

Christian Meinig

Director of Engineering,
NOAA Pacific Marine Environmental Lab
7600 Sand Point Way NE
Seattle, WA 98115
Christian.Meinig@noaa.gov
206.526.6149(p)



Education:

M.S., Mechanical Engineering, University of Washington, 1998
B.S., Mechanical Engineering, University of Maryland, 1987

Research Interests:

He leads a diversified team of engineers and technicians specializing in the research, development and deployment of ocean and atmospheric instruments and observing platforms. Supported programs are global in scope and include moorings, ships, ROVs, UASs, underwater gliders and wave gliders.

Positions:

- Director of Engineering, NOAA-PMEL, 2000–present
- Project Engineer, 1998-2000
- Mechanical Engineer, NOAA-PMEL, 1994–1998
- Commissioned Officer, NOAA Corps, 1988–1994

Field Experience:

Thirty major research cruises totaling over 550 days at sea, in polar, equatorial and coastal waters. Roles as ship's officer, project engineer and chief scientist. 12 cruises involved submersibles, ROVs, AUVs, UMV and gliders.

Professional Activities:

- ITU-WMO-UNESCO IOC Joint Task Force, Executive Committee, 2012-present
- Journal of Operational Oceanography, Editorial Staff, 2007–present
- Intergovernmental Oceanographic Commission (IOC), International Tsunameter Partnership Group, 2007–present
- National Sea Grant Technology Advisory Board, 2000–2002

Patents:

US Patent 7,244,155; Nye, Milburn, Meinig; *Mooring line for an oceanographic buoy system*, issued August 21, 2006
US Patent 7,289,907; Meinig, Stalin, Nakamura, Milburn; *System for reporting high resolution ocean pressures in near realtime for the purpose of tsunami monitoring*, issued October 30, 2007

Honors and Awards:

- **NOAA Technology Transfer Award:** *For developing a sensor to measure CO2 and transferring the design to industry, 2011*

- **NOAA Technology Transfer Award:** *For the invention of DART tsunami technology, which allows NOAA to produce accurate forecasts and through a patent license generate new US jobs*, 2008
- **U.S. Department of Commerce Bronze Medal:** *For personal and professional excellence as the Nation's experts and spokespersons on tsunamis following the December 26, 2004 Indian Ocean tsunami*, 2007
- **U.S. Department of Commerce Gold Medal:** *For research and development leading to the creation of a tsunami forecasting capability*, 2005
- **U.S. Department of Commerce Gold Medal:** *For the creation and use of a new moored buoy system to provide accurate and timely warning information on tsunamis*, 2004
- **NOAA Administrator's Award:** "New Millennium Observatory Network", 2003

Relevant Media Coverage:

Government Computer News, "[NOAA Aquatic Bots Break the Ice on Climate Research](#)", Nov 2012
 NPR-Earthfix, "[The Five Coolest things about Ocean-Exploring Robots](#)", Nov 2011
 IEEE Spectrum, Philip E. Ross, "[Waiting and Waiting for the Next Killer Wave](#)", March 2005
 American Museum of Natural History, "[Fear the Future Tsunami?](#)", October 2005
 Newshour with Jim Lehrer, "[Tsunami Alert](#)", January 11, 2005
 Modern Marvels, History Channel, "[Nature Tech:Tsunamis](#)", first aired, July 8, 2003

Recent Publications:

Meinig, C., M. Steele, and K. Wood (2012): [Taking the temperature Of the Arctic with UMVs: Arctic wave gliders gather 900,000 measurements during a two-month mission in the Beaufort Sea](#). *Sea Technol.*, 53(9).

Paros, J., C. Meinig, M. Spillane, P. Migliacio, L. Tang, W. Chadwick, T. Schaad, and S. Stalin (2012): [Nano-resolution technology demonstrates promise for improved local tsunami warnings on the MARS project](#). In Oceans 2012 MTS/IEEE, Yeosu, Korea, 21–24 May 2012.

Bernard, E., and C. Meinig (2011): [History and future of deep-ocean tsunami measurements](#). In Proceedings of Oceans' 11 MTS/IEEE, Kona, IEEE, Piscataway, NJ, 19–22 September 2011, No. 6106894, 7 pp.

Paros, J., E. Bernard, J. Delaney, C. Meinig, M. Spillane, P. Migliacio, L. Tang, W. Chadwick, T. Schaad, and S. Stalin (2011): [Breakthrough underwater technology holds promise for improved local tsunami warnings](#). In Symposium for Underwater Technology (UT), 2011 IEEE - 2011 Workshop on Scientific Use of Submarine Cables and Related Technologies (SSC), 5-8 April 2011.

Lawson, R.A., D. Graham, S. Stalin, C. Meinig, D. Tagawa, N. Lawrence-Slavas, R. Hibbins, and B. Ingham (2011): [From Research to Commercial Operations: The Next Generation Easy-to-Deploy \(ETD\) Tsunami Assessment Buoy](#). In Proceedings of Oceans' 11 MTS/IEEE, Kona, IEEE, Piscataway, NJ, 19–22 September 2011, No. 6107114, 8 pp.

Bernard, E.N., C. Meinig, V.V. Titov, K. O'Neil, R. Lawson, K. Jarrott, R. Bailey, F. Nelson, S. Tinti, C. von Hillebrandt, and P. Koltermann (2010): [Tsunami resilient communities](#). In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 1)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306, doi: 10.5270/OceanObs09.pp.04. [\[PDF Version\]](#)

Matsumoto, H., D.R. Bohnenstiehl, R.P. Dziak, L. Williams, R. Gliedge, C. Meinig, and P. Harben (2010): [A vertical hydrophone array coupled via inductive modem for detecting deep-ocean seismic and volcanic sources](#). In Oceans 2010 MTS/IEEE Seattle, Washington State Convention and Trade Center, Seattle, WA, 20–23 September, 2010.

Matsumoto, H., S.E. Stalin, R.W. Embley, J.H. Haxel, D.R. Bohnenstiehl, R.P. Dziak, C. Meinig, J.A. Resing, and N.M. Delich (2010): [Hydroacoustics of a submarine eruption in the northeast Lau Basin using an acoustic glider](#). In Oceans 2010 MTS/IEEE Seattle, Washington State Convention and Trade Center, Seattle, WA, 20–23 September, 2010.