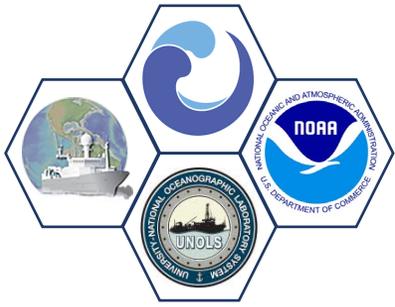




# An update on: Developing Best Practices for Sea-going Operations

---

RVTEC 2022  
November 2, 2022



# Group Members & Working Group Leads



**Katie Watkins-Brandt**  
NOAA | OMAO  
Environmental Data Acquisitions Manager



**Rebecca Hudak**  
Rolling Deck to Repository  
Woods Hole Oceanographic Institute  
Shipboard Scientific Support Group



**Mark Bushnell**  
National Coordinator, US IOOS/QARTOD  
IOC/Ocean Best Practices System Steering  
Group  
US CLIVAR Uncertainty Quantification  
Working Group



**Kristin Beem**  
UNOLS Tech Training Committee  
RCRV Marine Science Technical Director



**Jules Hummon**  
UHDAS ADCP  
University of Hawaii



**Shawn Smith**  
Rolling Deck To Repository  
SAMOS Initiative  
COAPS, Florida State University



**Gabe Matthias**  
Independent



**Laura Stolp**  
Rolling Deck to Repository  
Woods Hole Oceanographic Institute  
Shipboard Scientific Support Group



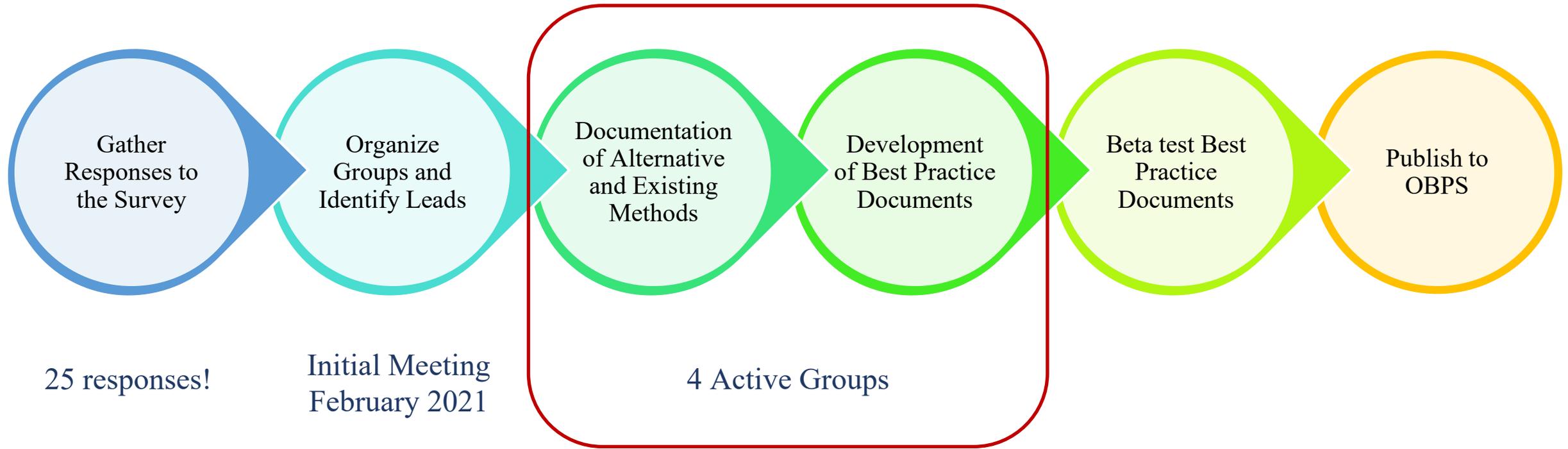
**Jay Pearlman, Ph.D. Fellow IEEE**  
IEEE France  
Director, Four Bridges  
Ocean Best Practices System Steering Group

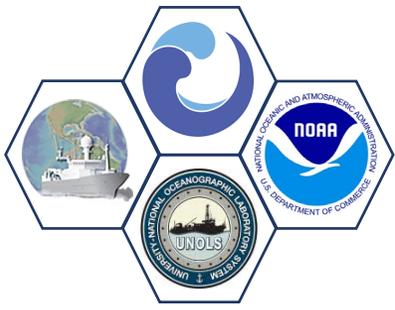


## Marine Technicians!



# Our Approach





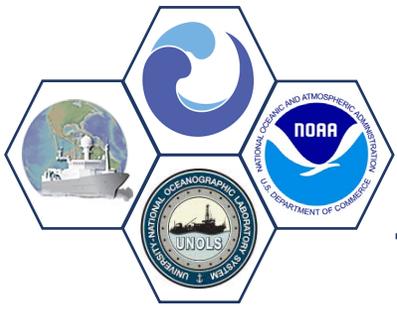
## 4 Active Working Groups Established

---

### Active Working Groups:

- EK-80 Fisheries Sonar Suite, led by Kristin Beem and Rebecca Hudak
- General Flowthrough System, led by Shawn Smith
- ADCP, led by Jules Hummon
- CTD Profiler, led by Laura Stolp and Rebecca Hudak
- SBE-43 Oxygen Sensor, led by Gabe Matthias





# EK-80 Fisheries Sonar Suite

Interested? Email us!

[rhudak@whoi.edu](mailto:rhudak@whoi.edu)

[kristin.beem@oregonstate.edu](mailto:kristin.beem@oregonstate.edu)



- Took a brief break during active sailing season
- Atlantis Calibration- Dockside- January 2022
- Sikuliaq Calibration Cruise- “Underway”- February 2022
- Challenges associated with both approaches for calibration
- 13 active members contributing; including those from NOAA, UNH, OSU, URI, and WHOI
- Working Draft for EK80 Best Practices- Including a strong focus on calibrating an EK80 as well as a focus on settings/features to run to get the best data

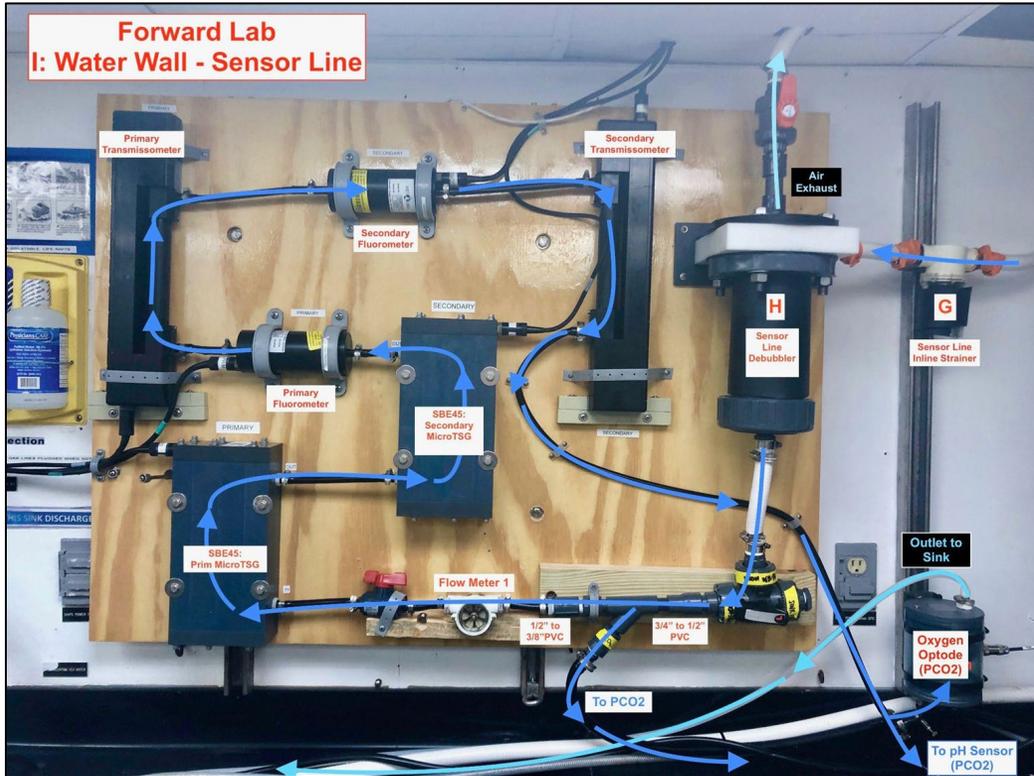




# General Flowthrough System

Interested?

Email: [srsmith@fsu.edu](mailto:srsmith@fsu.edu)



Atlantic Explorer flowthrough system with flow direction marked.  
Photo courtesy of BIOS.

- Kicked off on 29 September 2021
- Primary scope
  - Focus on components of flowthrough system
    - Intakes, sea chest, pipes/tubing, pumps, flow meters, debubblers
  - Will not address specific sensors in system, but may recommend sensor placement, orientation, etc.
- Been dormant for most of 2022, but plan to restart in 2023
- New topics
  - How to document intakes in use on cruise
  - Documenting intake location, pipe runs
- Need representation from ship engineering groups



# ADCP - Acoustic Doppler Current Profiler



- Review of Ocean Best Practices System found existing documentation on ADCP vessel mounted systems:  
<https://repository.oceanbestpractices.org>, <https://www.go-ship.org>
- Added and continued improvement of a Best Practices page in the UHDAS documentation:
  - [UHDAS Best Practices](#) (new)
  - [VmDAS Recommendations](#) (prior)
- Jules is resigning from any role in the ADCP Best Practices except to lurk when time permits
- Opportunity for someone to step in and carry on development of documentation for lowered and moored ADCPs from ships

## 3.2.1. Best Practices for ADCP data collection

Other aspects of best practices have been covered in the [general setup](#) of a good shipboard ADCP installation.

Here we have more specific recommendations about the data collection. These notes are organized in a sort of chronological order, related to when a person might encounter them during a normal cruise.

[Cruise Naming](#)

[Communication with UHDAS Team](#)

[Settings: bottom track](#)

[Settings: triggering](#)

[Other Settings](#)

[Securing one ADCP](#)

[Interpreting: only believe what is realistic](#)

[Click "End Cruise" before final backup](#)

[Backing up data](#)

email: [uhdas@hawaii.edu](mailto:uhdas@hawaii.edu)



# CTD Profiler

Interested?  
Email: [lstolp@whoi.edu](mailto:lstolp@whoi.edu) or [rhudak@whoi.edu](mailto:rhudak@whoi.edu)



- Started meeting in September 2021
- Created an Index of documents in OBPS and other Institutes
- Interested participants: 19
- Goals:
  - Work with O<sub>2</sub> flowthrough systems BP due to some overlap
  - One-pager reference for data collection and cleaning
  - Appendix for related documents/technical references
- Collaboration with Seabird during several meetings
  - including software updates
  - updated cleaning procedures

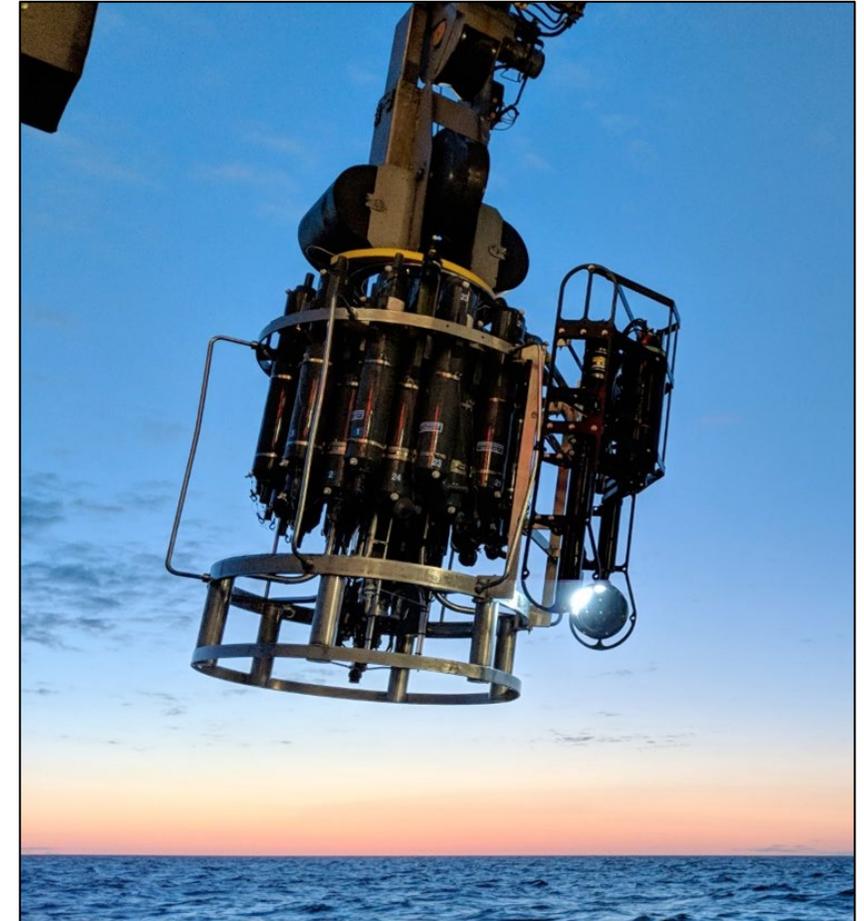


Photo cred: Emily Shimada



# 2022 Ocean Best Practices Workshop Update

---

- Continued OBPS support- work toward an endorsement process
- Task Team for Decision Trees:
  - Officially started in August 2022
  - The purpose of the Task Team is to develop recommendations for and templates of decision trees targeting the various interests of the OBPS community. To assist users in the development of effective decision trees, we will develop a best practice for decision trees as well as decision tree templates for users to reference and to promote standardization.

OBPS Site:

<https://www.oceanbestpractices.org/>



# 2022 RVTEC Breakout Sessions

---

- Best Practice Updates (Nov 2 @1400 in Auditorium)
  - EK80
  - General Flowthrough
  - CTD BP Updates
  - CTD Data: Visualizing CTD Contamination
- CTD Software Breakout - Seabird Staff (Nov 2 @1500 in Auditorium)
- Marine MET “crash course” - SAMOS (Nov 3 @1300-1450 in 107)



## Interested?

### Get involved!

- Reach out to the lead of the working group you are interested in joining
  - EK-80: Kristin Beem: [kristin.beem@oregonstate.edu](mailto:kristin.beem@oregonstate.edu) , Rebecca Hudak [rhudak@whoi.edu](mailto:rhudak@whoi.edu)
  - General Flowthrough System: Shawn Smith: [srsmith@fsu.edu](mailto:srsmith@fsu.edu)
  - CTD Profiler: Laura Stolp [lstolp@whoi.edu](mailto:lstolp@whoi.edu) , Rebecca Hudak [rhudak@whoi.edu](mailto:rhudak@whoi.edu)
- Want to carry the torch on the ADCP work?: contact Katie Watkins-Brandt [katie.watkins-brandt@noaa.gov](mailto:katie.watkins-brandt@noaa.gov) or Jules Hummon [uhdas@hawaii.edu](mailto:uhdas@hawaii.edu)
- Know someone great that may be interested, let them know!
- Contact Katie with any questions: [katie.watkins-brandt@noaa.gov](mailto:katie.watkins-brandt@noaa.gov)
- Interact with us on our Whova channel- Best Practices  
[https://whova.com/portal/webapp/rvtec\\_202210/CommunityBoard/topic/1394471](https://whova.com/portal/webapp/rvtec_202210/CommunityBoard/topic/1394471)

