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B.S., Cornell University, 1974
M.S., Cornell University, 1976
Ph.D., Scripps Institution of Oceanography, University of California, San Diego, 1981

Research Assistant, Department of Agricultural Engineering, Cornell University, 1974–1976
Research Assistant, Scripps Institution of Oceanography, University of California, San Diego, 1976–1981 Postdoctoral Scholar, 1981–1982; Postdoctoral Investigator, 1982–1983;
Assistant Scientist, 1983–1987; Associate Scientist, 1987–1997, awarded tenure, 1991; Senior Scientist 1997–, Woods Hole Oceanographic Institution

Member, American Geophysical Union, 1982–
Member, Joint Program Admissions Committee, WHOI, 1984–1987, 1991–1994
Rapporteur of the Coastal Transition Zone Workshop, Monterey, May 1985
Physical Oceanography Department Seminar Chairman, 1985
Chairman, Coastal Ocean Dynamics IV Session at AGU Meeting, Fall, 1985
Member, Joint Committee for Physical Oceanography, WHOI, 1985–1989, 1991–1994
Physical Oceanography Department Long-Range Planning Committee, WHOI, 1987
Member, NCAR Scientific Computing Division (SCD) Advisory Panel, 1988–1992
Member, Coastal Research Center Advisory Committee, WHOI, 1988–1991, 1997–2000
Member, National Science Foundation Ocean Sciences Review Panel, Washington, DC, 1989, 1994
Associate Editor, Journal of Geophysical Research–Oceans, 1990–1995
Education Coordinator, Physical Oceanography Department, WHOI, 1991–1994
Member, Computer and Communications Advisory Committee, WHOI, 1990–1994
Member, Education Council, WHOI, 1991–1994
Member, NAVMETOCCOM Shallow Water Modeling Assessment Panel, ONR, 1995
Member, National Science Foundation Arctic Interdisciplinary Review Panel, Washington, DC, 1996
Chairman, Theoretical and Analytical Models of Fluid Flow Characteristics Session, Ocean Science Meeting, February 1996
Editor's Citation for Excellence in Reviewing: Journal of Geophysical Research–Oceans, 1996
P.O. Representative on WHOI Postdoctoral Fellowship Committee, 1999–2001.
Coastal Ocean Institute Advisory Committee, 2002–.

Research Interests: Dynamics of circulation over the continental shelf and slope, using analytical and numerical models; buoyancy-driven coastal currents, generation of harbor and coastal seiches, dense water formation on Arctic shelves, bottom boundary layers and mixing, shelfbreak fronts, generation and propagation of coastal-trapped waves, flow over seamounts.

Author or co-author of 72 refereed scientific publications.

Refereed Publications

Chapman, D. C., R. H. Rand, and J. R. Cooke, 1977. A hydrodynamical model of bordered pits in conifer tracheids. *Journal of Theoretical Biology*, **67**, 11–24.

Haith, Douglas A. and David C. Chapman, 1977. Best practicable waste treatment screening model. *Journal of the Environmental Engineering Division of the American Society of Civil Engineers*, **103**, 397–412.

Guza, R. T. and D. C. Chapman, 1979. Experimental study of the instabilities of waves obliquely incident on a beach. *Journal of Fluid Mechanics***, 95**, 199–208.

Chapman, David C. and Myrl C. Hendershott, 1981. Scattering of internal waves obliquely incident upon a step change in bottom relief. *Deep-Sea Research***, 28,** 1323–1338.

Chapman, David C. and Robert L. Parker, 1981. A theoretical analysis of the diffusion porometer: Steady diffusion through two finite cylinders of different radii. *Agricultural Meteorology*, **23**, 9–20.

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Chapman, David C. and Myrl C. Hendershott, 1982. Shelf wave dispersion in a geophysical ocean. *Dynamics of Atmospheres and Oceans,* **7**(1), 17–31.

Butman, Bradford, Marlene Noble, David C. Chapman, and Robert C. Beardsley, 1983. An upper bound for the tidally rectified current at one location on the southern flank of Georges Bank. *Journal of Physical Oceanography*, **13**(8), 1452–1460.

Chapman, David C., 1983. On the influence of stratification and continental shelf and slope topography on the dispersion of subinertial coastally trapped waves. *Journal of Physical Oceanography*, **13**(9), 1641–1652.

Chapman, David C., 1984. A note on the use of two-layer models of coastally trapped waves. *Dynamics of Atmospheres and Oceans***, 8**(1), 73–86.

Chapman, David C., 1984. The generation of barotropic edge waves by deep-sea internal waves. *Journal of Physical Oceanography*, **14**(7), 1152–1158.

Beardsley, Robert C., David C. Chapman, Kenneth H. Brink, Steven R. Ramp, and Ronald Schlitz, 1985. The Nantucket Shoals Flux Experiment (NSFE79), Part 1: A basic description of the current and temperature variability. *Journal of Physical Oceanography***, 15**(6), 713–748.

Chapman, David C., 1985. Numerical treatment of cross-shelf open boundaries in a barotropic coastal ocean model. *Journal of Physical Oceanography***, 15**(8), 1060–1075.

Chapman, David C., 1986. A simple model of the formation and maintenance of the shelf/slope front in the Middle Atlantic Bight. *Journal of Physical Oceanography*, **16**(7), 1273–1279.

Chapman, David C., John A. Barth, Robert C. Beardsley, and Richard G. Fairbanks, 1986. On the continuity of mean flow between the Scotian Shelf and the Middle Atlantic Bight. *Journal of Physical Oceanography*, **16**(4), 758–772.

Kinder, Thomas H., David C. Chapman, and John A. Whitehead, Jr., 1986. Westward intensification of the mean circulation on the Bering Sea Shelf. *Journal of Physical Oceanography*, **16**(2), 1217–1229.

Whitehead, John A., Jr. and David C. Chapman, 1986. Laboratory observations of a fresh water gravity current on a shelf: the generation of shelf waves. *Journal of Fluid Mechanics*, **172**, 373–399.

Brink, K. H., D. C. Chapman, and G. R. Halliwell, Jr., 1987. A stochastic model for wind-driven currents over the Continental Shelf. *Journal of Geophysical Research*, **92**(C2), 1783–1797.

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Wilkin, John L. and David C. Chapman, 1987. Scattering of continental shelf waves at a discontinuity in shelf width. *Journal of Physical Oceanography*, **17**(6), 713–724.

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Kelly, Kathryn A. and David C. Chapman, 1988. The response of stratified shelf and slope waters to steady offshore forcing. *Journal of Physical Oceanography*, **18**(6), 906–925.

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Chapman, David C., 1989. Enhanced subinertial diurnal tides over isolated topographic features. *Deep-Sea Research*, **36**, 815–824.

Chapman, David C. and Robert C. Beardsley, 1989. On the origin of shelf water in the Middle Atlantic Bight. *Journal of Physical Oceanography*, **19**(3), 384–391.

Lentz, Steven J. and David C. Chapman, 1989. Seasonal differences in the current and temperature variability over the Northern California shelf during CODE. *Journal of Geophysical Research*, **94**(C9), 12571–12592.

Chapman, David C. and Graham S. Giese, 1990. A model for the generation of coastal seiches by deep-sea internal waves. *Journal of Physical Oceanography*, **20**(9), 1459–1467.

Giese, Graham S., David C. Chapman, Peter G. Black, and John A. Fornshell, 1990. Causation of large-amplitude coastal seiches on the Caribbean Coast of Puerto Rico. *Journal of Physical Oceanography*, **20**(9), 1449–1458.

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Chapman, David C., 1999. Dense water formation beneath a time-dependent coastal polynya. *Journal of Physical Oceanography***, 29**(4), 807–820.

Chapman, David C., 2000. A numerical study of the adjustment of a narrow stratified current over a sloping bottom. *Journal of Physical Oceanography***, 30**(11), 2927–2940.

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Chapman, D. C., and G. S. Giese, 2001. Waves: Seiches. In: *Encyclopedia of Ocean Sciences*, J. H. Steele, K. K. Turekian, S. A. Thorpe, editors, Academic Press, London, **5**, 2724–2731.

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Winsor, Peter and David C. Chapman, 2002. Distribution and interannual variability of dense water production from coastal polynyas on the Chukchi Shelf. *Journal of Geophysical Research*, **107**(C7), 3079, doi:10.1029/2001JC000984.

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Carmack, E. and D. C. Chapman, 2003. Wind-driven shelf/basin exchange on an Arctic shelf: The joint roles of ice cover extent and shelf-break bathymetry. *Geophysical Research Letters*, **30**(14), 1778, doi:10.1029/2003GL017526.

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Turnewitsch, R., J.-L. Reyss, D. C. Chapman, J. Thomson, and R. S. Lampitt, 2004. Evidence for a sedimentary fingerprint of an asymmetric flow field surrounding a short seamount. *Earth and Planetary Science Letters*, **222**, 1023-1036.

Lentz, S. J. and D. C. Chapman, 2004. The importance of nonlinear cross-shelf momentum flux during wind-driven coastal upwelling. *Journal of Physical Oceanography*, **34**, 2444-2457.

Chapman, D. C., 2005. Acceleration of a stratified current over a sloping bottom driven by an alongshelf pressure gradient. *Journal of Physical Oceanography*, **35**, 1305-1317.

Non-Refereed Publications

Chapman, D. C., 1974. The dynamics of the semicircular canals. *ASAE Meeting, No. 74-5030*, American Society of Agricultural Engineers, St. Joseph, Michigan.

Chapman, D. C., 1975. Who needs bioengineering*? ASAE Meeting, No. 75-5024*, ASAE, St. Joseph, Michigan.

Chapman, D. C., J. R. Cooke and D. C. Elfving, 1977. A finite difference analysis of the diffusion porometer. *ASAE Meeting, No. 77-5508*, ASAE, St. Joseph, Michigan.

Haith, D. A., and D. C. Chapman, 1977. Land application as a best practicable waste treatment alternative. In*: Land as a Waste Management Alternative*, R. C. Loehr, editor, Ann Arbor Science, Ann Arbor, Michigan, Chapter 4, pp. 45–61.

Chapman, D. C., and R. C. Beardsley, 1988. The origin of shelf water in the Middle Atlantic Bight. *Woods Hole Oceanographic Institution Annual Report*, 14–15.

Giese, G. S., and D. C. Chapman, 1988. Generation of coastal seiches by deep-sea internal waves. *Woods Hole Oceanographic Institution Annual Report*, 28–29.

Giese, G. S., and D. C. Chapman, 1993. Coastal seiches. *Oceanus*, **36**(1), pp. 38–46.

Gawarkiewicz, G., and D. C. Chapman, 1994. Dense water formation on Arctic shelves. *Oceanus*, **37**(2), 14–16.

Chapman, D. C. and S. J. Lentz, 1997. Can we explain long, narrow, persistent ocean currents? *Woods Hole Oceanographic Institution Annual Report, 22.*

Giese, G. S. and D. C. Chapman, 1997. Modes of harbor wave response to excitation by internal waves. *Port Coast Environment (PCE'97): Proceedings of the First International Conference, Varna, Bulgaria*.

Chapman, D. C., 1998. Dense water formation beneath a time-dependent coastal polynya. *Proceedings of the International Workshop on Exchange Processes Between the Arctic Shelves and Basins, Yokohama, Japan, February 17–19, 1998,* 78–80.

Giese, G. S. and D. C. Chapman, 1998. Hazardous harbor seiches, tides, wind and baroclinicity, Ocean Wave Measurement and Analysis, *Proceedings of the Third International Symposium, Virginia Beach, VA, November 3–7, 1997*, **1**, 208–218.

Chapman, D. C., and G. S. Giese, 2001. Seiches. In*: Encyclopedia of Ocean Sciences*, John H. Steele, Steve A. Thorpe, and Karl K. Turekian, Editors, Academic Press, San Diego**, 5**, 2724–2731.

Technical Reports

Chapman, D. C., 1976. A mathematical analysis of bordered pits in tracheids. M.S. Thesis, Cornell University, Ithaca, New York, 86 pp.

Seymour, R. J., and D. C. Chapman, 1977. Mission Bay depth survey. In*: The Tethered Float Breakwater Ocean Experiment, University of California, San Diego, Technical Note No. 14,* 12 pp.

Chapman, David C., 1981. Some effects of steep topography on linear waves in a stratified ocean. Ph.D. Thesis, Scripps Institution of Oceanography, University of California, San Diego, 86 pp.

Brink, Kenneth H., and David C. Chapman, 1985. Programs for computing properties of coastal-trapped waves and wind-driven motions over the continental shelf and slope. *Woods Hole Oceanographic Institution Technical Report,* WHOI-85-17, 98 + iii pp.

Brink, Kenneth H., and David C. Chapman, 1987. Programs for computing properties of coastal-trapped waves and wind-driven motions over the continental shelf and slope. 2nd edition. *Woods Hole Oceanographic Institution Technical Report*, WHOI-87-24, 119 + iii pp.

Graduate Advisors: Ph.D.: Dr. Myrl C. Hendershott (SIO); Postdoc: Dr. Robert C. Beardsley (WHOI).

Ph.D. Students Advised: J. Wilkin (Ph.D. 1988), T. Wood (M.S. 1987) and D. Goldner (Ph.D. 1998); co-advised D. Fong (Ph.D. 1998).

Post-Docs Supervised:, G. Gawarkiewicz (1989-90), D. Siegal (1989-90), A. E. Yankovsky (1993-96), J. Lerczak (2001-03), and P. Winsor (2002-).