

## David A. Brooks

### Education:

1975 Ph.D. Physical Oceanography, University of Miami, Florida  
1971 M.S. Ocean Engineering (Acoustics), University of Miami, Florida  
1965 B.S. Electrical Engineering, University of Maine, Orono

### Academic/Professional Appointments

1987- Professor of Oceanography, Texas A&M University  
1997-2002 Executive Associate Dean and Associate Dean for Research,  
College of Geosciences, Texas A&M University  
1994- 1997 Department Head of Oceanography, Texas A&M University  
1988- 2013 Adjunct Scientist, Bigelow Laboratory for Ocean Sciences  
1983 -1987 Associate Professor of Oceanography, Texas A&M University  
1978 -1983 Assistant Professor of Oceanography, Texas A&M University  
1979 -1980 Adjunct Assistant Professor, North Carolina State University, Raleigh  
1975 -1978 Research Associate and Graduate Faculty Member,  
North Carolina State University, Raleigh  
1969 -1975 Research and Teaching Assistant, University of Miami, Florida  
1965 -1969 Systems Engineer, General Electric Company

### Teaching

#### *Graduate*

Dynamics of Oceans and Atmospheres (OCNG 615)  
Geophysical Fluid Dynamics (OCNG 614)  
Ocean Waves and Tides (OCNG 612)  
Analysis of Oceanographic Time Series (OCNG 689)  
Introduction to Physical Oceanography (OCNG 608)  
Oceanography for Science Teachers (OCNG 600)

#### *Undergraduate*

Introduction to Physical Oceanography (OCNG 410)  
Environmental Geoscience (GEOS 405)  
Introduction to Oceanography (OCNG 401)  
Oceanography (OCNG 251 and OCNG 251 honors)  
Introduction to Ocean Studies (OCNG 205)  
First-Year Seminar (UGST 181)  
Geosciences First-Year Seminar (GEOS 101)

### Research Interests and Experience

Observations and models of shelf, coastal and marginal seas  
Western boundary currents  
Tides and tidal power schemes  
Ocean observing systems  
Ecosystem dynamics and sustainability

**Professional Societies:**

The Oceanography Society (Founding Life Member)  
American Geophysical Union

**Research** (Title, funding source, active dates, PI or co-PI unless otherwise noted)

Scallop fertilization in a tidal estuary – model studies of particle transport and residence times (unfunded)  
Dynamics of a tidal environment: The lower Kennebec River estuary in Maine (unfunded)  
Ecosystem modeling in a trabecular coastal environment (NOAA continuation; 2006-7)  
Regional circulation models for Antigua and St. Croix (2006)  
Penobscot Bay coastal front drifter study (Northeast Consortium, 2004-05)  
Impact of transport processes on lobster fishery (NOAA, 2002-05)  
Ocean health observing system (TAMU Life Sciences Program of Excellence, 2002-04)  
Circulation modeling in Penobscot Bay, Maine (NOAA/Island Institute, 1999-01)  
Simulation of Larval Transport from the Texas coastal ocean to a bay (Texas Sea Grant, 1997-01).  
A study of currents over the inner Texas-Louisiana shelf (MMS/LSU, 1996-99).  
A Circulation Model for the Kara Sea in the Arctic Ocean (ONR/UW, 1994-96).  
Ecological Model of a Macrotidal Estuary: Cobscook Bay, Maine (Nature Conservancy, 1994-97).  
Louisiana-Texas Shelf Circulation Study (participating scientist) (MMS, 1991-94).  
Simulation of the Summer Circulation in the Gulf of Maine (NSF, 1992-95).  
Circulation in the Gulf of Maine (NSF, 1984-91).  
Telemetry from Ocean Moorings (NSF, 1987-89).  
Upwelling and Mixing in the Gulf of Maine (NSF, 1982-84).  
Dispersion of Loop Current eddies in the western Gulf of Mexico (MMS, 1985-87).  
Development and Testing of a telemetry system for oceanographic use (NSF, 1984-85).  
Investigation of low-frequency currents in the Gulf of Mexico (Conoco/Amoco, 1983-84).  
Analysis of observations from the western Gulf of Mexico (NSF, 1983-84).  
Synthesis of the Gulf Stream Meanders Experiment data set (NSF, 1981-83).  
Current and Hydrographic observations in the western Gulf of Mexico (NSF, 1980-82).  
Observations of Gulf Stream meanders off North Carolina (NSF/ONR, 1978-80).  
Long wave coupling of the Middle and South Atlantic Bights (NSF, 1978-79).  
A theoretical study of topographic Rossby waves in the Gulf Stream (ONR, 1977-78).  
SYNOPS: Synoptic Observations in the Florida Current (graduate student) (ONR, 1972-73).  
Project MIMI: Acoustic Propagation in the Straits of Florida (graduate student) (ONR, 1969-71)

**Publications****Refereed Articles**

- Spencer, L., S.F. DiMarco, Z. Wang, J. Kuehl, D.A. Brooks, 2016: Asymmetric oceanic response to a hurricane: Deepwater observations during Hurricane Isaac. *J. Geophys. Res.* (paper #2015JC011560RR).
- Paul, E.U., D.A. Brooks and J.M Kaihatu, 2015. Design, construction and testing of low-cost active surface drifters in Ibaka Bay, Nigeria. *J. Waterway, Port, Coastal and Ocean Engineering* (in revision).
- Brooks, D.A., 2014: Modeling the circulation in a river-dominated tidal estuary: The Kennebec River of central Maine. (in revision).

- Brooks, D.A., 2011: The hydrokinetic power resource in a tidal estuary: the Kennebec River of the central Maine coast. *Renewable Energy*, 36(5), 1492-1501.
- Brooks, D.A., 2009: Circulation and dispersion in a cancellate coast: the rivers, bays and estuaries of central Maine. *Estuarine, Coastal and Shelf Science*, 83(3), 313-25, [dx.doi.org/10.1016/j.ecss.2009.04.009](https://doi.org/10.1016/j.ecss.2009.04.009)
- Brooks, D.A., 2006: The tidal-stream energy resource in Passamaquoddy-Cobscook Bays: A fresh look at an old story. *Renewable Energy* 31(14), 2284-2295, doi:10.1016/j.rene.2005.10.013
- Brown, C.A., S.A. Holt, G.A. Jackson, D.A. Brooks, and G.J. Holt, 2004: Simulating larval supply to estuarine nursery areas: How much variation in larval supply to Aransas Pass inlet is explained by physical processes? *Fisheries Oceanography*, 13(3), 181-196.
- Brooks, D.A., 2004: Modeling tidal circulation and exchange in Cobscook Bay, Maine. *Northeastern Naturalist* Vol. 11 (Special Issue 2), 23-50.
- Brown, C.A., G.A. Jackson, and D.A. Brooks, 2000: Particle transport through a narrow tidal inlet due to tidal forcing and implications for larval transport. *J. Geophys. Res.*
- Bane, J. M., Jr., L.P. Atkinson, and D.A. Brooks, 2000: Gulf Stream physical oceanography at the Charleston Bump: Deflection, bimodality, meanders and upwelling. In: *Proc. Charleston Bump Colloquium*, American Fisheries Society.
- Xue, H., Y. Xu, D.A. Brooks, N. Pettigrew, and J. Wallinga, 2000: Modeling the Circulation in Penobscot Bay, Maine. In: *Estuarine and Coastal Modeling* (M. Spaulding and A. Blumberg, Eds.), Am. Soc. Civil Eng., 1299 pp.
- Brooks, D.A., M.W. Baca, and Y.T. Lo, 1999: Tidal circulation and residence time in a macrotidal estuary: Cobscook Bay, Maine. *Estuarine, Coastal and Shelf Science*, 49, 647-665.
- Brooks, D.A., 1996: Physical oceanography of the Slope and Shelf Seas from Cape Hatteras to Georges Bank: A brief overview. In: *Marine Ecosystem Management: The Northeast Shelf* (K. Sherman, N. Jaworski and T. Smayda, Eds). Blackwell Press, Boston, MA.
- Brooks, D.A., 1994: A model study of the buoyancy-driven circulation in the Gulf of Maine. *Journal of Physical Oceanography* , 24(11), 2387-2412.
- Witman, J.D., J.J. Leichter, S.J. Genovese and D.A. Brooks, 1993: Pulsed phytoplankton supply to the rocky subtidal zone: Influence of internal waves. *Proc. Nat. Acad. Sciences USA*, 90 , 1686-1690.
- Brooks, D.A. and L.U. Churchill, 1992: Experiments with a terrain-following hydrodynamic model for Cobscook Bay in the Gulf of Maine. In: *Estuarine and Coastal Modeling* (Spaulding, et al., Eds), Am. Soc. Civil Eng., 786 pp.
- Brooks, D.A., 1992: Tides and tidal power in Passamaquoddy Bay: A numerical simulation. *Cont. Shelf Res.*, 12, 675-716.
- Brooks, D.A., 1992: A brief overview of the physical oceanography of the Gulf of Maine. In: *Proceedings of the Gulf of Maine Scientific Workshop* (J. Wiggin and C.N.K. Mooers, Eds.), Woods Hole, MA. Urban Harbors Institute, Univ. of Massachusetts, Boston, 404 pp.
- Brooks, D.A. and M.G. Briscoe, 1991: Telemetry from ocean instruments using a frequency-agile HF packet switching protocol. *J. Atm. and Ocean. Tech.*, 8(6), 856-868.

- Brooks, D.A., 1990: Currents at Lindenkohl Sill in the southern Gulf of Maine. *J. Geophys. Res.* 95 (C12), 22173-22192.
- Brooks, D.A. and D. Townsend, 1989: Variability of the Coastal Current and nutrient pathways in the Gulf of Maine. *Journal of Marine Research*, 47, 303-321.
- Brooks, D.A., 1987: The influence of warm-core rings on slope water entering the Gulf of Maine. *Journal of Geophysical Research*, 92, 8183-8196.
- Chew, F., J. M. Bane and D. A. Brooks, 1985: Vertical motion and the thermal wind balance in cold-dome meanders. *J. Geophys. Res.*, 90 (C2), 3173-3184.
- Brooks, D. A., 1985: Vernal circulation in the Gulf of Maine. *Journal of Geophysical Research*, 90 (C5), 4687-4705.
- Brooks, D.A., 1984: The eastern maritime boundary between the United States and Canada. *Eos*, 65 (50), 1209-1210.
- Brooks, D. A., 1984: Current and hydrographic variability in the northwestern Gulf of Mexico. *Journal of Geophysical Research*, 89, 8022-8032.
- Brooks, D. A., 1984: Transhorizon VHF telemetry from ocean moorings. *Journal of Atmospheric and Oceanic Technology*, 1 (2), 176-189.
- Brooks, D. A. and J. M. Bane, 1983: Gulf Stream meanders off North Carolina during winter and summer 1979. *Journal of Geophysical Research*, 88 (C8), 4633-4650.
- Brooks, D. A., 1983: The wake of Hurricane Allen in the western Gulf of Mexico. *Journal of Physical Oceanography*, 13(1), 117-129.
- Brooks, D. A. and R. Legeckis, 1982: A ship and satellite view of hydrographic features in the western Gulf of Mexico. *Journal of Geophysical Research*, 87 (C6), 4195-4206.
- Bane, J. M., D. A. Brooks, and K. Lorenson, 1981: Synoptic observations of the three-dimensional structure, propagation and evolution of Gulf Stream meanders along the Carolina continental margin. *Journal of Geophysical Research*, 86 (C7), 6411-6425.
- Brooks, D. A. and J.M. Bane, 1981: Gulf Stream fluctuations and meanders over the Onslow Bay upper continental shelf. *Journal of Physical Oceanography*, 11(2), 247-256.
- Bane, J. M. and D. A. Brooks, 1979: Gulf Stream meanders along the continental margin from the Florida Straits to Cape Hatteras. *Geophysical Research Letters*. 6(4), 280-282.
- Lee, T.N. and D.A. Brooks, 1979: Initial observations of current, temperature, and coastal sea level response to atmospheric and Gulf Stream forcing on the continental shelf. *Geophysical Research Letters*. 6(4), 321-324.
- Brooks, D.A., 1979: Long wave coupling of the Mid- and South Atlantic Bights. *Journal of Physical Oceanography*, 9(6), 1304-1311.
- Brooks, D.A. and J.M. Bane, 1978: Gulf Stream deflection by bottom topography off Charleston, South Carolina. *Science*, 201 (4362), 1225-1226.
- Brooks, D.A., 1978: Subtidal sea level fluctuations and their relation to atmospheric forcing along the North Carolina coast. *Journal of Physical Oceanography*, 8(3), 481-493.

Brooks, D.A. and C.N.K. Mooers, 1977: Free, stable continental shelf waves in a sheared, barotropic boundary current. *Journal of Physical Oceanography*, 7(3), 380-388.

Brooks, D.A. and C.N.K. Mooers, 1977: Wind-forced continental shelf waves in the Florida Current. *Journal of Geophysical Research*, 82 (18). 2569-2576.

Mooers, C.N.K. and D.A. Brooks, 1977: Tidal and longer period motions in the Florida Current, Summer 1970. *Deep-Sea Research*, 24, 399-425.

#### **Workshop Proceedings, Technical and Data Reports**

Brooks, D.A., 2005: Modeling circulation and exchange pathways in Cobscook and Passamaquoddy Bays: Implications for ecosystem management. Proc. 6<sup>th</sup> Bay of Fundy Workshop, Env. Canada Rpt. No. 23, 289-297.

Brooks, D.A. 2005: The tidal-stream energy resource in Cobscook-Passamaquoddy Bays: A fresh look at an old story. Proc. 6<sup>th</sup> Bay of Fundy Workshop, Env. Canada Rpt. No. 23, 298-307.

Brooks, D.A., M.W. Baca and Y.-T. Lo, 1997: Tidal mixing, dispersion and flushing in Cobscook Bay, Maine: A hydrodynamic model study. Tech. Rep. to The Nature Conservancy, Dept. of Oceanography, Texas A&M Univ., College Station, TX, October, 1997, 72 pp.

Brooks, D.A., 1995: Modeling the tidal and river-induced circulation in the Kara Sea. In: *Arctic Nuclear Waste Assessment Workshop*, ONR/Gore-Chernomyrdin Environmental Committee, Woods Hole Oceanographic Institution, Woods Hole, MA, 1-5 May 1995.

Brooks, D.A., 1995: Multiple-river interactions in buoyancy-driven coastal currents. In: *Proceedings of the ONR/NRL Workshop on Modeling the Dispersion of Nuclear Contaminants in the Arctic Seas* (R. Preller and R. Edson, Eds.), NRL, Stennis Space Center, 22 February 1995.

Brooks, D.A., 1992: Physical oceanography of the shelf and slope sea from Cape Hatteras to Georges Bank: A brief overview. In: *Proceedings of the Workshop on The Northeast Shelf Ecosystem: Stress, Mitigation, and Sustainability*. Envir. Protection Agency, Narragansett, RI.

Brooks, D.A., 1992: Tides and tidal power in Passamaquoddy Bay: A brief overview of results from numerical simulations. In: *Proceedings of the Gulf of Maine Scientific Workshop* (J. Wiggin and C.N.K. Mooers, Eds.), Woods Hole, MA. Urban Harbors Institute, Univ. of Massachusetts, Boston, 404 pp.

Brooks, D. A., 1990: The importance of slope water in the Gulf of Maine. In: *Workshop Report on the Oceanography of the Gulf of Maine* (D. Townsend, Ed.). Bigelow Laboratory for Ocean Sciences, W.Boothbay Harbor, Maine.

Brooks, D. A., 1986: A Store-and -Report (STAR) Telemetry System for Oceanic Applications. Texas A&M Univ., Tech. Report 86-2-T, 50pp, May.

Gottlieb E.S., and D. A. Brooks, 1986: Current meter and atmospheric data from the Gulf of Maine: 1982-1985. Texas A&M Univ., Technical Report No. 86-3-T, 80 pp, June.

Gottlieb E.S., and D. A. Brooks, 1985: Hydrographic studies in the Gulf of Maine: July 1985. Texas A&M University, Technical Report 85-5-T, 134 pp.

- Brooks, D. A. and E. S. Gottlieb, 1985: Springtime hydrographic surveys in the Gulf of Maine: 1982,1983, and 1984. Texas A&M University, Technical Report 85-3-T, 234 pp.
- Brooks, D.A., S. Nakamoto, and F.J. Kelly, 1984: Investigation of low frequency currents in the Gulf of Mexico (Vol. I and II). Conoco Report No. 110483-HHH-1AH, Texas A&M Univ., College station.
- Brooks, D. A., 1983: Transhorizon VHF telemetry from ocean moorings. Texas A&M University, Technical Report. 37 pp.
- Brooks, D. A. and M. C. Eble, 1982: Moored Array Observations in the Western Gulf of Mexico - Current Meter Data Report for the July 1980 to February 1981 Mooring Period. Texas A&M University, Report 82-12-T, 259 pp.
- Brooks, D. A. and M. C. Eble, 1982: Hydrographic observations in the Western Gulf of Mexico (March 1980-February 1981). Texas A&M University, Report No. 82-2-T, 175 pp.
- Brooks, D. A. and J. M. Bane, 1982: A seasonal comparison of Gulf Stream fluctuations off North Carolina. IN: *Workshop on Gulf Stream Structure and Variability*, Univ. of N. Carolina, Chapel Hill, April, 1982, 384 pp.
- Brooks, D. A., 1982: Physical oceanography of the Gulf of Maine: An interim technical report for 1981 studies. Texas A&M University, Report No. 82-6-T, 114 pp.
- Brooks, D. A., 1982: Gulf Stream fluctuations and their relation to the winds off North Carolina. IN: *Workshop on Gulf Stream Structure and Variability*, Univ. of N. Carolina, Chapel Hill, April, 1982, 394 pp.
- Brooks, D. A., J. M. Bane, R. L. Cohen, and P. Blankinship, 1981: The Gulf Stream Meanders Experiment - Current Meter and Atmospheric Data Report for the August to November, 1979 Mooring Period. Texas A&M University, Report 81-3-T, 183 pp.
- Bane, J. M. and D.A. Brooks, 1981: The Gulf Stream Meanders Experiment, AXBT/PRT Data Report. R/A Project *Seascan* Flights (21-29 November 1979). The University of North Carolina at Chapel Hill, Technical Report No. CMS-81-1, 174 pp.
- Brooks, D. A., J. M. Bane, R.L. Cohen, and P. Blankinship, 1980: Gulf Stream Meanders Experiment - Current Meter and Atmospheric Data Report for the August to November, 1979 Mooring Period. Texas A&M University, Report 81-3-T, 183 pp.
- Bane, J. M., D.A. Brooks, K.R. Lorenson, and C.M. Seay, 1980: The Gulf Stream Meanders Experiment. AXBT/PRT Data Report, R/V Project *Birdseye* Flights (9-18 February 1979). The University of North Carolina at Chapel Hill, Technical Report No. CMS-80-2, 213 pp.
- Bane, J. M., D.A. Brooks, and M. Ignaszewski, 1980: The Gulf Stream Meanders Experiment. Hydrographic data report, R/V *Endeavor* cruises EN-040 (2-8 Aug 79) and EN-045 (16-23 Nov 79). Texas A&M University, Reference No. 80-10-T, 170 pp., September.
- Brooks, D. A., J. Bane, R. Cohen, and P. Blankinship, 1980: The Gulf Stream Meanders Experiment: Current meter, atmospheric, and sea level data report for the January-May 1979 mooring period. Texas A&M University, Reference No. 80-7-T, 264 pp., July.
- Brooks, D. A., J. Bane, and M. Ignaszewski, 1980: The Gulf Stream Meanders Experiment: Hydrographic data report, R/V *Endeavor* cruises EN-031 (12-19 Jan 79) and EN-037 (23-29 May 79). Texas A&M University, Reference No. 80-10T, 145 pp., January.

- Brooks, D.A., 1979: Shelf waves: Do they modulate the Gulf Stream? IN: *Symposium on Long Waves in the Ocean*. Manuscript Report Series No. 53, National Research Council, Ottawa, Canada, 231 pp.
- Brooks, D. A., 1979: Long wave coupling of the Mid- and South Atlantic Bights forced by the atmosphere. Texas A&M University, Report No. 79-3-T, College Station, 119 pp.
- Brooks, D. A., 1977: Sea level fluctuations off the Carolina coasts and their relation to atmospheric forcing. Center for Marine and Coastal Studies Technical Report No. 77 (6), North Carolina State University, Raleigh, 38 pp.
- Brooks, D.A. (ed), 1976: FESTSA (Fast and Easy Time Series Analysis) at NCSU. NCSU Center for Marine and Coastal Studies, North Carolina State University, Raleigh, 38 pp.
- Brooks, D. A., 1976: Long waves trapped by the Cape Fear continental shelf topography: A model study of their propagation characteristics and circulation patterns. NCSU Center for Marine and Coastal Studies, Report No. 76-2, North Carolina State University, Raleigh, 16 pp.
- Brooks, D.A., 1970: Frequency-domain acoustic data processing. Technical Report No. N24-70-0-1280, University of Miami, Florida, 15 pp.
- Hoar, R. A. and D.A. Brooks, 1967: Testing and evaluation procedures for Inertial Guidance Systems. General Electric Company Technical Report, Air Force Eastern Test Range, Cocoa Beach, Florida.

### ***Published Abstracts and Seminars***

- Bayer, S.R., D.A. Brooks, R.A. Wahle, D.C. Brady, 2016: A marriage of larval modeling and empirical data: Linking adults, larvae and juvenile scallops in an estuary. Benthic Ecology Meeting, Portland, Maine, March, 2016 (\*student)
- Bayer, S.R., Wahle, R.A., Brooks, D.A., Brady, D.C, 2016: A marriage of larval modeling and empirical data: Linking adults, larvae and juvenile scallops in an estuary. Ocean Sciences Meeting, New Orleans, February, 2016 (\*student)
- Bayer, S. G.\*, Wahle, R.A., Brady, D.C., Brooks, D.A. and P.A. Jumars, 2014: Scale of fertilization success in an exploited broadcast spawner: from an individual to an estuary. Ocean Sciences Meeting, Honolulu (\*student).
- Brooks, D. A., 2014: Modeling tidal circulation and larval dispersion in the Kennebec and Damariscotta River estuaries of central Maine. Ocean Sciences Meeting, Honolulu, February.
- Brooks, D.A., 2012: The hydrokinetic power resource in a macrotidal estuary. AGU Fall Meeting, San Francisco, December (Abstract only).
- Modeling the tides and their impacts in the lower Kennebec River. Invited seminar, Bigelow Laboratory for Ocean Sciences, East Boothbay, Maine, August, 2012.
- Circulation in a cancellate coast: the Rivers, Bays, Estuaries and Islands of the Central Maine Coast. Invited seminar, University Federal Fluminense, Rio de Janeiro, Brazil, April, 2007.
- Circulation in a cancellate coast: the Rivers, Bays, Estuaries and Islands of the Central Maine Coast. Invited opening science lecture at the NEERS Annual Meeting, Boothbay Harbor, Maine, May,

2007

- Brooks, D.A. 2006: Shoreward dispersion and mixing in fine-scale models of the central Maine coast: implications for lobsters and red tides. AGU Ocean Sciences meeting. *Eos Transactions* 87(36) (abstract).
- Brooks, D.A., 2005: The Influence of multiple river plumes on larval distribution in a coastal current: An example from the Gulf of Maine. The Oceanography Society biennial meeting, Paris, France, June.
- Brooks, D.A., 2004: Longshore advection, transverse tidal mixing, and planktonic lobster distribution in Maine coastal waters. Oral presentation, European Geosciences Union, Nice, France, 25-30 April (published abstract)
- Brooks, D.A., 2004: Lobsters and the Maine Coastal Current: connecting source and sink. Oral presentation, The Oceanography Society, Honolulu, Hawaii, 15-20 February (published abstract)
- Brooks, D. A. (with 11 others, L. Incze lead au), 2004: Data assimilation and modeling of source-sink relationships and fishery production of *Homarus americanus* in the Gulf of Maine. The Oceanography Society, Honolulu, Hawaii, 15-20 February (published abstract)
- Coastal modeling in the Gulf of Mexico, Invited talk at the IOCARIBE-GOOS Modeling Pilot Workshop, University of the Virgin Islands, St. Thomas, 2-4 February 2004.
- Transport pathways for lobster larvae and infectious salmon anemia in the eastern Gulf of Maine. seminar presented at Bigelow Laboratory for Ocean Sciences, Boothbay Harbor ME, 8 July 2003.
- Brooks, D. A., 2003: Transport pathways for lobster larvae and infectious salmon anemia in the eastern Gulf of Maine. Poster, Gordon Research Conference on Coastal Ocean Modeling, Colby-Sawyer College, New London, NH, 22-27 June.
- Sustainable coasts: A challenge for geoscience and engineering. Invited presentation at the Reta and Bill Haynes Symposium on Sustainable Coastlines, TAMU College of Engineering, 4-5 June 2003.
- Modeling circulation and exchange pathways in Cobscook and Passamaquoddy Bays: Implications for ecosystem management. 6<sup>th</sup> Bay of Fundy Workshop, Nova Scotia, Canada, 29 Sep – 2 Oct 04.
- The tidal-stream energy resource in Cobscook-Passamaquoddy Bays: A fresh look at an old story. 6<sup>th</sup> Bay of Fundy Workshop, Nova Scotia, Canada, 29 Sep – 2 Oct 04
- Brooks, D.A., 2004: Tidal mixing and buoyancy advection: Joint influences on lobster distribution in coastal Maine. AGU Fall Meeting, San Francisco, December (Abstract volume p. 121)
- Brooks, D.A. and Y.-T. Lo, 2000: Sediment and freshwater pathways in the Kara Sea. *Eos* 80, AGU Fall Meeting, San Francisco, CA, 15-19 December
- Brooks, D.A., 2000: Modeling freshwater pathways in the Kara Sea, with implications for thinning of Arctic sea ice. NSF-ARCSS Workshop on Arctic System Hydrology, Santa Barbara, CA, 18-20 September (invited).
- Brooks, D.A. and Y.-T. Lo, 2000: Interaction of the Mississippi River plume with the Mississippi Canyon. *Eos* 79, AGU Ocean Sciences Meeting, San Antonio, TX, 24-28 January.
- Brooks, D. A., 1999: Tidal circulation, energy flux and dissipation in the Kara Sea. *Eos* 79, AGU Fall Meeting, San Francisco, CA, 13-17 December.



- Brown, C.A., G.A. Jackson and D.A. Brooks, 1999: Role of tidal forcing on larval transport through a microtidal inlet on the Texas coast. ASLO Spring Meeting, Santa Fe, 1-5 February.
- Brooks, D.A. and Y.-T. Lo, 1998: Buoyancy-driven transport in shelf seas. *Eos 78*, AGU Fall Meeting, San Francisco, CA, 6-10 December.
- Brooks, D.A. and Y.-T. Lo, 1998: Influences of major river systems on shelf seas: Examples from the Kara Sea and the Gulf of Mexico. International Conference on Coastal Ocean and Semi-enclosed Seas Circulation and Ecology Modeling, Moscow, Russia, 8-12 Sept (invited).
- Brooks, D.A., M.W. Baca and Y.-T. Lo, 1998: Sustainable salmon aquaculture and tidal flushing in a macrotidal estuary: Cobscook Bay, Maine. IEEE/OES OCEANS '98, Nice, France, 28 Sept - 1 Oct.
- Brooks, D.A. and Y.-T. Lo, 1998: A model study of wind- and river-influenced circulation on the Texas-Louisiana shelf. The Oceanography Society biennial meeting, *www.tos.org*, Paris, France, 1-4 June.
- Brooks, D.A. and Y.-T. Lo, 1997: Influence and interaction of the Mississippi and Atchafalaya River plumes on the Louisiana-Texas shelf: A model study. *Eos 77*, AGU Fall Meeting, San Francisco, 8-12 December.
- Brooks, D.A., M.W. Baca and Y.-T. Lo, 1997: Tidal circulation and mixing in a macrotidal estuary: Cobscook Bay, Maine. Univ. of Maine, Orono, 26 September (invited).
- Brooks, D.A. and Y.-T. Lo, 1996: A model simulation of particle dispersion and mixing in the Kara Sea of the Arctic Ocean. *Eos 76*, AGU Fall Meeting, San Francisco, 16-19 December.
- Brooks, D.A. and Y.T. Lo, 1996: Tidal-Residual Flow and Water Pathways in the Kara Sea. *ONR Arctic Nuclear Waste Assessment Program*, Arctic Logistics Workshop, Snowbird UT, 4May
- Brooks, D.A. and Y.T. Lo, 1996: A Three-Dimensional Model of the Circulation Driven by Tides and River Run-off in the Kara Sea of the Arctic Ocean. *Eos 76 (3)*, 107, AGU Ocean Sciences Meeting, San Diego, CA, 12-16 February.
- Brooks, D.A. and Y.T. Lo, 1995: A Circulation Model for a Macrotidal Estuary: Cobscook Bay, Maine. *Eos 75*, 317, AGU Fall Meeting, San Francisco, CA, 11-15 December.
- Brooks, D.A., 1995: Circulation of Marginal Seas and Semi-Enclosed Seas. *IAPSO Programs and Abstracts*, XXI General Assembly, Honolulu, Hawaii, 5-12 August 1995.
- Brooks, D.A., 1994: Multiple river interactions in buoyancy-driven coastal currents. *Eos 74*, AGU Fall Meeting, San Francisco, CA, 5-9 December.
- Brooks, D.A. and Y-T Lo, 1994: Modeling the Mississippi plume on the Texas-Louisiana shelf during the summer flood of 1993. *Eos 74 (3)*, 52, AGU Ocean Sciences Meeting, San Diego, CA, 21-25 February.
- Brooks, D.A., 1992: Photographs from the Shuttle: A useful tool for oceanography. *Eos 73*, AGU Ocean Sciences Meeting (invited), January.
- Brooks, D.A., 1991: Preliminary experiments with a sigma-coordinate numerical circulation model for the Gulf of Maine. *Eos 72*, AGU Fall Meeting, San Francisco, December.
- Brooks, D.A., 1990: Modeling the tides in Passamaquoddy Bay in the eastern Gulf of Maine. *Eos 71(43)*, AGU FALL Meeting, San Francisco, December.

- Brooks, D.A., 1990: Tidally-forced internal wave packets near Georges Bank: Evidence from Shuttle Photographs. AGU Spring Meeting, Baltimore, May.
- Brooks, D.A., 1989: The induction and spreading of deep water in the Gulf of Maine. *Eos* 71 (2), 1990. AGU Fall Meeting, San Francisco.
- Brooks, D.A., 1988: The influence of Atlantic Slope Water on productivity in the Gulf of Maine. AGU Fall Meeting, San Francisco, December.
- Kelly, F.K. and D.A. Brooks, 1988: Evolution of warm-core eddies over the continental slope of the western Gulf of Mexico. 20th Liege Colloquium on Ocean Hydrodynamics, Belgium, May.
- Brooks, D.A., 1988: Nutrient pathways in the eastern Gulf of Maine. AGU-Ocean Sciences meeting, New Orleans, January.
- Brooks, D.A., 1987: Experiments with packet telemetry for oceanic applications. AGU Fall Meeting (invited), San Francisco, December.
- Brooks, D.A., 1987: The Atlantic boundary between the United States and Canada. 4th Int. Congress on the History of Oceanography, Hamburg, Germany, September.
- Brooks, D.A., 1986: The Influence of Warm-core Rings on Circulation in the Gulf of Maine. *Eos* 67, AGU Fall Meeting, San Francisco, December.
- Brooks, D.A., 1986: Gulf Stream warm-core rings and the annual cycle of circulation in the Gulf of Maine-Georges Bank region. Conference on variability of the atmosphere and the oceans on time scales of a month to several years, Royal Meteorological Society, London, September.
- Kelly, F.J., D.Brooks, A. Vazquez, and G. Lagerloef, 1986: Observations of a warm-core Loop Current eddy in the western Gulf of Mexico. *Eos* 67 (16), 294, AGU Spring Meeting, Baltimore, May.
- Brooks, D. A., 1986: The eastern maritime boundary between the United States and Canada: Past and prologue. *Eos* 67 (16), 297, AGU Spring Meeting, Baltimore, May.
- Brooks, D. A., 1986: Experiments with telemetry from ocean moorings in the Gulf of Maine. *Eos* 66 (51), 1263, 1985, Ocean Sciences meeting, New Orleans, January.
- Brooks, D. A., 1985: Shelf and slope water influences on circulation in the Gulf of Maine. *Eos* 66 (46), 916, AGU fall meeting, San Francisco, December.
- Brooks, D. A., 1985: Springtime circulation in the Gulf of Maine. Gulf of Maine Workshop, Portland, ME, 20-22 August.
- Brooks, D. A. and W. Brown, 1985: An overview of the physical oceanography of the Gulf of Maine. Invited review paper, Gulf of Maine Workshop, Portland, ME, 20-22 August.
- Brooks, D. A., 1984: Vernal circulation in the Gulf of Maine. *Transactions of the American Geophysical Union*, 65 (49). Fall meeting of the AGU, San Francisco, December.
- Brooks, D. A., 1984: Aspects of circulation in the Gulf of Maine deduced from hydrographic and current measurements. Spring AGU meeting (Invited), Cincinnati, May.

- Brooks, D. A., 1984: Circulation in the Gulf of Maine: The importance of Slope Water. *Transactions of the American Geophysical Union*, 64(51), 1093. Joint meeting of the AGU and ASLO, New Orleans, January.
- Brooks, D. A., 1983: Effects of a major hurricane on residual circulation in the Western Gulf of Mexico. Fall Meeting of the AGU (Invited), San Francisco, December.
- Brooks, D. A., 1983: Moored array observations of the wake of a moving hurricane. *Proc. XVIII Gen. Assembly of IUGG*, Hamburg, August.
- Brooks, D. A., 1982: Physical Studies in the Gulf of Maine. *Transactions of the American Geophysical Union*, 63(45). Fall Meeting of the AGU (Invited), San Francisco, December.
- Brooks, D. A. and J. Bane, 1982: A seasonal comparison of Gulf Stream fluctuations off North Carolina. Spring AGU Meeting (Invited), Philadelphia, June.
- Brooks, D. A. and R. Legeckis, 1982: A ship and satellite view of hydrographic features in the western Gulf of Mexico. *Transactions of the American Geophysical Union*, 63(3), 89. Joint Meeting of the AGU and ASLO, San Antonio, 16 February.
- Morrison, J. M. and D.A. Brooks, 1981: Estimates of kinetic energy exchange between the fluctuations and mean flow in the Antarctic Circumpolar Current. *Transactions of the American Geophysical Union*, 62(45), 925. Fall AGU meeting, San Francisco, December.
- Brooks, D. A., 1981: Currents in the western Gulf of Mexico observed during Hurricane Allen. *Transactions of the American Geophysical Union*. Fall Meeting of the AGU, San Francisco, 7 December.
- Bane J. M., D.A. Brooks, and K. Lorenson, 1981: Synoptic observations of the three-dimensional structure, propagation and evolution of Gulf Stream meanders along the Carolina continental margin. *Bulletin of the American Meteorological Society*, 61. Third Conference on Atmospheric Waves and Stability, San Diego, 19 January.
- Bane, J. M., D.A. Brooks, and M.E. Luther, 1980: Rotary spectra of Gulf Stream meanders over the continental slope off Onslow Bay, North Carolina. *Transactions of the American Geophysical Union*, 61, Spring Meeting of the AGU, Toronto, 23 May.
- Brooks, D. A., 1980: Wintertime Gulf Stream meanders in Onslow Bay, North Carolina. *Transactions of the American Geophysical Union*, 61, 261. Spring Meeting of the AGU, Toronto, 23 May.
- Brooks, D. A. and J. Bane, 1979: Gulf Stream meanders and low frequency currents over the continental slope off Onslow Bay, NC. *Transactions of the American Geophysical Union*, 60(46), 859. Fall AGU Meeting, San Francisco, 6 December.
- Bane, J. M. and D.A. Brooks, 1979: Three dimensional mesoscale characteristics of the temperature field in the Gulf Stream frontal zone south of Cape Hatteras. *Transactions of the American Geophysical Union*, 60(46), 859. Fall AGU Meeting, San Francisco, 6 December.
- Chao, S. Y. and D.A. Brooks, 1978: Quasi-steady shelf waves in the presence of a sheared boundary current. *Bulletin of the American Meteorological Society*, 59(7), 886. Second AMS Conference on Atmospheric and Oceanic Waves and Stability, Boston, Massachusetts, October.
- Brooks, D. A., 1977: Subtidal sea level fluctuations along the Carolina coasts. *Transactions of the American Geophysical Union*, 58(12), 1159. Fall Meeting of the AGU, 6 December.

- Brooks, D. A., 1976: Barotropic long waves trapped over the Cape Fear continental shelf and slope. *Transactions of the American Geophysical Union*, 57(12), 940 . Fall Meeting of the AGU, 7 December.
- Brooks, D. A., 1976: Wind-forced continental shelf waves in the Florida Current. *Bulletin of the American Meteorological Society*, 57(1), 111. Conference on Atmospheric and Oceanic Waves and Stability, Seattle, Washington, 31 March.
- Brooks, D. A. and C.N.K. Mooers, 1973: Several-day to several-week fluctuations in the Florida Current. *Transactions of the American Geophysical Union* 54(1), 311. Spring Meeting of the AGU.
- Deferrari, H. A. and D. A. Brooks, 1971: Asymmetry of spectra of surface reverberation in shallow water propagation. *Journal of the Acoustical Society of America*, 51(1), 98.

### **Other Professional Activities**

#### **Department of Oceanography**

- Executive Committee (2009-11; 2013)
- Tenure and Promotion Advisory Committee, Chair (2009-11; 2013)
- Curriculum Committee (2012 - )
- Research Advisory Committee (2007-8)
- Graduate Recruiting and Academic Advisory Committee, Chair (2003-4)
- Department Head (1994-97).
- Founding editor, *Quarterdeck* Magazine, (1993-98).
- Section Head for Physical Oceanography, (1987-94).
- Senior Executive Council representative, (1987-97).
- Curriculum, Computer and Instrument Committees, (1982-90).
- Academic Advisory Committee, (1988-90).
- Supervisor, Marine Technical Services, (1982-83).
- Graduate Student Advisor, Physical Oceanography (1980).

#### **College and University**

- College Assessment Committee (2010-11)
- College Tenure and Promotion Advisory Committee (2008-10, 2012-13)
- College Chairs and Professorships Committee (2009-10)
- University Graduate Appeals Committee (2007-10)
- Dean's Search Committee for Oceanography Department Head (2007).
- Executive Associate Dean and Associate Dean for Research (1998-2002)
- Dean's Search Committee for Meteorology Department Head, Chair (1995).
- Dean's Search Committee for Oceanography Department Head (1986-87).
- Provost's Committee on Peer Review in Tenure and Promotion (1995-96).
- Texas A&M University Committee on Diversity in Education (1995-96).
- Texas A&M University Tenure Advisory Committee (1988-91), Chair (1990-91).
- Provost's Advisory Committee for Geosciences Dean Search (1990-91).
- Texas A&M University Science and Journalism Award Committee (1988-89).

Board of Directors, Memorial Student Center Opera and Performing Arts Society (1994-97).  
 Covey Leadership Series, 29 Aug - 13 Nov (1994).  
 Texas A&M University Academic Administrators' Development Program (1993).  
 Geosciences Faculty Advisory Council (1989-92), Chair (1992).  
 Geosciences Committee for Academic Issues, Galveston merger (1990-91).  
 Geosciences College Committee on Tenure and Promotion (1987-90).

### External

#### *Science planning, policy and leadership:*

Antigua/St. Croix All-Hands planning meeting, St. Croix, June, 2007  
 Faculty Development Leave, Bigelow Laboratory for Ocean Sciences, Fall Semester 2006.  
 Modeling Related to the Regional Observing System in the Gulf of Maine, U. New Hampshire, July 2005  
 NSF Review Panel for the ORION Program, September, 2005.  
 IOCARIBE/GOOS planning meeting, University of the Virgin Islands, St. Thomas, February, 2004  
 Workshop on QUODDY model and utilities, Orono ME, 2003.  
 Arctic Research Consortium of the United States, TAMU Representative (2000-04).  
 Southeastern Universities Research Association, TAMU Representative (2000-02).  
 Board of Governors (TAMU Alternate), Consortium for Ocean Research and Education (1995-96).  
 AGU Heads and Chairs Meeting, Washington, D.C., 7-9 November 1997.  
 Regional Association for Research on the Gulf of Maine, Steering Ctte (1996-97), Member (1993-98)  
 AMS Heads and Chairs Meeting, Boulder, CO 10-11 October 1996.  
 Gulf of Maine Ecosystem Dynamics Workshop, St. Andrews NB, invited presenter (1996).  
 Southeast Consortium for Oceanographic Research, Steering Committee (1996-97).  
 Earth and Atmospheric Sciences Panel, National Research Council (1996).  
 Advisory Panel on Physical Oceanography, National Science Foundation (1995).  
 Gordon Research Conference on Coastal Oceanography, invited speaker (1993).  
 Panel on Physical Oceanography, National Academy of Sciences (1988-91).  
 Coastal Physical Oceanography Science Steering Committee (1989-90).  
 AGU Ocean Sciences Ad Hoc Objectives Committee, Columbia University (1986).  
 TOGA Scientific Programme Planning Meeting, IOC/SCOR/UNESCO, Paris (1984).

#### *Review and Advisory:*

Internal Review Team, Sea Grant Program, University of Maine, Spring (2001)  
 Review Committee for Ocean Sciences at the University of New Hampshire, Fall (2000)  
 Review Team for Curriculum in Marine Sciences, Univ. of North Carolina, Chair (1997).  
 ONR Ocean Engineering Board of Visitors, invited member (1990-91).  
 Experimental Program to Stimulate Competitive Research (NSF), (1982-83).  
 Advisory Panel on Physical Oceanography, National Science Foundation (1982-83).

#### *Editorial:*

Founding Editor and Publisher, *Oceanography Magazine*, (1987-91).  
 Director of Publications, The Oceanography Society (1988-91).  
 Publications Committee, The Oceanography Society (1996-98).  
 Editor, "The Oceanography Report," *Eos*, American Geophysical Union (1984-87).

#### *Service and Education:*

Texas A&M University System Symposium on Higher Education, TAMU delegate, Oct (2000)  
 CORE Ocean Sciences Educators' Retreat, Williamsburg (1995), Monterey, October (2000)  
 Committee on Radio Frequencies, National Academy of Sciences (1997-99).  
 Conference on New Development in General Education, TAMU delegate, San Antonio (1997).  
 National Research Council, Associateship Program Panelist, invited (1996-98).  
 Chair, Session on Marginal and Semi-Enclosed Seas, IUGG/IAPSO XXI, Honolulu (1995).

Ocean Planet Educational Task Force, Joint Oceanographic Institutions (1994).  
 Co-Chairman, AGU Technical Committee on Ocean Data Telemetry (1987-89).  
 Founding and Charter Life Member, The Oceanography Society (1988).  
 Committee on History in Geophysics, American Geophysical Union (1984-86).  
 Program Chairman, Ocean Sciences, AGU Spring Meeting, Baltimore (1986).  
 Symposium on the Equatorial Upper Ocean, IOC/SCOR/UNESCO, Paris (1985).  
 Chairman, Special Session on the Gulf of Maine, AGU Spring Meeting (1984).  
 U. S. Delegate, XVIII General Assembly of the IUGG, Hamburg (1983).

### Theses and Dissertations

1975: Wind-forced Continental Shelf Waves in the Florida Current. Ph.D. dissertation, University of Miami, Florida, 266 pp.

1971: Sea-surface Scattering of Underwater Sound. M.S. thesis, University of Miami, Florida, 95 pp.

1965: A Biomedical Telemetry System. Undergraduate thesis in Electrical Engineering, University of Maine, Orono, 39 pp.

### Book Reviews, Magazine Articles, Essays, Manuscripts

(single author unless otherwise noted)

*The Cutler Code*. Maritime adventure (manuscript in elongated progress).

2010-12: Maximum summer tidal range, Boothbay Harbor, Maine. At: boothbay.tamu.edu

2008: The "strange tide" in Boothbay Harbor, October 28, 2008. BHYC newsletter, Fall 2008 (see: boothbay.tamu.edu)

1992: Jacket review of: *The Woman Scientist*, by C. M. Yentsch and C.J. Sindermann, Plenum Press, 1992, 271 pp.

1990: LaViolette, P., D.R. Johnson and D.A. Brooks. Sun-glitter photographs of Georges Bank and the Gulf of Maine from the space shuttle. *Oceanography*, 3(1), 43-49.

1989: Review of: *Sailing Alone Around the World (and Voyage of the Liberdade)*, by Joshua Slocum. (Collier, 382 pp.). *Oceanography*, 2 (1), 51, April.

Time and Tides in the Gulf of Maine: A Dockside Dialog. (unpublished ms, 4 pp.).

1988: Review of: *A View of the Sea. A Discussion Between a Chief Engineer and an Oceanographer about the Machinery of the Ocean Circulation*, by Henry Stommel. (Princeton Univ. Press, 165 pp.). *Bull. Am. Met. Soc.*, May.

Review of: *The Crest of the Wave: Adventures in Oceanography*, by Willard Bascom. (Harper and Row, 318 pp.). *Oceanography*, 1 (2), 57.

1987: Quoddy Tides. (unpublished ms, 12 pp.)

The Type Thirty Triode. *Eos* 68, June 2, 555-556. Reprinted in: *Antique Radio Classified*, 5(1), January, 1988.

1986: Another Tale of Halley. *Eos* 67 (8), 89, February 25. Reprinted in: *Earthquake Information Bulletin* (H. Spall, Ed.), U.S. Geological Survey, Reston, Virginia, April-May, 1986.

- 1985: Deep-sea soundings. *Eos* 66(14), 155-156, April 2.
- Dredging with the *Blake*. *Eos* 66(19), 435-436, May 7.
- Anchored in the Florida Current. *Eos* 66(23), 484, June 4.
- E.B. White (1899-1985). *Eos* 66, November.
- Ancient Advice for Modern Mariners. *Eos* 66 (51), December.
- Sailing research vessels and the Arctic schooner *Bowdoin*. *Eos* 66 (51), 1227-1230, December.
- 1984: The eastern maritime boundary between the United States and Canada. *Eos*, 65 (50), 1209-1210, December 11.
- 1983: Building the Wayfarer Dinghy. *Wooden Boat Magazine*, 51, March/April.
- 1980: Bane, J. M., D.A. Brooks, K. Lorenson, and C. Seay. Three-dimensional view of a Gulf Stream meander between Savannah, Georgia and Cape Hatteras, North Carolina. *Gulf Stream Magazine*, May 6.
- Gulf Stream Navigation: Past and Prologue. Invited address to the Boston Marine Society, Boston, August 12 (unpublished ms).