

Elizabeth A. Smith

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Principal Experience

1993-Present

**Research Assistant Professor, Center for Coastal Physical Oceanography
Old Dominion University (grant-funded research and contracts as follows):**

1998-2005

Regional Coordinator of the Virginia Regional Competition of the National Ocean Sciences Bowl, called The Blue Crab Bowl. The Blue Crab Bowl is a “quiz-bowl”-style competition for Virginia high school students about the ocean sciences. Since 1998, the Bowl has impacted approximately 700 students and 100 teachers in VA.

2004

Technical trainer for the Virginia Space Grant Consortium’s Teacher Professional Development Program, “*Observing Virginia’s Environment From Space*”. Provided training in the use of satellite oceanographic data in high school Earth Science classrooms.

2003

Co-Investigator of the “Improving Teacher Quality” Grant Program of the State Council of Higher Education of Virginia entitled, “*Science, Math and Reading Together: Students Thinking as Research Scientists*”. As Co-I, provided science content for this thematic professional development opportunity for 35 Norfolk City Public School 4th and 5th grade teachers.

1996-1998

Principal Investigator and Technical Director of NASA Earth Science Enterprise-funded grant entitled, “*Studying Earth’s Environment From Space (SEEPS); Computer Lab Exercises and Instructor Resources Using Remotely Sensed Data of Earth*” . Responsible for coordination with one Co-Investigator, one graduate student and one subcontract for assessment and evaluation. Provided coordination and consensus-building among several national partners (NASA GSFC and JPL). Process satellite data for Oceanography and Sea Ice modules. Write inquiry-based computer lab exercises, tutorials, and instructor’s guide. Coordinate the review and assessment of exercises. Provide teacher training.

1993-1996

Principal Investigator and Technical Lead on NASA Mission to Planet Earth-funded grant entitled, “*Validation of NOAA/NASA Pathfinder AVHRR Sea Surface Temperature Data Set*”. Perform computer-based validation of satellite-derived sea surface temperature data. Perform ongoing quality assurance and analysis of the global Pathfinder Sea Surface Temperature data set produced by JPL.

1987-1993

**Member of Technical Staff, California Institute of Technology, Jet Propulsion Laboratory
(Specific projects as follows):**

1992-1993

Manager, AVHRR Oceans Pathfinder Production Team. Responsible for processing 15 years of NOAA AVHRR Level 1b Global Area Coverage data to sea surface temperature retrievals. Developed operational QA/QC procedures for Pathfinder data processing. Supervised technical staff of 4.

1987-1992

Project Scientist, EOSDIS Physical Oceanography Distributed Active Archive Center (PO.DAAC). Creator of PO.DAAC User Support Office, providing data and information to over 400 scientific and education data user annually. Supervised staff of 4. Technical liaison for the oceanographic research community, and between this community and the PO.DAAC Software Engineering Group. Developed User Requirements for a diverse use group including scientists, educators and industry users of satellite data. Designed and presented exhibits, demonstrations and workshops for international scientific conferences.

1982-1984

**Research Assistant, Physical Oceanography Research Team,
Harbor Branch Oceanographic Institution**

Provided technical support to Dr. Ned Smith, including collection, processing, analysis and interpretation of physical oceanographic data (e.g., temperature, salinity and currents) in the Indian River Lagoon and on the Grand Bahama Banks.

Education

- **Master of Science**, Physical Oceanography, 1987, Florida State University
- **Bachelor of Science**, Marine Science, 1982, University of South Carolina

Honors and Awards

- **1995** Honorable Mention for Best Poster at the 3rd Thematic Conference on Remote Sensing of Marine and Coastal Environments, Seattle, WA.
- **1993** NASA Group Achievement Award for TOPEX/Poseidon Project support.
- **1992** NASA Monetary Award for publication of a NASA Technical Brief entitled, "*The Design and Publication of Satellite Oceanographic Research Data on CD-ROM*", NASA Tech Briefs, October, 1992

Outreach and Service

- **2004** Reviewer, Geophysical Research Letters
- **1999** Reviewer, NASA Earth Science Enterprise Education (Proposals)
- **1998-99** Reviewer, NASA Earth Science Enterprise Education (Products)
- **1995-2000** Society of Women Engineers – Hampton Roads Section VP, Newsletter Editor and ODU Student Section Counselor

Selected Publications

Smith, E., M. A. Alfultis, and C. Evans, 2000, Studying Earth's Environment From Space; Inquiry-Based Computer Exercises Using Satellite Data with Instructor Resources, CD-ROM and <http://www.ccpo.odu.edu/SEES>

Smith, E., M. A. Alfultis, and C. Evans, 1998, Studying Earth's Environment From Space; A Demonstration of Inquiry-Based Computer Exercises Using Satellite Data, Satellites and Education Conference, West Chester, PA.

Smith, E., and M. A. Alfultis, 1998, Studying Earth's Environment From Space; Classroom and Laboratory Activities With Instructor Resources, American Geophysical Union Meeting, San Francisco, CA.

Smith, E., J. Vazquez, A. V. Tran and R. Sumagaysay, 1996, Satellite-derived sea surface temperature data available from the NOAA/NASA Pathfinder Program, EOS Transactions EOS Electronic Supplement, April 2, 1996, http://www.agu.org/eos_elec/95274e.html

Smith, E., 1996, Satellite-derived sea surface temperature data available on-line, EOS Transactions, American Geophysical Union, Volume 77, Number 14, pp135.

Smith, E., S. Digby, J. Vazquez, A. V. Tran and R. Sumagaysay, 1996, Satellite-derived sea surface temperature data products from the NOAA/NASA Pathfinder Program, Backscatter, Vol. 7, No. 1, pp. 23-25.

Smith, E., 1995, Oceans of Data: Oceanographic CD-ROMs for Research and Education, Oceanography Magazine, Vol. 8, No. 2, pp. 67-70.

References

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Dr. Donald Collins
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Phone: 626 794 8870 or 760 934 9946

Dr. Richard Zimmerman
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