



Opportunity runs deep™

The Marine Technology Society's 16th Biennial

BUOY WORKSHOP

March 23-26, 2026



USF College of Marine Science & Florida Institute of Oceanography, Hosts

USF Student Center, Ballrooms 1, 2, & 3

200 6th Ave S, St. Petersburg



UNIVERSITY OF SOUTH FLORIDA
College of MARINE SCIENCE

PROGRAM OF SPEAKERS & EVENTS

Revision: F

3/16/2026

Buoy Workshop Organizers:

Rick Cole, Co-Chair, *RDSEA International, Inc., SeaWARRDD Technologies, Inc., MTS FL Section Vice-Chair*

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

Kristina Norman, *MTS Senior Director of Operations and Events*

John Flynn, *Flynn Technical Solutions, MTS Florida Section Chair*

Buoy Workshop Local Partner Support:

Dr. Yonggang Liu, *USF College of Marine Science, Ocean Circulation Lab*

Jason Law, *USF College of Marine Science, Ocean Circulation Lab*

Samantha D'Angelo, *USF College of Marine Science, Ocean Circulation Lab*

Florida Institute of Oceanography (FIO)

Monday, March 23

GET READY FOR THE 2026 BUOY WORKSHOP!

12:30 - 4:30

ProteusDS Seminar and Workshop, Genshaft Student Life Center; Room 2100, 2nd Floor (Ryan Nicoll, ryan@dsaocean.com)

5:30 - 9:00

Icebreaker – Tavern at Bayboro/The Grind, USF Campus: Appetizers, Complimentary Drinks, Live Music

5:30 - 9:00

Workshop Registration Desk Open. Pick up your workshop badges

Tuesday, March 24

SPEAKER PROGRAM BEGINS

7:30-8:00

Coffee, Tea, and Light Breakfast upon arrival

7:30-8:30

Workshop Registration Desk Open

7:30-16:30

Exhibits Open, Ballroom #3

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

8:00-8:10

WELCOME, ANNOUNCEMENTS, and HOUSEKEEPING (D. Peters & R. Cole, MTS)

8:10-8:30

OPENING REMARKS/KEYNOTE:

Dr. Tom Frazer, Dean, USF College of Marine Science

SESSION 1: Workshop Hosts' Project Overviews (USF/FIO/USGS) - Part 1

- 8:30-8:50 Yonggang Liu, R.H. Weisberg, J. Law, M. Lemon, S. D'Angelo, O. Scharton, J. Donovan, S. Munoz, L. Dudley, H. Xu, S. John, K. Qiao, J. Ikeda, A. Nickerson, B. Yang, J. Shi, USF-CMS-OCL: *"Coordinated Observing and Modeling for the West Florida Shelf and Applications in Matters of Societal Importance"*
- 8:50-9:10 Samantha D'Angelo, Y. Liu, J. Law, M. Lemon, R. H. Weisberg, USF-CMS-OCL: *"Advancing The Tampa Bay Observing Network (TBON) for Real-Time Water Quality Monitoring"*
- 9:10-9:30 Mike Kahle, B. Baumeister, R. Walker, Florida Institute of Oceanography (FIO): *"Florida Institute of Oceanography, Research Vessel Operations Supporting Buoy Deployment Recovery and Maintenance, Past, Present and Future"*
- 9:30-9:50 Jason Law, Sheryl Gilbert, R. Vistocci, S. Murawski, Y. Liu, T. Dixon, C. Lembke, A.C. Peralta, E. Nelson, M. Kahle, USF-CMS, USF School of Geosciences, FL High Tech Corridor, FIO: *"An Apprenticeship Model for Research Operations, Bridging a Blue-Tech Gap"*
- 9:50-10:05 **PANEL DISCUSSION – Session Chair / Panel Leader: Rick Cole (RDSEA / SeaWARRDD)**
- 10:05-10:25 **20 MINUTE BREAK – Coffee / Exhibit Area, Ballroom 3**
- SESSION 2: Workshop Hosts' Project Overviews (USF/FIO/USGS) - Part 2**
- 10:25-10:45 Tim Dixon, J. Law, R. Russell, B. Rustembek, R. Malservisi, S. Gilbert, W. Wilcock, J. Dennis, N. Fraticelli: USF-Tampa, FL, University of Washington, Hornbeck Offshore Services, Hydra Solutions: *"Spar Buoys for Seafloor Geodesy on the Shallow Continental Shelf"*
- 10:45-11:05 Jason Law, R. Russell, T. Dixon, S. Murawski, S. Gilbert, Y. Liu, S. Xie, N. Faticelli; USF-CMS-OTG, USF-School of Geosciences, Univ. of Houston, TX, Hydra Solutions, Italy: *"Design of Geodetic Spar Buoys for High Resolution Monitoring of the Coastal Ocean Sea Floor"*
- 11:05-11:25 Bauyrzhan Rustembek, R. Malservisi, J. Law, R. Russell, USF-Tampa: *"Data Analysis for Spar Buoy Seafloor Geodesy on Shallow Continental Shelf"*
- 11:25-11:40 **PANEL DISCUSSION – Session Chair / Panel Leader: Don Peters, (WHOI)**
- 11:40-12:40 **LUNCH - Ballroom Lobby/Ballrooms**
- SESSION 3: U.S. Federal Program Updates - 1 (NOAA-NDBC):**

- 12:40-13:00 Brett Taft, Engineering NOAA-NDBC: *"Current State and Future Plans of NDBC Networks"*
- 13:00-13:20 Eric Gay, NOAA-NDBC: *"NDBC Mooring Performance Improvements"*
- 13:20-13:40 Michaela Elliott, NDBC: *"NDBC C-Man Refresh Project"*
- 13:40-14:00 D. Petraitis, A. Moody, S. DiNapoli, M. Elliott, A. Fritz, S. Gremes-Cordero, J. Wills, NOAA-NDBC: *"NDBC Improvements to Automated Data Quality Control Processes"*
- 14:00-14:15 **PANEL DISCUSSION – Session Chair / Panel Leader: Brett Taft (NOAA-NDBC)**
- 14:15-14:35 **20 MINUTE BREAK – Coffee / Exhibit Area, Ballroom 3**
- SESSION 4: U.S. Federal Program Updates - 2 (NOAA-NDBC):**
- 14:35-14:55 James Elliott, NOAA-NDBC: *"TAO Recapitalization Project Update"*
- 14:55-15:15 Stephanie Ray, NOAA-NDBC: *"NDBC Wind Tunnel Investigation for the TAO Array, Pacific Ocean"*
- 15:15-15:35 James Elliott, NOAA-NDBC: *"The Athena Project"*
- 15:35-15:50 **PANEL DISCUSSION – Session Chair / Panel Leader: Brett Taft (NOAA-NDBC)**
- 15:50-16:10 **BREAK – Exhibit Area, Ballroom 3**
- SESSION 5: Power**
- 16:10-16:30 R. G. Coe, A. Plueddemann, G. Bacelli, D. Buffitt, A. Franks, K. Newhall, D. Bishop, P. Whelan, D. Peters, J. Spinneken, J. Lee, D. Gallegos-Patterso: *"Design and Deployment of a Wave Energy Converter for the OOI Pioneer Array"*
- 16:30-16:50 Jack Pan, L. Bezanson, Ocean Motion Technologies, Inc.: *"Small-Scale Wave Energy for Buoy Power, R&D Journey and Lessons Learned"*
- 16:50-17:10 Julie Fouquet, M. Carroll, C. LaPeyre, J. Fram, I. Izrailit, E. Bird, M. Minsky, M-L Kuo: 3newable LLC, WHOI, Oregon State Univ., Triple Ring Technologies: *"Enabling Longer Deployments: Compact Wave Energy Converters and UV Biofouling Mitigation"*
- 17:10-17:30 Robert Kovach: *"Prospects for the Use of Thermoelectric Generators to Power Oceanographic Equipment"*
- 17:30-17:45 **PANEL DISCUSSION – Session Chair / Panel Leader: Rick Driscoll (NREL)**

Day-1 Adjourns - Dinner on your own
Suggested: Happy Hour & Dinner, "Buoys Waterfront Bar and Grill"
Happy Hour Sponsored by RBR Global
677 75th Ave., St Pete Beach, 727-939-2369

Wednesday, March 25

- 7:30-8:00 Coffee, Tea, and Light Breakfast upon arrival
 7:30-8:30 Workshop Registration Desk Open
 7:30-16:30 Exhibits Open, Ballroom #3
Please plan to view exhibits only during morning and afternoon breaks & lunch
- 8:30-8:40 WELCOME, ANNOUNCEMENTS, and HOUSEKEEPING (D. Peters & R. Cole, MTS)
- SESSION 6: Buoy and Mooring Design - 1**
- 8:40-9:00 Don Peters, Francis Elder, WHOI-Engineering: *"The Variable Buoyancy Buoy (VBB) – Design, Analysis, and Control"*
- 9:00-9:20 Laura Fiorentino, R. Heitsenrether, S. Rasuch, NOAA-CO-OPS; *"Real-Time Coastal Oceanographic/Meteorological Coastal Buoy (CURBY) Updates"*
- 9:20-9:40 Chris Mackenzie: *"Reviving a 50-Year Old Platform for Cutting Edge Ocean Observations"*
- 9:40-10:00 Ersen'S Joseph, T. Farrar, A. Kirincich, R. Graham, E. Hasbrouck, B. Greenwood, WHOI: *"Mooring Design Trade-Offs for a Deep-Water Air-Sea Flux Buoy with Wirewalker Profiling and lessons from a shallow-water LiDAR Buoy"*
- 10:00-10:15 **PANEL DISCUSSION – Session Chair / Panel Leader: Rick Cole (RDSEA / SeaWARRDD)**
- 10:15-10:35 **20 Minute Break, Exhibit Area**
- SESSION 7: Buoy and Mooring Design - 2**
- 10:35-10:55 Ryan Nicoll, J. Breti, L. Beal, DSA Ocean, Univ. of Miami, Rosenstiel School of Marine, Atmospheric & Earth Science (RSMAS): *"Investigation of Extreme Subsurface Deflections in the Cape Basin Southeast Atlantic Ocean"*
- 10:55-11:15 Blake Holowaty, S.Funk, L. Friedl, B. Buckham, J. Lawrence Pacific Regional Institute for Marine Energy Discovery, Univ. of Victoria, BC, CA: *"A Hybrid Composite Mooring System for High-Velocity Currents in Shallow-Waters"*
- 11:15-11:35 Amy Larsen, S. Travis, J. Mickett, D. Manalang: *"Implementing Operational Buoyancy-Driven Profiling Biogeochemical Moorings in Puget Sound, WA, ORCA Moorings"*

11:35-11:50 **PANEL DISCUSSION – Session Chair / Panel Leader: Jason Law (USF-CMS-OCL)**

11:50-12:50 **LUNCH - Ballroom Lobby/Ballrooms**

SESSION 8: Harsh Environments

12:50-13:10 Sarah Webster, A. Falcone, A. Jost, K. Smith, J. Anderson, B. Cunningham, P. LaMothe, R. Sharman, E. Brosius, C. Cox, T. Stanton, J. Wilkinson, M. Gallagher; Univ. of WA-APL, NOAA-Boulder, CO, Naval Postgraduate School, Monterey, CA, British Antarctic Survey, Cambridge, UK, Cooperative Institute for Research in Environmental Sciences/NOAA: *"Design and Field Testing of the Ice Gateway Buoy-Heavy (IGB-H)"*

13:10-13:30 Andreas Marouchos, P. Jansen, S. Dowd, CSIRO-Hobart AU: *"Groans, Gremlins, and the Perils of the Southern Ocean"*

13:30-13:50 Eduardo Jardim, L. Beal, Univ. of Miami, Rosenthal School of Marine, Atmospheric & Earth Sciences: *"Deployment and Recovery of Deep-Water Moorings in the Cape Basin, South Africa, Lessons Learned"*

13:50-14:05 **PANEL DISCUSSION – Session Chair / Panel Leader: Andreas Marouchos (CSIRO, Hobart, AU)**

SITE TOUR:

**Afternoon Tours
USF-Marine Science, Ocean Circulation Laboratory & Buoy Systems
FIO Marine Operations**

18:00-20:00 **EVENING RECEPTION
USF Student Center, Ballrooms 1 & 2**

Thursday, March 26

7:30-8:00 Coffee, Tea, and Light Breakfast upon arrival

7:30-8:30 Workshop Registration Desk Open

7:30-16:30 Exhibits Open, Ballroom #3

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

8:00-8:10 WELCOME, ANNOUNCEMENTS, and HOUSEKEEPING (D. Peters & R. Cole, MTS)

SESSION 9: Environmental Monitoring - 1

8:10-8:30 Rick Cole, J. Kinder, S. Meyers, L. Azevedo, M. Luther, RDSEA, USF-CMS: *"Met-Ocean Data in Support of Deep-Water Resource Extraction, Cook Islands, South Pacific Ocean"*

8:30-8:50 Ying Yang; W-H. Her, L. Chiu, National Taiwan Univ. Inst. of Oceanography, Inst. of Undersea Technology, National Sun Yat-sen Univ., Taiwan: *"In-Situ Observations of Meteorological, Oceanographic and Soundscape Responses to Severe Typhoons Using Buoy Systems"*

8:50-9:10 Michelle Barnett, V. Grosjean, P. Bunday, M. Olsen, T. Blacklock, T. Comerford, Soanardyne Inter. Limited, UK, Australian Inst. of Marine Science (AIMS), AU: *"Real-Time Monitoring of Tropical Shallow Coastal Reef Environments"*

9:10-9:30 William Venezia, B. Murray, Ocean Systems Development Corp, R. Dodge, NOVA Southeastern Univ., P. Beaujean, J. Szyluk, W. Pratt, Dept. of Ocean & Mechanical Engineering, FAU: *"Operationalizing the Waterway Expert Traffic System (WETS), Using a Common Coastal Spar Buoy (CCSB)"*

9:30-9:45 **PANEL DISCUSSION – Session Chair / Panel Leader: Rick Cole (RDSEA / SeaWARRDD)**

9:45-10:05 **20 Minute Break / Exhibit Area**

SESSION 10: Environmental Monitoring - 2

10:05-10:25 Mason Thackston, M. Milone, V. Kelly, J. Terzado, S. Cuellarsola, D. Nuzzio, C. Vaczo, J. Beckler, FAU-Harbor Branch Oceanographic Inst., Green Eyes, LLC, Analytical Instrument Systems: *"A Smart Buoy Mooring for Sustained, High-Frequency, Autonomous Measurements of Sediment-Water Chemical Changes"*

10:25-10:45 Brian Amaral, Ocean State Sensing: *"Persistent Observation of Ocean Thermal Structure Using Distributed Temperature Sensing"*

10:45-11:05 Renaud Camirand, Devocean: *"Buoys with a Purpose: Technical Integration of On-Demand Fishing Gear for Marine Stewardship and Observation"*

- 11:05-11:25 Zack Johnson, Sofar Ocean: *"Backyard Buoys: Engaging Communities to Power Distributed Monitoring Networks"*
- 11:25-11:40 **PANEL DISCUSSION – Session Chair / Panel Leader: Samantha D'Angelo (USF-CMS-OCL)**
- 11:40-12:40 **LUNCH - Ballroom Lobby/Ballrooms**
- SESSION 11: Sensors and Instrumentation**
- 12:40-13:00 William Baxley, Southeast National Renewable Energy Center (SNMREC), HBOI-FAU: *"Should ADCPs and HR-Radars be Deployed as "MetStations" for Hurricanes?"*
- 13:00-13:20 Emily Ralston: *"Biofouling on Buoys and Instrumentation and Solutions to Mitigate it"*
- 13:20-13:40 Hank Lobe, Severn Marine Technologies; *"Recent Advances in Biofouling Control for Optical Sensors"*
- 13:40-14:00 Paul Devine Teledyne/RD Instruments: *"Field Evaluation of the Workhorse Proteus and Sentinel V-ADCPs During a Joint Bottom-mounted Deployment of Nice , France"*
- 14:00-14:15 **PANEL DISCUSSION – Session Chair / Panel Leader: John Flynn (Flynn Technical Solutions)**
- 14:15-14:35 **20 Minute Break, Exhibitor Area**
- SESSION 12: Data Systems**
- 14:35-14:55 Alberto Dallolio, Mobilis SA, France: *"Toward Self-Optimizing Ocean Observing Platforms; Three Advances in Autonomous Buoy Technology"*
- 14:55-15:15 Scott Duncan, R. Cole, SeaWARRDD Technologies, Inc.: *"Coastal Warning and Rapid Response Data Density, Rethinking Coastal Ocean Observing, Intelligence, Resilience and Prediction"*
- 15:15-15:35 Josh Humberston, Coastal Measures: *"A Vendor-Neutral Architecture for Rapid Buoy Data Integration and AI Enabled Multi-Modal Analysis"*
- 15:35-15:55 Bryan Botson, C. Hoey, K. Davis, T. Moore, FAU-HBOI: *"Modernized Data Farming and Instrument to Database Workflows for the Indian Rivers Lagoon Observatory"*
- 15:55-16:10 **PANEL DISCUSSION – Session Chair / Panel Leader: Don Peters (WHOI)**
- 16:10-16:20 **Final Comments -- Workshop Feedback -- Wrap-up**
WORKSHOP ADJOURNED - See you in 2028!

Please Visit with our Exhibitors!

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