

PROGRAM OF SPEAKERS

Revision Q

9/16/2022

MONDAY, Sept. 19th

- 14:00-16:00 **Mooring Design Seminar with ProteusDS Oceanographic – Cape Fear Community College**, (Ryan Nicoll, ryan@dsaocean.com). More information at: dsaocean.com/oceanographic
- 17:30-19:30 **Icebreaker – Cape Fear Community College**, Appetizers with complimentary drinks
Workshop Registration Desk Open. Pick up your workshop badges

TUESDAY, Sept. 20th

- 7:30-8:30 Coffee, Tea, Continental Breakfast – Exhibit Area
8:00-9:00 Workshop Registration Desk Open, Ballast Lobby
8:00-16:30 Exhibits Open

Please plan to view exhibits only during morning and afternoon breaks & lunch

8:00-8:30 WELCOME, ANNOUNCEMENTS, and HOUSEKEEPING:

Rick Cole, Co-Chair, *RDSEA International, Inc.*

Don Peters, Co-Chair, *Woods Hole Oceanographic Institution*

Judy Rizoli, aka "The Boss", *Exhibitor Liaison*

Chris Ostrander, *MTS Executive Director*, **Kristina Norman**, *MTS Deputy Executive Director*

Monica Ostrander, *MTS Director of Programs*, **Claire Idell**, *MTS Director of Member Engagement*

Local Support

Dr. Lynn Leonard, *UNC Wilmington, Dept. of Earth, and Ocean Sciences, CORMP*

Jennifer Dorton, *IOOS-SECOORA*

Jason Rogers and Students, *Cape Fear Community College*

OPENING REMARKS:

Dr. Stuart Borrett, *Associate Provost for Research and Innovation, UNCW*

(V) = Virtual Presentation

SESSION 1: Long-Term Observing Systems I - U.S. IOOS

- 8:30-8:50 Jennifer Dorton, **SECOORA/IOOS**, Lynn Leonard, **UNCW**, Jay Law, **USF-Marine Science**: *SECOORA, Long-Term Coastal Monitoring, in the Southeast U.S.*
- 8:50-9:10 Lynn Leonard, Chris LaClair, **UNCW**, James Behrens, **SIO-CDIP**, Charlton Galvarino, **Second Creek Consulting**, Robert Jensen, **USACE**, Steve Pfaff, **NWS**, Ross Timmerman, **SIO-CDIP**, Mark Willis, **NWS** : *UNCW - Coastal Ocean Research Monitoring Program (CORMP), Leveraging Partnerships to Meet Stakeholder Needs.*
- 9:10-9:30 Jay Law, **USF Marine Science**: *The Coastal Ocean Monitoring and Prediction System (COMPS), 25-Years, Lessons Learned, West Florida Shelf, Gulf of Mexico.*
- 9:30-9:50 Andreia Queima, Pacific Islands Ocean Observing System (PacIOOS), **University of Hawai'i**: *Overview of the PacIOOS Wave Buoy Obs. Network and Real-Time Buoy Data for Field Ops.*
- 9:50-10:05 **PANEL DISCUSSION – Session Chair / Panel Leader:** Rick Cole
- 10:05-10:25 **20 MINUTE BREAK – Exhibit Area**

SESSION 2: Long-Term Observing Systems II

- 10:25-10:45 Al Plueddemann, Glen Gawarkiewicz, John Kemp, Don Peters; **Woods Hole Oceanographic Institution (WHOI)**, Woods Hole, MA: *The Design and Implementation of the OOI Pioneer Array . (V)*
- 10:45-11:05 Chien Yi Yang, Kai Fu Chang, Yiing Jang Yang, **National Taiwan Univ.**, Taipei, Taiwan; *Met-Ocean Buoys Observed Tropical Cyclones in the West-Pacific Sub-Tropical Region.*
- 11:05-11:25 Ron Muzzi, S. Ruberg, S. Constant, K. Beadle, R. Miller, L. Mendoza, **Great Lakes Environmental Research Lab. (GLERL)**, *Overview of Great Lakes Real-Time Coastal Observation Network (RECON), Lessons Learned.*
- 11:25-11:45 Craig Kohler, **NDBC, Stennis Space Center**, MS: *Observing Systems Life-Cycle Management.*
- 11:45-12:00 **PANEL DISCUSSION – Session Chair / Panel Leader:** Don Peters
- 12:00-13:00 **BOX LUNCH**

SESSION 3: Mooring Design I

- 13:00-13:20 Chris Ostrander, Executive Director, **Marine Technology Society (MTS)**, WA, DC: *Introduction and MTS Greeting.*
- 13:20-13:40 Don Peters, John Kemp, Al Plueddemann, **Woods Hole Oceanographic Institution (WHOI)**, OOI: *Coastal Surface Mooring Development for the Ocean Observatories Initiative.*

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- 13:40-14:00 Laura Fiorentino, Robert Heitsenrether, Katie Kirk, Warren Krug, Eric Breuer, Winston Hensley, **NOAA National Ocean Services (NOS), Center for Operational Products and Services (CO-OPS)**; *Development and Field Test of CO-OPS Real-Time Shallow Water Currents Buoy (CURBY)*. (V)
- 14:00-14:20 Carlos Sousa, **Algarve Center for Marine Sciences, Faro, Portugal**, P. Relvas, **Portuguese Inst. for Sea and Atmosphere**, M. Carapuco, **Univ. of Algarve**, T. Silveira, Inst. Dom Luiz, **Univ. of Lisbon**; *Deployment of an Oceanographic Mooring Array in the SW Iberian Margin, the EMSO Experience*. (V)
- 14:20-14:35 **PANEL DISCUSSION – Session Chair / Panel Leader:** Chris Ostrander
- 14:35-14:55 **20 MINUTE BREAK – Exhibit Area**
- SESSION 4: Power**
- 14:55-15:15 John Reine, **Woods Hole Oceanographic Institution (WHOI)**: *OOI CSGN Surface Mooring Power System; Lessons Learned*.
- 15:15-15:35 Tyler Robertson, **Triton Systems, Inc.**: *Use of a Compliant Tether to Decouple Observation Buoy Motion for Wave Power*.
- 15:35-15:55 Kouros Parsa, **Ocean Power Technologies**: *Estimating Wave Energy Converters (WEC) Power in Multi-Modal Wave Spectra*.
- 15:55-16:10 **PANEL DISCUSSION – Session Chair / Panel Leader:** Craig Kohler
- SESSION 5: Sensors and Instrumentation**
- 16:10-16:30 Alicia M. Mahon, Mark Severy, Raghu Krishnamurthy, **Pacific Northwest National Laboratory (PNNL)**: *Buoy-Based Observations to Support Offshore Wind Development*.
- 16:30-16:50 Eric Gay, **NDBC, Stennis Space Center, MS**, and the Monterey Bay Aquarium Inst. (MBARI) under the Cooperative Research and Development Agreement (CRADA): *The Integration, Deployment, Performance, and Recovery of a Low Cost pCO₂ System on a NDBC Weather Buoy, Bodega Bay, CA*.
- 16:50-17:10 Paul King, **SMRU Consulting**: *Coastal Acoustics Buoy for Right Whale Detection within Windfarm Pile Driving Activities*
- 17:10-17:30 Jianping Li, **Shenzhen Inst. of Advanced Technology**, Chinese Academy of Sciences, Shenzhen, China: *An Underwater Plankton Imager for Buoy Development in Coastal Waters*. (V)
- 17:30-17:45 **PANEL DISCUSSION – Session Chair / Panel Leader:** Bill Burnett

Day 1 Adjourned, DINNER ON YOUR OWN – Enjoy Wilmington!

WEDNESDAY, Sept. 21st

7:30-8:30 Coffee, Tea, Continental Breakfast- Exhibit Area
 8:00-9:00 Workshop Registration Desk Open, Ballast Lobby
 8:00-16:30 Exhibits Open

Please plan to view exhibits only during morning and afternoon breaks & lunch

8:00-8:10 **EARLY START AND ANNOUNCEMENTS**

SESSION 6: Long-Term Observing Systems III

8:10-8:30 R. Venkatesan, **Vice-Chair MTS India Section, Adjunct Prof. Univ. of MA Dartmouth:** *Technological Developments in the Moored Indian Ocean Obs. Network, India's Experience*. (V)

8:30-8:50 James Elliott, **NDBC, Stennis Space Center, MS:** *TAO-Smart Module Plus, Upgraded Payload for TAO Recapitalization*.

8:50-9:10 John Lenters, C. Lenard, **Great Lakes Research Center, Michigan Technological Univ., Houghton, MI:** *Wind, Wave, and Currents, on the Great Lakes, Expanding the Obs. Network via Small, Scalable Spotter Buoys*.

9:10-9:25 **PANEL DISCUSSION – Session Chair / Panel Leader:** Don Peters

SESSION 7: Waves

9:25-9:45 Jim Behrens, Ross Timmerman, Les Hanson, Sophia Merrifield, Eric Terrel, Robert Jensen, **Scripps Inst. of Oceanography, Univ. of CA, La Jolla, CA, U.S. Army Corps of Engineers, Coastal Hydraulics Laboratory, Vicksburg, MS:** *Coastal Data Information Program (CDIP) Advances in Wave Monitoring*

9:45-10:05 Timothy Crandle, Edward Celkis, Marla Isenstein, **SeaView Systems, Inc., Dexter, MI:** *Characterizing and Comparing Buoy Hull Wave Response Using RAO Functions*. (V)

10:05-10:25 Tripp Collins, Patrick Dickhudt, Jason Pipes, **U.S. Army Corps. of Engineers (USACE), Field Research Facility (FRF) and Hydraulics Lab.:** *Field Testing GPS Wave Buoys*

10:25-10:40 **PANEL DISCUSSION – Session Chair / Panel Leader:** Rodney Riley

10:40-11:00 **20 MINUTE BREAK – Exhibit Area**

SESSION 8: Commercial Development I

11:00-11:20 Bjarke Koldsø Mortensen, EIVA Business Development Manager, **EIVA, Denmark:** *Data Collection Buoy Designed for Remote Monitoring with Low Cost of Ownership, ToughBuoy*. (V)

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- 11:20-11:40 Dave Aubrey, CEO, **EOM Offshore**: *Elastomeric Hose for Marine Mooring Compliance*. (V)
- 11:40-12:00 Tim Shanahan, J. Grenier, **McLANE**, Cape Cod, MA, S. Stalin, N. Delich, C. Meinig, **NOAA Pacific Marine Env. Laboratory**, Seattle, WA: *PRAWLER Technology Transfer, Field Deployments*.
- 12:00-12:20 Carl Mancuso, Summer Ferrell, **Teledyne Benthos**: *Prolonged Deployment Validates Teledyne Benthos R-Series Acoustic Release*. (V)
- 12:20-12:35 **PANEL DISCUSSION – Session Chair / Panel Leader**: John Flynn
- 12:35-13:20 **BOX LUNCH: Buses Depart for UNCW Marine Science, 1330**
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SITE TOUR: UNCW Center for Marine Science, CORMP

- 16:30-17:00 **Return to the Ballast Hotel**
- 18:00-19:00 **Welcome Reception**
- 19:00-20:30 **GALA DINNER**
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THURSDAY, Sept. 22nd

- 7:30-8:30 Coffee, Tea, Continental Breakfast – Exhibit Area
- 8:00-17:00 Exhibits Open

Please plan to view exhibits only during morning and afternoon breaks & lunch

- 8:00-8:10 **EARLY START AND ANNOUNCEMENTS**

SESSION 9: Environmental Monitoring, Ecosystems

- 8:10-8:30 K. Amudha, **National Institute of Ocean Technology**: *Mooring Configuration for Deep Sea Subsurface Seabed Monitoring*. (V)
- 8:30-8:50 Rick Cole, **RDSEA International**, Jon Wood, **Ocean Data Technology**: *Deep Sea Mining, Environmental Assessments, Bottom Boundary and Water-Column Measurements*
- 8:50-9:10 Mark Luther, Steven Meyers, **Univ. of South Florida**, College of Marine Science: *Exploratory Data Analysis/Synthesis for Support of Cook Islands Nodule Exploration*.
- 9:10-9:30 Soumyashree Kar, Jason McKenna, Vishwamithra Sunkara, Steve Stanic, Landry Bernard, **Univ. of Southern MS**: *Assimilating Statistical and Machine Learning for Profiling Sub-Surface Currents via Air/Sea Interaction Modeling*.
- 9:30-9:50 Doug Levin, **Watershed Innovation Lab.**, Steven Morton, **Phytoplankton Monitoring Network**, William Latham, **Tridents LLC**: *Buoys and Autonomous Surface Vehicles for Aquaculture*

9:50-10:05 **PANEL DISCUSSION – Session Chair / Panel Leader:** Alicia Mahon

10:05-10:25 **20 MINUTE BREAK – Exhibit Area**

SESSION 10: Mooring Design II

10:25-10:45 Jon Wood, **Ocean Data Tech.**, Hyannis, MA, Alexander Soloviev, Geoff Morrison, Brian Ettinger, John Kluge, **Nova Southeastern Univ.**, Dania Beach, FL, Johanna Evans, Matt Young, William Venezia, **U.S. Navy South FL Ocean Measurement Facility**, Dania Beach, FL: *The Use of Torpedo-Shaped Buoys on Subsurface Moorings in High Velocity Currents.*

10:45-11:05 Jason Law, Randy Russell, Tim Dixon, Suri Xie, Nicola Fraticelli, **Univ. of South Florida**, St Petersburg, FL, **Hydra Solutions**, SRL, Italy: *A Geodetic Spar Buoy Designed for High Resolution GPS Monitoring of Coastal Ocean Subduction.*

11:05-11:25 Ryan Nicoll, **DSA Ocean**, Victoria, BC: *Investigation of Mooring Deflection with VIV Drag Amplification (V)*

11:25-11:40 **PANEL DISCUSSION – Session Chair / Panel Leader:** Rick Cole

11:40-12:40 **BOX LUNCH**

SESSION 11: Commercial Developments II

12:40-13:00 Candace Smith, **RBR-Global**: *In Collaboration Between Scripps Inst. of Oceanography and RBR on Wirewalker Power Management and Extended Deployment Durations*

13:00-13:20 Duncan Mactavish, Nevin DiParlo, Tosca Lichtenheld, **SoFar Ocean Technologies**, San Francisco, CA: *SoFar Ocean Spotter Buoys: Scalable Ocean Observing Technology to Drive Growth in the New Blue Economy.*

13:20-13:40 Kyle MacInnis, **MetOcean Telematics**, Nova Scotia, Canada: *Introduction of Stream+ and Iridium Certus-100: The Next Evolution in Satellite Telemetry for Autonomous Buoys and Instrumentation.*

13:40-13:55 **PANEL DISCUSSION – Session Chair / Panel Leader:** John Flynn

13:55-14:15 **20 MINUTE BREAK – Exhibit Area**

SESSION 12: Reliability and Hazardous Environments

- 14:15-14:35 Alexander Franks, **Woods Hole Oceanographic Institution (WHOI)**, OOI Program: *OOI Moorings, Software Design for Improved Reliability (V)*
- 14:35-14:55 Paul Jacob, Karl Witherow, **Ocean Flow International**, David Brower, **Astro Technologies**: *Application of Fiberoptic Sensor Systems in Harsh Ocean Environments.*
- 14:55-15:15 Mike Craig, Steven Anderson, Scott Stallin, Dirk Tagawa, Nicholas Delich, Cristian Meinig, **NOAA Pacific Marine Env. Lab, Seattle, WA, Univ. of WA Joint Inst. for the Study of the Atmosphere and Ocean**: *Submersible Surface Mooring Capable of Ice Detection and Avoidance for CTD Profiling in the Arctic.*
- 15:15-15:35 Hank Lobe, **Severn Marine Technologies**, Annapolis, MD, Jim Behrens, Ross Timmerman, **Scripps Inst. of Oceanography**, La Jolla, Coastal Data Information Program (CDIP): *Enhanced Wave Measuring Buoy Performance Through the use of Advanced Biofouling Control Methods .*
- 15:35-15:55 Joseph Pratt, Iago Gradin, **Ocean Tracking Network (OTN)**, Halifax, Nova Scotia, Canada: *Biofouling as an Opportunistic Pathway to Sampling Ecologically Valuable Sponge Species.*
- 15:55-16:10 **PANEL DISCUSSION – Session Chair / Panel Leader:** Rick Cole
- 16:10- ? **Workshop Wash, Comments, Recommendations, What did you Learn, Announcements**

Buoy Workshop Exhibitors

Deep Water Buoyancy, Inc.	Ocean Sonics, Ltd.
EBAD - Ensign-Bickford	Orcina, Ltd.
Edge Tech	RBR-Global
Flynn Technical Solutions, LLC	Sea-Bird Scientific
Fondriest Environmental, Inc.	Severn Marine Tech
HighTech, Inc.	Teledyne Marine
MacArtney, Inc.	Trexon Global
McLane Research Labs.	Xeos Tech
MetOcean Telematics	Xylem, Inc.
MTE Instruments	Yale Cordage, Inc.
NortekUSA, Inc.	

**The 14th MTS Buoy Workshop is Adjourned
Thank you all for Coming and Participating!
** See you in 2024, Location TBD ****

*And Thank You to Our Hosts, Exhibitors, Speakers, and Sponsors,
We Appreciate Your Support !!*

Hosts



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