#### Poster Number

IHO Crowdsourced Bathymetry Project An IHO-led initiative was established in 2014 to support and encourage mariners to collect crowdsourced bathymetry (CSB). CSB can be used to supplement the more rigorous and scientific bathymetric data collection done by hydrographic offices, industry, researchers, and others around the world.



CSB is the collection of depth measurements from vessels, using standard navigation instruments, while engaged in routine maritime operations.



## The Role of CIRES & the IHO DCDB

The International Hydrographic Organization (IHO) Data Centre for Digital Bathymetry (DCDB), hosted by NOAA's National Centers for Environmental Information (NCEI) and supported by CIRES, is committed to providing easy, open access to an extensive archive of bathymetric data.



#### Motivation

Innovative collection methods play a crucial role in fulfilling the goals of global mapping efforts such as the Nippon Foundation-GEBCO Seabed 2030 and the United Nations Decade for Ocean Science.



#### ~20% of the deep ocean floor and ~50% of our coastal waters have been directly mapped & the data shared with

the global community.

Location of current CSB data holdings discoverable and accessible via the IHO DCDB Map Viewer. ncei.noaa.gov/maps/iho\_dcdb/

### **Improving Data Discovery**

CIRES data managers and software developers are working to enhance the DCDB infrastructure to provide improved archival, discovery, and retrieval of global CSB data and have recently stood up a scalable point data store in a cloud environment.





Using existing equipment, most ships are capable of measuring and digitally recording depth in coastal waters, while an increasing number of vessels can collect these data in deeper waters



NOAA's Bay Hydro II CSB test tracks in green overlaid on multibeam survey data demonstrates

# Encouraging Innovative Supplementary Data Gathering The International Hydrographic Organization Crowdsourced Bathymetry Initiative

The Role of Innovative

Supplementary Data

Gathering

### **Encouraging CSB Contributors**

The IHO CSB Working Group is currently developing strategies to encourage various maritime sectors (e.g.: cruise lines industry, regional fishing communities), either already equipped with appropriate technology or outfitted with inexpensive data loggers, to collect bathymetric data as part of normal operations.

For more information: *iho.int/en/csbwg* 

how changes can be detected. Imaae courtesy of

Image courtesy of NOAA.

While CSB data may not meet accuracy requirements for charting, it can be used to identify uncharted features, assist in verifying charted information, and fill gaps where bathymetric data are scarce. Jessica Nation<sup>1</sup>,

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The vision is to tap into the enthusiasm for mapping the ocean floor by enabling trusted mariners to easily contribute data, to fill the gaps in our current bathymetric coverage.