

# The Alliance for Coastal Technologies



Supporting the Technical Education &  
Training Needs of Tomorrow's  
Ocean Observing Workforce

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Education & Outreach Coordinator



A NOAA-funded partnership of research institutions, state and regional resource managers, and private sector companies interested in developing and applying sensor technologies for monitoring coastal environments.

**See <http://act-us.info>**

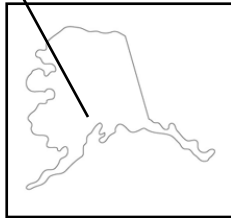
# Alliance for Coastal Technologies

## Partner Institutions



**Alaska SeaLife Center®**  
*windows to the sea*

University of Alaska



University of Michigan  
Cooperative Institute for  
Limnology & Ecosystems Research



Gulf of Maine  
Ocean Observing System



University of Maryland  
**CENTER FOR ENVIRONMENTAL SCIENCE**  
Chesapeake Biological Laboratory

Moss Landing  
Marine Laboratories



M B A R I



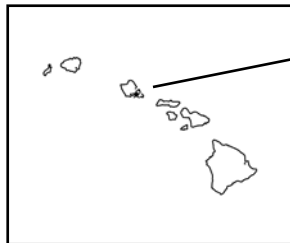
Monterey Bay Aquarium  
Research Institute



**NOAA Coastal Services Center**  
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY



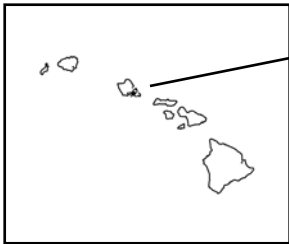
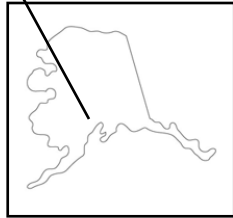
Skidaway Institute  
of Oceanography



UNIVERSITY OF  
SOUTH FLORIDA  
COLLEGE OF MARINE SCIENCE



# Diverse Environments



# Alliance for Coastal Technologies Stakeholders' Council

- ⊕ Members from private sector companies and environmental management agencies.
- ⊕ Members participate in planning and decision-making to ensure a focus on service-oriented activities.
- ⊕ Help foster the interactive flow of information and ideas between various sectors and end users.



# Alliance for Coastal Technologies Technology Workshops

- ⊕ Workshops focus on **specific sensor technologies** for use in coastal environments.
- ⊕ Workshop participants include **equal numbers** of researchers, managers, and representatives from private sector companies.

## Workshop Goals:

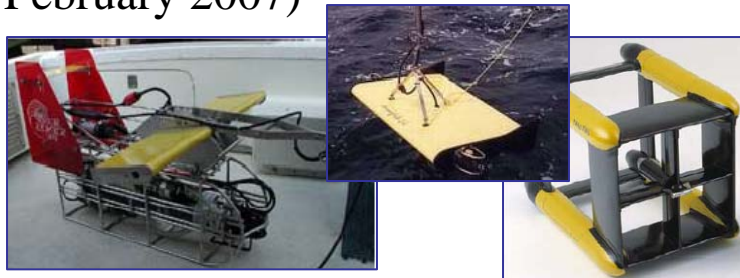
- ⊕ To **help build consensus** on the steps needed to build useful tools, while also **facilitating critical dialogue** among technology manufacturers, developers, and end users.



# Alliance for Coastal Technologies

## Recent Technology Workshops

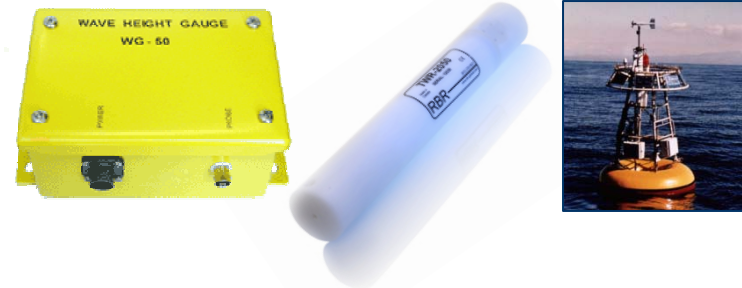
- ⊕ **Towed Vehicles as Platforms for Mapping Coastal Features and Processes** (MML/MBARI, February 2007)



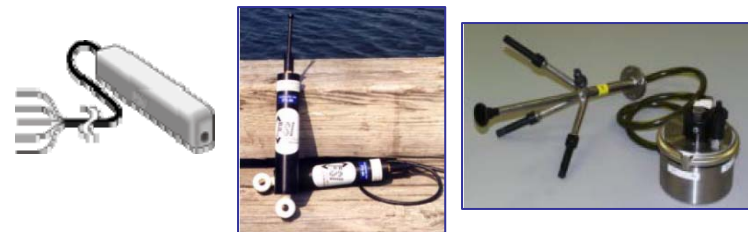
- ⊕ **Passive Acoustic Hydrophones** (UH/SOEST and UAF/ASLC, February 2007)



- ⊕ **Wave Sensor Technologies** (USF/NDBC, March 2008)



- ⊕ **State of Technology for *in-situ* Measures of Salinity Using Conductivity Temp. Sensors** (SkIO, December 2007)



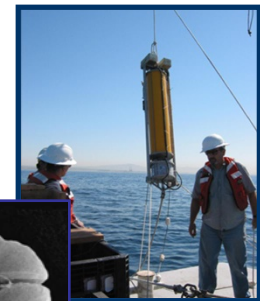
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## Upcoming Technology Workshops

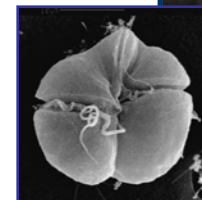
⊕ **Environmental Sensing for Port Security**  
(*IOOS/SRNL/CCEHBR/HML*)



⊕ **Environmental Sample Concentration Methods/Technologies**  
(*CCEHBR/HML/OHHI*)



⊕ **Harmful Algal Bloom (HAB) Detection Technologies**  
(*CICEET/SCCWRP/FWRI*)





# Alliance for Coastal Technologies

## Technology Evaluations



### Technology Verifications:

- ⊕ Evaluations of *commercially-available* instruments to verify manufacturers' performance specifications or claims;
- ⊕ Conducted at **5 or more** (but typically all) Partner Sites.

### Technology Demonstrations:

- ⊕ Abilities and potentials of *new* technologies established by working with manufacturers and developers to field test the instruments in diverse environmental conditions;
- ⊕ Typically conducted at **2-3** Partner Sites.

# Alliance for Coastal Technologies

## Recent & Upcoming Technology Evaluations

### Recent: Nutrient Analyzers (2007)

- ⊕ YSI 9600 Nitrate Analyzer



- ⊕ Wet Labs Cycle P Nutrient Analyzer

- ⊕ American Ecotech NUT 1000

- ⊕ Satlantic ISUS V3 Nitrate Analyzer



### Upcoming:

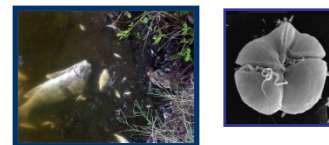
**C-T Sensors for *In-Situ* Salinity (2008)**



**pCO<sub>2</sub> Sensors for Ocean Acidification (2009)**



**HAB Sensors (2009)**



**Wave Height Instruments (tbd)**



# Alliance for Coastal Technologies

## Data & Information Clearinghouse

<http://www.act-us.info>

- ⊕ Continuously updated
- ⊕ 3 search criteria
- ⊕ Instrument description & technical specifications
- ⊕ Cost & manufacturer contact information
- ⊕ Workshop & evaluation reports; CNUAs

### Looking for an Instrument?

- Identify technologies available to meet your needs.
- Search by environmental parameters, sensor types or manufacturers.

This is a living database that is continuously updated. Please help us provide the information you would like to see in the most useful format by sending us your comments. New Information, corrections, suggestions, and constructive criticism will only improve the quality of the database and this site. Please email us with your suggestions.



### Physical

Salinity, Light, Temperature, Turbidity, Pressure, and more...



### Chemical

Inorganic, Dissolved gases, Oxido-Reduction, pH, and more...

### Biological

Planktons, Microbes, Marine Tracking, and more...



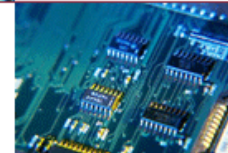
### Sensor Type

ADCP, Fluorometer, CTD, Multiparameter, and more...



### Hardware

AUVs, Buoys, Dataloggers, Power Supplies, and more...



### Manufacturer

The A to Z of all manufacturers.

# Alliance for Coastal Technologies Technology Discussion Forum



**Alliance For Coastal Technologies**

New Discussion Forum - Please register for a new account as this has replaced the previous forum

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It is currently Sun Oct 26, 2008 7:17 pm

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GENERAL TOPICS	TOPICS	POSTS	LAST POST
<b>General Topics &amp; Comments</b> Open forum for topics not related to those listed below	1	1	by mreardon on Fri Jan 11, 2008 3:43 pm
<b>News &amp; Events</b> Discuss past and upcoming events related to ACT	9	9	by Jason Cook on Mon Sep 15, 2008 9:35 am
<b>Industry Announcements</b> News, events, job openings, etc.	0	0	No posts

SENSOR TECHNOLOGIES	TOPICS	POSTS	LAST POST
<b>Animal Tracking</b>	0	0	No posts
<b>Buoys / Drifters</b>	0	0	No posts
<b>Conductivity / Salinity</b>	0	0	No posts
<b>CTD</b>	1	4	by Jason Cook on Thu Oct 18, 2007 3:51 pm
<b>Current / Flow</b> Discussion on current meters & profilers, flow meters, velocimeters, and ADCP's	0	0	No posts
<b>Dissolved Gases / DO</b>	0	0	No posts
<b>Fish / Plankton</b> Discussion on biological samplers, nets, counters, etc.	0	0	No posts

# Alliance for Coastal Technologies

## Field Guides & Training Opportunities

### Training Opportunities:

- ⊕ Offered for DO and nutrient sensors
- ⊕ Timed to coincide w/field verification trials
- ⊕ Purpose: to gain hands-on experience using the sensors with manufacturers present



### Field Guides (Best Practices Guides):

- ⊕ Planned for fluorometers, DO sensors, turbidity sensors, and nutrient sensors
- ⊕ Technology workshop → working field guide

