### **CURRICULUM VITAE**

#### LAWRENCE A. LAWVER

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EDUCATION:	B.S., Stanford University, 1970 Ph.D., University of California, San Diego, 1976		
PROFESSIONAL EXPERIENCE:			
	Post-graduate Research Geophysicist Scripps Institution of Oceanography, 1976-1977		
	Geophysicist, U.S. Geological Survey, Geothermal Studies Project, 1978-1980		
	Research Associate, M.I.T., 1980-1983		
	Research Scientist, 1983-1994, Senior Research Scientist, 1994-present Institute for Geophysics, The University of Texas at Austin		
Memberships:	American Geophysical Union [Life member] Geological Society of America [Fellow] Royal Astronomical Society SEAPEX [Life member]		
COMMITTEES:	AICC, ARCTIC ICEBREAKER COORDINATING COMMITTEE 1995-2003 Hybrid ROV Committee, WHOI 2004-2008 Antarctic Research Ship Replacement Committee [UNOLS] 2011- 2012		

**RESEARCH PROJECTS (CURRENT):** 

PLATES project, Industry sponsored LoCra project with University of Stavanger, Norway, Industry sponsored Central Scotia Sea, NSF sponsored

CAREER EXPERIENCE:

8/68 - 9/68 Field Assistant, Mono Lake area - hydrology and geophysics.

6/69 - 9/69	Geophysical Field Assistant, Placer Development Company, Southwest
	Montana - mining exploration.
6/70 - 9/70	Research Assistant, Stanford University, - Remote sensing work, Prof. Lyon
9/70 - 9/71	Research Assistant, Scripps Institute of Oceanography - seismic refraction work, Dr. G. G. Shor.
10/71 - 9/73	Senior Engineering Aid, Scripps Institute of Oceanography and MIT - marine
10/71 - 9/73	heat flow, Dr. J. G. Sclater.
10/73 - 12/75	Research Assistant, Scripps Institute of Oceanography - marine heat flow, Prof.
	V. Vacquier.
1/76 - 12/77	Postgraduate Research Geophysicst V, Scripps Institute of Oceanography -
	marine heat flow, Southeast Asia Project of IDOE, Dr. J. R. Curray and Dr. G.
	G. Shor.
1/78 - 2/80	UGSG - land heat flow in Alaska, geothermal studies project, Dr. Arthur H.
	Lachenbruch.
3/80 - 6/80	Visiting Scientist, Scripps Institution of Oceanography - Andaman Sea/Burma
	seismic and magnetics investigation, Dr. J. R. Curray.
7/80 - 10/83	Research Associate, MIT - tectonics of South Atlantic, thermal history and
	maturation studies of sedimentary basins, Southeast Asia
11/83 Precent	Institute for Geophysics. The University of Taxas at Austin

11/83 - Present Institute for Geophysics, The University of Texas at Austin.

SCIENTIFIC PARTICIPANT IN OR CHIEF SCIENTIST OF THE FOLLOWING CRUISES:

1970	Seventow Leg 12	R/V T. WASHINGTON	Oregon Coast
1971	Antipode Legs 13 & 14	R/V MELVILLE	Lau Basin
1972	Hypogene Legs 2 & 3	R/V MELVILLE	Gulf of California
1972	DMITRI MENDELEYEV (US	SR)	East Pacific
1972	Southtow Leg 9	R/V T. WASHINGTON	Louisville Ridge
1973	Exito 2 & 4	R/V OCONOSTOTA	Gulf of California
1973	Tasaday 7	R/V T. WASHINGTON	Philippine Sea
1974	Cruises 7404 & 7410	R/V A. AGASSIZ	Gulf of California
1974-5	Eurydice 3, 5 & 6	R/V T. WASHINGTON	South Fiji Basin
	-	Andaman Sea	-
1976	Indopac 5 & 6	R/V T. WASHINGTON	Palau Trench, Phil. Sea
1976	Cruise 93, Legs 12 & 13	R/V ATLANTIS II	Banda Sea
1977	Indopac 11 & 12	R/V T. WASHINGTON	Sunda Trench
1977	Diving with DSC/SEA CLIFF		Guaymas Basin
1978	Guaymas 2 & 3	R/V T. WASHINGTON	Gulf of California
1980	Cruise 8009	R/V S. P. LEE	Chukchi Sea
1980-1	Vulcan 5	R/V MELVILLE	Scotia Sea, South Atlantic
1982	Cruise 8209	R/V S. P. LEE	Chukchi Sea
1984	FM	R/V F. MOORE	Gulf of Mexico
1985	Cruise 157	RRS DISCOVERY	Weddell Sea
1986	Rubbs 86	R/V POLAR DUKE	Bransfield Strait
1987	ODP Leg 113	TSS MÆRSK MASTER	Weddell Sea
1988	PD VI-88	R/V POLAR DUKE	Bransfield Strait
1989	PD IV-89	R/V POLAR DUKE	Bransfield Strait

1991	I91A	OGS EXPLORA	Ross Sea
1993	NBP93-01	RVIB N.B. PALMER	Powell Basin, Larsen Shelf,
		Bransfield Strait	
1995	NBP95-07	RVIB N.B. PALMER	SW Scotia Sea, Bransfield
		Strait, transit to NZ	
1996	Arctic Aerogeophysics	NRL P-3	Canada Basin
1997	Arctic Aerogeophysics	NRL P-3	Chukchi Plateau
2004	NBP0401	RVIB N.B. Palmer	Western Ross Sea
2006	HLY0602	USCGC Healy	Chukchi Borderland
2008	NBP0805	RVIB N.B. PALMER	Central Scotia Sea
2014	NBP1408	RVIB N.B. PALMER	Central Scotia Sea

Also various cruises in the Gulf of Mexico

#### **PUBLISHED PAPERS AND REPORTS:**

- Lawver, L. A., Sclater, J. G., Henyey, T. L., and Rogers, J., 1973. Heat Flow measurements in the southern portion of the Gulf of California: Earth and Planetary Science Letters, v. 12, 198-208.
- Sclater, J. G., <u>Lawver</u>, L. A., and Parsons, B., 1975. Comparisons of long wavelength residual elevation and free-air gravity anomalies in the North Atlantic and possible implications for the thickness of the lithospheric plate: Journal of Geophysical Research, v. 80, no. 8, 1031-1052.
- Lawver, L. A., 1975. History of Geothermal Observations in the Gulf of California, *in* Memorias de la Primera Reunion de los Centros de Investigacion de Baja California y la Institucion Scripps de Oceanografia, CIBCASIO, Ensenada, B.C., 46-68.
- Lawver, L. A., Williams, D., and Von Herzen, R. P., 1975. A major geothermal anomaly in the Gulf of California: Nature, v. 257, no. 5521, 23-38.
- Sclater, J. G., Karig, D. E., <u>Lawver</u>, L. A., and Louden, K., 1976. Heat flow, depth, and crustal thickness of the marginal basins of the south Philippine Sea: Journal of Geophysical Research, v. 81, 309-318.
- Lawver, L. A., Hawkins, J. W., and Sclater, J. G., 1976. Magnetic anomalies and crustal dilation in the Lau Basin: Earth and Planetary Science Letters, v. 33, 27-35.
- Lawver, L. A., and Hawkins, J. W., 1978. Diffuse magnetic anomalies in marginal basins: Their possible tectonic and petrologic significance: Tectonophysics, v. 45, 323-338.
- Curray, J. R., Moore, D. G., <u>Lawver</u>, L. A., Emmel, F. J., Raitt, R. W., Henry, M., and Kieckhefer, R. M., 1978. Tectonics of the Andaman Sea and Burma, *in* Watkins, J., and Montadert, J., eds., Geologic and Geophysical Investigations of Continental Slopes and Rises: AAPG Memoir 29, 189-198.
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- Bowin, C., Purdy, G. M., Johnston, C. Shor, G. G., <u>Lawver</u>, L. A., Hartono, H. M. S., and Jezek, P., 1980. Arc-continent collision in Banda Sea Region, American Association Petrol. Geolog. Bulletin, v. 64, no. 6, 868-915.
- Lawver, L. A., 1981. Geothermal Gradients on the North Slope, in Bowsher, A. L., Proc. of a workshop on Clathrates (Gas Hydrates) in the National Petroleum Research in Alaska, July 16-17, 1979, Menlo Park, California, U.S. Geological Survey Open file Report no. 81-1298, 81-83.
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- Lachenbruch, A. H., Sass, J. H., <u>Lawver</u>, L. A., Brewer, M. C., and Moses, Jr., T. H., 1982. Depth and Temperature of Permafrost on the Alaskan Arctic Slope; Preliminary Results. United States Department of the Interior Geological Survey Report No. 82-1039.
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- Lawver, L. A. and Baggeroer, A., 1983. A note on the age of the Canada Basin, *in*, Mull, C. G. and Reed, K. M., eds., Proc. of the 1981 Mini- symposium, The origin of the Arctic Ocean (Canada Basin), Journal of the Alaskan Geol. Soc., 57-66.
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- Lawver, L.A., Gahagan, L.M., 2005. Cretaceous to recent tectonics of the Arctic with relation to the Bering Sea region. Bering Sea Drilling workshop, Fairbanks, AK, 20-22 June 2005.

- Lawver, L.A., Gahagan, L.M., Childers, V.A., and Skogseid, J., 2005. Use of a computer-based dataset to constrain opening of the Labrador Sea. *EOS Trans. AGU*, *86*(*52*), Fall Meet. Suppl., Abstract T43B-1396.
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- Lawver, L., Davis, M., van Avendonk, H., Hornbach, M., Vermeesch, P., Henkart, M., Henkart, P., and Phillips, L., 2006, HLY0602: An integrated geophysical and geological study of the western Canada Basin, *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract OS53B-1116.
- Lawver, L.A., M.B. Davis, T.J. Wilson, and shipboard scientific party, 2007. Neotectonic and other features of the Victoria Land Basin, Antarctica, interpreted from multibeam bathymetry data, 10<sup>th</sup> International Symposium on Antarctic Earth Sciences, Santa Barbara, CA. Abstract ea017.
- Ghidella, M.E., L.A. <u>Lawver</u>, and L.M. Gahagan, 2007. Break-up of gondwana and opening of the South Atlantic: Review of existing plate tectonic models, 10<sup>th</sup> International Symposium on Antarctic Earth Sciences, Santa Barbara, CA. Abstract srp055.
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- Lawver, L.A., van Avendonk, H.J., Hornbach, M., Davis, M., Vermeesch, P.M., Phillips, R.L., Henkart, P., Henkart, M., 2007. *USCGC Healy* cruise HLY0602: an integrated geophysical and geological study of the western Canada Basin, The International Conference on Arctic Margins (ICAM V), Tromso, NO, 3-6 Sept. 2007.
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- Norton, I.O., <u>Lawver</u>, L.A., Gahagan, L.M., 2007. Plate motion of Iberia relative to Europe in the Cretaceous: problems with the fit at M0 time, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract T34A-08.
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- Lawver, L., Grantz, A., and Gahagan, L., 2008. Paleogeographic and tectonic evolution of the Arctic region during the Paleozoic. 33rd International Geological Congress, Oslo, Norway, Abstract AAA01231L.
- Brozena, J., Lawver, L., and Childers, V., 2008. The opening of the Amerasia basin. 33rd International Geological Congress, Oslo, Norway, Abstract AAA01238P.
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- Lawver, L.A., Hornbach, M.J., Davis, M.B., Brumley, K., Phillips, R.L., 2008. Pockmarks, Western Ross Sea, Antarctica and Mendeleev Ridge, Central Arctic Ocean: Recent and/or Prevalent?, *Eos Trans. AGU*, *89*(53), Fall Meet. Suppl., Abstract U23D-0080.
- Norton, I.O., Lawver, L.A., Gahagan, L.M., 2008. Locating hyperextended passive margins based on plate reconstructions and limits of oceanic crust derived from potential fields data. *Eos Trans. AGU*, *89*(53), Fall Meet. Suppl., Abstract T33F-04.
- Lawver, L.A., Gahagan, L.M., and Norton, I.O., 2008. Opening of the Gulf of Mexico: A result of major plate motion. Geological Society of America South-central sectional meeting, Dallas, Talk 17-4.

- Norton, I.O., and Lawver, L.A., 2008. Rift to Drift History of the Gulf of Mexico the case of the missing faults. Geological Society of America South-central sectional meeting, Dallas, Talk 17-2.
- Lawver, L.A., Gahagan, L.M., and Norton, I.O., 2009. Palaeogeographic and tectonic evolution of the Arctic region during the Palaeozoic. Geological Society of America Penrose Meeting, 5 9 October 2009, The Banff Centre, Banff, Alberta, Canada.
- Norton, I.O., and Lawver, L.A., 2009. Merging Arctic and Pacific tectonics in the Kamchatka area and opening of the Komandorski Basin. Geological Society of America Penrose Meeting, 5 9 October 2009, The Banff Centre, Banff, Alberta, Canada.
- Lawver, L.A., Gahagan, L.M., and Norton, I.O., 2009. Arctic Tectonics from Aerogeophysics to Animations: NRL data, Whaling Captains and UNCLOS. Geological Society of America Penrose Meeting, 5 – 9 October 2009, The Banff Centre, Banff, Alberta, Canada.
- Lawver, L.A., Dalziel, I.W.D, and Gahagan, L.M., 2009. An alternative Iapetus Ocean from initiation to closure and slightly beyond. Geological Society of London, Fermor meeting, Rodinia: Supercontinents, Superplumes and Scotland.
- Dalziel, I.W.D. and Lawver, L.A., 2010. Transform Motion Across the Scotia Arc: Influence on Oceanic Circulation. Abstract presented at Tectonic Crossroads: Evolving Orogens of Eurasia-Africa-Arabia (Global GSA Meeting), Ankara, Turkey, 4-8 Oct.
- Lawver, L.A., and Ghidella, M.E., 2010. The Weddell Sea Revisited. Abstract presented at 2010 GEOSUR Meeting, International Geological Congress on the Southern Hemisphere, Mar del Plata, Argentina. 22-23 Nov.
- Lawver, L.A., Gahagan, L.M., and Norton, I.O., 2010. Where were Arctic Alaska and Beringia during the Cretaceous? Abstract PP14A-01 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
- Lawver, L.A., Dalziel, I.W.D., Gahagan, L.M., and Norton, I.O., 2011. Intercontinental Dispersal Routes for South American Land Mammals: Paleogeographic Constraints. Abstract presented at Seaways and Landbridges: Southern Hemisphere Biogeographic Connections Through Time meeting, General Roca, Rio Negro, Argentina, 26 Apr. – 1 May.
- Lawver, L.A., 2011. North Chukchi Basin and the early evolution of the Chukchi Borderland. Abstract presented at ICAM – VI, International Conference on Arctic Margins, Fairbanks, AK, 31 May – 2 June.
- Barker, P.F., Lawver, L.A., and Larter, R.D., 2011. Heat-flow determinations of basement age in small oceanic basins of the Central Scotia Sea. Abstract PS4.2 presented at the 11<sup>th</sup> International Symposium on Antarctic Earth Sciences (ISAES), Edinburgh, Scotland, 10-16 July.

- Dalziel, I.W.D., Lawver, L.A., Pearce, J.A, Barker, P.F, and Hastie, A.R., 2011. The Nature and Age of the Floor of the Central Scotia Sea: Its Significance for Opening of the Drake Passage Deep Ocean Gateway. Abstract PS11.4 presented at the 11<sup>th</sup> International Symposium on Antarctic Earth Sciences (ISAES), Edinburgh, Scotland, 10-16 July.
- Ghidella, M.E., Lawver, L.A., Gahagan, L.M., Dalziel, I.W.D., and Norton, I.O., 2011. Tectonic Evolution of Antarctic seaways and margins during the Mesozoic and Cenozoic and its influence on biota and climate. Abstract PS11.1 presented at the 11<sup>th</sup> International Symposium on Antarctic Earth Sciences (ISAES), Edinburgh, Scotland, 10-16 July.
- Lawver, L.A., Dalziel, I.W.D., Gahagan, L.M., and Norton, I.O., 2011. Antarctica as a dispersal route during the Late Mesozoic and Early Cenozoic. Abstract PS21.2 presented at the 11<sup>th</sup> International Symposium on Antarctic Earth Sciences (ISAES), Edinburgh, Scotland, 10-16 July.
- Lee, J., Kim, Y., Davey, F., and Lawver, L.A., 2011. Sub-glacial volcanism in western Ross Sea? Abstract PO5.1 presented at the 11<sup>th</sup> International Symposium on Antarctic Earth Sciences (ISAES), Edinburgh, Scotland, 10-16 July.
- Mukasa, S.B., Rilling, S., Marcano, M.C., Wilson, T.J., Lawver, L.A., and LeMasurier, W.E., 2011. Submarine and Subaerial Volcanism in the Ross Sea, Antarctica: Nature of the Mantle Sources and Bearing on Tectonic Evolution. Abstract PS5.11 presented at the 11<sup>th</sup> International Symposium on Antarctic Earth Sciences (ISAES), Edinburgh, Scotland, 10-16 July.
- Pearce, J., A. Hastie, A., Dalziel, I., Lawver, L., Barker, P.F., Barfod, D., and Bevins, R., 2011. Initiation and Evolution of Subduction Beneath the Scotia Sea: New Evidence from Dredging and Imaging of the Central Scotia Sea Floor. Abstract PS4.4 presented at the 11<sup>th</sup> International Symposium on Antarctic Earth Sciences (ISAES), Edinburgh, Scotland, 10-16 July.
- Lawver, L.A., Ghidella, M.E., Gahagan, L.M., & Lavier, L., 2011. A possible small plate in the northwest Weddell Sea? Abstract T34D-04 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5 - 9 Dec.
- Lawver, L.A., Ghidella, M.E., & Gahagan, L.M., 2012. The development of the Weddell Sea: the premature demise of a spreading center. Abstract S33-02 presented at 2012 Scientific Committee on Antarctic Research meeting, Portland, Oregon, 16 19 July.
- Dalziel, I.W.D., Lawver, L.A., Pearce, J.A., Barker, P.F., Hastie, A.R., 2012. A Barrier to Flow through Drake Passage at the Onset of Antarctic Glaciation. Abstract S01-04 presented at 2012 Scientific Committee on Antarctic Research meeting, Portland, Oregon, 16 19 July.
- Dalziel, I.W.D., Lawver, L.A., Pearce, J.A., Barker, P.F., Hastie, A.R., Barfod, D.N., Schenke, H-W., & Davis, M.B., 2012. A potential barrier to Antarctic circumpolar flow until the late Miocene? Abstract PP12A-06 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3 7 Dec.

- Mukasa, S.B., Rilling-Hall, S.A., Marcano, M.C., Wilson, T. J., Lawver, L.A., & LeMasurier, W.E., 2012. Nature of the Mantle Sources and Bearing on Tectonic Evolution in the West Antarctic Rift System. Abstract T43C-2693 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3 - 7 Dec.
- Lawver, L.A., Norton, I.O., & Gahagan, L.M., 2012. Impact of a fixed Siberian Traps mantle plume on the tectonics of the Arctic. Abstract T34A-01 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3 7 Dec.
- Dalziel, I.W.D., Lawver, L.A., Pearce, J.A., Barker, P.F., Hastie, A.R., Barfod, D.N., Schenke, H-W., & Davis, M.B., 2012. A potential barrier to Antarctic circumpolar flow until the late Miocene? Abstract PP12A-06 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3 7 Dec.
- Barker, P.F., Lawver, L.A., & Larter, R.D., 2013. Heat-flow determinations of basement age in small oceanic basins of the southern central Scotia Sea. Poster presented at: The Scotia Arc Geodynamic Evolution and Global Implications Symposium, Armilla (Granada), Spain. May 14-16, 2013.
- Dalziel, I.W.D., Lawver, L.A., Pearce, J.A., Barker, P.F., Hastie, A.R., Barfod, D.N., Schenke, H-W., & Davis, M.B., 2013. A potential barrier to Antarctic circumpolar flow until the late Miocene? Abstract presented at: The Scotia Arc Geodynamic Evolution and Global Implications Symposium, Armilla (Granada), Spain. May 14-16, 2013.
- Larter, R.D., Eagles, G., & Lawver, L.A., 2013. Antarctic Ice Sheet history and Scotia Sea evolution: re-evaluation of the paradigm that ocean circulation changes controlled development of the Antarctic cryosphere. Abstract presented at: The Scotia Arc Geodynamic Evolution and Global Implications Symposium, Armilla (Granada), Spain. May 14-16, 2013.
- Lawver, L.A., Dalziel, I.W.D., Marenssi, S., & Gahagan, L.M., 2013. Tectonic reconstructions and vertebrate biogeography to/from Patagonia, the Antarctic Peninsula and Australia. Abstract presented at: The Scotia Arc Geodynamic Evolution and Global Implications Symposium, Armilla (Granada), Spain. May 14-16, 2013.
- Lawver, L.A., Dalziel, I.W.D., Davis, M.B., Burton, D., & Saustrup, S., 2015. Age of the East Scotia Sea and its implications for the Scotia South America plate boundary, presented at the ISAES XII meeting in Goa, India, 13-17 July 2015
- Dalziel, I.W.D., & Lawver, L.A., 2015. South Georgia Microcontinent another "Problem Child": preliminary results of RVIB *Nathaniel B. Palmer* cruise NBP1408, presented at the ISAES XII meeting in Goa, India, 13-17 July 2015.
- Lawver, L.A., Gahagan, L.M., Norton, I.O., & Davis, J.B., 2015. Reconstructing Gondwana: A Global Perspective, presented at the ISAES XII meeting in Goa, India, 13-17 July 2015.

- Lawver, L.A., Worssam, J., and the shipboard party of RVIB *Nathaniel B. Palmer* cruise 1408, 2015. The Antarctic Circumpolar Current and the South Georgia microcontinent. Flagstaff Festival of Science, 22 September 2015, invited talk given at the Museum of Northern AZ.
- Lawver, L.A., Norton, I.O., & Gahagan, L.M., 2015. The bigger picture: a need for the whole earth plate tectonic setting when reconstructing Greenland. Presented at AAPG 3p Arctic meeting, Stavanger, NO. 30 Sept-2 Oct 2015.

#### **RECENT ATTENDANCE AT NATIONAL AND INTERNATIONAL MEETINGS:**

The 10<sup>th</sup> International Symposium on Antarctic Earth Sciences (ISAES X), Santa Barbara, CA., 27-31 August 2007.

The International Conference on Arctic Margins (ICAM V), Tromso, NO, 3-6 Sept. 2007.

- AGU Fall meeting, San Francisco, 10-14 December 2007 (invited speaker).
- U.S. State Department workshop on the Arctic Ocean and U.S. UNCLOS treaty possibilities, Arlington, VA, 31 Jan-1 Feb 2008.
- GSL/SEPM Joint Research Conference, Palaeogeography: the Spatial Context for Understanding the Earth System, St. John's College, CAMBRIDGE, August 10-13, 2008, Keynote Speaker

Geological Society of America Annual meeting, Houston, TX, 5-9 October 2008.

AGU Fall meeting, San Francisco, 15-19 December 2008.

- Geological Society of America, South-central sectional meeting, Dallas, TX, March 2009 [invited talk].
- Geological Society of London, Fermor meeting, 6-13 September 2009, Rodinia: Supercontinents, Superplumes and Scotland.
- Geological Society of America Penrose meeting on the "Tectonic Development of the Amerasia Basin, 4-9 October 2009, The Banff Centre, Banff, Alberta, Canada [Convener and presenter]
- AGU Fall meeting, San Francisco, 14-18 December 2009.
- The 2010 GEOSUR Meeting, International Geological Congress on the Southern Hemisphere, Mar del Plata, Argentina. 22-23 Nov.
- AGU Fall meeting, San Francisco, 13-17 December 2010.
- Seaways and Landbridges: Southern Hemisphere Biogeographic Connections Through Time meeting, General Roca, Rio Negro, Argentina, 26 Apr. 1 May, 2010.

- The ICAM VI International Conference on Arctic Margins, Fairbanks, AK, 31 May 2 June 2010.
- The 11<sup>th</sup> International Symposium on Antarctic Earth Sciences (ISAES), Edinburgh, Scotland, 10-16 July, 2010.
- AGU Fall meeting, San Francisco, 5-9 December 2011.
- AGU Fall meeting, San Francisco, 3-7 December 2012.
- Keynote speaker at The Scotia Arc Geodynamic Evolution and Global Implications Symposium, Armilla (Granada), Spain. May 14-16, 2013.
- AGU Fall meeting, San Francisco, 9-13 December 2013.
- AGU Fall meeting, San Francisco, 15-19 December 2014.
- Keynote speaker at The International Symposium on Antarctic Earth Sciences XII, Goa, India. 15-19, 2015.

Technical Committee, AAPG 3p Arctic meeting, Stavanger, NO 30 Sept - 2 Oct 2015.

AGU Fall meeting, San Francisco, 14-18 December 2015.

# **OTHER RECENT PROFESSIONAL ACTIVITIES:**

Warm water Trials for USCGC Healy, 25-29 February 2000; San Juan, PR to San Juan, PR.

Science Ice Trials for USCGC Healy, 18-29 June 2000; Nuuk, Greenland to Keflavik, Iceland.

- Arctic Icebreaker Coordinating Committee, a national committee reporting to the US Coast Guard, National Science Foundation, and UNOLS [the University National Oceanographic Laboratory System] meetings, Washington, D.C., 10-12 September 1996; Avondale, LA., 5-7 May 1997, 15 November 1997, 20-22 January 1998; Washington, D.C., 18-20 November 1998, 21-24 March 1999, 12-13 January 2000; Seattle, 21 August 2000 [Ship commissioned], 25-26 January 2001, 23-24 September 2002, 13-15 November 2003.
- Visits to NRL, Washington D.C. to work with John Brozena and Vicki Childers, Naval Research Lab, on Eurasian Basin tectonics paper, November, 2001, 21-22 March.2002.
- Co-chief Scientist with Terry Wilson of Ohio State of NBP0401 cruise on *RVIB N.B. Palmer* in the western Ross Sea and southern McMurdo Sound. Cruise collected seismic, multibeam data and dredging rocks to look at the neotectonics of the western Ross Sea. 21 January to 19 February 2004. Five graduate students and three undergraduates participated from University of Texas at Austin and at Dallas, Ohio State University, University of Michigan, Victoria University, Wellington, NZ and University of Sydney. A high school teacher from Wisconsin Rapids, Wisconsin participated.

- Worked with Fred Davey, IGNS, Wellington, N.Z., 21 25 February 2004 on marine Geology paper.
- Advisory Panel of the 11,000 Hybrid ROV. Woods Hole, Ma., 19 May 2004, 13 December 2004.
- Steven Stevenoski of Lincoln High School, Wisconsin Rapids, Wisconsin visited UTIG and we worked on Antarctic curriculum development for high school students.
- Art Grantz, USGS was a Jackson School of Geosciences distinguished visiting Researcher at UTIG for April 2005.
- Organized a mini-symposium sponsored by the Jackson School of Geosciences concerning UNCLOS and law of the sea as it impacts marine research. Lindsay Parsons, Art Grantz and George Newton were the invited speakers. 2 May 2005, Geosciences building.
- Co-chief scientist with Harm van Avendonk on HLY0602 cruise on USCGC Healy in the Arctic Ocean staying the Chukchi Borderland and Mendeleev Ridge. The cruise was primarily to do crustal refraction of the plateaus and ridges in the western Arctic Ocean. In addition we collected 18 cores, mapped new territory and found numerous interesting seafloor features. Five graduate students (four from UT, one from Univ. of Alaska, Fairbanks), three undergraduates (one UT, one Moscow State University and one from Cal Poly San Luis Obsipo) and one high school student (Torrey Pines HS, Del Mar, CA) participated in the cruise. Steve Stevenoski, teacher at Lincoln High School in Wisconsin Rapids, WI participated.
- U.S. State Department workshop on U.S. obligations and potential claims in the Canada Basin with regard to the United Nations convention on Law of the Sea treaty. Invited presentation to State Department officials. Arlington, VA 31 Jan 1 Feb 2008.
- On cruise NBP0805 with Ian Dalziel aboard *RVIB N.B. Palmer* in the Central Scotia Sea working between the southern tip of South America and the Antarctic Peninsula. We were studying the evolution of Drake Passage. We found what appears to be the remnant South Sandwich Island arc that may have been left behind when seafloor spreading in the western Scotia Sea jumped eastward to the present, active seafloor spreading in the eastern Scotia Sea. The jump may have resulted from Northeast Georgia Rise [a LIP] colliding with the continental block of South Georgia, jamming the subduction zone. One post-doc and one student from the University of Cardiff participated as well as a recent undergraduate from the Univ. of Texas at Austin, as well as Katie Pena, an elementary school science teacher from Zilker elementary school in Austin were aboard.
- Field excursion, Yunnan Province, China, 8-15 November 2009. Working with Tung-yi Lee [former PhD student] on tectonics of Southeast China and location of westward extension of Red River Fault.

Field excursion, Leh, Ladahk, India, 5 – 11 July 2015.

Invited Keynote presented at the ISAES XII meeting in Goa, India, 13-17 July 2015 in session honoring Ian Dalziel and David Elliot.

Institute for Geophysics

Technical Committee, AAPG 3p Arctic meeting, Stavanger, Norway. 29 Sept. – 2 Oct. 2015.

### **INVITED LECTURES:**

Orava Deep Drilling Project, ICDP, Zakopane, Poland, 29 August - 4 September 2003

- Tectonics course, UT Austin, Jackson School of Geosciences, Mark Cloos coordinator, 23 April 2004.
- Invited Lecture at First Asia-Oceania Geosciences Society Annual Meeting, 5-9 July 2004, Singapore
- Invited Talk, 32<sup>nd</sup> International Geological Congress, Firenze, Italy, 20-28 August, 2004
- Workshop on Frontiers and Opportunities in Antarctic Geosciences, Siena, Italy, 28 31August 2004
- Keynote talk, workshop on NE Siberian Tectonics, Len Parfenov symposium, Stanford, CA, 9 December 2004.
- Keynote talk, workshop on Bering Sea Drilling, IODP, Fairbanks, AK., 21 June 2005.
- Keynote speaker, GSL/SEPM Joint Research Conference, Palaeogeography: the Spatial Context for Understanding the Earth System, St. John's College, CAMBRIDGE, August 10-13, 2008.
- Invited seminar, Universidad de Buenos Aires, Instituto de Geofísica Daniel Valencio, *How did* Drake Passage open? 30 May 2008.
- Fall Semester 2008, Arctic tectonics lecture for TAMU class.
- UTIG seminar, 5 December 2008, *Plates and Gates an IPY PROJECT; A study of the Central Scotia Sea, or why do we care when Drake Passage opened?*
- Baylor University, Waco, TX seminar, 16 January 2009, *Plates and Gates an IPY PROJECT; A study of the Central Scotia Sea, or why do we care when Drake Passage opened?*
- Invited lectures, Taiwan National University, Taipei, Taiwan, 6 Nov 2009, 1] Animation of the Tectonic Evolution of the Southwest Pacific, 2] The tectonics and evolution of the Andaman Sea region.
- Invited seminar, University of Houston, Houston, TX. 5 March 2010, Arctic Tectonics: Whaling Captains, Sea Ice Seismometers, animations and UNCLOS.
- Invited talk, Flagstaff Festival of Science, Flagstaff, AZ. 22 Sept. 2015, The Antarctic Circumpolar Current and the South Georgia Microcontinent.

# GRADUATE STUDENTS SUPPORTED AND/OR ADVISED:

C. Mayes, M.S.	Univ. of Texas at Austin	1990
S. Nagihara, Ph.D.	Univ. of Texas at Austin	1993
K. Klepeis, Ph.D.	Univ. of Texas at Austin	1993
TY. Lee, Ph.D.	Univ. of Texas at Austin	1993
B. Sloan, Ph.D.	Univ. of Texas at Austin	1995
D.H.N. Barker, Ph.D.	Univ. of Texas at Austin	1996
Fanchen Kong, Ph.D.	Univ. of Texas at Austin	1998
Stefan Muszala, M.S.	Univ. of Texas at Austin	1998
Benjamin Philips, intern	Univ. of Texas at Austin	2000
Theresa Diehl, Ph.D.	Univ. of Texas at Austin	2007
Kelley Brumley, M.S.	Univ. of Alaska, Fairbanks	2007-09
Joel Lunsford, M.S.	Univ. of Texas at Austin	2014
Kory Kirchner	Univ. of Texas at Austin	2014
Joshua "Bud" Davis, Ph.D.	Univ. of Texas at Austin	2012-

# UNDERGRADUATE STUDENTS SUPPORTED

Nicholas Benz	Univ. of Texas at Austin	2014-15
Marissa Vara	Univ. of Texas at Austin	2014
Julie Zurbuchen	Univ. of Texas at Austin	2014
Chase Asher	Univ. of Texas at Austin	2006
Chris Collins	Univ. of Texas at Austin	2004-05
Ben Herber	Univ. of Texas at Austin	2004-05
Roslyn Kiger	Univ. of Texas at Austin	2003-04
Don Campbell	Univ. of Texas at Austin	1999-03
Kylara Martin.	CalTech	2002-03
Randy Schmitz	Univ. of Texas at Austin	1999
Laurie Powery	Univ. of Texas at Austin	1998-99
Chris Marshall	Univ. of Texas at Austin	1995-97

# OUTREACH

Teacher	School	Cruise	Funding
Steve Stevenoski	Lincoln High School, Wisconsin Rapids, WI	NBP9503	TEA from NSF
Steve Stevenoski	Lincoln High School, Wisconsin Rapids, WI	NBP0401	NSF suppl. to UTIG
Steve Stevenoski	Lincoln High School, Wiscosin Rapids, WI	HLY0604	NSF/JSG outreach
Katie Pena	Zilker Elem. School, Austin,TX	NBP0803	JSG outreach
Katie Pena*	Zilker Elem. School, Austin,TX	IceCap – E. JS Antarctca	G
Jillian Worssam	Sinagua Middle School, Flagstaff, AZ	NBP1408 NS	SF

- \*The 2009 work was a "virtual teacher in the field" hosted on the PolarTrec website but Katie was not in the field.
- \*See: <u>http://www.polartrec.com/measuring-east-antarctic-ice-sheet-stability</u>
- For earlier web outreach work see: <u>http://www.ig.utexas.edu/research/projects/polar\_studies/resources/</u>
- Steve participated in three cruises, NBP9507, NBP0401 and HLY0602. He produced numerous teaching modules, attended NSF workshops and national meetings where he made presentations. He was invaluable both at sea and afterwards.
- Jillian has a dynamic program in place, coordinating scientists with her students to encourage her middle school students to pursue an interest in science. About 40% of her classroom students are Navaho.