

# Resume & Selected Publications

## WILLIAM C. PATZERT

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**PERSONAL:** Born: 30 April 1941 in New York City, NY, USA. Marital Status: Single. Health: Excellent.

### EDUCATION:

**Ph.D. (1972), M.S. (1969)**, Oceanography, University of Hawaii at Honolulu, Research Associate  
**B.S. (1964)**, Physics & Mathematics, Purdue University at West Lafayette, Indiana, 1964-5 Earth Sciences Teaching Assistant

### MEMBERSHIPS & AFFILIATIONS:

American Meteorological Society  
American Geophysical Union  
The Oceanography Society  
Associate Affiliate Graduate Oceanography Faculty, University of Hawaii, appointed November 1997  
Earth Communications Office Advisory Board, appointed December 1998 ([ecoffice@earthlink.net](mailto:ecoffice@earthlink.net))  
Member and chairman of various committees, panels and working groups for national and international scientific, professional and governmental organizations.

### HONORS:

Honorary academic societies: Sigma Xi, Sigma Pi Sigma & Sigma Gamma Epsilon  
Eagle Scout Rank awarded by the Boy Scouts of America, 1956  
Michigan Technological University Tuition Scholarship, 1959  
NSF Fellowship, Summer Institute of Glaciological Sciences at Juneau, Alaska, 1965  
Initiated into "Solemn Mysteries of the Ancient Order of the Deep" aboard USC&GSS Surveyor, 1967  
University of Hawaii Bisset-Berman Scholarship (Outstanding Graduate Student Cash Award), 1968  
Commendation from Polynesian Voyaging Society, 1981  
Centre National d'Etudes Spatiales (Space Agency of France) Special Commendation for "Unique Contributions Leading to the Success of the US/France TOPEX/POSEIDON Mission," 1992  
Medal of Astronautique (Highest Award of Association Aeronautique et Astronautique de France) for "Playing a Leading Role in the Development and Conduct of the US/France TOPEX/POSEIDON Mission," 1992  
Jet Propulsion Laboratory Commendation "Dedication as TOPEX/POSEIDON Program Scientist," 1993  
Aviation Week & Space Technology Laurels Award for 1993 for "Outstanding Achievement in the Field of Space/Missiles" (Vol. 140, No. 4, Jan. 24, 1994 issue), 1993  
National Aeronautics and Space Administration Exceptional Service Medal for "Exceptional Leadership in the Development and Management of the TOPEX/POSEIDON Science Program," 1994  
Medal of Centre National d'Etudes Spatiales (Highest Award of French Space Agency), 1994  
Jet Propulsion Laboratory NOVA Peer Award for "Outstanding Effectiveness and Communication," 1998  
Jet Propulsion Laboratory "1998 Award for Excellence" to the TOPEX/POSEIDON El Niño Awareness Team (Member) for "Exceptional Quality", 1998  
National Aeronautics and Space Administration Group Achievement Award to the NASA Scatterometer (NSCAT) Science Team (Member), 1998  
National Aeronautics and Space Administration Group Achievement Award to the TOPEX/POSEIDON Science Data Analysis and Verification Team (Member), 1998  
William T. Pecora Award to the TOPEX/POSEIDON Mission Team (Member) for outstanding contributions toward the understanding of the Earth by means of remote sensing, 1998  
Telly Award (Prestigious National Television Industry Award) to the NASA Production Group (Member) for the "NASA ... On the Cutting Edge, Our Water Planet from Space" program, 1999  
National Aeronautics and Space Administration Exceptional Service Medal in recognition of leadership and outstanding performance in communicating the TOPEX/POSEIDON scientific data to the news media and general public during the 1997-1998 El Niño climate event, 1999

**EMPLOYMENT EXPERIENCE:**

**Research Scientist (Oceanography) ..... 3/83 to present\***

Jet Propulsion Laboratory, 300-323  
4800 Oak Grove Drive  
Pasadena, CA 91109

While in residence at JPL (6/86 to 8/90, 9/93 to 1/94 and 3/96 to present), responsibilities included Acting NSCAT Project Scientist (2/89 to 8/90), NSCAT Deputy Project Scientist (1/87 to 1/89), TOPEX/POSEIDON Science Working Team, Earth Observing System Interdisciplinary Science Team, and Research Oceanographer (NASA funded Scientific Principal Investigator). Regularly present briefings at Johnson Space Center to NASA astronauts on the variety of ocean phenomenon that can be viewed from NASA's Space Shuttle. Published over 40 scientific papers, popular articles, and technical reports (see attached selected publications); and given numerous oral presentations all over the globe. NASA Headquarters and JPL media spokesperson (print, radio and television) for the TOPEX/POSEIDON satellite mission and other ocean-related space activities such as monitoring El Niño and La Niña.

\*During other periods of JPL employment, detailed to NASA Headquarters in Washington, DC (3/83 to 5/86 and 9/90 to 8/93) to manage a variety of NASA science programs and satellite missions, and to the US Department of Commerce's NOAA Headquarters (2/94 to 3/96). For detailed information about these assignments see below. Top Secret Security Clearance approved August 1994.

**JPL Detailee to NOAA Headquarters ..... 2/94 to 3/96**

United States Department of Commerce  
Office of the Under Secretary for Oceans and Atmosphere  
National Oceanic and Atmospheric Administration  
Washington, DC 20230

Detailed to the US Department of Commerce Office of the National Oceanic and Atmospheric Administration's (NOAA) Administrator to work with the President's Office of Science and Technology Policy on an interagency task force to develop a long-term, coordinated US Earth remote sensing strategy; and to the NOAA Assistant Administrators for the National Environmental Satellite, Data, and Information Service (NESDIS) and National Ocean Service (NOS) to help coordinate their ocean-related satellite remote sensing activities.

**JPL Detailee to NASA Headquarters**

**Manager, Ocean Dynamics Program (Code YSC) ..... 9/90 to 8/93**  
**Manager, Physical Oceanography Program (Code EEC) ..... 3/83 to 5/86**

NASA Headquarters, Code YS  
Office of Earth Science Enterprise  
Washington, DC 20546

While detailed to NASA Headquarters, responsibilities included Program Manager for Physical Oceanography and Ocean Dynamics (administered and funded ~60 University and NASA Center projects {~\$6M/yr.}) and Program Scientist for NASA's Scatterometer (NSCAT) sensor which was launched on NASDA's ADEOS spacecraft August 1996 and the US/France TOPEX/POSEIDON advanced altimetric mission which was launched August 1992. Planned, organized, and implemented interdisciplinary, interagency, international science projects (e.g., TOGA, WOCE, EOS, etc.) for the World Climate Research Program and NASA's Earth Science Enterprise program. Developed and conducted international satellite-based programs jointly with the French Space Agency (CNES) and Japanese Space Agency (NASDA), as well as coordinated space science activities with the European Space Agency. Responsible for writing and issuing NASA Announcements of Opportunity and selection of international Science Teams for both the NSCAT and TOPEX/POSEIDON missions. NASA Headquarters and JPL media spokesperson for the TOPEX/POSEIDON satellite mission and other ocean-related space activities.

**Research Oceanographer ..... 9/72 to 2/83**

Scripps Institution of Oceanography  
University of California, San Diego  
La Jolla, CA 92093

While funded by the National Science Foundation, Office of Naval Research and National Aeronautics and Space Administration, participated in and Chief Scientist for numerous oceanographic expeditions during the 1970's and 1980's International Decade of Ocean Exploration (e.g., GEOSECS, NORPAX, etc.) focused on understanding the large-scale, low-frequency variability of the oceans

and air-sea interactions aimed at improving our understanding of the role of the oceans in global climate change. In particular, conducted research about mesoscale ocean eddies, El Niño prediction, regional ocean circulation (Red Sea, South Atlantic, Southern Ocean, SE Asian waters, Hawaiian Islands, equatorial Pacific, etc.), and the variability of global ocean topography using altimetry data. Published many popular articles, scientific papers and technical reports (see attached selected publications) describing mesoscale and large-scale ocean circulation utilizing different research techniques. Presented briefings to NASA astronauts on the variety of ocean phenomenon that can be viewed from Earth orbit. Participated in the use of various sea going research equipment including traditional hydrographic, biological, and chemical techniques; current meters and ARGOS satellite-tracked drifting buoys; and had extensive experience analyzing data collected through the use of ships, airplanes, and satellites - observing both the oceans and atmosphere. Media spokesperson (print, radio and television) for many ocean-related activities such as the prediction of and research being conducted about El Niño and La Niña and the oceans role in climate variability.

### **Selected Publications:**

Digby, S., A. deCharon, L. L. Fu, M. Hardin, A. Hayashi, W. Patzert and V. Zlotnicki, 1999: El Niño - A TOPEX/POSEIDON Perspective. backscatter, **10(1)**, 33-37.

Patzert, W.C., 1997, book chapter: "Corals from Space" in "The Ecology of the Indonesian Seas, Parts I & II", The Ecology of Indonesia Series, Volume VII by Tomascik, T., Mah, A.J., Nontji, A. and Moosa, M.K., Periplus Editions, Singapore. **ISBN: 962-593-078-7**.

Patzert, W.C., 1994: Oceanography From Space In The 1990s. PICES PRESS, **2(1)**, 6-9.

Patzert, W.C. and L. Billings, 1993: Ocean View, The TOPEX/POSEIDON satellite may help usher in a new era of reliable long-term climate prediction. NASA Magazine, **Summer 1993**, 22-25.

Poulain, P.- M., D.S. Luther and W.C. Patzert, 1992: Deriving inertial wave characteristics from surface drifter velocities: frequency variability in the Tropical Pacific. J. of Geo. Res., **97(C11)**, 17,947-17,9659.

Zlotnicki, V., L.-L. Fu and W. Patzert, 1989: Seasonal variability in global sea level observed with Geosat altimetry. J. of Geophys. Res., **94(C12)**, 17,959-17,969.

van Bennekom, A.J., Kastoro and W.C. Patzert, 1988: Recirculation in the Banda Sea throughflow, traced with dissolved silica. Netherlands J. of Sea Res., **22(4)**, 355-359.

Broecker, W.S., W.C. Patzert, J.R. Toggweiler and M. Stuiver, 1986: Hydrography, chemistry and radioisotopes in the southeast Asian Basins. J. of Geophys. Res., **91(C12)**, 14,345-14,354.

Booda, L.L., W.C. Patzert and W.S. Wilson, 1984: Oceanography from space: An Update. Sea Technology, **25(9)**, 10-15.

McNally, G.J., W.C. Patzert, A.D. Kirwan, Jr. and A.C. Vastano, 1983: The near-surface circulation of the north Pacific using satellite tracked drifting buoys. J. of Geophys. Res., **88(C9)**, 7,507-7,518.

Wyrski, K., W.C. Patzert, K. Firing, D. Halpern, R. Knox, G. McNally, E. Stroup, B. Taft and R. Williams, 1981: The Hawaii to Tahiti Shuttle Experiment. Science, **211**, 22-28.

Barnett, T.P. and W.C. Patzert, 1980: Scales of thermal variability in the Tropical Pacific. J. of Phys. Oceanogr., **10(4)**, 529-540.

Barnett, T.P., W.C. Patzert, S.C. Webb and B.R. Bean, 1979: The climatological usefulness of satellite determined sea-surface temperatures of the Tropical Pacific. Bul. of Amer. Met. Soc., **60(3)**, 197-205.

Patzert, W.C., 1978: El Niño Watch Atlas of physical, chemical and biological oceanographic and meteorological data. Scripps Institution of Oceanography References **#78-7**, Library of Congress Card, **#75-53112**, 210 pp., 322 fig., 24 p. text. (Award winning cover.)

Reid, J.L., W.C. Patzert and W.D. Nowlin, Jr., 1977: On the characteristics and circulation of the southwestern Atlantic Ocean. J. of Phys. Oceanogr., **7(1)**, 62-91.

Wyrski, K., W.C. Patzert, E. Stroup, R. Williams and W. Quinn, 1976: Predicting and observing El Niño. Science, **191(4225)**, 343-346.

R. Harvey and W.C. Patzert, 1976: Deep current measurements suggest long waves in the eastern Equatorial Pacific. Science, **193**, 883-885.

Patzert, W.C. and R. Bernstein, 1976: Eddy structure in the central south Pacific Ocean. J. Phys. Oceanogr., **6(3)**, 392-394.

Patzert, W.C., 1974: Wind-induced reversal in Red Sea circulation. Deep-Sea Res., **21(2)**, 109-121.

Patzert, W. C. and K. Wyrki, 1974: Anticyclonic flow around the Hawaiian Islands indicated by current meter data. J. of Phys. Oceanogr., **4(4)**, 673-676.

Patzert, W.C., 1973: Current meter data: An indication of either Subtropical Countercurrent or anticyclonic island circulation. J. of Geophys. Res., **78(33)**, 7,919-7,922.

Patzert, W.C., 1969: Eddies in Hawaiian waters. Hawaii Inst. of Geophysics Rept. **69-8**, 51 p., 71 figs.