**CURRICULUM VITAE**

Carol D. Janzen, Ph.D. Janzen@aoos.org

**Education**

**2000 Ph.D. Marine Studies/Physical Oceanography**, University of Delaware, USA

*Dissertation: Wind forced dynamics of an estuary-shelf regime: Delaware Bay and the adjacent inner shelf*, Graduate College of Marine Studies, University of Delaware, Newark, DE. 19716. 216 p.

**1996 M.S. Marine Studies/Oceanography**, University of Delaware, USA

M.S. Thesis: *Forcing of subtidal currents and salinity in a coastal lagoon*, Graduate College of Marine Studies, University of Delaware, Newark, DE. 19716. 127 p.

**1986 B.S. Oceanography**, University of Washington, USA

Emphasized geological and physical oceanography

**Summary of Professional Experience**

06/2015 – present **Director of Operations**, *Alaska Ocean Observing System, Anchorage, WA, USA*

07/2006-06/2015 ***Senior Physical Oceanographer****, Sea-Bird Electronics, Inc. Bellevue, WA, USA*

11/2002–08/2006 ***Research Scientist-Physical Oceanographer****, School of Marine Sciences, Univ. of Maine, Orono, ME, USA*

09/2000–10/2002 ***Physical Oceanographer (Post-Doctoral Researcher)****, School of*

*Ocean Sciences, Univ. of Wales (Bangor), Menai Bridge, Anglesey, UK*

06/1993–08/2000 ***Research Assistant-Graduate Student (M.S. 1996, Ph.D. 2000)****, Graduate College of Marine Studies, Univ. of Delaware, Newark, DE, USA*

01/1989-06/1993 ***Ecology Supervisor-Oceanographer****, Washington State Department of Ecology, Olympia, WA, USA*

05/1985-12/1988 ***Assistant Scientist-Oceanographer****, Envirosphere Company, Bellevue, WA, USA*

03/1984-08/1984 ***Student Intern-Oceanographer****, URS Engineers, Seattle, WA, USA*

# Professional Memberships and Committees

1992 – \* American Geophysical Union

1998 - 2013 Estuary Research Federation (Now CERF)

2007 - \* Marine Technology Society

2011 - \* Marine Technology Society Oceanographic Instrumentation Committee Chair

2014 Lead Guest Editor for a special issue for MTSJ on Polar Instrumentation and Methods, in press October 2014)

**Peer Reviewed Publications**

Edwards, B., **C. Janzen,** D. Murphy, N. Larson,**2010**. Calibration response and hysteresis in deep sea dissolved oxygen measurements. Journal of Atmospheric and Oceanic Technology, 27(5). DOI:10.1175/2009JTECHO693.1

Brothers, L.L., D.F. Belknap, J.T. Kelley, and **C.D. Janzen, 2008.** Sediment transport and dispersion in a cool-temperature estuary and embayment, Saco River estuary, Maine, USA. Marine Geology, 251, pp. 183-194.

**Janzen, C.D.**, J.H. Simpson, M.E. Inall, F. Cottier,**2005**. Across-sill circulation near a tidal mixing front in a broad fjord. Continental Shelf Research, 25, pp. 1805-1824.

**Janzen, C.D.**, Jim Churchill, Neal Pettigrew, **2005**. Observations of bay/shelf exchange between eastern Casco Bay and the western Gulf of Maine. Deep-Sea Research Part II: Special Issue: The Ecology and Oceanography of Toxic Alexandrium funyense Blooms in the Gulf of Maine, Ed. D.M Anderson, D.W. Townsend, D.J. McGillicuddy, and J.T. Turner, Vol. 52, Issue 19-21 September-October 2005, pp. 2411-2429. DOI 10.1016/j.dsr2.2005.06.032

Pettigrew, N.R., J.H. Churchill, **C.D. Janzen**, L.J. Mangum, R.P. Signell, A.C. Thomas, D.W. Townsend, J.P. Wallinga, and H. Xue, **2005**.The kinematic and hydrographic structure of the Gulf of Maine Coastal Current. Deep-Sea Research Part II: Special Issue: The Ecology and Oceanography of Toxic Alexandrium fundyense Blooms in the Gulf of Maine, Ed. D.M Anderson, D.W. Townsend, D.J. McGillicuddy, and J.T. Turner. Vol. 52, Issue 19-21 September-October 2005, pp. 2369-2391. DOI 10.1016/j.dsr2.2005.06.033

Tweddle, J. F., J.H. Simpson, **C.D. Janzen, 2005**. Physical controls of food supply to benthic filter feeders in the Menai Strait. Marine Ecology Progress Series, 289, pp. 79-88.

Arneborg, Lars,  **Carol Janzen**, BengtLiljebladh, Tom P. Rippeth, John H. Simpson, and Anders Stigebrandt, **2004**. Spatial variability of diapycnal mixing and turbulent dissipation rates in a stagnant fjord basin, Journal of Physical Oceanography, 34, 1679-1691.

Tett, P., L. Gilpin, H. Svendsen, C.P. Erlandsson, U. Larsson, S. Kratzer, E. Fouilland, **C. Janzen**, J.Y. Lee, C. Grenz, A. Newton, J.G. Ferreira, T. Fernandes, and S. Scory, **2003**. Eutrophication and some European waters of restricted exchange. Continental Shelf Research, Vol. 23,  1635-1671.

J**anzen, C.D.**, K.-C. Wong, **2002**. Wind forced dynamics at the estuary-shelf interface of a large coastal plain estuary.  Journal of Geophysical Research, Vol. 107, No.C10.

**Janzen, C.**, and K.-C. Wong, **1998**.On the low frequency transport process in a shallow coastal lagoon, Estuaries, 21(4), 754-766.

**Other Publications (Trade journals, conference proceedings, and other)**

**Janzen, C.,** and E. Creed, **2011**.Physical oceanographic data from Seaglider trials in stratified coastal waters using a new pumped payload CTD. Proceedings of OCEANS 2011 MTS/IEEE, Kona, Hawaii, USA, September 19-23, 2011.

**Janzen, C., 2011.** Improving CTD data from gliders by optimizing sample rate and flow past sensors. In: Ocean News and Technology, Vol. 17, Issue 7, pp. 22-23.

**Janzen, C., 2009.** Considerations for CTD spatial and temporal resolution on moving platforms. In: Ocean News and Technology, Vol. 15, Issue 6, pp. 54-55.

**Janzen, C.**, N. Larson and D. Murphy, **2008**. Accurate long-term O2 measurements using the SBE 43 in harsh bio-fouling environments. In: International Ocean Systems, Vol. 12, No. 2, March/April 2008, pp. 6-8.

**Janzen, C.D.,** N. Larson, and C. Moore, **2008.** The Water Quality Monitor (WQM): New instrumentation for coastal monitoring: Extending deployments and reducing cost by preserving long-term accuracy. In: Sea Technology, Vol. 49, No. 2, pp. 55-58.

**Janzen, C.D.,** D. Murphy, and N. Larson, **2007.** Getting more mileage out of dissolved oxygen. Proceedings of OCEANS 2007 MTS/IEEE Vancouver, B.C., Canada, October 1-4, 2007, 0-933957-35-1, 5p.

**Janzen, C. D.**,  K. S. Short,  L. E. Hachmeister,**1991.**Long-term marine water quality and climatological trends in the Pacific Northwest. Oral presentation and Paper, Oceans' 91 Conference, Oceanic Engineering Society, Institute of Electrical and Electronics Engineers, Honolulu, HI. 1991 IEEE Oceans Proceedings, Vol. 2, No. 91CH3063-5, pp. 1044-1048.

**Janzen, C. D.**,  P. L. Striplin,**1991**. Marine water and sediment monitoring in Washington. Oral presentation and Paper, Oceans' 91 Conference, Oceanic Engineering Society, Institute of Electrical and Electronics Engineers, Honolulu, HI. 1991 IEEE Oceans Proceedings, Vol. 2, No. 91CH3063-5, pp. 1037-1043.

**Select Professional Presentations and Workshops**

**Janzen, C.,** and D. Murphy, **2014.** Improving Argo float data: Steps towards implementing onboard cell thermal mass corrections. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, HI, February 24, 2014.

**Janzen, C., 2011.** What you should know about data collection from moving platforms: Basic sampling theory, project considerations, and sources of error**.** Conference Workshop, Coastal Estuarine Research Federation Conference, Daytona, FL, USA, November 6, 2011.

Janzen, C., 2011. Circulation and exchange processes between Casco Bay and the adjacent Gulf of Maine. Invited speaker: Casco Bay Estuary Program, Casco Bay Circulation Workshop, **May 18 - 19, 2011,** Portland, ME.

Howell, G., D. Guenther, **C. Janzen,** and N. Larson, **2010**. On the use of secondary standard to improve Autosal calibration. AGU/ASLO/TOS Ocean Sciences Meeting, Portland, OR. EOS Transactions, AGU, 91(26), Ocean Sciences Meeting Supp. Abstract IT25I-08.

**Janzen, C.D**., 2009. Advances in dissolved oxygen sensing. Conference Workshop, Coastal Estuarine Research Federation Conference, Portland, OR, USA, November 1, 2009.

**Janzen, C.,** D. Murphy, **2009.** A technical and scientific update on state-of-the-art dissolved oxygen measurements using Sea-Bird’s SBE 43 sensor. Workshop, Ocean Business, Southampton, England, UK, March 2009.

Murphy, D. and **C. Janzen, 2009.** Achieving the long-term accuracy and reduced sensor maintenance needed to make coastal moored observatories practical. Workshop, Ocean Business, Southampton, England, UK, March 2009.

**Janzen, C.,** N. Larson, **2008.** Assessing the calibration stability of oxygen sensor data on Argo profiling floats using routine WOCE monitoring data from HOT.AGU/ASLO/TOS Ocean Sciences Meeting, Orlando, FL. EOS Transactions AGU, 182:434.

Larson, N., **C. Janzen,** D. Murphy, **2008.** An instrument for extending Argo temperature and salinity measurements through the sea surface. AGU/ASLO/TOS Ocean Sciences Meeting, Orlando, FL, EOS Transactions AGU, 081:1324.

Murphy, D.S. Riser, N. Larson, and **C. Janzen, 2008.** Measurement of salinity and temperature profiles through the sea surface on Argo floats. 4th Aquarius/SAC-D Science Workshop, Puerto Madryn, Argentina, 3-5 December 2008.

**Janzen, C., 2007.** Sensing climate change in the oceans (and other environmental concerns) from the shore to the abyss. Invited speaker for Bellevue Community College Earth Week Lecture Series, April 2007.

**Janzen, C.D.,** D. Murphy, and N. Larson, **2007.** Getting more mileage out of dissolved oxygen, Presentation, Proceedings of OCEANS 2007 MTS/IEEE Vancouver, B.C., Canada, October 1-4, 2007, 0-933957-35-1, 5p.

**Janzen, C.D.**, N.R. Pettigrew, and N. Fisher, **2006**.Circulation and exchange processes between Casco Bay and the adjacent Gulf of Maine. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, HI, EOS, Transactions.

**Janzen, C. 2004.** Casco Bay circulation studies, presented to the non-profit volunteer and local monitoring organization Friends of Casco Bay, Freeport, Maine, December 2004.

**Janzen, C.,** J. Churchill, and N. Pettigrew, **2004**. Observations of bay/shelf exchange at eastern Casco Bay in the western Gulf of Maine, presented as seminar to Woods Hole Oceanographic Institute, Woods Hole, MA, May 2004.

**Janzen, C.D.**, L. Arneborg, T.P. Rippeth, B. Liljebladh, J.H. Simpson, and A. Stigebrandt, **2002**. Vertical mixing in a low energy fjordic regime, Oral Presentation, Challenger Conference for Marine Science, Plymouth, England, UK, September 9 - 14, 2002.

**Janzen, C.D**., J.H. Simpson, and F. Cottier, **2002**. Frontal controls on the cross-sill exchange of a broad fjord, AGU/ASLO Ocean Sciences Meeting, Honolulu, HI, EOS, Transactions AGU, Vol. 83, No. 4, p. OS358.

**Janzen, C.D., 2000**. The influence of a large coastal plain estuary on inner-shelf wind driven circulation, AGU/ASLO Ocean Sciences Meeting, San Antonio, TX. EOS, Transactions AGU, Vol. 80, No. 49, p. OS253.

**Janzen, C.D., 1999**. Coupled wind driven response of an estuary-inner shelf regime. Estuarine Research Federation, Conference Abstracts from 15th Biennial International Conference, New Orleans, LA, p. 51.

**Janzen, C.D., 1999**. Seasonal differences in remote and local forcing in the Delaware Bay and implications for estuary-shelf interaction. AGU  Spring Meeting, Boston, MA. EOS, Transactions AGU, Vol.80, No. 17, p. S170.

**Janzen, C.D., 1998**. Lateral Variability of Inner Shelf Subtidal Currents Adjacent to a Large Coastal Plain Estuary. AGU/ASLO Ocean Sciences Meeting, San Diego, CA. EOS, Transactions, AGU, Vol. 79, No. 1, p. OS130.

**Janzen, C.D., 1998**. Adjusted coastal sea level -- A good proxy for the across-shore pressure gradient? Annual Mid-Atlantic Bight Physical Oceanography & Meteorology Workshop, St. Michaels, Maryland.

**Janzen, C.D., 1996**. Subtidal fluctuations in currents, salinity, and sea level inside a coastal lagoon. AGU, Spring Meeting, Baltimore, MD. EOS, Transactions, AGU, Spring 1996 Meeting.

**Janzen, C.D., 1995**. Forcing mechanisms responsible for subtidal circulation in a coastal lagoon. AGU, Spring Meeting, Baltimore, MD.EOS, Transactions, AGU, Vol. 76, No. 17, p. S183.

**Janzen, C.D.** **1994**.  On gravitational circulation in Delaware's Inland Bays. AGU Spring Meeting, Baltimore, MD. EOS, Transactions, AGU, Vol. 75, No. 16, p. 199.

**Select Technical Reports**

Eisner, L.B., **C.D. Janzen**, S.L. Albertson, S.A. Bell, and J.A. Newton, **1994**.1992 Budd Inlet Seasonal Monitoring Report. Prepared for the Washington State Department of Ecology and the Puget Sound Water Quality Authority, Pub. No. 94-132. Olympia, WA.

**Janzen, C.D**., and L.B. Eisner, **1993**. Marine Water Column Ambient Monitoring Program Annual Data Report for Wateryear 1992. Prepared for the Washington State Department of Ecology and the Puget Sound Water Quality Authority, Pub.No.93-041.

**Janzen, C.D.**, **1992**. Marine Water Column Ambient Monitoring Plan, Final Report. Prepared for the Washington State Department of Ecology and the Puget Sound Water Quality Authority, Pub.No.92-23, Olympia, WA.

Short, K.S., **C.D. Janzen**, C.J. Van Zee, and D.J. Hanzlick, **1991**.Oceanography. In: 1987 Final Report for the Endicott Environmental Monitoring Program, Volume 3, Part II, Chapter 3. Prepared for by Envirosphere Company for the U.S. Army Corps of Engineers, Alaska District, Anchorage, AK.

*January 2016*