

Janet J. Fredericks
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Higher Education: B.S. Chemistry, 1973, State University of New York, Albany

Specialized Training: Scientific Statistics: one week (U.Del./USGS - 1982)
Seminar on Digital Image Processing (Harvard University Graphics Laboratory - 1983)
Two courses on C programming: one week each (WHOI/USGS - 1984)
Unix for Systems Programmers: one semester (Northeastern University - 1985)
Systems Administration: one week (Convex Corp. 1990)
Motif Programming: one week (MIT/WHOI - 1991)
Seminar on X Administration (Sun Users' Group - 1993)
Perl Programming: 4 classes (WHOI - 1994)
Mastering Matlab Workshop: 10 classes (WHOI - 1996)
Java Applications Programming: two weeks (WHOI - 2001)
Introduction to XML (WHOI - 2004)
Advanced XML (XML with XSLT) (WHOI - 2004)
Web Development with Cascading Style Sheets (WHOI - 2004)
Advances in Metadata Tools (NSF workshop – 2005)
Web Services Workshop (NSF workshop 2005)
Plone Content Management (WHOI – 2006)

Employment: SUNY Albany - computer operator (1971-1973)
[WHOI](#): Chemistry - research assistant – programmer (1973 – 1976)
USGS: Computer Programmer Analyst (1980-1987, GS-12)
[WHOI](#): Geology & Geophysics – information systems assistant (1987 – 1992)
[WHOI](#): AOP&E (1992 – present) information systems associate - systems programmer
[\(COFDL\)](#)

Responsibilities & Skills:

Systems administration (Windows 2000/Redhat/Debian)
Development and programming of real-time data collection systems for field programs using Tattletales (6 & 6F), PC-104s, BASS and ADV velocity sensors.
Data processing and preliminary analysis using MATLAB, Perl & C programming.
Documentation of experiments and data analysis, including data reports and web page publishing.
Automated data serving and management and GUIs for remote instrument interfaces using javascript, cgi/perl and html.
Data management, systems administrator and programmer for the Marthas Vineyard Coastal Observatory (2001-present).
MVCO Coordinator – Scheduling and oversight of maintenance of and enhancements to the MVCO.

Recent Activities Relating to Ocean Observing:

With funding from NOAA, I hosted the fourth workshop on QA/QC in real-time ocean observing (QARTOD), June 2006.

I participated in two Marine Metadata workshops (8/05 and 10/06) as well as an ACT sponsored workshop on “sensor interoperability” (10/06). I was an invited guest at the following workshops in May 2008: NSF funded Cyberobservatories Workshop (Boulder, CO); the GEOSS workshop (Geneva, Switzerland); and the International Workshop on Seafloor Observatories (Shanghai, China).

I am lead PI for an RCOOS/CSC project, funded by NOAA (2008-2010), to develop OpenGeospatial Consortium standards (SensorML/SOS) for QA/QC standards for waves, in situ currents, CTD and dissolved oxygen for real time ocean observing systems. These standards and services will be integrated into the OOSTETHYS demonstration projects.

Recent Publications:

Fredericks, J.J. and John H. Trowbridge, “Martha’s Vineyard Coastal Observatory – Existing Infrastructure”: Report to NSF Sensors Workshop, Sept, 2004.

Fredericks, Janet J., John H. Trowbridge, Thomas C. Austin, Heidi M. Sosik, Robert J. Olson, Peter A. Traykovski, “Martha’s Vineyard Coastal Observatory: Existing Infrastructure for Interdisciplinary Science”, IEEE-SSC, February, 2006, 4pp.

Fewings, Melanie, Steve Lentz, **Janet Fredericks**, John Trowbridge, Peter Howd and Kent Hathaway, “The Importance of Waves and Cross-Shelf Winds in Driving Inner Continental Shelf Exchange Flow”, AGU Oceans 2006: 2398.

Lentz, Steven J., Melanie Fewings, Peter Howd, **Janet Fredericks**, Kent Hataway, “Observations of Undertow over the Inner Continental Shelf”, submitted to JPO (9/2006), 32 pp.

Fewings, Melanie, Steven J. Lentz, **Janet Fredericks**, “Observations of Cross-Shore Flow Driven by Cross-Shore Winds on the Inner Continental Shelf”, submitted to JPO (9/2006), 46pp.

Fredericks, Janet J., Robert Groman, Edward Hobart, John Krauspe, Julie Allen, “Martha’s Vineyard Coastal Observatory – Real-Time Information Management for a Coastal Ocean Observing System”, IEEE-MTS, September, 2006, 5 pp.

Gerbi, Gregory P., John H. Trowbridge, James B. Edson, Albert J. Plueddemann, Eugene A. Terray, **Janet J. Fredericks**, “Measurements of Momentum and Heat Transfer across the Air-Sea Interface”, JPO (accepted 8/07), 40 pp.