

CURRICULUM VITAE

David M. Glover

Senior Research Specialist
Department of Marine Chemistry and Geochemistry
Woods Hole Oceanographic Institution
Woods Hole, MA 02543

Citizenship: USA
Marital status: married
Paraplegic since June 1983

Education

- Ph.D. Chemical Oceanography, 1985, Institute of Marine Science, University of Alaska, Fairbanks, AK 99775–1080
- M.S. Geology, 1979, California Institute of Technology, Pasadena, CA 91125
- B.S. Geology, 1979, California Institute of Technology, Pasadena, CA 91125

Employment

- 7/09–present Senior Research Specialist, Woods Hole Oceanographic Institution, Woods Hole, MA 02543
- 10/90–7/09 Research Specialist, Woods Hole Oceanographic Institution, Woods Hole, MA 02543
- 10/87–10/90 Research Associate, Woods Hole Oceanographic Institution, Woods Hole, MA 02543
- 11/86–10/87 Postdoctoral Investigator, Woods Hole Oceanographic Institution, Woods Hole, MA 02543
- 11/85–11/86 Postdoctoral Scholar, Woods Hole Oceanographic Institution, Woods Hole, MA 02543
- 6/80–9/85 Research Assistant, Institute of Marine Science, University of Alaska, Fairbanks, AK 99775-1080
- 9/79–6/80 Research Assistant, Geology and Geophysics Program, University of Alaska, Fairbanks, AK 99701
- 6/79–7/79 Field Geologist, United States Geological Survey, Flagstaff, AZ 86001
- 9/78–5/79 Map Room Curator, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, CA 91125
- 6/78–8/78 Geologic Field Assistant, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, CA 91125
- 9/77–5/78 Map Room Curator, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, CA 91125

Memberships

- American Association for the Advancement of Science
- Geochemical Society
- American Geophysical Union

- Sigma Xi ($\Sigma\Xi$) Woods Hole club president 1992–1993
- The Oceanography Society
- Editorial Board of Oceanic and Atmospheric Data Management (OADM), Elsevier

Academic Honors

- Woods Hole Oceanographic Institution Postdoctoral Scholar award, 1985–86
- Outstanding marine science and limnology student, University of Alaska, May, 1985
- Jessie Smith Noyes Fellowship, University of Alaska, 1983–84
- Admitted to California Institute of Technology B.S.-M.S. program 1978

Theses

- Ph.D.** Processes Controlling Radon-222 and Radium-226 on the Southeastern Bering Sea Shelf (Dr. William S. Reeburgh, advisor)
- M.S. essay** Holocene Beaches of Ancient Lake Cahuilla, Quaternary Tectonic Implications (Dr. Kerry Sieh, advisor)

Major Research Interests

To use satellite data, model results, and shipboard data to elucidate the mechanisms and processes by which the oceans play a major role in the maintenance of the global climate. I am exploring the domain framed by satellite data which has good spatial, but poor temporal, resolution due to orbital constraints and model output which has good temporal, but poor spatial, resolution due to computational constraints. I employ the mathematical techniques necessary to use shipboard data to augment both model output and satellite data to make consistent and geophysically correct interpretations of the environment.

Published Articles

- Mackey, Katherine RM, Maria T. Kavanaugh, Ying Chen, Fei Liu, David M. Glover, Adina Paytan, Nitrogen deposition fuels harmful algal blooms in the East China Sea, *Nature Geosciences*, to be submitted Fall 2015.
- Rheuban, J.E., S. Williamson, J.E. Costa, D.M. Glover, R.W. Jakuba, D.C. McCorkle, C. Neill, and S.C. Doney, 2015, Spatial and temporal trends in summertime climate and water quality indicators in the coastal embayments of Buzzards Bay, Massachusetts, *Biogeosciences*, submitted July 2015.
- Cooley, S.R., J.E. Rheuban, D.R. Hart, V. Luu, D.M. Glover, J.A. Hare, and S.C. Doney, 2015: An integrated assessment model for helping the United States sea scallop (*Placopecten magellanicus*) fishery plan ahead for ocean acidification and warming, *PLoS ONE*, **10**(5), e0124145, doi:10.1371/journal.pone.0124145
- Kavanaugh, M.T., Abdala, F.N., Ducklow, H., Glover, D.M., Fraser, W., Martinson, D., Stammerjohn, S., Schofield, O., and Doney, S.C., 2015, The effect of continental shelf canyons on phytoplankton biomass and community composition along the western Antarctic Peninsula, *Marine Ecology Progress Series*, **524**, 11–26, doi:10.3354/meps11189
- Boyd, Philip W., Sinikka T. Lennartz, David M. Glover and Scott C. Doney, 2015, Biological ramifications of climate-change mediated oceanic multi-stressors, *Nature, Climate Change*, **5**, 71–79, 10.1038/nclimate2441

- von Dassow, Peter, Uwe John, Hiroyuki Ogata, Ian Probert, El Mahdi Bendif, Jessica U Kegel, Stéphane Audic, Patrick Wincker, Corinne Da Silva, Jean-Michel Claverie, Scott Doney, David M Glover, Daniella Mella Flores, Yeritza Herrera, Magali Lescot, Marie-José Garet-Delmas and Colomban de Vargas, 2015, Life-cycle modification in open oceans accounts for genome variability in a cosmopolitan phytoplankton, *The ISME Journal*, **9**, 1365–1377, doi:10.1038/ismej.2014.221
- Glover, D.M., P.H. Weibe, C.L. Chandler, and S. Levitus, 2010, IOC contributions to international, interdisciplinary open data sharing, *Oceanography*, **23**(3), 140–151.
- Rodgers, K.B., R.M. Key, A. Gnanadesikan, J.L. Sarmiento, O. Aumont, L. Bopp, S. Doney, J.P. Dunne, D.M. Glover, A. Ishida, M. Ishii, A.R. Jacobson, C.L. Monaco, E. Maier-Reimer, H. Mercier, N. Metzl, F.F. Pérez, A.F. Rios, R. Wanninkhof, P. Wetzol, C.D. Winn, and Y. Yamanaka, 2009, Using altimetry to help explain patchy changes in hydrographic carbon measurements, *J. Geophys. Res.*, **114**, C09013, doi:10.1029/2008JC005183.
- Doney, S.C., I.D. Lima, R.A. Feely, D.M. Glover, K. Lindsay, N. Mahowald, J.K. Moore and R. Wanninkhof, 2009, Mechanisms governing interannual variability in the upper ocean inorganic carbon system and air-sea CO₂ fluxes: physical climate and atmospheric dust, *Deep-Sea Res. II*, **56**, 640–655.
- Doney, S.C., I. Lima, J.K. Moore, K. Lindsay, M.J. Behrenfeld, T.K. Westberry, N. Mahowald, D.M. Glover, and T. Takahashi, 2009, Skill metrics for confronting global upper ocean ecosystem-biogeochemistry models against field and remote sensing data, *J. Mar. Systems*, **76**, 95–112, doi:10.1016/j.jmarsys.2008.05.015.
- Doney, S.C. and D.M. Glover, 2009, Ocean carbon system, modeling of, **in:** *Encyclopedia of Ocean Sciences (second edition)*, ed. J. Steele, K.K. Turekian, and S.A. Thorpe, Elsevier, 4121–4130, doi:10.1016/B978-012374473-9.00631-7 (expanded and updated version of Doney and Glover, 2001).
- Casciotti, K.L., T. Trull, D.M. Glover, and D. Davies, 2008, Constraints on nitrogen cycling at the subtropical North Pacific Station ALOHA from isotopic measurements of nitrate and particulate nitrogen, *Deep-Sea Res. II*, doi:10.1016/j.dsr2.2008.04.017, **55**, 1661–1672.
- Frew, N.M., D.M. Glover, E.J. Bock, and S.J. McCue, 2007, A new approach to estimation of global air-sea gas transfer velocity fields using dual-frequency altimeter backscatter, *J. Geophys. Res.*, **112**, C11003, doi:10.1029/2006JC003819.
- Glover, D.M., N.M. Frew, and S.J. McCue, 2007, Air-sea gas transfer velocity estimates from the Jason-1 and TOPEX altimeters: Prospects for a long-term global time series, *J. Mar. Systems*, **66**, doi:10.1016/j.jmarsys.2006.03.020, 173–181.
- Glover, D.M., C.L. Chandler, S.C. Doney, K.O. Buesseler, G. Heimerdinger, J.K.B. Bishop, and G.R. Flierl, 2006, The U.S. JGOFS Data Management Experience, *Deep-Sea Res., II*, **53**(5–7), 793–802.
- Doney, S.C., D.M. Glover, S.J. McCue, and M. Fuentes, 2003, Mesoscale variability of Sea-viewing Wide Field-of-view Sensor (SeaWiFS) satellite ocean color: Global patterns and spatial scales, *J. Geophys. Res.*, **108**(C2), 3024, doi:10.1029/2001JC000843.
- Moore, J.K., S.C. Doney, D.M. Glover, and I.Y. Fung, 2002b, Iron cycling and nutrient limitation patterns in surface waters of the world ocean. *Deep-Sea Res., II*, **49**, 463–508.
- Moore, J.K., S.C. Doney, J.A. Kleypas, D.M. Glover, and I.Y. Fung, 2002a, An intermediate complexity marine ecosystem model for the global domain. *Deep-Sea Res., II*, **49**, 403–462.
- Glover, D.M., S.C. Doney, A.J. Mariano, R.H. Evans, and S.J. McCue, 2002b, Mesoscale variability in time-series data: Satellite based estimates for the U.S. JGOFS Bermuda Atlantic Time-Series Study (BATS) site, *J. Geophys. Res.*, **107**(C8), 3092, doi:10.1029/2000JC000589.
- Glover, D.M., N.M. Frew, S.J. McCue, and E.J. Bock, 2002a, A Multi-year Time Series of Global Gas Transfer Velocity from the TOPEX Dual Frequency, Normalized Radar Backscatter Algorithm, **In:** *Gas Transfer at Water Surfaces*, M. Donelan, W. Drennan, E. Saltzman, and R. Wanninkhof (eds), Geophysical Monograph 127, American Geophysical Union, Washington, DC, 325–331.
- National Research Council, 2001, *Resolving Conflicts Arising from the Privatization of Environmental*

- Data*, National Academy Press, Washington, DC, 99 pp.
- Doney, S.C. and D.M. Glover, 2000, Ocean process tracers: modelling the ocean carbon cycle, **In:** *Encyclopedia of Ocean Sciences*, ed. J. Steele, Academic Press, London, UK, pp 1929–1935.
- Fuentes, M., S.C. Doney, D.M. Glover, and S.J. McCue, 2000, Spatial structure of the SeaWiFS ocean color data for the North Atlantic Ocean, **In:** *Studies in the Atmospheric Sciences*, L.M. Berliner, D. Nychka and T. Hoar (eds.), Springer-Verlag, New York, pp 153–171.
- National Research Council, 1998b, *Review of NASA's Distributed Active Archive Centers*, Committee on Geophysical and Environmental Data, National Academy Press, Washington, DC, 233 pp.
- National Research Council, 1998a, *Toward an Earth Science Enterprise Federation*, National Academy Press, Washington, DC, 51 pp.
- Goyet, C., R. Healy, S. McCue, and D.M. Glover, 1997, Interpolation of TCO₂ data on 1° × 1° grid throughout the water column below 500 m depth in the Atlantic Ocean, *Deep-Sea Res. I*, **44**(12), 1945–1955.
- Doney, S.C., D.M. Glover, and R.G. Najjar, 1996. A new coupled, one-dimensional biological-physical model for the upper ocean: Applications to the JGOFS Bermuda Atlantic time series (BATS) site, *Deep-Sea Res. II*, **43**(2–3), 591–624.
- Brewer, P.G., D.M. Glover, C.M. Goyet, and D.K. Shafer. 1995. The pH of the North Atlantic Ocean: Improvements to the global model for sound absorption in sea water. *J. Geophys. Res.* **100**(C5), 8761–8776.
- Glover, D.M., J.S. Wroblewski and C.R. McClain. 1994. Dynamics of the transition zone in coastal zone color scanner-sensed ocean color in the North Pacific during oceanographic spring. *J. Geophys. Res., Oceans* **99**(C4), 7501–7511.
- Doney, S.C., D.M. Glover, and W.J. Jenkins. 1992. A model function of the global bomb-tritium distribution in precipitation, 1960–1986. *J. Geophys. Res.* **97**(C4): 5481–5492.
- Wanninkhof, R.K., L.F. Bliven, and D.M. Glover. 1991. Gas transfer velocities and radar backscatter from the water surface. **In:** *Air-Water Mass Transfer: Selected Papers from the Second International Symposium on Gas Transfer at Water Surfaces*. S.C. Wilhelms and J.S. Gulliver (eds.) pp. 294–308.
- Glover, D.M. and Brewer, P.G. 1988. Estimates of wintertime mixed layer nutrient concentrations in the North Atlantic. *Deep-Sea Res.* **35**(9): 1525–1546.
- Brewer, P.G. and D.M. Glover. 1987. Ocean chemical fluxes 1983–1986. *Reviews Geophys.* **25**(6): 1376–1386.
- Glover, D.M. and W.S. Reeburgh. 1987. Radon-222 and radium-226 in southeastern Bering Sea shelf waters and sediments. *Contin. Shelf Res.* **7**(5): 433–456.

Books, Monographs, etc.

- Glover, D.M., W.J. Jenkins, and S.C. Doney, 2011, *Modeling Methods for Marine Science*, Cambridge University Press, London, UK, 571 pg.

Published Abstracts

- Chandler, C.L., A. Shepherd, P.H. Wiebe, D.B. Kinkade, M.D. Allison, N.J. Copley, S.R. Gegg, D.M. Glover, R.C. Groman, S.M. Rauch, R. Arko, S. Carbotte, K. Lehnert and P. Ji, D. Fils, L. Raymond and A. Mickle, T. Narock, P. Hitzler, M. Cheatham, and A. Alfa Krisnadhi, T. Finin, K. Janowicz, M. Jones, M. Schildhauer, Y. Hu, 2015, BCO-DMO & GeoLink: improving data discovery and access for ocean science research results, EarthCube All Hands Meeting, Woods Hole, MA.

- Chandler, C.L., R.C. Groman, M.D. Allison, N. Copley, S.R. Gegg, D.B. Kinkade, S.M. Rauch, D. Glover and P. Wiebe, 2015, Indian Ocean Research Data: Past, Present and Future, Session BG3.2, 2015 EGU General Assembly, Vienna, Austria, EGU2015-2435.
- Chandler, C., R. Groman, A. Shepherd, M. Allison, D. Kinkade, S. Rauch, P. Wiebe, and D. Glover, 2014, Provenance through Time, Abstract IN34B-06, presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- Chandler, C.L., R.C. Groman, D.B. Kinkade, A. Shepherd, M.D. Allison, S.M. Rauch, S.R. Gegg, N. Copley, P.H. Wiebe and D.M. Glover, 2014, Partnerships: One Strategy for Meeting Big Data Challenges, Abstract IN11C-3625, presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- Kinkade, D., C. Chandler, R. Groman, A. Shepherd, M. Allison, S. Rauch, P. Wiebe, and D. Glover, 2014, Navigating a Sea of Big Data, Abstract IN11C-3622, presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- Chandler, C., R. Groman, A. Shepherd, M. Allison, R. Arko, Y. Chen, P. Fox, D. Glover, P. Hitzler, A. Leadbetter, T. Narock, P. West, and P. Wiebe. 2014. ?Enhancing Ocean Research Data Access?, Geophysical Research Abstracts, Vol. 16; EGU2014-2439. Presented in session ?ESSI1.2 Informatics in Oceanography and Ocean Science? at EGU General Assembly 2014, Vienna, Austria. <http://meetingorganizer.copernicus.org/EGU2014/EGU2014-2439.pdf>
- Glover, D. M.; Doney, S. C.; Lindsay, K.; Lima, I.: THE IMPACT OF OCEAN ACIDIFICATION ON MARINE PLANKTONIC CALCIFICATION, THE ROAD TO EXPLICIT CALCIFIERS IN CESM V1.2, poster ID 1653, Session 140 The Science of Plastic Marine Debris and Other Anthropogenic Influences, 2014 Ocean Sciences Meeting, Honolulu, HI, 24 Feb 2014.
- Boyd, P. W.; Doney, S. C.; Glover, D.; Lennartz, S.: NEW APPROACHES TO DESIGNING COMPLEX ENVIRONMENTAL MANIPULATIONS OF MARINE PHYTOPLANKTON, talk 06, session 173 New Conceptual and Experimental Approaches to Investigate the Effects of Multiple Environmental Drivers On Ocean Biota, 2014 Ocean Sciences Meeting, Honolulu, HI 26 Feb 2014.
- Groman, R. C.; Allison, M. D.; Chandler, C. L.; Glover, D. M.; Kinkade, D. B.: PROGRESS IN DATA DISCOVERY AND ACCESS, poster ID 1707, session 071 Frontiers of Oceanographic Data and Methods, 2014 Ocean Sciences Meeting, Honolulu, HI, 27 Feb 2014.
- Chandler, C. L.; Groman, R. C.; Allison, M. D.; Wiebe, P. H.; Glover, D. M.: BCO-DMO: IMPROVING DATA DISCOVERY AND ACCESS FOR OCEAN SCIENCE RESEARCH, poster ID 2291, session 113 Big Data, Including Ocean Climate Data: Data Availability, Techniques, and Applications, 2014 Ocean Sciences Meeting, Honolulu, HI, 27 Feb 2014.
- Chandler, CL, RC Groman, MD Allison, PH Wiebe and DM Glover (2014) "The Biological and Chemical Oceanography Data Management Office". Poster presented 8 January 2014 at Winter ESIP 2014, Washington, DC. <http://commons.esipfed.org/node/1907>
- Kinkade, D., M.D. Allison, C.L. Chandler, R.C. Groman, S. Rauch, A. Shepherd, S.R. Gegg, P.H. Wiebe, D.M. Glover (2013) BCO-DMO: Enabling Access to Federally Funded Research Data, Abstract PA31A-1814 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec
- Chandler, C.L., R.C. Groman, A. Shepherd, M.D. Allison, D. Kinkade, S. Rauch, P.H. Wiebe, D.M. Glover (2013) Using Controlled Vocabularies and Semantics to Improve Ocean Data Discovery (Invited), Abstract IN52B-05 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec
- Rauch, S., M.D. Allison, R.C. Groman, C.L. Chandler, C.R. Galvarino, S.R. Gegg, D. Kinkade, A. Shepherd, P.H. Wiebe, D.M. Glover (2013) Improved Discovery and Reuse of Oceanographic Data through a Data Assembly Center, Abstract ED43E-03 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec
- Rauch, S., Allison, M.D., Groman, R.C., Chandler, C.L., Galvarino, C.R., Gegg, S.R., Kinkade, D., Shepherd, A., Wiebe, P.H., Glover, D.M. (2013) Improving the User Experience of Finding and Visualizing Oceanographic Data, Abstract IN31C-1508 presented at 2013 Fall Meeting, AGU, San Francisco,

- Calif., 9-13 Dec
- Mackey, K.R., Chien, C., Chen, Y., Glover, D.M., Paytan, A. (2013) Aerosol deposition favors red tide phytoplankton in the East China Sea, Abstract A41G-0151 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
- Copley, N.J., M.D. Allison, R.C. Groman, C.L. Chandler, P.H. Wiebe, and D.M. Glover, (2013) Biodiversity Vocabulary Management at BCO-DMO, TDWG 2013 Annual Conference, Virtual Communities for Biodiversity Science, 28 Oct - 1 Nov.
- Dicky Allison, Robert Groman, Cynthia Chandler, Shannon Rauch, Danie Kinkade, Peter Wiebe, David Glover, Charlton Galvarino, 2013, Are the Data Really Available? *Bollettino di Geofisica, teorica ed applicata*, **54** (supplement), IMDIS 2013 International Conference on Marine Data and Information Systems, 23-24 Sep, pg 184–185.
- Cynthia Chandler, Robert Groman, Dicky Allison, Peter Wiebe, David Glover, 2013, One Approach to Ensuring Long-term Access to Ocean Research Data, *Bollettino di Geofisica, teorica ed applicata*, **54** (supplement), IMDIS 2013 International Conference on Marine Data and Information Systems, 23-24 Sep, pg 213–215.
- Chandler, C., R. Groman, D. Allison, P. Wiebe and D. Glover (2013) The Biological and Chemical Oceanography Data Management Office and Support for Ocean Acidification Research. poster. 2nd U.S. Ocean Acidification Principal Investigators' Meeting; Washington, DC; 17-20 September 2013.
- Chandler, C.L.; Allison, M.D.; Groman, R.C.; Gegg, S.R.; Wiebe, P.H.; Glover, D.M. (2013) BCO-DMO: an Ocean Biogeochemistry Data Resource, ASLO Aquatic Sciences 2013, SS58, New Orleans, LA, 17–22 Feb.
- Allison, M.D., R.C. Groman, S.R. Gegg, C.L. Chandler, R.W. Sterner, S. Brovold, C.R. Galvarino, P.H. Wiebe, and D.M. Glover (2013) Managing Data for the Long Haul: A BCO-DMO Partnership, ASLO Aquatic Sciences 2013, SS63, New Orleans, LA, 17–22 Feb.
- Glover, D.M., S.C. Doney, K.T. Lindsay, and I. Lima (2012), Progress on Assessing the Impact of Ocean Acidification on Marine Planktonic Calcification using Satellite Analysis, Field Data and Earth System Modeling, Abstract OS31B-1721 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- Allison, M.D., R.C. Groman, C.L. Chandler, C.R. Galvarino, P.H. Wiebe, and D.M. Glover (2012) Visualization Beyond the Map: The Challenges of Managing Data for Re-Use, Abstract ED41A-0673 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- Chandler, C.L., R.C. Groman, M.D. Allison, P.H. Wiebe, and D.M. Glover (2012) BCO-DMO: Improving Access to Ocean Research Data throughout the Data Life Cycle, Abstract IN43B-1506 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- Glover, D.M., S.C. Doney, I. Lima, A. Tullo, K. Lindsay, (2012) Assessing the Impact of Ocean Acidification on Marine Planktonic Calcification using Satellite Analysis and Earth System Modeling, talk ID 9542, Session: 141: Improving the Representation of Plankton Ecology in Earth System Models, Salt Lake City, Utah, 23 February 2012.
- Chandler, C. L., Groman, R. C., Allison, M. D., Glover, D. M., Wiebe, P. W., Gegg, S. R. (2012) DATA MANAGEMENT AND DATA AVAILABILITY IN SUPPORT OF ECOSYSTEM BASED MANAGEMENT AND MARINE SPATIAL PLANNING, poster ID 1079 presented at Session S077: Data Systems that Support the US National Policy for the Stewardship of the Ocean, Coasts, and Great Lakes. 2012 Ocean Sciences Meeting, Salt Lake City, Utah, 22 February 2012.
- Chandler, C. L., Allison, M. D., Groman, R. C., Gegg, S. R., Wiebe, P. W., Glover, D. M. (2011) CARIACO TIME-SERIES DATA MANAGEMENT, poster ID 243 presented at Session S02: Ocean Biogeochemistry Time-Series and Climate, ASLO 2011 Aquatic Sciences Meeting, Puerto Rico, 17 February.
- Allison, M. D., Chandler, C. L., Groman, R. C., Wiebe, P. W., Gegg, S. R., Glover, D. M. (2011), MAN-

- AGEMENT OF PLANKTON DISTRIBUTION AND ABUNDANCE DATA, poster ID 402 presented at Session S30: Mechanistic Descriptions of Diverse Plankton Communities: From Observations to Models, ASLO 2011 Aquatic Sciences Meeting, Puerto Rico, 17 February.
- Allison, MD, Chandler, CL, Copley, N, Galvarino, C, Gegg, SR, Glover, DM, Groman, RC, Wiebe, P H, Work, TT, (2010), NSF-Sponsored Biological and Chemical Oceanography Data Management Office, Abstract OS13C-1248 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
- Xu, N., D.M. Glover and S.C. Doney, 2010, Modeling the Potential Effects of Seasonal Variations in Seawater Carbonate Species on Calcification, *Eos Trans. AGU*, **91**(26), Ocean Sci. Meet. Suppl., Abstract IT35I-08.
- Glover, D.M., N.M. Frew, and A.W. Tullo, 2010, A 17 Year Time Series of Regional to Global Gas Transfer Velocities from Altimetry, *Eos Trans. AGU*, **91**(26), Ocean Sci. Meet. Suppl., Abstract PO51C-08.
- Groman, R.C., M.D. Allison, C.L. Chandler, D.M. Glover, P.H. Wiebe, and S.R. Gegg, 2009, Further Enhancements of the Geospatial Interface to the Biological and Chemical Oceanography Data Management System, *Eos Trans. AGU*, **90**(52), Fall Meet. Suppl., Abstract IN21B-1053
- McCoy, S.J., L.F. Robinson, C.A. Pfister, J. Wootton, N. Shimizu, and D.M. Glover, 2009, High-resolution B concentration analyses by SIMS in *M. californianus* as a potential record of ocean acidification, *Eos Trans. AGU*, **90**(52), Fall Meet. Suppl., Abstract V51E-1787.
- Glover, D.M., N.M. Frew, and M.J. Caruso, 2008, Satellite Estimation of Air-Sea Gas Transfer During GasEx-3 Using QuikSCAT and Jason-1 Microwave Radars, *EOS Trans. AGU*, **89**(53), Fall Meet. Suppl., Abstract OS31B-1262.
- Glover, D.M., S.C. Doney, N. Nelson, and A. Wallis, 2008, Mesoscale and Submesoscale Influence on Variability and Anisotropy Observed in Ocean Color Data Near Bermuda, *EOS Trans. AGU*, **89**(53), Fall Meet. Suppl., Abstract OS13A-1174.
- Groman, R.C., M.D. Allison, C.L. Chandler, D.M. Glover, and P.H. Wiebe, 2008, Making Data Available via the Biological and Chemical Oceanography Data Management Office - Overview, *EOS Trans. AGU*, **89**(53), Fall Meet. Suppl., Abstract IN51D-07.
- Allison, M.D., R.C. Groman, C.L. Chandler, D.M. Glover, and P.H. Wiebe, 2008, Making Data Available via the Biological and Chemical Oceanography Data Management Office – Implementation Details, *EOS Trans. AGU*, **89**(53), Fall Meet. Suppl., Abstract IN53A-1189.
- Glover, D.M., N.M. Frew, S.C. Doney, I.D. Lima, M.J. Caruso, and S.J. McCue, 2006, The Application of Mean Square Slope Derived Gas Transfer Velocities in a Global General Circulation Model, *Eos Trans. AGU*, **87**(52), Fall Meet. Suppl., Abstract OS53A-1092.
- Frew, N.M., D.M. Glover, S.J. McCue, 2006, Application of Altimeter Radars to Air-Sea Gas Exchange, *EOS Trans. AGU*, **87**(36), Ocean Sci. Meet. Suppl., Abstract OS15E-15.
- Glover, D.M., N.M. Frew, and S.J. McCue, 2006, Prospects for a Long-Term Global Time Series of Air-Sea Gas Transfer Velocity From the Jason-1 and TOPEX Altimeters, *EOS Trans. AGU*, **87**(36), Ocean Sci. Meet. Suppl., Abstract OS14C-06.
- Wallis, A., S. Doney, D. Glover, and N. Nelson, Characterizing submesoscale ocean color variability in the Sargasso Sea in the vicinity of the Bermuda Atlantic Time-series Site (BATS): A geostatistical approach, 2004, *EOS Trans. AGU*, **85**(47), Fall Meet. Suppl., Abstract OS21C-1274.
- Glover, D.M., N.M. Frew, M.J. Caruso, and S.J. McCue, 2004, Prediction of Gas Exchange Rate Using Microwave Backscatter From the Ocean Surface, *EOS Trans. AGU*, **85**(47), Fall Meet. Suppl., Abstract OS13B-0533.
- McCue, S.J., D.M. Glover, and N.M. Frew, 2003, Processing TOPEX and Jason-1 altimeter data for gas transfer velocity from radar backscatter-derived surface roughness, *Trans. Am. Geophys. Union*, **84**(52): OS66.
- Glover, D.M., M.J. Caruso, N.M. Frew, and S.J. McCue, 2003, Derivation of air-sea gas transfer velocities from QuikSCAT using co-located normalized radar backscatter from TOPEX, *Trans. Am. Geophys.*

- Union*, **84**(52): OS66.
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WHOI Committee Memberships (past & present)

- Hughes Medical Institute — WHOI-MBL Library Committee
- WHOI ad hoc Database Management System Advisory Committee
- WHOI Computer Committee, alternate for Bill Jenkins
- WHOI ad hoc Scientific Visualization Advisory Committee
- WHOI ad hoc Scientific Data Archive Committee
- WHOI ad hoc Student Computing Committee
- WHOI Information Technology Advisory Committee (ITAC)
- Joint Chemistry/PO/Biology/AOP&E Air-sea Interaction Exploratory Committee
- WHOI ad hoc CIS Review Committee
- Scientific Advisory Committee on Computing (SACC)
- Academic Advisory Committee entering class of 2011
- MC&G General Exam Committee 2012

National Committee Memberships

- National Science Foundation (NSF)
 - Advisory Committee for Ocean Sciences (ACOS), NSF 1990–1992
 - Liaison to Advisory Committee for Polar Programs (ACPP), NSF 1992
 - Committee for Equal Opportunity in Science and Engineering (CEOSE), 1993–1996
 - NSFnet User Working Group (NUWG), Oct 1993 to present
- National Research Council (NRC)
 - Committee on Geophysical and Environmental Data (CGED) Apr 1998 to Jan 2004
- U.S. Joint Global Ocean Flux Study (JGOFS)
 - Modeling Group
 - Database Management Group
 - Data Assimilation Group
 - Steering Committee meeting, attendance required as part of DBMS group
 - Director of JGOFS Data Management Office (DMO)
- NASA Earth Observing System (EOS) project
 - Investigator Working Group, 1988–1998
 - EOS Data and Information System panel, 1990 – 2002, chair 1994–1998
 - EOS Biogeochemistry panel 1990 – 1998
 - EOS Modeling panel 1990 – 1998
 - JPL DAAC user working group (UWG) 1990 – 2009, chair 1990 – 1998

- EOSDIS Review Group (ERG) 1990 – 1998
- Lead Customer Group for SIS-study 1990 – 1998
- NASA SeaWiFS Science Team Meetings (now Ocean Color Research Team) 1993 – present
- NASA Ocean Surface Topography Science Team 1998 – 2008

Education Participation

- Courses taught:
 - 12.722 *Special Topics in Geochemistry* with Goyet and Ruttenberg.
 - 12.747 *Modeling, Data Analysis, and Numerical Techniques in Geochemistry* with Jenkins and Doney
 - 12.759 *Marine Chemistry Seminar* with Rachel Stanley, Spring 2011, Spring 2013
- Thesis committees:
 - Scott Doney (Ph.D. 1991)
 - Maria Hood (Ph.D. 1997)
 - Claudia Benitez-Nelson (Ph.D. 1998)
 - Alex Ganachaud (Ph.D. 1999)
 - Xingwen Li (Ph.D., 2003)
 - Caitlin Frame (Ph.D., 2011)
 - Stephanie Owens (Ph.D., 2012)
- JP Students formally or informally advised

Billy Spitzer (Ph.D., 1988)	Tom Trull (Ph.D., 1989)	Scott Doney (Ph.D., 1991)
Kathleen Ledyard (Ph.D., 1992)	Sarah Green (Ph.D., 1992)	Nathalie Waser (Ph.D., 1993)
Hedy Edmonds (Ph.D. 1996)	E. Maria Hood (Ph.D., 1997)	Elizabeth Minor (Ph.D., 1998)
Claudia Benitez-Nelson (Ph.D., 1998)	Kathy Barbeau (Ph.D., 1998)	Timothy Kenna (Ph.D., 2000)
Liz Kujawinski (Ph.D., 2000)	Erin Sweeney (M.S., 2001)	Jared Goldstone (Ph.D., 2002)
Linda Rasmussen (Ph.D., 2003)	Rose Came (Ph.D., 2005)	Mea Cook (Ph.D., 2006)
David Lund (Ph.D., 2006)	Rachel Stanley (Ph.D., 2007)	Nathalie Goodkin (Ph.D., 2007)
Paul Craddock (Ph.D., 2008)	Annette Hynes (Ph.D., 2008)	Naomi Levine (Ph.D., 2009)
Christian Miller (Ph.D., 2009)	Desiree Plata (Ph.D., 2009)	David Griffith (Ph.D., 2013)
David Ullman	Andrea Burke (Ph.D., 2011)	Caitlin Frame (Ph.D., 2011)
Stephanie Owens (Ph.D., 2012)	Jong-Mi Lee (Ph.D., 2013)	Andrew McDonnell (Ph.D., 2011)
Maya Bhatia (Ph. D., 2011)	Kim Popendorf (Ph.D., 2012)	Carly Buchwald (Ph.D., 2012)
Meagan Gonneea (Ph.D., 2013)	Karin Lemkau (Ph.D., 2012)	Whitney Bernstein (Ph.D., 2013)
Liz Drenkard (Ph.D., 2014)	Jill McDermott (Ph.D., 2014)	Britta Voss (Ph.D., 2014)
Patty Tcaciuc	Rene Boiteau	Ben Linhoff (Ph.D., 2015)
Sophie Chu	James Collins	Nicholas Hawco
Jordan Hemingway	Evan Howard	Winifred Johnson
Cara Manning	Simone Moos	Sarah Rosengard
David Wang	Andrea Dubin	Erin Black

I have been on Hedy Edmonds and Maria Hood's pre-general exam advisory committees. In April 1990, Scott Doney added me to his thesis advisory committee, in August 1991 he successfully defended his thesis. I have given advice and help to Nathalie Waser in her preparation of a proposal to NASA for one of their

graduate student fellowships (Spring 1990). E. Maria Hood added me to her thesis committee in 1997 and she successfully defended in September 1997. Claudia Benitez-Nelson added me to her thesis committee in spring 1997, I stood in for her thesis advisor Ken Buesseler while he was in Washington, and she successfully defended her thesis in late 1998. Alex Ganachaud invited me to join his thesis committee in 1998 and he successfully defended his thesis in late 1999. In 2000 Xingwen Li (Ph.D., 2003) asked me to join her thesis committee. Payal Parekh (Ph.D., 2003) asked me to be her thesis advisor in 1999; in 2000 she switched advisors to be more MIT-centric. Caitlin Frame asked me to be on her thesis committee in late 2008. I teach the MIT/WHOI Joint Program course 12.747 (Modeling, Data Analysis, and Numerical Techniques for Geochemistry) every other Fall. I have participated informally through numerous discussions on numerical modeling, computer programming and applications of mathematical techniques with students. These have been in the form of informal tutorials involving Billy Spitzer (Ph.D., 1988), Tom Trull (Ph.D., 1989), Scott Doney (Ph.D., 1991), Kathleen Ledyard (Ph.D., 1992), Sarah Green (Ph.D., 1992), Nathalie Waser (Ph.D., 1993), Hedy Edmonds (Ph.D. 1996), E. Maria Hood (Ph.D., 1997), Elizabeth Minor (Ph.D., 1998), Claudia Benitez-Nelson (Ph.D., 1998), Kathy Barbeau (Ph.D., 1998), Timothy Kenna (Ph.D., 2000), Liz Kujawinski (Ph.D., 2000), Erin Sweeney (M.S., 2001), Jared Goldstone (Ph.D., 2002), Linda Rasmussen (Ph.D., 2003), Rose Came (Ph.D., 2005), Mea Cook (Ph.D., 2006), David Lund (Ph.D., 2006), Rachel Stanley (Ph.D., 2007), Nathalie Goodkin (Ph.D., 2007), Paul Craddock (Ph.D., 2008), Annette Hynes (Ph.D., 2008), Naomi Levine (Ph.D., 2009), Christian Miller (Ph.D., 2009), Desiree Plata (Ph.D., 2009), David Ullman, Andrea Burke (Ph.D., 2011), Caitlin Frame (Ph.D., 2011), Stephanie Owens (Ph.D., 2012), Jong-Mi Lee (Ph.D., 2013), and Andrew McDonnell (Ph.D., 2011), Meagan Gonneea (Ph.D., 2013), Karin Lemkau (Ph.D., 2012), Whitney Bernstein (Ph.D., 2013).

The popularity of 12.747 (Modeling, Data Analysis, and Numerical Techniques for Geochemistry) has grown since Bill Jenkins and I started teaching the course in 1996. In collaboration with Bill and Scott Doney we began a book project with Cambridge University Press. In 2005 we put together a book prospectus for four publishers (Academic Press, Cambridge University Press, John Wiley & Sons, and Princeton University Press). In November 2005 we signed a contract with Cambridge University Press to produce a typescript of a book titled *Modeling Methods for Marine Science*. This typescript was delivered in Aug 2010 and the book was published in June 2011 to overwhelmingly positive reviews.