

Frederick L. Bahr
CeNCOOS Product Developer
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Education

M.S. Degree in Physical Oceanography: Oregon State University, Corvallis OR 97331, 1991
Thesis Title: *The Effects of Rainfall on Temperature and Salinity in the Surface Layer of the Equatorial Pacific.*

B.S. Degree in Oceanography: University of Washington, Seattle WA 98195, 1986

B.S. Degree in Physics: University of Washington, Seattle WA 98195, 1986

Work Experience

2008-Present: CeNCOOS Product Developer (90% time) 7700 Sandholdt Road
Moss Landing, CA 95039

- Implemented Harmful Algal Bloom model (C-HARM, California-Harmful Algal Risk Mapping).

- Animated model currents and temperature.

- Created glider displays for CeNCOOS.

- Pushed CeNCOOS/NANOOS glider data to the US IOOS glider DAC.

- Created and automated various products for CeNCOOS.

- Migrated processing/display software from NPS to CeNCOOS.

- Migrated JPL model/observed wind programs to CeNCOOS.

- Processed data from recovered moored sensors.

2008-Present: Contract Oceanographer (10% time)

- Participated in numerous mooring recovery cruises in the South China Sea

- Processed moored data from the South China Sea.

- Processed lowered ADCP data.

- Processed data for Soliton Inc. in support of publishing research papers.

1998-2008: Oceanographer Naval Postgraduate School

- Wrote automated near real-time data display and quality control check software for telemetered mooring data.

- Monitored mooring data for quality.

- Processed data from recovered Moored sensors.

- Provided input to ICON partners about mooring data quality issues.

- Helped draft standard for sharing data between NPS and MBARI.

- Supervised another worker.

- Participated in several NOPP/ICON cruises

- Participated in ASIAEX 2000 cruise

1993-1998: Physical Oceanographic Technician with the Bermuda Atlantic Time Series (BATS) Bermuda

Biological Station for Research Inc. 17 Biological Lane, Ferry Reach, St. Georges, Bermuda GE01
Post processed CTD data from 6 years of Hydrostation S and 4 years of BATS for sensor drift and wet salt and oxygen samples.
Participated in BATS cruises sampling: salts, oxygens, POC/PON, P_{Si}, DOC, DON, nutrients and CO₂.
Chief Scientist on several Hydrostation S, BATS Bloom, and BATS Validation cruises.
Written Data processing and extraction software in Matlab, C, and Perl.
Designed and Implemented several web data extraction pages
Designed and Implemented near real time meteorological data display.
Have run a Sea-Bird Electronics 911+ CTD and 24 Place Rosette.

1991-1993: Research Assistant

Oregon State University, Corvallis OR 97331

Participated in TOGA COARE aboard the *R/V Wecoma* on three 30-day legs.
Wrote real-time data acquisition/display program.
Made hourly meteorological observations and monitored them for quality.
Did minor sensor repair/maintenance.
Maintained PC's.

Peer Reviewed Publications

Anderson, Clarissa R., Kudela, Raphael M., Kahru, Mati, Chao, Yi, Rosenfeld, Leslie K., **Bahr, Frederick L.**, Anderson, David M., and Norris, Tenaya A., 2016. Initial skill assessment of the California harmful algae risk mapping (C-HARM) system. *Harmful Algae*, 59:1-18.

Ramp, S. R., Y. J. Yang, D. B. Reeder, M. C. Buijsman, and **F. L. Bahr**, 2015: The evolution of mode-2 nonlinear internal waves over the northern Heng-Chun Ridge South of Taiwan. *Nonlin. Processes Geophys.*, **22**, 1-19.

Kevin Gomes, Danelle Cline, Duane Edgington, Mike Godin, Thom Maughan, Mike McCann, Tom O'Reilly, **Fred Bahr**, Francisco Chavez, Monique Messié, Jnaneshwar Das and Kanna Rajan. "ODSS: A Decision Support System for Ocean Exploration". In IEEE International Conference on Data Engineering , 2013.

Ramp, S. R., Y. J. Yang, D. B. Reeder, and **F. L. Bahr**, 2012: Observations of a mode-2 nonlinear internal wave on the northern Heng-Chun Ridge south of Taiwan. *J. Geophys. Res.*, **117**, C03043, doi:10.1029/2011JC007662.

Jnaneshwar Das, Thom Maughan, Mike McCann, Mike Godin, Tom O'Reilly, Monique Messié, **Fred Bahr**, Kevin Gomes, Frederic Py, Jim Bellingham, Gaurav S. Sukhatme and Kanna Rajan. "Towards Mixed-initiative, Multi-robot Field Experiments: Design, Deployment, and Lessons

Learned". In IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 3132-3139, 2011.

Ramp, S. R., P. F. J. Lermusiaux, I. Shulman, Y. Chao, R. E. Wolf, and **F. L. Bahr**, 2011: Oceanographic and atmospheric conditions on the continental shelf north of the Monterey Bay during August 2006. *Dyn. Atmos. Oc.*, doi:10.1016/j.dynatmoce.2011.04.005.

Ramp, S. R., Y. J. Yang, and **F. L. Bahr**, 2010: Characterizing the nonlinear internal wave climate in the northeastern South China Sea. *Nonlin. Processes Geophys.*, **17**, 481-498, doi:10.5194/npg-17-481-2010.

Ramp, S. R., and **F. L. Bahr**, 2008: Seasonal evolution of the upwelling process south of Cape Blanco. *J. Phys. Oceanogr.*, **38**, 3-28.

Ramp, S. R., J. D. Paduan, I. Shulman, J. Kindle, **F. L. Bahr**, and Francisco Chavez, 2005: Observations and modeling of upwelling and relaxation events in the northern Monterey Bay during August 2000. *J. Geophys. Res.*, **110**, C07013, 21 p.

Ramp, S.R., C. S. Chiu, H.-R. Kim, **F. L. Bahr**, T.-Y. Tang, Y. J. Yang, T. Duda, and A. K. Liu, 2004: Solitons in the Northeastern South China Sea Part I: Sources and Propagation Through Deep Water. *IEEE/J. Oc. Eng.*, **29**, 1157-1181.

Ramp, S.R., C. S. Chiu, **F. L. Bahr**, Y. Qi, P. H. Dahl, J. H. Miller, J. F. Lynch, R. Zhang, and J. Zhou, 2004: The Shelf-Edge Environment in the Central East China Sea and its Impact on Low Frequency Acoustic Propagation. *IEEE/J. Oc. Eng.*, **29**, 1011-1031.

Unrefereed Publications

BATS Data Report B-5 (Anthony Knap, *et. al.*)

BATS Methods Manual Version 4 (Anthony Knap, *et. al.*)

Poster Presentation

Periodic and Quasiperiodic Signals in Temperature and Salinity of the Northwestern Sargasso Sea. Presented at the Fifth Scientific Meeting of the Oceanographic Society.