

CURRICULUM VITÆ

JOHN A. GOFF, Senior Research Scientist

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| Education | Brown University: Sc.B. Geology-Physics-Math, 1985
MIT/WHOI Joint Program in Oceanography: Ph.D. Marine Geophysics, 1990 |
| Positions | Post-doctoral Investigator, MIT (6/90-12/91);
Guest/Visiting Investigator, Woods Hole Oceanographic Institution (9/90-12/92)
Research Associate, University of Texas Institute for Geophysics (1/93-8/99)
Research Scientist, UTIG (9/99-8/04)
Senior Research Scientist, UTIG (9/04-present) |
| Sea-Going
Field
Experience | <p>1988 <i>R/V Thomas Washington</i>, Roundabout Leg 10, Sea Beam mapping</p> <p>1991 <i>R/V Cory Chouest</i>, ARSRP Acoustic Reconnaissance Cruise</p> <p>1991 <i>R/V Maurice Ewing</i>, EW9105, Hydrosweep mapping (shore participation)</p> <p>1992 <i>R/V Maurice Ewing</i>, ARSRP Geophys. Recon. Hydrosweep mapping</p> <p>1993 <i>R/V Knorr</i>, ARSRP Small-Scale Recon, AMS-120 and Jason ROV surveys</p> <p>1994 <i>R/V Knorr</i>, DeepTAG 94, AMS-120 and ARGOII survey</p> <p>1995 <i>R/V Melville</i>, SEIR Sea Beam 2000 multibeam survey</p> <p>1995 <i>R/V Pacific Hunter</i>, Co-Chief Scientist, N. Calif. swath mapping</p> <p>1996 <i>CHS Creed</i>; Co-Chief Scientist, New Jersey swath mapping</p> <p>1996 <i>R/V Wecoma</i>; STRATAFORM high-res seismic reflection, N. California</p> <p>1997 <i>R/V Point Lobos</i> MBARI ROV exploration of Eel margin</p> <p>1998 <i>R/V Onrust</i>, Chief Scientist, sediment grab sampling on the NJ Margin</p> <p>1999 <i>R/V Onrust</i>, Chief Scientist, chirp seismic reflection on the NJ Margin</p> <p>2000 <i>R/V Cape Hatteras</i>, Co-Chief Scientist, chirp seismic on VA outer shelf</p> <p>2001 <i>R/V Alliance</i>, Geoclutter acoustic reconnaissance</p> <p>2001 <i>R/V Cape Henlopen</i>, Chief Scientist, Geoclutter sampling on NJ shelf</p> <p>2001 <i>R/V Endeavor</i>, Co-Chief Scientist, Geoclutter chirp seismic on NJ shelf</p> <p>2002 <i>R/V Cape Henlopen</i>, Chief Scientist, site survey for the Martha's Vineyard coastal observatory (vibracoring, sampling, geotechnical and chirp seismic).</p> <p>2002 <i>R/V Knorr</i>, AHC-800 drilling on the NJ shelf</p> <p>2004 <i>R/V Henlopen</i>, Chief Scientist, swath mapping on the NJ shelf</p> <p>2006 <i>R/V Sharp</i>, Co-chief Scientist, chirp survey on NJ shelf</p> <p>2007 <i>R/V Knorr</i>, Chief Scientist, vibracoring on the NJ shelf</p> <p>2008 <i>R/V's Acadiana, Itasca</i>, co-instructor for MG&G field course, Galveston.</p> <p>2008 <i>R/V Acadiana</i>, co-Chief Scientist, Hurricane Ike rapid response survey</p> <p>2009 <i>R/V's Manta, Itasca</i>, co-instructor for MG&G field course, Port Aransas</p> <p>2010 <i>R/V's Acadiana, Itasca</i>, co-instructor for MG&G field course, Galveston.</p> <p>2010 <i>M/V Quest</i>, co-Chief, Recon survey of Hubbard Glacier and Russel Fiord.</p> <p>2011 <i>R/V's Manta, Itasca</i>, co-instructor for MG&G field course, Grand Isle</p> <p>2011 <i>R/V Sharp</i>, Chief Scientist, Geophysical survey offshore Panama City</p> <p>2012 <i>R/V's Manta, Itasca</i>, co-instructor for MG&G field course, Port Aransas</p> <p>2013 <i>R/V's Seawolf</i>, Pritchard, Chief Scientist, post-sandy seafloor survey</p> <p>2013 <i>R/V's Manta, Itasca</i>, co-instructor for MG&G field course, Galveston</p> <p>2014 <i>M/V Quest</i>, co-Chief, AUV proof-of-concept at Hubbard Glacier, Alaska</p> <p>2014 <i>R/V's Manta, Itasca</i>, co-instructor for MG&G field course, Galveston</p> <p>2015 unnamed bare, chirp survey of Spring Lake, TX</p> |

2015 R/V's Manta, Petty, co-instructor for MG&G field course, Freeport
2015 R/V Sharp, co-Chief, CHIRP survey of New England mud patch

Service Associate Editor, *Journal of Geophysical Research* (1/95-12/97)
Director, Dec. 1995 AGU Outstanding Student Presentation Award
Committee, Tectonophysics section
Chair, AGU Tectonophysics Section Nominations Committee (9/98-6/02)
Earth Processes/Tectonophysics & Seismology Editor, *Eos* (1/99-1/03)
Eos Editorial Steering Committee (4/00-1/03)
IEEE-JOE guest editor (1/05 – 6/06)
Geophysics guest editor (9/13-6/15)

Honors Excellence in Reviewing, American Geophysical Union, 2008
Excellence in Reviewing, *IEEE Journal of Oceanic Engineering*, 2009

Students A. Macario (LDEO), S. Dreher (IFREMER), J. Riter (UT), C. S. Duncan (UTIG),
Advised L. LaFlame (Rice), S. Nordfjord (UTIG), V. Merwadi, (UT Civil Engineering),
Andrew Green (University of KwaZulu-Natal), M. Santra (UTDGS PhD), Stanley
Stackhouse (UTIG Masters), Lindsey Lugin (UTDGS Undergrad), Katie Bales
(UTDGS Undergrad), Andrea Hanna (UTIG PhD), Khushboo Arora (BEG PhD).

Courses
Taught Marine Geology and Geophysics Field Course

Professional Societies: American Geophysical Union, International Association of
Sedimentologist, Acoustical Society of America

Research Marine geophysics; seabed mapping and characterization; quantitative
Geomorphology (bathymetry, stratigraphy, sea ice, crustal heterogeneity)

Refereed Publications:

- Goff, J. A., E. A. Bergman, and S. C. Solomon, Earthquake source mechanisms and transform fault tectonics in the Gulf of California, *J. Geophys. Res.*, 92, 10,485-10,510, 1987.
- Goff, J. A., and T. H. Jordan, Stochastic Modeling of Seafloor Morphology: Inversion of Sea Beam data for second-order statistics, *J. Geophys. Res.*, 93, 13,589-13,608, 1988.
- Goff, J. A., and T. H. Jordan, Stochastic Modeling of Seafloor Morphology: a parameterized, Gaussian model, *Geophys. Res. Lett.*, 16, 45-48, 1989a.
- Goff, J. A., and T. H. Jordan, Stochastic Modeling of Seafloor Morphology: resolution of topographic parameters by Sea Beam data, *IEEE J. Ocean Eng.*, 14, 326-337, 1989b.
- Goff, J. A., and T. H. Jordan, Pacific and Atlantic models of small-scale seafloor topography, *Office of Naval Research S. R. P. on Acoustic Reverberation*, Technical Report No. 1, 1990.
- Goff, J. A., Stochastic Modeling of Seafloor Morphology (Ph.D. Thesis), Massachusetts Institute of Technology/Woods Hole Oceanographic Institution, Cambridge, 266 pp., 1990a.
- Goff, J. A., Comment on "Fractal mapping of digitized images: application to the topography of Arizona and comparison with synthetic images" by J. Huang and D. L. Turcotte, *J. Geophys. Res.*, 95, 5159, 1990b.
- Goff, J. A., T. H. Jordan, M. H. Edwards, and D. J. Fornari, Comparison of a stochastic seafloor model with SeaMARC II bathymetry and Sea Beam data near the East Pacific Rise 13° - 15° N, *J. Geophys. Res.*, 96, 3867-3885, 1991.
- Goff, J. A., A global and regional stochastic analysis of near-ridge abyssal hill morphology, *J. Geophys. Res.*, 96, 21,713-21,737, 1991.

- Goff, J. A., and M. C. Kleinrock, Quantitative comparison of bathymetric survey systems, *Geophys. Res. Lett.*, 18, 1253-1256, 1991.
- Goff, J. A., H. F. Webb, and T. H. Jordan, Stochastic interpolation of a wide-beam bathymetric profile within the ONR-ARSRP corridor, *Office of Naval Research S. R. P. on Acoustic Reverberation*, Technical Report No. 2, 1992.
- Goff, J. A., Quantitative characterization of abyssal hill morphology along flow lines in the Atlantic Ocean, *J. Geophys. Res.*, 97, 9183-9202, 1992a.
- Goff, J. A., Monostatic shadowing of homogeneous fractal surfaces, *J. Acoust. Soc. Am.*, 92, 1008-1016, 1992b.
- Goff, J. A., A. Malinverano, D.J. Fornai, and J.R. Cochran, Abyssal hill segmentation: Quantitative analysis of the East Pacific Rise flanks 7°S-9°S, *J. Geophys. Res.*, 98, 13,851-13,862, 1993.
- Goff, J. A., A utilitarian approach to modeling non-Gaussian characteristics of a topographic field, *J. Geophys. Res.*, 98, 19,635-19647, 1993b.
- Goff, J. A., D. J. Fornari, J. R. Cochran, C. Keeley, and A. Malinverno, Wilkes transform system and "nannoplate", *Geology*, 21, 623-626, 1993.
- Cochran, J. R., J. A. Goff, A. Malinverno, D. J. Fornari, C. Keeley, and X. Wang, Morphology of a 'superfast' mid-ocean ridge crest and flanks: The East Pacific Rise, 7°-9°S, *Mar. Geophys. Res.*, 15, 65-75, 1993.
- Holliger, K., A.R. Levander, and J.A. Goff, Stochastic modeling of the reflective lower crust: petrophysical and geological evidence from the Ivrea Zone (Northern Italy), *J. Geophys. Res.*, 98, 11,967-11,980, 1993.
- Goff, J. A., K. Holliger, and A. R. Levander, Modal fields: A new method for characterization of random velocity heterogeneity, *Geophys. Res. Lett.*, 21, 493-496, 1994.
- Macario, A., W. F. Haxby, J. A. Goff, W. B. F. Ryan, S. C. Cande, and C. A. Raymond, Flow line variations in abyssal hill morphology for the Pacific-Antarctic Ridge at 65°S, *J. Geophys. Res.*, 99, 17,921-17,934, 1994.
- Levander, A., R.W. England, S.K. Smith, R.W. Hobbs, J.A. Goff, and K. Holliger, Stochastic characterization and seismic response of upper and middle crustal rocks based on the Lewisian gneiss complex, Scotland, *Geophys. J. Int.*, 119, 243-259, 1994
- Goff, J. A., The relationship between local- and global-scale scattering functions for fractal surfaces under a separation of scales hypothesis, *J. Acoust. Soc. Am.*, 97, 1586-1595, 1995a.
- Goff, J. A., Quantitative analysis of sea-ice draft I: Methods for stochastic modeling, *J. Geophys. Res.*, 100, 6993-7004, 1995b.
- Goff, J. A., W. K. Stewart, H. Singh, and X. Tang, Quantitative analysis of sea-ice draft II: Application of stochastic modeling to intersecting topographic profiles, *J. Geophys. Res.*, 100, 7005-7017, 1995a.
- Goff, J. A., B. E. Tucholke, J. Lin, G. E. Jaroslow, and M. C. Kleinrock, Quantitative analysis of abyssal hills in the Atlantic Ocean: A correlation between inferred crustal thickness and extensional faulting, *J. Geophys. Res.*, 100, 22,509-22,522, 1995b.
- Goff, J. A., A. Levander, Incorporating "sinuous connectivity" into stochastic models of crustal heterogeneity: Examples from the Lewisian gneiss complex, Scotland, the Franciscan formation, California, and the Hafafit gneiss complex, Egypt, *J. Geophys. Res.*, 101, 8489-8501, 1996.
- Goff, J. A., and J. R. Cochran, The Bauer scarp ridge jump: a complex tectonic sequence revealed in satellite altimetry, *Earth and Plan. Sci. Lett.*, 141, 21-33, 1996.
- Goff, J. A., L. A. Mayer, J. Hughes-Clarke, and L. F. Pratson, Swath mapping on the continental shelf and slope: The Eel River basin, northern California, *Oceanography*, 9, 178-182, 1996.

- Steckler, M. S., D. J. Swift, J. P. Syvitski, J. A. Goff, and A. W. Niedoroda, Modeling the sedimentology and stratigraphy of continental margins, *Oceanography*, 9, 183-188, 1996.
- Kleinrock, M. C., Humphris, Susan E.; Shaw, P.; Bowen, A.; Crook, T.; Davis, C.; Elder, R.; Gleason, D.; Goff, J.; Goldstein, L.; Handley, W.; Howland, J.; Hussenoeder, S.; Koga, K.; Lerner, S.; Nakamura, Ko-ichi; Rashid, M.; Reiser Wetzel, L.; Sellers, W.; Sulanowska, M.; Van Dover, C.; and, Whitcomb, L, Detailed structure and morphology of the TAG active hydrothermal mound and its geotectonic environment, *Proceedings of the Ocean Drilling Program, Part A: Initial Reports*, Vol. 158, pp. 15-21, 1996.
- Larkin, S. P., A. Levander, D. Okaya, and J. A. Goff, A deterministic and stochastic velocity model for the Salton Trough/Basin and Range transition zone and constraints on magmatism during rifting, *J. Geophys. Res.*, 101, 27,883-27,897, 1996.
- Austin, J. A., M. Field, C. Fulthorpe, J. Goff, L. Mayer, G. Mountain, A. Niedoroda, D. Orange, M. Steckler, and D. Swift, Continental terraces hold clues to the generation and preservation of the stratigraphic record, *Eos Trans. AGU*, 78, 1-2, 1997.
- Goff, J. A., and B. E. Tucholke, Multi-scale spectral analysis of bathymetry on the flank of the Mid-Atlantic Ridge: Modification of the seafloor by mass wasting and sedimentation, *J. Geophys. Res.*, 102, 15,447-15,462, 1997.
- Goff, J. A., Y. Ma, A. Shah, J. R. Cochran, and J.-C. Sempéré, Stochastic analysis of seafloor morphology on the flank of the Southeast Indian Ridge: The influence of ridge morphology on the formation of abyssal hills, *J. Geophys. Res.*, 102, 15,521-15,534, 1997.
- Lendl, C., A. M. Trehu, J. A. Goff, A. R. Levander, and B. C. Beaudoin, Synthetic seismograms through synthetic Franciscan: Insights into factors affecting large-aperture seismic data, *Geophys. Res. Lett.*, 24, 3317-3320, 1997.
- Tucholke, B., J. Lin, M. Kleinrock, M. Tivey, T. Reed, J. Goff, and G. Jaroslow, Segmentation and crustal structure of the western Mid-Atlantic Ridge flank, 25°25'-27°10'N and 0-29 m.y., *J. Geophys. Res.*, 102, 10,203-10,223, 1997.
- Goff, J. A., Finding chaos in abyssal hills, *Nature*, 392, 224-226, 1998.
- Goff, J. A., D. L. Orange, L. A. Mayer, and J. E. Hughes-Clarke, Detailed investigation of continental shelf morphology using a high-resolution swath sonar survey: The Eel margin, northern California, *Mar. Geol.*, 154, 255-269, 1999.
- Borgeld, J. C., J. E. Hughes-Clarke, J. A. Goff, L. Mayer, and J. A. Curtis, Acoustic backscatter of the 1995 flood deposit on the Eel River shelf, *Mar. Geol.*, 154, 197-210, 1999.
- Goff, J. A., and J. W. Jennings, Jr., Improvement of Fourier-based unconditional and conditional simulations for band limited fractal (von Kármán) statistical models, *Math. Geol.*, 31, 627-649, 1999.
- Goff, J. A., and K. Holliger, Nature and origin of upper crustal seismic velocity fluctuations and associated scaling properties: combined stochastic analysis of KTB velocity and lithology logs, *J. Geophys. Res.*, 104, 13,169-13,182, 1999
- Goff, J. A., D. J. P. Swift, C. S. Duncan, L. A. Mayer, and J. Hughes-Clarke, High resolution swath sonar investigation of sand ridge, dune and ribbon morphology in the offshore environment of the New Jersey Margin, *Mar. Geol.*, 161, 309-339, 1999.
- Goff, J. A., Simulation of stratigraphic architecture from statistical and geometrical characterizations, *Math. Geol.*, 32, 765-786, 2000.
- Driscoll, N., J. Weissel and J. A. Goff, En echelon cracks along the outer continental shelf: Implications for submarine landslides and tsunamis, *Geology*, 28, 407-410, 2000.
- Goff, J. A., H. C. Olson and C. S. Duncan, Correlation of sidescan backscatter intensity with grain-size distribution of shelf sediments, New Jersey margin, *Geo-Marine Letters*, 20, 43-49, 2000.

- Duncan, C. S., J. A. Goff, J. A. Austin, and C. S. Fulthorpe, Tracking the last sea level cycle: seafloor morphology and shallow stratigraphy of the latest Quaternary New Jersey middle continental shelf, *Mar. Geol.*, 170, 395-421, 2000.
- Goff, J. A., How sick is the Spring AGU meeting? *Eos Trans. AGU*, 81, 563, 2000.
- Duncan, C. S., and J. A. Goff, Relict iceberg keel marks on the New Jersey outer shelf, southern Hudson Apron, *Geology*, 29, 411-414, 2001.
- Goff, J. A., Quantitative classification of canyon systems on continental slopes and a possible relationship to slope curvature, *Geophys. Res. Lett.*, 28, 4359-4362, 2001.
- Goff, J. A., Wheatcroft, R. A., Lee, H., Drake, D. E., Swift, D. J. P., and Fan, S., Spatial Variability of Shelf Sediments in the STRATAFORM Natural Laboratory, Northern California, *Cont. Shelf Res.*, 22, 1199-1223, 2002.
- Kraft, B. J., L. A. Mayer, P. Simpkin, P. Lavoie, E. Jabs, E. Lynskey, and J. A. Goff, Calculation of in situ acoustic wave properties in marine sediments, in *Impact of Littoral Environmental Variability on Acoustic Prediction and Sonar Performance*, N. G. Pace and F. B. Jensen, eds., Kluwer Academic, Netherlands, pp. 123-130, 2002.
- Goff, J. A., and K. Holliger, eds., *Heterogeneity in the Crust and Upper Mantle: Nature, Scaling and Seismic Properties*, Kluwer Academic/Plenum, New York, 349 pp., 2003.
- Holliger, K., J. A. Goff, A generic model for the 1/f nature of seismic velocity fluctuations, in: *Heterogeneity in the Crust and Upper Mantle: Nature, Scaling and Seismic Properties*, J. A. Goff and K. Holliger, eds., Kluwer Academic/Plenum, New York, pp. 131-154, 2003.
- Goff, J. A., and W. H. F. Smith, A correspondence of altimetric gravity texture to abyssal hill morphology along the flanks of the Southeast Indian Ridge, *Geophys. Res. Lett.*, 30, 2269, doi:10.1029/2003GL018913, 2003
- Goff, J. A., W. H. F. Smith and K. M. Marks, The contributions of abyssal hill morphology and noise to altimetric gravity fabric, *Oceanography*, 17, 24-37, 2004.
- Goff, J. A., and S. Nordfjord, Interpolation of fluvial morphology using channel-oriented coordinate transformation: A case study from the New Jersey Shelf, *Math. Geol.*, 36, 643-658, 2004.
- Goff, J. A., B. J. Kraft, L. A. Mayer, S. G. Schock, C. K. Sommerfield, H. C. Olson, S. P. S. Gulick, and S. Nordfjord, Seabed characterization on the New Jersey middle and outer shelf: Correlability and spatial variability of seafloor sediment properties, *Mar. Geol.*, 209, 147-172, 2004.
- Hill, J. C., Driscoll, N. W., Weisell, J. K., and Goff, J. A. Large-scale elongated gas blowouts along the U.S. Atlantic margin. *J. Geophys. Res.*, 109, doi:10.1029/2004JB002969, 2004.
- Goff, J. A., L. A. Mayer, P. Traykovski, I. Buynevich, R. Wilkens, R. Raymond, G. Glang, R. L. Evans, H. Olson, C. Jenkins, Detailed investigation of sorted bedforms, or "rippled scour depressions," within the Martha's Vineyard Coastal Observatory, Massachusetts, *Cont. Shelf Res.*, 25, 461-484, 2005.
- Nordfjord, S., J. A. Goff, J. A. Austin, Jr., and C. K. Sommerfield, Seismic geomorphology of buried channel systems on the New Jersey outer shelf: Assessing past environmental conditions, *Mar. Geol.*, 214, 339-364, 2005.
- Goff, J. A., J. A. Austin, Jr., S. Gulick, S. Nordfjord, B. Christensen, C. Sommerfield, and H. Olson, C. Alexander, Recent and modern marine erosion on the New Jersey outer shelf, *Mar. Geol.*, 216, 275-296, 2005.
- Gulick, S. P. S., J. A. Goff, J. A. Austin, Jr., C. R. Alexander, Jr., S. Nordfjord, and Craig S. Fulthorpe, Basal inflection-controlled shelf-edge wedges off New Jersey track sea-level fall, *Geology*, 33, 429-432, 2005.
- Ratilal P., Lai Y., Symonds D.T., Ruhlmann L.A., Preston J.R., Scheer E.K., Garr M.T., Holland C.W., Goff J.A., Makris N.C., Long range acoustic imaging of the continental shelf

- environment: The Acoustic Clutter Reconnaissance Experiment 2001, *J. Acoust. Soc. Am.*, 117, 1977-1988, 2005.
- Nordfjord, S., J. A. Goff, J. A. Austin, Jr., S. P. S. Gulick, Seismic facies of incised valley-fills, New Jersey continental shelf: Implications for erosion and preservation processes acting during late Pleistocene/Holocene transgression, *J. Sed. Res.*, 76, 1284-1303, 2006.
- Goff, J. A., C. Jenkins, B. Calder, Maximum *a posteriori* resampling of noisy, spatially correlated data, *Geochem. Geophys. Geosys.*, doi:10.1029/2006GC001297, 2006.
- Merwade, V. M., D. R. Maidment, and J. A. Goff, Anisotropic considerations while interpolating river channel bathymetry, *J. Hydrol.*, 331, 731-741, 2006.
- Livingston, E.S, Goff, J. A., Finette, S., Abbot, P., Lynch, J.F. and Hodgkiss, W. S, Capturing uncertainty in the tactical ocean environment, *IEEE J. Oceanic Engineering*, 31, 245-248, 2006.
- Austin J. A., S. Nordfjord, L. Duncan, C. S. Fulthorpe, J. Goff, and S. P. S. Gulick, Deciphering the modern seafloor and seismic geomorphology of the latest pleistocene, *Seal' AIX06, Sea Level Changes: Records Processes and Modeling*, 25-29, 2006
- Green A.N., J. A. Goff, and R. Uken, Geomorphological evidence for upslope canyon-forming processes on the northern KwaZulu-Natal shelf, SW Indian Ocean, South Africa, *Geo-Marine Lett.*, DOI 10.1007/s00367-007-0082-2, 2007.
- Tang, D., J.N. Moum, J.F. Lynch, P. Abbot, R. Chapman, P.H. Dahl, T.F. Duda, G. Gawarkiewicz, S. Glenn, J.A. Goff, H. Graber, J. Kemp, A. Maffei, J.D. Nash, and A. Newehall, Shallow Water '06: A joint acoustical propagation/nonlinear internal wave physics experiment, *Oceanography*, 20, 156-167, 2007.
- Goff, J. A., C. Jenkins and S. Jeffries Williams, Characterization of seabed sediment variability using the usSEABED data base, *Cont. Shelf Res.*, 28, 614-633, 2008
- Miselis, J., P.T. Gayes., J.A. Goff, T. Rodriguez, D. Krantz, J. McNinch, J. Hill and C. Alexander. Synthesizing regional shallow-water geophysical data for shoreline evolution models, *Eos Trans. AGU*, 89, doi:10.1029/2008EO410007, 2008.
- Knobles, D.P., P.E. Wilson, S. Cho, and J.A. Goff, Seabed acoustics of a sand ridge on the New Jersey continental shelf, *J. Acoust. Soc. Am. Exp. Lett.*, 124, EL151-EL156, 2008.
- Choi, J.W., P.H. Dahl and J.A. Goff, Observations of the R-reflector and sediment interface reflection at the Shallow Water 06 Central Site, *J. Acoust. Soc. Am. Exp. Lett.*, 124, EL128-EL134, 2008.
- Goff, J. A., Statistical characterization of Geosat altimetry noise: Dependence on environmental parameters, *Geochem. Geophys. Geosys.*, 10, Q08007, doi:10.1029/2009GC002569, 2009.
- Nordfjord, S., J. A. Goff, L. S. Duncan, and J. A. Austin, Jr., Shallow stratigraphy and transgressive ravinement on the New Jersey shelf: implications for sedimentary lobe deposition and latest Pleistocene-Holocene sea level history, *Marine Geology*, 266, 232-243, 2009.
- Goff, J. A., and J. A. Austin, Seismic and bathymetric evidence for four different episodes of iceberg scouring on the New Jersey outer shelf: possible correlation to Heinrich events, *Marine Geology*, 266, 244-254, 2009.
- Goff, J. A., M. A. Allison, and S.P.S. Gulick, Offshore transport of sediment during cyclonic storms: Hurricane Ike (2008), Texas Gulf Coast, USA, *Geology*, 38, 351-354; doi: 10.1130/G30632.1, 2010.
- Goff, J. A., and B. K. Arbic, Global prediction of abyssal hill roughness statistics for use in ocean models from digital maps of paleo-spreading rate, paleo-ridge orientation, and sediment thickness, *Ocean Modelling*, 32, 36-43, 2010.

- Ballard, M.S., Beker, K.M., and Goff, J.A., Geoacoustic inversion for the New Jersey Shelf: Three dimensional sediment model, *IEEE J. Ocean Eng.*, 35, 28-42, doi: 10.1109/JOE.2009.2034490, 2010.
- Knobles, D. P., J.A. Goff, R. A. Koch, P. S. Wilson, and J. A. Shooter, Effect of inhomogeneous sub-bottom layering on broadband acoustic propagation, *IEEE J. Ocean Eng.*, 35, 732-743, doi: 10.1109/JOE.2010.2066810, 2010.
- Goff, J. A., Global prediction of abyssal hill root-mean-square heights from small-scale altimetric gravity variability, *J. Geophys. Res.*, 115, B12104, doi:10.1029/2010JB007867, 2010.
- Scott, R.B., J. A. Goff, A. C. Naveira Garabato, and A.J.G. Nurser, Global rate and spectral characteristics of internal gravity wave generation by geostrophic flow over topography, *J. Geophys. Res.*, C09029, doi: 10.1029/2011JC007005, 2011.
- Sauter, D., Sloan, H., Cannat, M., Goff, J., Patriat, P., Schaming, M., and Roest, W., From slow to ultra-slow: How does spreading rate affect seafloor roughness and crustal thickness? *Geology*. 39, 911-914, 2011.
- Sloan, H., Sauter, D., Goff, J.A., and Cannat, M., Abyssal hill characterization at ultra-slow spreading Southwest Indian Ridge, *Geochem. Geophys. Geosys.*, Q0AE06, doi 10.1029/2011GC003850, 2012.
- Goff, J. A., and C. S. Duncan, Reexamination of sand ridges on the middle and outer New Jersey shelf based on combined analysis of multibeam bathymetry and backscatter, seafloor grab samples and chirp seismic data. In: Li, M.Z., Sherwood, C.R. and Hill, P.R. (Eds.), *Sediments, Morphology and Sedimentary Processes on Continental Shelves: Advances in technologies, research and applications*, Int. Assoc. Sedimentol. Spec. Publ., v. 44, p 121-142, 2012.
- Goff, J. A., D. E. Lawson, B. A. Willems, M. Davis and S. P. S. Gulick, Morainal bank progradation and sediment accumulation in Disenchantment Bay, Alaska: Response to advancing Hubbard Glacier, *J. Geophys. Res.*, 117, F02031, doi:10.1029/2011JF002312, 2012.
- Naveira Garabato, Alberto C., A. J. George Nurser, Robert B. Scott, John A. Goff, 2013: The Impact of Small-Scale Topography on the Dynamical Balance of the Ocean. *J. Phys. Oceanogr.*, 43, 647–668.
- Goff, J.A., Austin, J.A. Jr., Fulthorpe, C.S., Reinterpretation of the Franklin “Shore” in the Mid-Atlantic Bight as a Paleo-Shelf Edge, *Cont. Shelf. Res.*, 60, 64-69, 2013.
- Goff, J. A., J. A. Austin, R. D. Flood, B. Christensen, C. M. Browne, and S. Sastrup, Rapid response survey gauges Sandy's impact on seafloor, *Eos, Trans. Amer. Geophys. Un.*, 39, 337-338, 2013
- Christensen, B.A., Alexander, C., Goff, J.A., Turner, R.J., and Austin, J.A. Jr., 2013, The last glacial: Insights from continuous coring on the New Jersey continental shelf, *Mar. Geol.*, 335, 78-99.
- Santra, M., Goff, J.A., Steel, R.J., and Austin, J.A. Jr., 2013, Latest Pleistocene growth of the outer New Jersey shelf: forced regression progradation and lowstand Hudson River paleo-delta system, *Mar. Geol.*, 339, 57-70.
- Trossman, D.S., Arbic, B.K., Garner, S.T., Goff, J.A., Jayne, S.R., Metzger, E.J., and Wallcraft, A.J., Impact of parameterized lee wave drag on the energy budget of an eddying global ocean model, *Ocean Modeling*, 72, 119-142, 2013
- Melet, A., Nikurashin, M., Muller, C., Falahat, S., Nycander, J., Timko, P.G., Arbic, B.K., and Goff, J.A., 2013, Internal tide generation by abyssal hills using analytic theory, *J. Geophys. Res.* 118, DOI: 10.1002/2013JC009212.
- Goff, J.A., Austin, J.A., Flood, R.D., Christensen, B., Browne, C.M., and Sastrup, S., 2013, Rapid Response Survey Gauges Sandy's Impact on Seafloor, *Eos. Trans. AGU* 39, 337-338.

- Hanna, A.J.M., Allison, M.A., Bianchi, T.S., Marcantonio, F., and Goff, J.A., Late Holocene Sedimentation in a High Arctic Coastal Setting: Simpson Lagoon and Colville Delta, Alaska, *Cont. Shelf Res.* 74, 11-24, 2014.
- Goff, J.A., Powell, E.M., Young, D.A., and Blankenship, D.D., 2014, Conditional simulation of Thwaites Glacier (Antarctica) bed topography for flow models: incorporating inhomogeneous statistics and channelized morphology, *J. Glaciol.* 60, 635-646.
- Goff, J.A., 2014, Seismic and core investigation off Panama City, Florida, reveals sand ridge influence on formation of the shoreface ravinement, *Cont. Shelf Res.* 88, 34-46.
- Goff, J.A., Allison, M.A., Gulick, S.P.S., Reese, R., Davis, M., Duncan, D., and Saustrop, S., 2015, Shoreface ravinement evolution tracked by repeat geophysical surveys following Hurricane Ike, Bolivar Peninsula, Texas, 2008-2013, *Geophysics* 80, WB1-WB10.
- Goff, J. A., Paine, J., and Uptegrove, J., Near surface geophysics: Investigating the dynamic coastal environment – Introduction, *Geophysics* 80, WBi-WBii.
- Goff, J.A., Flood, R.D., Austin, J.A. Jr., Scwab, W.C., Christensen, B., Browne, C.M., Denny, J.F., and Baldwin, W.E., 2015, The impact of Hurricane Sandy on the shoreface and inner shelf of Fire Island, New York: Large bedform migration and limited erosion, *Cont. Shelf Res.* 98, 13-25.
- Lobo, F.J., Goff, J.A., Mendes, I., Barcenas, P., Fernandez-Salas, L.M., Martin-Rosales, W., Macias, J., and Diaz del Rio, V., Spatial variability of prodeltaic undulations of the Guadalfeo River prodelta: Support to the genetic interpretation as hyperpycnal flow deposits, *Mar. Geophys. Res.*, DOI 10.1007/s11001-014-9233-9.
- Swartz, J.M., Gulick, S.P.S., and Goff, J.A., Gulf of Alaska continental slope morphology: Evidence for recent trough mouth fan formation, *Geochem. Geophys. Geosyst.*, 16, 165-177.
- Zurbuchen, J.M., Gulick, S.P.S., Walton, M.A.L, and Goff, J.A., Imaging evidence for Hubbard Glacier advances and retreats since the last glacial maximum in Yakutat and Disenchantment Bays, Alaska, *Geochem. Geophys. Geosyst.* 16, 1962-1974.

John A. Goff
UTIG Grants Received

Agency	Title	Start Date	End Date	Award
ONR	Stochastic Modeling of Abyssal Hill Morphology (balance transferred from WHOI)	1 Mar 93	31 Dec 93	46,433
ONR	2-D Analysis of Ice-Canopy Morphology and Acoustic-Scattering Provinces	15 Apr 93	14 Apr 95	39,938
Rice U. (AFOSR subcon)	Quantitative Characterization of Crustal Heterogeneity Implications for Seismic Wave Propagation	1 Jan 94	31 Dec 97	82,643
ONR	Stochastic Modeling of Abyssal Hill Morphology: New Seafloor Models Based on Analysis on Fine-Scale Basement Topography and Separate Characterization of Tectonic and Volcanic Morphology	1 Jan 94	31 Dec 95	44,165
ONR	Swath Mapping of the New Jersey and Northern California Margins and Statistical Characterization of the Shelf and Slope Bathymetry	1 Oct 94	30 Sep 96	145,000
ONR	Stochastic Modeling of Abyssal Hill Morphology: Development of Sea Floor Models for use in Acoustic Reverberation Experiments	1 Jan 96	30 Jun 97	20,000
ONR	ONR STRATAFORM proposal for FY97 and FY98: Statistical characterization of bathymetry and stratigraphy on continental margins	1 Oct 96	30 Sep 98	154,999
DOD	AASERT: Integration of high-resolution multichannel seismic and swath bathymetry surveys, New Jersey and northern California margins, in support of STRATAFORM (with Fulthorpe)	1 Jun 97	31 May 00	143,742
JOI	JOI/USSSP ODP Site Survey Augmentation: Ultra-High Resolution Swath Mapping, CHIRP Sonar, Bottom Photography and Grab Sampling in Support of a Shallow Water (Jack-Up Drilling) Extension of the Mid-Atlantic Sea Level Transect (with Olson)	1 Jul 98	30 Jun 99	41,338
ONR	ONR STRATAFORM proposal for FY99 and FY00: Statistical characterization of bathymetry and stratigraphy on continental margins	1 Oct 98	30 Sep 00	140,000
NSF	Collaborative Research: Geophysical investigation of en echelon cracks along the outer shelf off Virginia/North Carolina - Implications for slope stability	1 May 99	30 April 01	60,287
ONR	Geological and geophysical support for the "Geoclutter" acoustic reconnaissance field program (with Austin)	1 Sep 99	31 Aug 00	49,040
ONR	Realistic interpolation of buried channel systems within the New Jersey Geoclutter natural laboratory	1 June 00	30 June 01	75,000
ONR	Geophysical and Geological Reconnaissance for the ONR Geoclutter Program (with Austin)	15 June 00	31 Dec 03	693,218
ONR	Building a Statistical Framework for Mine Burial Predictions	1 Jan 01	31 Dec 01	39,909
ONR	Seabed Variability and its Influence on Acoustic Prediction Uncertainty	1 July 01	31 Aug 04	190,766
ONR	Site Survey of the Mine Burial/Coastal Processes Experiment Site at the WHOI Coastal Observatory, Martha's Vineyard	1 Jan 02	31 Dec 04	188,729
ONR	ONR Geoclutter Program: Final Analysis of Geophysical and Geological Data (with Austin)	1 Oct 03	31 Dec 04	205,000
DURIP	Completion of a Heave Compensation System for a Small Off-	1 May 04	30 April 05	232,080

	Shore Drilling Rig (with Austin)				
ONR	Spatial variability and robust interpolation of seafloor sediment properties using the SEABED data bases	1 Oct 04	30 April 07	59,899	
ONR	Stratigraphic and Geoacoustic Characterization of the Outer New Jersey Shelf	1 May 05	30 Sep 07	99,756	
JSG, ONR & Industry	AHC-800 (Active Heave Compensation to 800 m) Drilling on the New Jersey Shelf: Investigating the Stratigraphic Response to ~50,000 Years of Eustasy (with Austin and Steel)	1 Oct 06	30 Sept 09	625,000	
ONR	Effects of small-scale bathymetric roughness on the global internal wave field (with Arbic)	1 April 07	30 Sept 09	244,017	
ONR	Stratigraphic and Geoacoustic Characterization of the Outer New Jersey Shelf	1 Oct 07	30 Sep 09	157,776	
ONR/SSCI	Interpolation Techniques with Minimal Data Density Analysis for Seafloor and Sub-seafloor Characteristics	15 Aug 08	31 Aug '10	64,220	
JSG	Rapid Response to Hurricane Ike (with Allison)	25 Sept. 08	31 Mar 09	45,996	
UTIG-IOP	Advance history of the Hubbard Glacier to assess effect of a warming climate (with Gulick)	1 Mar 10	31 Aug 10	21,834	
ONR	Stratigraphic and Geoacoustic Characterization for the SW06 and SW11 Programs	1 Jan. 10	12 Dec 10	48,474	
NASA	That Un-Certain Thing: Estimating Basal Geometry Uncertainties Important to Projections of Thwaites Glacier Dynamics (with Jackson)	29 Apr. 12	28 Apr. 14	730,196	
UTIG-IOP	Geophysical Reconnaissance of the Southern New England Mud Patch, in Support of a Planned Proposal to the NSF Ocean Observing Initiative's Pioneer Array	1 June 11	31 Sept. 12	20,880	
JSG	Rapid Response: Post-Sandy Investigations, Long Island, NY (with Austin)	1 Dec 12	31 Dec 13	152,130	
JSG	A Pilot Study to Utilize AUV Technology to Map the Ice-Water-Sediment Interface of a Marine-Terminating Glacier	1 Jan 14	31 Dec 14	71,502	
Texas State	CHIRP Survey of Spring Lake, Texas	1 May 14	31 May 14	11,291	
ONR	Stratigraphic Reconnaissance for the ONR Bottom Characterization Acoustic Experiment, New England Mud Patch	1 Jan 2015	31 Dec 16	162,868	
JSG	CHIRP/Multibeam Bathymetry Profiling Offshore Caesarea: A Continuing Collaboration Between UTIG and Israel's Charney School of Marine Sciences (with J. Austin)	1 Jan 2015	31 Dec 15	68,994	
	Total			5,177,120	