeholder Engagement



(Minimal) Presentations

- Seafloor Mapping Overview
- Who are we (COMIT)?
- CSB from A to Z



Discussion Sessions

- Awareness and use of bathymetric info
- Acquiring CSB
- Using CSB



Surveys and Polls

- Pre/Post Survey (10-15 mins)
- Interspersed poll questions

Stakeholder Engagement – Pre/Post Surveys



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Rank which outreach products you would most prefer to learn more about crowdsourced bathymetry. Rank from most (top) to least (bottom) preferred:

Short (2-4min) videos with highlight information
Longer, more in depth (5-10mins) videos
A website with concise content
Documents and/or flyers
Other

Click to write the question text

12:29




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Rank which outreach products you would most prefer to learn more about crowdsourced bathymetry. Rank from most (top) to least (bottom) preferred:

Short (2-4min) videos with highlight information
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Documents and/or flyers
Other

Stakeholder Engagement – Pre/Post Surveys

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If you answered yes, how important do you think crowdsourced bathymetry is to:

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Better mapping dynamic coastal areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Updating nautical charts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved and quicker responses to coastal disasters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you and/or your group have interest in becoming involved or otherwise supporting local crowdsourced bathymetry efforts?

☐ No

12:29

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If you answered yes, how important do you think crowdsourced bathymetry is to:

Better mapping dynamic coastal areas

☐ Not at all important

☐ Slightly important

☐ Moderately important

☐ Very important


☐ Extremely important

Updating nautical charts

Improved and quicker responses

Stakeholder Engagement – Live Polling

Join by Web PollEv.com/comitusf989



Why do you think crowdsourced bathymetry is or could be important?

Finding fishing spots

1 0

Coastal management

0 0

It's not

0 0

< 3 / 3 >

Clear responses



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Crowd the Bay User Tools

Quick reference tools are linked below for program participants.

[Crowd the Bay Homepage](#)


marine.usf.edu/comit/csbtools



WIBL Install Tutorial

A brief video tutorial of how to install the Wireless Inexpensive Bathymetry Logger (WIBL) developed by UNH CCOM/JHC (Brian Calder et al.). Applicable only to vessels with NMEA 2000 networks – NMEA 0183 tutorial forthcoming.



Vessel Offset Worksheet

A printable version of how to measure vessel offsets when installing a logger aboard a new vessel – or if a vessel has changed its equipment configuration. A picture or scan of the document can be sent to us at cms-comit@usf.edu.



Vessel Offset Online Form

An online option for submitting vessel offset metadata which can be done via a browser window on a laptop or cell phone. [Click here](#) to view a larger picture of the offset schematic.



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Tools

Outreach Materials



Crowdsourced bathymetry (CSB) is a global citizen science initiative aimed at collecting seafloor depth measurements from a wide array of vessels.

The Center for Ocean Mapping and Innovative Technologies (COMIT) at the USF College of Marine Science in St. Petersburg, FL is building a new pilot program to expand CSB efforts in and around Tampa Bay, FL.

Explore the links below to learn more, keep up with our progress, and possibly even get involved!



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Diving Deeper




CSB in Tampa Bay



Keep up with Us!

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Tools

A woman with blonde hair, wearing a dark blue sweatshirt with a white logo, is sitting in the driver's seat of a boat. She is holding a small, light-colored rectangular box in her hands. The boat's dashboard features a large Garmin display. The background shows a residential area with houses and palm trees through the boat's windows.

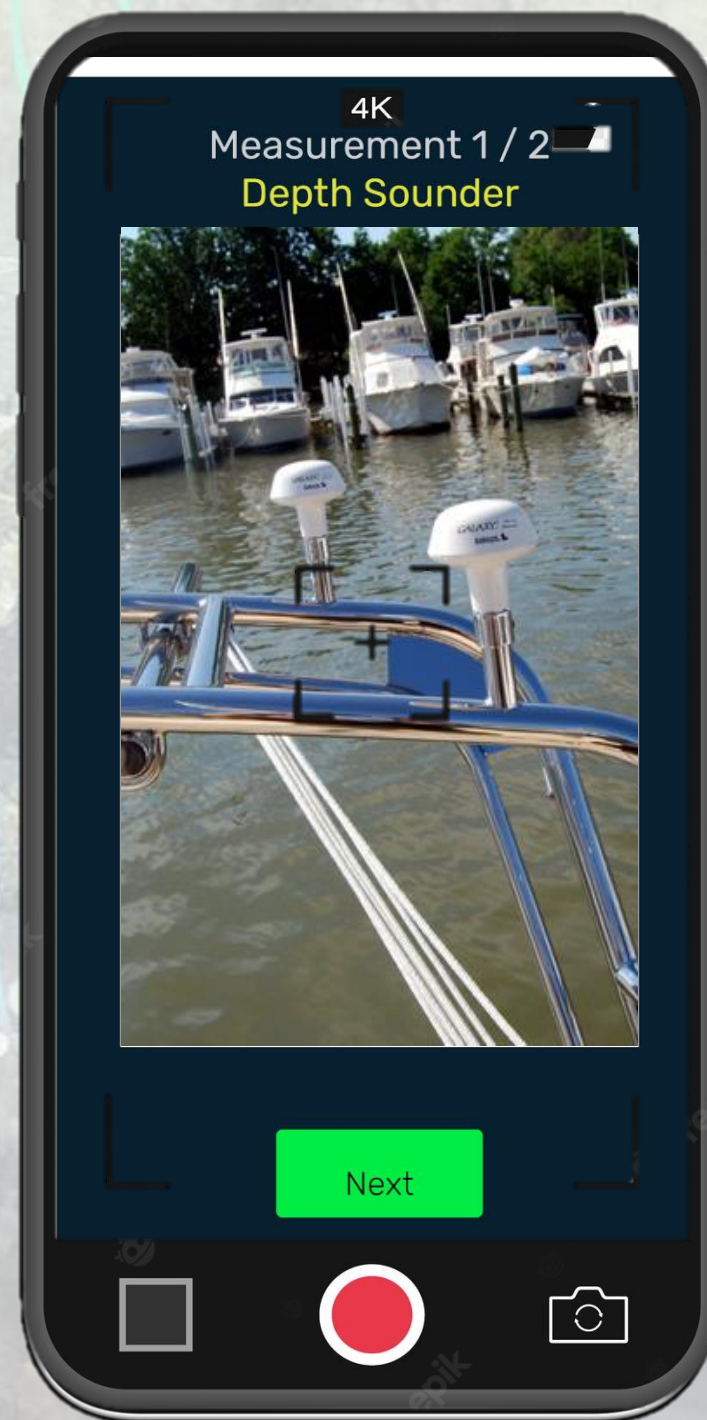
So aside from the WIBL, if you don't have

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Tools

Offset Measurement App

- iOS app leveraging LiDAR and AR Kit
- Reproducible, guided, modular, open source (Git)
- Fall 2023 Internship (Darshan Gummadi, USF Graduate Student) – starts this week!



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Tools

Offset Measurement App

- Example using existing app
- Point cloud export



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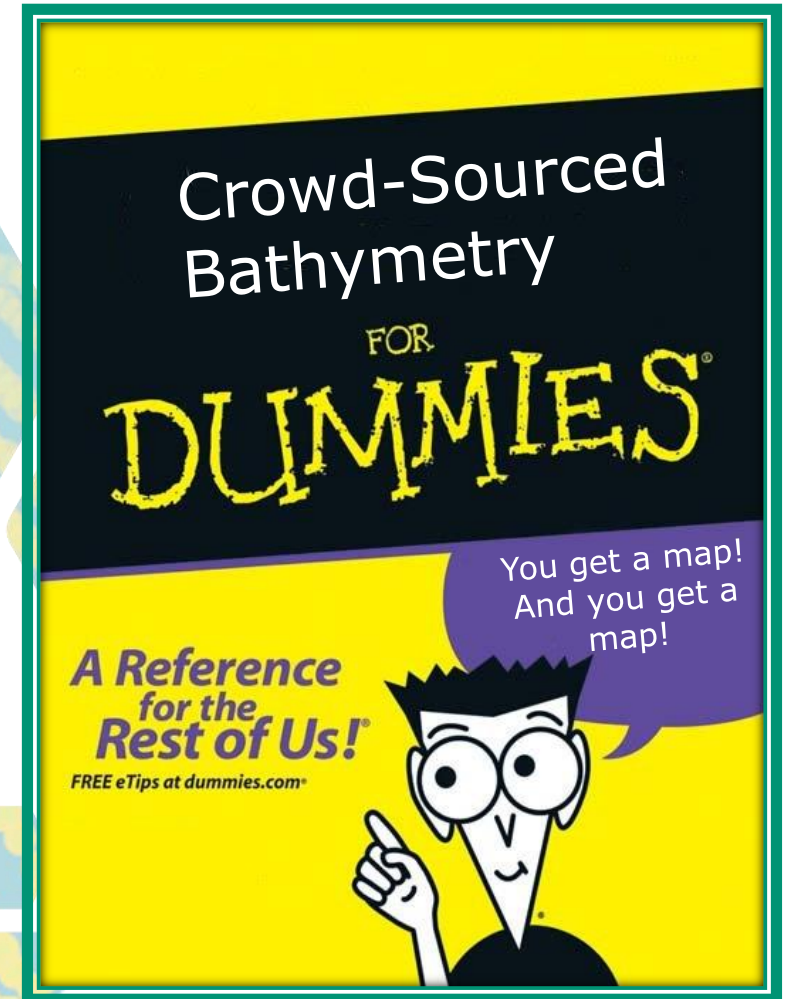
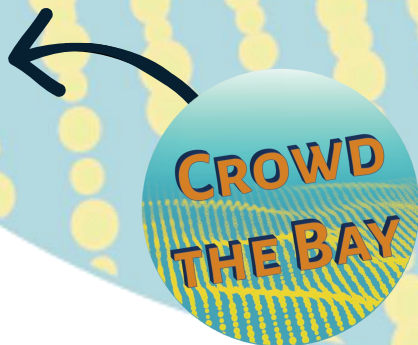
All for now!

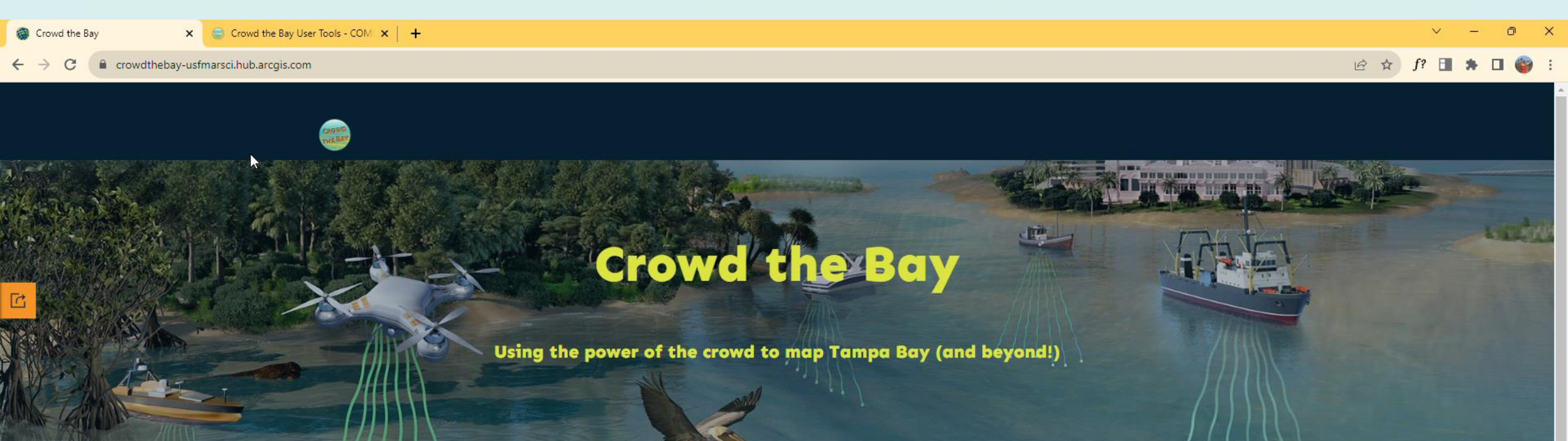
Contact: grastys@usf.edu

www.marine.usf.edu/comit

Twitter: [@COMITusf](https://twitter.com/COMITusf)

LinkedIn: company/usfcomit/





Crowd the Bay

Using the power of the crowd to map Tampa Bay (and beyond!)

Crowdsourced bathymetry (CSB) is a global citizen science initiative aimed at collecting seafloor depth measurements from a wide array of vessels.

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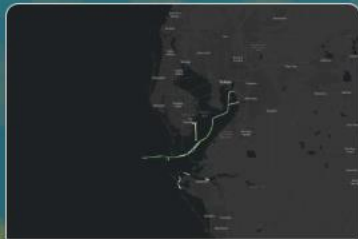
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[Crowd the Bay](#)



[Diving Deeper](#)



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[Keep up with Us!](#)



CENTER FOR OCEAN MAPPING AND INNOVATIVE TECHNOLOGIES

UNIVERSITY OF SOUTH FLORIDA • COLLEGE OF MARINE SCIENCE

About Us

WHAT WE DO



Uncrewed Systems

Improving the efficiency of seafloor mapping efforts via advanced technology and processing algorithms.



Geodetic Observations

Developing tools for high precision measurements of the seafloor in coastal zones.



Applied Hydrography

Increasing capacity to rapidly respond to coastal impacts and changes.



Forecasting & Remote Sensing

Resolving complexity of spatial and temporal scales for hydrodynamic modeling in nearshore environments.



Professional Development

Capacity building through training modules, certificate programs, graduate coursework, and seminars.



Community Outreach

Community engagement via user-ready content and products for the general public and elementary to high school-aged students.