Gary T. Mitchum
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Biographical Information

Education

1984 Ph.D., Florida State University, Physical Oceanography.
1980 B.S. (magna cum laude), Florida State University, major in Physics with minor in Mathematics.

Professional Experience

2012 - present Associate Dean and Professor, College of Marine Science, USF
2002 - 2012 Professor, Department (then College) of Marine Science, USF
1996 - 2002 Associate Professor, Department of Marine Science, USF
1996 - 2000 Affiliate faculty, Department of Oceanography, UH Manoa
1992 - 1996 Associate Researcher, Department of Oceanography, UH Manoa.
1987 - 1992 Assistant Researcher, Department of Oceanography, UH Manoa.
1985 - 1987 Postdoctoral Researcher at the UH Manoa with Klaus Wyrtki.

Honors and awards

Outstanding Review Paper award, NOAA/ERL for McPhaden et al. (1998)
Honorable Mention, NMFS, Best paper in *Fishery Bulletin* for Polovina and Mitchum (1992)
1992 AGU Editor's Citation for Excellence in Refereeing
Florida State University Fellowship (1981-1982)
4-year National Merit Scholarship at the Florida State University
Honorary societies: Phi Beta Kappa, Phi Kappa Phi, Sigma Pi Sigma (Physics)

Professional Society Memberships

American Geophysical Union
American Meteorological Society

Publications

Manuscripts submitted or in press:

2020 None

Refereed publications and book chapters:

2019 Thompson, P.R., M.J. Widlansky, E. Leuliette, W. Sweet, D.P. Chambers, B.D. Hamlington, S. Jevrejeva, J.J. Mara, M.A. Merrifield, **G.T. Mitchum**, and R.S. Nerem, Sea level variability and change [in "State of the Climate in 2017"]. *Bull. Amer. Met. Soc.*, **100(9)**, S84-87, doi:10.1175/2019BAMSStateoftheClimate.

2019 Cazenave and 17 others including **Mitchum**, Observational Requirements for Long-Term Monitoring of the Global Mean Sea Level and Its Components Over the Altimetry Era. *Front. Mar. Sci.*, 6:582, doi: 10.3389/fmars.2019.00582. (Note: This was a review paper that had a lead author, Cazenave, and contributors. I was just a contributor.)

2019 Ponte and 52 others including **Mitchum**, Towards Comprehensive Observing and Modeling Systems for Monitoring and Predicting Coastal Sea Level. *Front. Mar. Sci.*, 6:437, doi: 10.3389/fmars.2019.00437. (Note: This was a review paper that was a merger of three separate review papers. The lead authors on the separate reviews were Ponte, Jeverjeva and **Mitchum**. I did a substantial amount of the work on this paper.)

2019 Wang, M., C. Hu, B. Barnes, **G. Mitchum**, B. Lapointe, and J. Montoya, The great Atlantic Sargussum belt. *Science*, **365 (9448)**, 83-87, doi10.1126/science.aaw7912.

2018 Nerem, R.S., B.D. Beckley, J.T. Fasullo, B.D. Hamlington, D.S. Masters, and **G.T. Mitchum**, Climate-change-driven accelerated sea level rise detected in the altimeter era. *Proc. Natl. Acad. Sci. USA*, **115(9)**, 2022-2025, doi.org/10.1073/pnas.1717312115.

2018 Thompson, P.R., M.A. Merrifield, E. Leuliette, W. Sweet, D.P. Chambers, B.D. Hamlington, S. Jevrejeva, J.J. Mara, **G.T. Mitchum**, R.S. Nerem and M.J. Widlansky, Sea level variability and change [in "State of the Climate in 2017"]. *Bull. Amer. Met. Soc.*, **99(8)**, S84-86, doi:10.1175/2018BAMSStateoftheClimate.

2018 WCRP Global Sea Level Budget Group, Global sea-level budget 1993–present, Earth Syst. Sci. Data, **10**, 1551-1590, https://doi.org/10.5194/essd-10-1551-2018.

2017 **Mitchum, G.**, Dutton, A., Chambers, D. P., and Wdowinski, S., Sea level rise. In E. P. Chassignet, J. W. Jones, V. Misra, and J. Obeysekera (Eds.), *Florida's climate: Changes, variations, & impacts* (pp. 557–578). Gainesville, FL: Florida Climate Institute. https://doi.org/10.17125/fci2017.ch19.

2017 Beckley, B.D., P.S. Callahan, D.W. Hancock III, **G.T. Mitchum**, and R.D. Ray, On the "Cal-Mode" Correction to TOPEX Satellite Altimetry and Its Effect on the Global Mean Sea Level Time Series, *JGR-Oceans*, **122**, https://doi.org/10.1002/2017JC013090.

2017 Thompson, P.R., M.A. Merrifield, E. Leuliette, W. Sweet, D.P. Chambers, B.D. Hamlington, S. Jevrejeva, J.J. Mara, **G.T. Mitchum**, and R.S. Nerem, Sea level variability and change [in "State of the Climate in 2016"]. *Bull. Amer. Met. Soc.*, **98(8)**, S79-81, doi:10.1175/2017BAMSStateoftheClimate.

2016 Liu, Yonggang, R. Weisberg, S. Vignudelli, and **G.T. Mitchum**, Patterns of the Loop Current System and Regions of Sea Surface Height Variability in the Eastern Gulf of Mexico Revealed by the Self-Organizing Maps, *JGR-Oceans*, **121**, 2347-2366, doi:10.1002/2015JC011493.

2016 Hine, Albert C., Don P. Chambers, Tonya D. Clayton, Mark R. Hafen, and **Gary T. Mitchum**, *Sea Level Rise in Florida: Science, Impacts, and Options*, University Press of Florida.

2016 Merrifield, M.A., E. Leuliette, P. Thompson, D.P. Chambers, B. Hamlington, S. Jevrejeva, J.J. Marra, M. Menéndez, **G.T. Mitchum**, R.S. Nerem and W. Sweet, Sea level variability and change, *in* "State of the Climate in 2015", *Bull. Amer. Met. Soc.*, **97(8)**, S80-82.

2015 Merrifield, M.A., P. Thompson, E. Leuliette, **G.T. Mitchum**, D.P. Chambers, S. Jevrejeva, R.S. Nerem, M. Menéndez, W. Sweet, B. Hamlington, and J.J. Marra, Sea level variability and change, *in* "State of the Climate in 2014", *Bull. Amer. Met. Soc.*, **96(7)**, S82-84.

2014 Merrifield, M.A., P. Thompson, E. Leuliette, R.S. Nerem, B. Hamlington, D.P. Chambers, **G.T. Mitchum**, K. McInnes, J.J. Marra, M. Menéndez, and W. Sweet, Sea level variability and change, *in* "State of the Climate in 2013", *Bull. Amer. Met. Soc.*, **95(7)**, S71-73.

2014 Thompson, P., **G.T. Mitchum**, Coherent Sea Level Variability on the North Atlantic Western Boundary. *J. Geophys. Res. Oceans*, **119**, 5676-5689, doi:10.1002/2014JC00999.

2014 Liu, Y., R.H. Weisberg, S. Vignudelli, **G.T. Mitchum**, Evaluation of Altimetry-Derived Surface Current Products Using Lagrangian Drifter Trajectories in the Eastern Gulf of Mexico. *J. Geophys. Res. Oceans*, **119**, 2827-2842, doi:10.1002/2013JC009710.

2013 Merrifield, M.A., P. Thompson, R.S. Nerem, D.P. Chambers, **G.T. Mitchum**, M. Menéndez, E. Leuliette, L. Miller, J.J. Marra, W. Sweet, and S. Holgate, Sea level variability and change, *in* "State of the Climate in 2012", *Bull. Amer. Met. Soc.*, **94(8)**, S68-72.

2013 Thompson, P., **G.T. Mitchum**, C. Vonesch and J. Li, Storminess Changes in the Southeastern United States during the 20th Century. *J. Climate*, **26**, 9713-9726.

2012 Merrifield, M.A., P. Thompson, D.P. Chambers, **G.T. Mitchum**, M. Menéndez, R.S. Nerem, E. Leuliette, L. Miller, S. Holgate, J.J. Marra, W. Sweet, Sea level variability and change, *in* "State of the Climate in 2011", *Bull. Amer. Met. Soc.*, **93(7)**, S81-84.

2011 Merrifield, M.A., **G.T. Mitchum**, E. Leuliette, D. Chambers, S. Nerem, P. Woodworth, S. Holgate, L. Miller, and S. Gill, Sea level variations, *in* "State of the Climate in 2010", *Bull. Amer. Met. Soc.*, **92(6)**, S98-100.

2010 **Mitchum, G.T.**, R. S. Nerem, M.A. Merrifield and R. Gehrels, 20th Century Sea Level Change Estimates From Tide Gauges and Altimeters, In: Understanding Sea-level Rise and Variability, Eds. J.A. Church, P.L. Woodworth, T. Aarup and W.S. Wilson. Blackwells Publishing, London.

2010 Church, J., T. Aarup, P. Woodworth, W. Wilson, R. Nicholls, R. Rayner, K. Lambeck, **G.T. Mitchum**, K. Steffen, A. Cazenave, G. Blewitt, J. Mitrovica and J. Lowe, Sea-level rise and Variability: Synthesis and Outlook for the Future, In: Understanding Sea-level Rise and Variability, Eds. J.A. Church, P.L. Woodworth, T. Aarup and W.S. Wilson. Blackwells Publishing, London.

2010 Beckley, B., N. Zelensky, S. Holmes, F. Lemoine, R. Ray, **G.T. Mitchum**, S. Desai and S. Brown, Assessment of the Jason-2 Extension to the TOPEX/Poseidon, Jason-1 Sea-Surface Height Time Series for Global Mean Sea Level Monitoring, *Mar. Geod.*, **33** (1), 447-471.

2010 Nerem, R.S., D. Chambers, C. Choe and **G.T. Mitchum**, Estimating mean sea level change from the TOPEX and Jason altimeter missions, *Mar. Geod.*, 33 (1), 435-446.

2010 Merrifield, M.A., S. Gill, E. Leuliette, L. Miller, **G.T. Mitchum**, S. Nerem and P. Woodworth, Sea level variations, *in* "State of the Climate in 2009", *Bull. Amer. Met. Soc.*, **91(7)**, S69-72.

2009 Merrifield, M.A., S. T. Merrifield and **G.T. Mitchum**, Evidence for a recent acceleration of global sea level rise. *J. Climate*, **22**, 5772-5781, doi:10.1175/2009JCLI2985.1.

2009 DeLong, K., T. Quinn, R. Poore and **G.T. Mitchum**, Evaluating highly resolved paleoclimate records in the frequency domain for multidecadal-scale variability, *Geophys. Res. Lttr*., 36, L20702, doi:10.1029/2009GL039742.

2009 Merrifield, M.A. R.S. Nerem, **G.T. Mitchum**, L. Miller, E. Leuliette, S. Gill and P. Woodworth, Sea level variations, 2008 annual assessment, *in* "State of the Climate in 2008", *Bull. Amer. Met. Soc.*, **90(8)**, S62-65.

2008 Merrifield, M.A., S. Gill, **G. T. Mitchum**, and P. L. Woodworth, Sea Level Variations, *in* State of the Climate in 2007, D.H. Levinson and J.H. Lawrimore, eds., *Bull. Amer. Met. Soc.*, **89**, S51-S52, doi:10.1175/bams-89-9-StateoftheCimate.

2007 **Mitchum, G.T.**, and R. Nerem, Sea Level Rise, Chapter in *Our Changing Planet – The View from Space*, NASA/Cambridge Press.

2007 Johnson, E., F. Bonjean, G. Lagerloef, J. Gunn, and **G.T. Mitchum**, Validation and Error Analysis of OSCAR Sea-surface Currents, *J. Atmos. Oceanic Tech*., **24**, 688-701, doi: 10.1175/jtech1971.1.

2007 Merrifield, M., **G.T. Mitchum**, S. Gill and P. Woodworth, Sea Level, *in* State of the Climate in 2006, Arguez, A., , ed., *Bull. Amer. Met. Soc.*, **88**, S1-S135, doi:10.1175/bams-88-6-929.

2006 Nerem, R.S., A. Cazenave, D. Chambers, L. Fu, E. Leuliette and **G.T. Mitchum**, Comment on "Estimating future sea level change from past records" by Nils-Axel Morner, *Global and Planetary Change*, doi: 10.1016/j.gloplacha.2006.08.002.

2006 Merrifield, M., S. Gill, and **G.T. Mitchum**, Sea Level, *in* State of the Climate in 2005, Shein, K.A., ed., *Bull. Amer. Met. Soc.*, **87**, S28-S29.

2005 Cummins, P.F., G.S.E. Lagerloef, and **G.T. Mitchum**, A regional index of northeast Pacific variability based on satellite altimeter data, *Geophys. Res Lttrs.*, **32**, L17607, doi:10.1029/2005GL023642.

2005 Holland, C., and **G.T. Mitchum**, Interannual Volume Variability in the Tropical Pacific and Lagrangian Heat Transport Pathways, *J. Geophys. Res. Oceans*, **109**, C03017, doi: 10.1029/2004JC002466.

2004 Leuliette, E., R.S. Nerem, **G.T. Mitchum**, Calibration of TOPEX/Poseidon and Jason-1 altimeter data to construct a continuous record of mean sea level. *Marine Geodesy*, **27**, 79-94.

2004 **Mitchum, G.T.**, D.W. Hancock, III, G. Hayne and D. Vandemark, Blooms of σ^0 in the TOPEX radar altimeter data. *J. Oceanic and Atmos. Tech.*, **21**, 1232-1245.

2003 Holland, C., and **G.T. Mitchum**, Interannual volume variability in the tropical Pacific. *J. Geophys. Res. Oceans*, **108** (C11), 33, doi:10.1029/2003JC001841.

2003 Lagerloef, G., R. Lukas, F. Bonjean, J. Gunn, **G.T. Mitchum**, M. Bourassa, and A. Busalacchi, El Nino Tropical Pacific Ocean surface current and temperature evolution in 2002 and outlook for early 2003. *Geophys. Res. Lttrs.*, **30** (10), 1514, doi:10.1029/2003GL017096.

2002 Nerem, R., and **G.T. Mitchum**, Estimates of vertical crustal motion derived from differences of TOPEX/POSEIDON and tide gauge measurements. *Geophys. Res. Lttrs.*, **29** (19), 1934, doi:10.1029/2002GL015037.

2002 Seki, M., J. Polovina, D. Kobayashi, R. Bidigare and **G.T. Mitchum** , An oceanographic characterization of swordfish (*Xiphias gladius*) longline fishing grounds in the springtime subtropical North Pacific. *Fisheries Oceanogr*., **11**, 251-266

2002 Woodworth, P., C. Le Provost, L. Rickards, **G.T. Mitchum** and M. Merrifield. A review of sea-level research from tide gauges during the World Ocean Circulation Experiment. *Oceanography and Marine Biology*, **40**,1-35.

2001 **Mitchum, G.T.**, R. Cheney, L.-L. Fu, C. Le Provost, Y. Menard and P. Woodworth, The future of sea surface height observations. In *Observing the Ocean for Climate in the 21st Century*, Bureau of Meteorology, Australia.

2001 Nerem, R., and **G.T. Mitchum**, Sea Level Change, in *Satellite Altimetry and Earth Sciences*, L. Fu and A. Cazenave (eds.), Academic Press.

2001 Gilbert, S., and **G.T. Mitchum.** Equatorial inertia gravity wave observations from TOPEX/Poseidon sea surface heights. *Geophys. Res. Lttrs.*, **28**, 2465-2468.

2001 Holland, C., and **G.T. Mitchum**, Propagation of Big Island eddies. *J. Geophys. Res.,* **106**, 935-944.

2001 Nerem, R., and **G.T. Mitchum**, Observations of sea level change from satellite altimetry, in *Sea Level Rise : History and Consequences*, B. Douglas, M. Kearney and S. Leatherman (eds.), Academic Press.

2000 **Mitchum, G.T**., and S. Chiswell, Coherence of internal tide variations along the Hawaiian Ridge. *J. Geophys. Res.*, **105**, 28653-28662.

2000 **Mitchum, G.T**., An improved calibration of satellite altimetric heights using tide gauge sea levels with adjustment for land motion. *Marine Geodesy*, **23**, 145-166.

1999 Nerem, R., D. Chambers, E. Leuliette, **G.T. Mitchum** and B. Giese, Variations in global mean sea level associated with the 1997-98 ENSO event. *Geophys. Res. Letters*, **26**, 3005-3009.

1999 Lagerloef, G., **G.T. Mitchum**, R. Lukas and P. Niiler, Tropical Pacific Near Surface Currents Estimated From Altimeter, Wind and Drifter Data. *J. Geophys. Res.*, **104**, 23313-23326.

1998 Meyers, S.D., A. Melsom, **G.T. Mitchum** and J.J. O'Brien, Detection of the fast coastal Kelvin Wave teleconnection due to El Nino-Southern Oscillation. *J. Geophys. Res*., 103, 27,655-27,663.

1998 **Mitchum, G.T.**, Monitoring the stability of satellite altimeters with tide gauges. *J. Atmos. Oceanic Tech*., 15, 721-730.

1998 McPhaden, M., A. Busalacchi, R. Cheney, J.-R. Donguy, K. Gage, D. Halpern, M. Ji, P. Julian, G. Meyers, **G.T. Mitchum**, P. Niiler, J. Picaut, R. Reynolds, N. Smith, K. Takeuchi, The Tropical Ocean Global Atmosphere (TOGA) observing system: A decade of progress. *J. Geophys. Res.*, 103, 14169-14240.

1997 Ray, R., and **G.T. Mitchum**, Surface manifestation of internal tides in the deep ocean: Observations from altimetry and island gauges. *Prog. Oceanogr*., 40,135-162.

1997 Potemra, J.T., R. Lukas, and **G.T. Mitchum**, Large-scale estimation of transport from the Pacific to the Indian Ocean. *J. Geophys. Res.*, 102, 27795-27812.

1997 Nerem, S., B. Haines, J. Hendricks, J.-F. Minster, **G.T. Mitchum** and W. White, Improved determination of global mean sea level variations using TOPEX/POSEIDON altimeter data. *Geophys. Res. Lttrs*., **24**, 1331-1334.

1996 Ray, R., and **G.T. Mitchum**, Surface manifestation of internal tides generated near Hawaii. *Geophys. Res. Lttrs.*, **23**, 2101-2104.

1996 **Mitchum, G.T.**, A context for the Hawaiian Ocean Timeseries measurements as estimated from TOPEX/POSEIDON altimetric heights. *Deep-Sea Res.*, **43**, 257-280.

1995 Polovina, J.J., **G.T. Mitchum** and G.T. Evans, Decadal and basin-scale variation in mixed layer depth and the impact on biological production in the Central and North Pacific, 1960-88. *Deep-Sea Res.*, **42**, 1701-1716.

1995 **Mitchum, G.T.**, and B.K. Kilonsky, Tropical sea level variability from altimeters. In *Oceanographic Application of Remote Sensing*, CRC Press, Boca Raton, 512 pp.

1995 **Mitchum, G.T.**, The source of 90-day oscillations at Wake Island. *J. Geophys. Res.*, **100**, 2459-2475.

1994 **Mitchum, G.T.**, Comparison of TOPEX sea surface heights and tide gauge sea levels. *J. Geophys. Res.*, **99**, 24,541-24,553.

1994 Polovina, J.J., **G.T. Mitchum**, N.E. Graham, M.P. Craig, E.E. DeMartini and E.N. Flint, Physical and biological consequences of a climate event in the Central North Pacific. *Fisheries Oceanogr.*, **3**, 15-21.

1994 Polovina, J.J., and **G.T. Mitchum**, Spiny lobster recruitment and sea level revisited: Results of a 1990 forecast. *Fish. Bull. U.S.*, **92**, 203-205.

1992 Polovina, J.J., and **G.T. Mitchum**, Variability in spiny lobster Panulirus marginatus in the Northwestern Hawaiian Islands. *Fish. Bull. U.S.*, **90**, 483-493.

1990 Wyrtki, K., and **G.T. Mitchum**, Interannual differences of GEOSAT altimeter heights and sea level: The importance of a datum. *J. Geophys. Res.*, **95**, 2969-2975.

1990 **Mitchum, G.T.**, and R. Lukas, Westward propagation of annual sea level and wind signals in the western Pacific Ocean. *J. Climate*, **3**, 1102-1110.

1989 Roach, D., **G.T. Mitchum** and K. Wyrtki, Length scales of interannual sea level variability along the Pacific margin. *J. Phys. Oceanogr.*, **19**, 122-128.

1988 **Mitchum, G.T.**, and K. Wyrtki, An overview of Pacific sea level variability. *Marine Geodesy*, **12**, 235-245.

1987 **Mitchum, G.T.**, and R. Lukas, Latitude-frequency structure of Pacific sea level variance. *J. Phys. Oceanogr.*, **17**, 2362-2365.

1987 **Mitchum, G.T.**, Trade wind fluctuations associated with El Niño-Southern Oscillation events. *J. Geophys. Res.*, **92**, 9464-9468.

1987 **Mitchum, G.T**., A bias in the satellite-observed low-level cloud motion winds over the central tropical Pacific. *J. Geophys. Res.*, **92**, 3861-3865.

1986 **Mitchum, G.T.**, and A.J. Clarke, Evaluation of frictional, wind forced long wave theory on the West Florida Shelf. *J. Phys. Oceanogr.*, **16**, 1029-1037.

1986 **Mitchum, G.T.**, and A.J. Clarke, The frictional nearshore response to forcing by synoptic scale winds. *J. Phys. Oceanogr.*, **16**, 934-946.

1983 Cragg, J., **G.T. Mitchum** and W. Sturges, Wind-induced sea-surface slopes on the West Florida Shelf. *J. Phys. Oceanogr.*, **13**, 2201-2212.

1982 **Mitchum, G.T.**, and W. Sturges, Wind-driven currents on the West Florida Shelf. *J. Phys. Oceanogr.*, **12**, 1310-1317.

1981 Burnett, W.C., and **G.T. Mitchum**, Proton-Induced X-ray Emission analysis of marine particulates. *Nucl. Instr. and Meth.*, **181**, 231-238.

Selected non-refereed publications:

2011 **Mitchum, G.T.**, Sea Level Changes in the Southeastern United States, prepared for the Southeastern Climate Consortium and the Florida Climate Institute.

2007 Robinson, M., and **G.T. Mitchum**, A Method For Creating A Global Real-Time Sea Surface Height Product from the Optimal Combination of Existing AVISO And Naval Research Laboratory Products, Technical report prepared for Earth and Space Research, Seattle, WA.

2006 Nerem, R.S., J. Choe, G. Born, E. Leuliette, D. Chambers, J. Ries, **G.T. Mitchum**, Assessments of Orbits for a Possible Jason-3 Misson, White paper for distribution to OSTM Science Working Team.

2004 Mitchum, G.T., Review of *Changing Sea Levels: Effects of Tides, Weather and Climate* by D. Pugh, **Limn. Ocean. Bull.**, **13**, 73-74.

2003 Woodworth, P., T. Aarup, M. Merrifield, **G.T. Mitchum** and C. LeProvost, Measuring Progress of the Global Sea Level Observing System. *EOS, Transactions, AGU*, **84** (50), 565-565.

2000 **Mitchum, G.T.** (ed.), Proceedings of an international workshop entitled *Ocean Circulation Science Derived from the Atlantic, Indian and Arctic Sea Level Networks*, held in Toulouse, France, 10-11 May 1999. Intergovernmental Oceanographic Commission, UNESCO, Paris, France, 157 pp.

2000 Mehta, V., E. Lindstrom, A. Busalacchi, T. Delworth, C. Deser, L.-L. Fu, J. Hansen, G. Lagerloef, W. Lau, S. Levitus, J. Meehl, **G.T. Mitchum**, W. White, Summary of the Proceedings of the NASA Workshop on Decadal Climate Variability. *Bull. Am. Met. Soc.*, **81**, 2983-2985.

2000 Nerem, S., R. Eanes, J. Ries and **G.T. Mitchum**, The use of a precise reference frame in sea level change studies, in Towards an Integrated Global Geodetic Observing System (IGGOS), R. Rummel, H. Drewes, W. Bosch, and H. Hornik (eds.), Springer-Verlag, Munich.

1999 **Mitchum, G.T.**, R, Cheney, L.-L. Fu, C. Le Provost, Y. Menard, and P. Woodworth, The future of sea surface height observations, in Proceedings of the OCEANOBS 99, St. Raphael, France, October, 1999.

1999 Garzoli, S., D. Enfield, G. Reverdin, **G.T. Mitchum**, R. Weisberg, P. Chang, and J. Carton, COSTA: A climate observing system for the tropical Atlantic, in Proceedings of the OCEANOBS 99, St. Raphael, France, October, 1999.

1999 **Mitchum, G.T.**, R, Cheney, L.-L. Fu, C. Le Provost, Y. Menard, and P. Woodworth, Sea surface height observations from altimeters and tide gauges, CLIVAR Exchanges, **4** (3), 11-15.

1998 **Mitchum, G.T.**, A. Busalacchi, and G. Lagerloef, Studies of Tropical Pacific Variability. AVISO Altimetry Newsletter, Number 6, 77-79.

1998 **Mitchum, G.T.**, A Tide Gauge Network for Altimeter Calibration. In the *Proceedings of Methods for Monitoring Sea Level: GPS and Tide Gauge Benchmark Monitoring, GPS Altimeter Calibration*, Pasadena, CA, March, 1997 (eds. R. Neilan and P. Woodworth).

1998 **Mitchum, G.T.**, An Overview of Tide Gauge Measurements. In the *Proceedings of Methods for Monitoring Sea Level: GPS and Tide Gauge Benchmark Monitoring, GPS Altimeter Calibration*, Pasadena, CA, March, 1997 (eds. R. Neilan and P. Woodworth).

1997 **Mitchum, G.T.**, Altimeter Drift from Tide Gauges. AVISO Altimetry Newsletter, Number 5, 8-11.

1995 **Mitchum, G.T.**, Altimetric observations of Rossby wave variability near topography. Proceedings of Aha Hulikoa Conference, Honolulu, Hawaii, February, 1995.

1994 **Mitchum, G.T.**, B. Kilonsky and B. Miyamoto, Methods for maintaining a stable datum in a sea level monitoring system. IEEE Oceans Proceedings.

1993 **Mitchum, G.T.**, Principal component analysis: Basic methods and extensions. Proceedings of Aha Hulikoa Conference, Honolulu, Hawaii, March, 1993.

1990 **Mitchum, G.T.**, U.S. WOCE supports global sea level data collecton. WOCE Notes, 2 (6), 10-12.

1983 **Mitchum, G.T.**, and W. Sturges, On the wind stress - sea level power law. Technical report, Department of Oceanography, Florida State University.

Extramural Funding

Pending Proposals

None

Pending Infrastructure Support Projects as Associate Dean

None

Active Grants and Contracts

NOAA: Principal Investigator, Mitchum contribution to "Multi-model Seasonal Sea Level Forecasts for the U.S. Coast" proposal headed by Merrifield at UH, $229K for September 2017 to August 2020.

Infrastructure Support Projects as Associate Dean (Both Current and Completed)

USGS: Co-PI with Jacqueline Dixon, Support of Facilities at the USF/USGS St. Petersburg Science Center, $5666K for August 2017 to August 2022.

USGS: Principal Investigator, Support for the CMS Machine Shop, $50K to date beginning August 2017 (open-ended).

Projects completed at University of South Florida (1996-present)

NASA/JPL: Principal Investigator, Mitchum contribution to "A Climate Data Record of sea level, its steric and mass components" proposal headed by Willis at JPL, $320K for October 2013 to June 2019.

NASA/OSTST: Principal Investigator, Mitchum contribution to “The Climate Data Record of Sea Level Change: Are We Missing Something?” proposal headed by Nerem at the University of Colorado, $161K for January 2013 to March 2018.

USGS: Principal Investigator, Access to the CMS Electron Microscope Laboratory, $96K for September 2013 to September 2017.

USGS: Principal Investigator, Support for the CMS Machine Shop, $50K for July 2015 to July 2017.

USGS: Co-PI with Jacqueline Dixon, Support of Facilities at the USF/USGS St. Petersburg Science Center, $5671K for August 2012 to August 2017, which includes $110K for the CMS Seminar series.

NASA/IDS: Co-Investigator with Don Chambers, Contribution to “The Response of Sea Level to Changes in Climate: Has There Been a Fundamental Shift in the Rate of Sea Level Rise?” proposal headed by Nerem at the University of Colorado, $213K for August 2011 to August 2015.

NASA/GSFC: Principal Investigator, Mitchum contribution to “Integrated Multi-mission Ocean Altimeter Data for Climate Research” proposal headed by Ray at GSFC, $251K for July 2008 to July 2014.

NASA/OSTM: Principal Investigator, Mitchum contribution to “Studies of upper ocean dynamics related to the Pacific Decadal Oscillation using satellite altimeter data and derived velocity fields” proposal headed by Lagerloef at ESR, $161K for March 2009 to June 2012.

NASA/OSTM: Principal Investigator, Mitchum contribution to “Building a Climate Data Record for Sea Level Change” proposal headed by Nerem at University of Colorado, $162K for March 2009 to September 2012.

NASA/IDS: Principal Investigator, Mitchum contribution to “An Independent Assessment of the Ice Melt Contribution to Sea Level Change” proposal headed by Nerem at University of Colorado, $180K for June 2007 to June 2010, NCE to June 2011.

NOAA/NASA: Principal Investigator, “Development of Operational Products for the Calibration of Satellite Altimeters Against the Global Tide Gauge Network”, $318K for September 2005 to August 2009.

NASA: Principal Investigator, “Mean Flow Effects on Mesoscale Eddy Propagation”, $427K for September 2005 to July 2009.

NOAA/NASA: Principal Investigator, Mitchum contribution to “OSCAR-2: Ocean Surface Current Analyses Real-time” proposal headed by Lagerloef at ESR, $277K for September 2005 to March 2009.

NASA/OST: Principal Investigator, Mitchum contribution to “An Investigation of Very Low Frequency Sea Level Change Using Satellite Altimeter Data” proposal headed by Nerem at University of Colorado, $171K for July 2004 to March 2009.

NASA/IDS: Principal Investigator, Mitchum contribution to “A Multidisciplinary Investigation of Present-day Sea Level Change” proposal headed by Nerem at University of Colorado, $173K for April 2004 to June 2008.

NASA/JPL: Principal Investigator, Mitchum contribution to “Using global terrestrial GPS measurements to unravel the emerging altimetric record of global sea-level change” headed by B. Haines at JPL, $75K for January 2001 to June 2005.

NASA/JASON: Principal Investigator, Studies of tropical variability, $278K for April 1998 to June 2005.

NOAA/NOPP: Principal Investigator, Mitchum contribution to “Establishing a NOAA Operational Data Center for Surface Currents Derived from Satellite Altimeters and Scatterometers: Pilot Study for the Tropical Pacific Including the Hawaiian and US Territorial Island” proposal headed by Lagerloef at ESR, $190K for October 2001 to September 2004.

NASA/JASON: Principal Investigator, Mitchum contribution to “An investigation of very low frequency sea level change using altimeter data” headed by S. Nerem at University of Colorado, $178K for June 1997 to April 2004.

NASA/JASON: Principal Investigator, Mitchum contribution to “A study of sigma naught bloom effects on radar altimeters” headed by G. Hayne at Wallops Flight Facility, $110K for 1 April 1998 to 31 December 2003.

NOAA/CLIVAR: Principal Investigator, “Prospects for sea level data archaeology in the Atlantic”, $40K for September 2000 to August 2001.

PFRP/NOAA: Principal Investigator, “Extension of PFRP investigation of swordfish catch in North Pacific”, $48K for September 2001 to June 2002.

NASA: Principal Investigator, “El Nino/Southern Oscillation in the Antarctic Circumpolar Current”, $66K for September 1, 1998 to August 31, 2001. This is funding for a NASA Fellowship won by Christina Holland based on her proposed dissertation research.

NOAA/PFRP: Principal Investigator, “Evaluation of remote sensing technologies for the identification of oceanographic features critical to pelagic fish distributions around the Hawaiian Archipelago”, $179K for April 1,1996 to Sep 30, 2000.

NASA/TPEM: Principal Investigator, “Studies of tropical Pacific variability”, $146K for October 1, 1996 to Dec 31, 1999.

NOAA/OGP: Co-Principal Investigator (with M. Luther), USF portion of a proposal from a Consortium of Florida Universities for Regional Assessment of ENSO Impact in SSA, SNA and SA. Received $30K for July 1, 1996 to December 31, 1997. Original USF proposed portion was $90K of $515K for entire Consortium, but NOAA cut funds for the overall project after year 1 and USF PIs dropped out of the collaboration.

NOAA/JIMAR: Principal Investigator, “Computing support for intercomparison of satellite and in situ sea levels”, $22K for November 1, 1996 to October 1, 1997. Funding provided via an equipment transfer from UH to USF.

NASA/JPL: Principal Investigator, “Proposal to develop recommendations for upgrades to the in situ tide gauge network for calibration of the TOPEX/POSEISON Extended Mission”, $24K for July 1, 1996 to March 31, 1997.

Projects completed at University of Hawaii (1990-1995)

NOAA/NOS: Principal Investigator, UH Sea Level Center, $639K for April 1, 1995 to March 31, 1996.

NOAA/NESDIS: Principal Investigator, WOCE “Fast Delivery” Sea Level Center, $66.6K for February 1, 1995 to January 31, 1996.

NASA/JPL: Co-Investigator (R. Lukas, PI), Studies of tropical ocean dynamics using the TOPEX/Poseidon altimeter-derived sea surface topography, $1.348M for October 1, 1987 to January 31, 1996.

NOAA/PFRP: Principal Investigator, Evaluation of remote sensing technologies for the identification of oceanographic features critical to pelagic fish distributions around the Hawaiian Archipelago, $78K for October 1, 1994 to September 30, 1995.

NOAA/NOS: Principal Investigator, UH Sea Level Center, $2.595M for January 1, 1992 to March 31, 1995.

NOAA/NESDIS: Principal Investigator, Establishment of WOCE Sea Level Center, $149K for February 1, 1993 to January 31, 1995.

NOAA/NOS: Co-Investigator (K.Wyrtki, PI), Indo-Pacific Sea Level Network and TOGA Sea Level Center, $1.66M for January 1, 1990 to December 31, 1991.

NOAA/NOS: Co-Investigator (K.Wyrtki, PI), IGOSS Sea Level Program in the Pacific, $113K for July 1, 1989 to June 30, 1990

NSF: Co-Investigator (K.Wyrtki, PI), Studies of Ocean Dynamics Using Sea Level Data, $405K for August 1, 1989 to July 31, 1991.

Academic Activities

Courses at USF

Fall 2019
- OCE 6934 (3 hrs) Geophysical Fluid Dynamics
- OCE 6934 (3 hrs) Math Methods in Marine Science with Application to Data Analysis

Summer 2019
- Directed Individual Study for various students

Spring 2019
- OCE 6934 (3 hrs) Fluid Dynamics
- OCE 7910 (9 hrs) Dissertation for Y. Zhu

Fall 2018
- OCP 6050 (3 hrs) Physical Oceanography
- OCE 7910 (9 hrs) Dissertation for Y. Zhu

Summer 2018
- OCE 7910 (9 hrs) Directed Research for Y. Zhu
- Directed Individual Study for various students

Spring 2018
- OCE 6934 (3 hrs) Geophysical Fluid Dynamics
- OCE 7910 (9 hrs) Directed Research for Y. Zhu

Fall 2017
- OCE 6934 (3 hrs) Math Methods in Marine Science with Application to Data Analysis
- OCE 7910 (9 hrs) Directed Research for Y. Zhu

Summer 2017
- OCE 7910 (9 hrs) Directed Research for Y. Zhu
- Directed Individual Study for various students

Spring 2017
- OCE 7910 (9 hrs) Directed Research for Y. Zhu
- OCE 6934 (3 hrs) Fluid Dynamics

Fall 2016
- OCP 6050 (3 hrs) Physical Oceanography
- OCE 7910 (9 hrs) Directed Research for Y. Zhu

Summer 2016
- OCE 7910 (9 hrs) Directed Research for Y. Zhu
- Directed Individual Study for various students

Spring 2016
- OCE 7910 (9 hrs) Directed Research for Y. Zhu
- OCE 6934 (3 hrs) Geophysical Fluid Dynamics

Fall 2015
- OCE 7910 (9 hrs) Directed Research for Y. Zhu

Summer 2015
- OCE 7910 (9 hrs) Directed Research for Y. Zhu
- Directed Individual Study for various students

Spring 2015
- OCE 7910 (3 hrs) Directed Research for Y. Zhu
- OCE 6934 (3 hrs) Geophysical Fluid Dynamics

Fall 2014
- OCP 6050 (3 hrs) Physical Oceanography
- OCE 7910 (9 hrs) Directed Research for Y. Zhu

Summer 2014
- OCE 7910 (9 hrs) Directed Research for Y. Zhu
- Directed Individual Study for various students

Spring 2014
- OCE 7910 (3 hrs) Directed Research for Y. Zhu

Fall 2013
- OCE 7910 (3 hrs) Directed Research for Y. Zhu

Summer 2013
- OCE 7910 (9 hrs) Directed Research for Y. Zhu
- Directed Individual Study for various students

Spring 2013
- OCE 6934 (3 hrs) Ocean Waves
- OCE 7910 (3 hrs) Directed Research for Y. Zhu

Fall 2012
- OCP 6050 (3 hrs) Physical Oceanography
- OCE 7910 (3 hrs) Directed Research for Y. Zhu

Summer 2012
- OCE 7910 (9 hrs) Directed Research for Y. Zhu

Spring 2012
- OCE 6934 (3 hrs) Advanced Data Analysis Methods
- OCE 7980 (2 hrs) Dissertation for P. Thompson
- OCE 7910 (3 hrs) Directed Research for Y. Zhu

Fall 2011
- OCE 6934 (3 hrs) Readings in Climate Variability (team taught equally with Chambers, Shin and Flower)
- OCE 6971 (3 hrs) Thesis for M. Robinson
- OCE 6972 (6 hrs) Directed Research for M. Robinson
- OCE 7980 (3 hrs) Dissertation for P. Thompson
- OCE 7910 (3 hrs) Directed Research for P. Thompson

Spring 2011
- OCE 6934 (3 hrs) Ocean Waves
- OCE 6972 (6 hrs) Directed Research for M. Robinson
- OCE 6971 (3 hrs) Thesis for M. Robinson
- OCE 7910 (6 hrs) Directed Research for P. Thompson
- OCE 7980 (3 hrs) Dissertation for P. Thompson

Fall 2010
- OCP 6050 (3 hrs) Physical Oceanography
- OCE 6934 (1 hrs) Problem Solving in Physical Oceanography
- OCE 6971 (3 hrs) Thesis for M. Robinson
- OCE 6972 (3 hrs) Directed Research for M. Robinson
- OCE 7980 (3 hrs) Dissertation for P. Thompson
- OCE 7910 (3 hrs) Directed Research for P. Thompson

Spring 2010

OCE 6972 (2 hrs) Thesis for K. Doran
OCE 6972 (6 hrs) Directed Research for M. Robinson
OCE 6971 (3 hrs) Thesis for M. Robinson
OCE 7910 (3 hrs) Directed Research for P. Thompson
OCE 7980 (6 hrs) Dissertation for P. Thompson

Fall 2009

OCP 6050 (3 hrs) Physical Oceanography
OCE 6934 (1 hrs) Problem Solving in Physical Oceanography
OCE 6971 (2 hrs) Thesis for K. Doran
OCE 6971 (3 hrs) Thesis for M. Robinson
OCE 6972 (6 hrs) Directed Research for M. Robinson
OCE 7980 (6 hrs) Dissertation for P. Thompson
OCE 7910 (3 hrs) Directed Research for P. Thompson

Summer 2009

OCE 6971 (2 hrs) Thesis for K. Doran
OCE 6971 (6 hrs) Thesis for M. Robinson
OCE 7980 (6 hrs) Dissertation for P. Thompson

Spring 2009

OCE 6934 (3 hrs) Marine Time Series Analysis
OCE 6972 (2 hrs) Thesis for K. Doran
OCE 6972 (1 hrs) Directed Research for M. Robinson
OCE 6971 (3 hrs) Thesis for M. Robinson
OCE 7910 (1 hrs) Directed Research for P. Thompson
OCE 7980 (3 hrs) Dissertation for P. Thompson

Fall 2008

OCE 6971 (2 hrs) Thesis for K. Doran
OCE 6972 (6 hrs) Directed Research for M. Robinson
OCE 7910 (3 hrs) Directed Research for P. Thompson
OCE 7980 (2 hrs) Thesis for K. DeLong
OCE 7980 (3 hrs) Dissertation for P.Thompson

Summer 2008

OCE 6972 (6 hrs) Directed Research for M. Robinson
OCE 7980 (2 hrs) Thesis for K. DeLong
OCE 6971 (2 hrs) Thesis for K. Doran
OCE 7910 (6 hrs) Directed Research for P. Thompson

Spring 2008

OCE 6934 (3 hrs) Decadal Climate Variations
OCE 6972 (2 hrs) Thesis for K. Doran
OCE 6972 (6 hrs) Directed Research for M. Robinson
OCE 7980 (9 hrs) Thesis for K. DeLong
OCE 7910 (6 hrs) Directed Research for P. Thompson

Fall 2007

OCP 6050 (3 hrs) Physical Oceanography
OCE 6971 (2 hrs) Thesis for K. Sedwick
OCE 6972 (9 hrs) Directed Research for M. Robinson
OCE 7910 (6 hrs) Directed Research for P. Thompson
OCE 7910 (9 hrs) Directed Research for K. DeLong

Summer 2007

OCE 6934 (3 hrs) Quantitative Time Series Analysis

OCE 6972 (3 hrs) Directed Research for K. Sedwick
OCE 6972 (3 hrs) Directed Research for M. Robinson
OCE 6972 (3 hrs) Directed Research for K. DeLong
OCE 6971 (3 hrs) Thesis for K. Sedwick
OCE 7910 (3 hrs) Directed Research for P. Thompson

Spring 2007
OCE 6934 (3 hrs) Ocean Waves II
OCE 6972 (3 hrs) Directed Research for K. Sedwick
OCE 6972 (6 hrs) Directed Research for M. Robinson
OCE 6971 (6 hrs) Thesis for K. Sedwick
OCE 7910 (1 hrs) Directed Research for P. Thompson

Fall 2006
OCE 6934 (3 hrs) Ocean Waves I
OCE 6972 (3 hrs) Directed Research for K. Sedwick
OCE 6972 (3 hrs) Directed Research for M. Robinson
OCE 6971 (6 hrs) Thesis for K. Sedwick
OCE 7910 (3 hrs) Directed Research for P. Thompson

Summer 2006
OCE 6934 (3 hrs) Quantitative Time Series Analysis
OCE 6972 (1 hrs) Directed Research for K. Sedwick
OCE 6972 (1 hrs) Directed Research for M. Robinson
OCE 6971 (2 hrs) Thesis for K. Sedwick
OCE 7910 (3 hrs) Directed Research for P. Thompson

Spring 2006
OCE 6972 (3 hrs) Directed Research for K. Sedwick
OCE 6972 (3 hrs) Directed Research for M. Robinson
OCE 6971 (6 hrs) Thesis for K. Sedwick
OCE 7910 (1 hrs) Directed Research for P. Thompson

Fall 2005
OCP 6050 (3 hrs) Physical Oceanography
OCE 6971 (6 hrs) Thesis for K. Sedwick
OCE 6972 (3 hrs) Directed Research for K. Sedwick
OCE 6972 (3 hrs) Directed Research for M. Robinson
OCE 7910 (1 hrs) Directed Research for P. Thompson

Summer 2005
OCE 6934 (2 hrs) Advanced Time Series Methods in Oceanography
OCE 6971 (2 hrs) Thesis for K. Sedwick
OCE 6972 (1 hrs) Directed Research for K. Sedwick
OCE 6972 (4 hrs) Directed Research for M. Robinson

Spring 2005
OCE 6934 (3 hrs) Ocean Waves II
OCE 6972 (6 hrs) Directed Research for K. Sedwick
OCE 6972 (1 hrs) Directed Research for M. Robinson

Fall 2004
OCE 6972 (6 hrs) Directed Research for K. Sedwick
OCE 6972 (1 hrs) Directed Research for M. Robinson

Summer 2004
OCE 6972 (2 hrs) Directed Research for K. Sedwick

Spring 2004
- OCE 6934 (2 hrs) Climate Variability (teamed 50/50 with Terry Quinn)
- OCE 6972 (1 hrs) Directed Research for K. Sedwick

Fall 2003
- OCP 6050 (3 hrs) Physical Oceanography
- OCE 6972 (1 hrs) Directed Research for K. Sedwick

Summer 2003
- OCE 6972 (6 hrs) Directed Research for K. Sedwick

Spring 2003
- OCE 6934 (3 hrs) Ocean Waves II
- OCE 6934 (3 hrs) Continental Shelf Dynamics
- OCE 7980 (5 hrs) Dissertation for C. Holland
- OCE 6971 (6 hrs) Thesis for J. Law
- OCE 7910 (1 hrs) Directed Research for C. Holland
- OCE 6972 (3 hrs) Directed Research for J. Law
- OCE 6972 (1 hrs) Directed Research for K. Sedwick

Fall 2002
- OCE 6934 (3 hrs) Ocean Waves I
- OCE 7980 (8 hrs) Dissertation for C. Holland
- OCE 6971 (4 hrs) Thesis for J. Law
- OCE 7910 (1 hrs) Directed Research for C. Holland
- OCE 6972 (5 hrs) Directed Research for J. Law
- OCE 6972 (1 hrs) Directed Research for K. Sedwick

Summer 2002
- OCE 7910 (1 hrs) Directed Research for C. Holland
- OCE 6972 (1 hrs) Directed Research for J. Law
- OCE 7980 (4 hrs) Dissertation for C. Holland
- OCE 6971 (1 hrs) Thesis for J. Law

Spring 2002
- OCE 6934 (3 hrs) Marine Time Series Analysis
- OCE 7910 (1 hrs) Directed Research for C. Holland
- OCE 6972 (3 hrs) Directed Research for J. Law
- OCE 7980 (8 hrs) Dissertation for C. Holland
- OCE 6971 (6 hrs) Thesis for J. Law

Fall 2001
- OCP 6050 (3 hrs) Physical Oceanography
- OCE 7910 (1 hrs) Directed Research for C. Holland
- OCE 6972 (4 hrs) Directed Research for J. Law
- OCE 7980 (8 hrs) Dissertation for C. Holland
- OCE 6971 (5 hrs) Thesis for J. Law

Summer 2001
- OCE 7910 (1 hrs) Directed Research for C. Holland
- OCE 6972 (1 hrs) Directed Research for J. Law
- OCE 7980 (1 hrs) Dissertation for C. Holland
- OCE 6971 (1 hrs) Thesis for J. Law

Spring 2001
- OCE 6908 (1 hrs) Independent Study (Physics) with K. Kilbourne
- OCE 7910 (1 hrs) Directed Research for C. Holland
- OCE 6972 (3 hrs) Directed Research for S. Gilbert
- OCE 6972 (3 hrs) Directed Research for J. Law

OCE 7980 (8 hrs) Dissertation for C. Holland
OCE 6971 (2 hrs) Thesis for S. Gilbert
OCE 6971 (6 hrs) Thesis for J. Law

Fall 2000
OCP 6050 (3 hrs) Physical Oceanography
OCE 7910 (1 hrs) Directed Research for C. Holland
OCE 6972 (7 hrs) Directed Research for S. Gilbert
OCE 6972 (6 hrs) Directed Research for J. Law
OCE 7980 (8 hrs) Dissertation for C. Holland
OCE 6971 (2 hrs) Thesis for S. Gilbert
OCE 6971 (3 hrs) Thesis for J. Law

Summer 2000
OCE 6972 (1 hrs) Directed Research for S. Gilbert
OCE 6972 (2 hrs) Directed Research for J. Law
OCE 7980 (2 hrs) Dissertation for C. Holland
OCE 6971 (1 hrs) Thesis for S. Gilbert

Spring 2000
OCE 6934 (3 hrs) Ocean Waves II
OCE 7910 (1 hrs) Directed Research for C. Holland
OCE 6972 (4 hrs) Directed Research for S. Gilbert
OCE 6972 (3 hrs) Directed Research for J. Law
OCE 7980 (3 hrs) Dissertation for C. Holland
OCE 6971 (3 hrs) Thesis for S. Gilbert

Fall 1999
OCE 6934 (3 hrs) Continental Shelf Dynamics
OCE 7910 (9 hrs) Directed Research for C. Holland
OCE 6972 (4 hrs) Directed Research for S. Gilbert
OCE 6972 (3 hrs) Directed Research for J. Law

Summer 1999
OCE 7910 (2 hrs) Directed Research for C. Holland
OCE 6972 (2 hrs) Directed Research for S. Gilbert
OCE 6972 (2 hrs) Directed Research for J. Law

Spring 1999
OCE 6934 (3 hrs) Marine Time Series Analysis
OCE 7910 (6 hrs) Directed Research for C. Holland
OCE 6972 (3 hrs) Directed Research for S. Gilbert
OCE 6972 (1 hrs) Directed Research for J. Law

Fall 1998
OCP 6050 (3 hrs) Physical Oceanography
OCE 7910 (9 hrs) Directed Research for C. Holland
OCE 6972 (3 hrs) Directed Research for S. Gilbert
OCE 6972 (1 hrs) Directed Research for J. Law

Summer 1998
OCE 7910 (2 hrs) Directed Research for C. Holland
OCE 6972 (2 hrs) Directed Research for S. Gilbert

Spring 1998
OCE 6934 (3 hrs) Ocean Waves II
OCE 7910 (6 hrs) Directed Research for C. Holland
OCE 6972 (2 hrs) Directed Research for S. Gilbert

Fall 1997

OCE 6934 (3 hrs) Ocean Waves I
OCE 7910 (5 hrs) Directed Research for C. Holland
OCE 6972 (3 hrs) Directed Research for S. Gilbert
OCE 6908 (2 hrs) Independent Study (Satellite Altimetry) for P. Filippi

Summer 1997

OCE 7910 (2 hrs) Directed Research for C. Holland
OCE 6908 (2 hrs) Independent Study (Satellite Altimetry) for P. Filippi

Spring 1997

OCE 6934 (2 hrs) Marine Time Series Analysis
OCE 6934 (3 hrs) Statistics for Marine Research - teamed with R. Wilson
OCE 7910 (2 hrs) Directed Research for C. Holland

Fall 1996

OCP 6050 (3 hrs) Physical Oceanography
OCE 6908 (1 hrs) Independent Study (Statistics) for K. Donaldson
OCE 7910 (3 hrs) Directed Research for C. Holland

Graduate student advising at USF

Yingli Zhu	PhD Advisor, 2012-2019
Philip Thompson	PhD Advisor, 2005-2012
Kristine DeLong	PhD Co-Advisor with Terry Quinn, 2006-2008
Paola Filippi	PhD Co-advisor with F. Muller-Karger, 1997-1997
Christina Holland	PhD Advisor, 1996-2003
Mindy Robinson	MS Advisor, 2004-2011
Kara Doran	MS Advisor, 2002-2010
Jason Law	MS Advisor, 1998-2003
Sherryl Gilbert	MS Advisor, 1997-2001
Jordan Meyer	Member of PhD Committee, 2018-present
Katelyn Schockman	Member of PhD Committee, 2018-present
Ali Ahmad Al Dasouqi	Member of PhD Committee (College of Engineering), 2018-present
Mengqiu Wang	Member of PhD Committee, 2016-2018
Michael Kosempa	Member of PhD Committee, 2013-2017
Dawn Goldsmith	Member of PhD Committee, 2009-2014
Sennai Habtes	Member of PhD Committee, 2010-2014
Monica Wilson	Member of PhD Committee, 2009-2013
Ana Arellano	Member of PhD Committee, 2011-2013
Dan Otis	Member of PhD Committee, 2003-2012
Lore Ayoub	Member of PhD Committee, 2006-2009
Marina Marrari	Member of PhD Committee, 2004-2008
Heidi Souder	Member of PhD Committee, 2006-2007
Yonggang Liu	Member of PhD Committee, 2004-2006
Jyotika Virmani	Member of PhD Committee, 1997-2005
Bob Helber	Member of PhD Committee, 1997-2003
Ruoying He	Member of PhD Committee, 1999-2002
Denis Nadeau	Member of PhD Committee, 1999-2001
Nan Schmidt	Member of PhD Committee, 1997-2001
M. Dotherow-McField	Member of PhD Committee, 1997-2001
Zhenjiang Li	Member of PhD Committee, 1996-1997
Juan Milan	Member of MS Committee, 2012-2015
Jessica Makowski	Member of MS Committee, 2012-2013
Charles Lichtenwalner	Member of MS Committee, 2005-2008

Kristine DeLong	Member of MS Committee, 2004-2006
Laura Fauver	Member of MS Committee, 2004-2005
Elizabeth Carnahan	Member of MS Committee, 2003-2005
Steve Gustafson	Member of MS Committee, 1996-1998, 2004 - 2006
Hali Kilbourne	Member of MS Committee, 2001-2003
Jack Parrish	Member of MS Committee, 1996-2002
Jennifer Jacukiewicz	Member of MS Committee, 2000-2002
Haiying Zhang	Member of MS Committee, 2000-2000
Matt Patterson	Member of MS Committee, 1997-1999
Jen Jarrell	Member of MS Committee, 1997-1999
Eric Siegel	Member of MS Committee, 1997-1999

Graduate student advising at UH

Cheryl Kilstrom	Chair of MS Committee, 1994-2000
Jiye Yu	Chair of MS Committee, 1992-1997
Christina Munch	Chair of MS Committee, 1993-1996
James Potemra	Member of PhD Committee, 1992-1997
Jack Li	Member of PhD Committee, 1995-1996
Reka Domokos	Member of MS Committee, 1994-1996
Michael Sawyer	Member of MS Committee, 1992-1996
Kathryn Ozimek	Member of MS Committee, 1990-1991
George Parrish	Member of MS Committee, 1988-1992

Professional Service

College of Marine Science

Standing committees

1996 - present	Student recruiting
1997 - present	Honors and Awards
1996 - present	Seminar (Chair until 2004)
1996 - 2011	Curriculum
2003 - 2011	CMS Tenure and Promotion Committee (Chair 2004 to 2011)
2008 - 2011	Space
2002 - 2004	Dean's Advisory Committee (Chair for 2003-2004)
1997 - 2002	Long-range planning
1996 - 2002	Computer

Ad hoc committees

2009 - 2010	Fisheries Scientist Faculty Search Committee (Chair)
2009 - 2010	CMS Endowed Postdoctoral Associates Committee
2008 - 2009	Ocean-Atmosphere Modeling Search Committee
2008 - 2008	Remote Sensing and Fisheries Search Committee
2007 - 2008	Strategic Planning Committee
2004 - 2005	Ranked NTE Faculty Promotion Guidelines Committee
2005 - 2006	Post Retreat Planning Committee
2003 - 2005	Search Committee, Biological Oceanographer faculty position
2002 - 2003	Staff Reorganization Oversight Committee
2002 - 2003	CMS Endowed Postdoctoral Associates Committee
2002 - 2003	EPAY Committee
2001 - 2002	Building Program for the College of Marine Science
2002 - 2002	Sackett Prize Selection Committee
1997 - 1999	Education Degree Committee
1999 - 1999	Annual Faculty Review Committee

University

2017 - present	Advisory Board for USF Office of Corporate Partnerships
2017 - present	Infrastructure Support Committee, subcommittee of Associate Deans for Research
2016 - present	Export Control Advisory Committee (Chair)
2015 - present	F&A Transition Plan Workgroup
2012 - present	Associate Deans for Research group at the Office of Research and Innovation
2018 - 2019	Co-Chair of Planning Committee for University Climate Change Coalition Summit
2013 - 2017	CDDI (Center for Drug Discovery and Innovation) Advisory Committee
2009 - 2010	CMS Dean Search Committee
2009 - 2010	Ad Hoc Committee on Tenure and Promotion Guidelines
2008 - 2009	Task Force on Faculty Roles, Rewards and Responsibilities
2006 - 2007	CMS Dean Search Committee
2005 - 2006	Mathematics search committee for ES&P on USF St. Pete campus
2005 - 2005	Discipline Committee (Chair) for R. Weisberg's nomination as Distinguished University Professor
2001 - 2002	Strategic Committee on Research (as Chair of Research Council)
2001 - 2002	Faculty Senate Executive Committee (as Chair of Research Council)
1999 - 2002	University Research Council (Chair for 2001-2002)
1998 - 1999	Computing in Support of Research
1996 - 1996	Graduate Council Outstanding Dissertation Prize, sub-committee for Physical Sciences

Local to State

2018 - present	Member, Advisory Committee for Florida A&M University Center for Water Resources
2018 - present	USF/CMS representative on GCOOS Regional Association
2016 - present	CIMAS Fellow
2014 - present	Member, Tampa Bay Climate Science Advisory Panel
2012 - present	USF representative on Florida Climate Institute Executive Board
2012 - 2017	Pinellas County Sea Grant Advisory Committee
2014 - 2015	Member, St. Petersburg Pier Selection Committee
2014 - 2014	Organized a Sea Level Rise Workshop on behalf of the City of St. Petersburg as part of Blue Ocean
2014 - 2014	Consultant on Climate Change and Sea Level Rise for St. Petersburg Downtown Waterfront Master Plan

National

2019 - present	USF representative on SECOORA Board
2014 - present	Member of NASA Sea Level Change Science Team
2018 - 2019	Organizing Committee for US CLIVAR workshop on Sea Level Changes along US East Coast
2017 - 2017	Review panel member for the NASA Sea Level Change Science Team
2014 - 2014	Review panel member for NOAA Climate Program, Climate Observations Division
2013 - 2013	Review panel member for the NASA Physical Oceanography Program
2011 - 2011	Review panel member for NASA, GRACE Science Team competition
2011 - 2011	Committee member for the GCOOS-RA plan for Water Level Measurements
2010 - 2010	Ocean Sciences panelist for the National Science Foundation
2009 - 2010	Review panel member for NASA Gulf of Mexico Climate Change program
2007 - 2007	Ocean Sciences panelist for the National Science Foundation
2000 - 2003	Associate Editor, Journal of Physical Oceanography
2000 - 2000	Review panel member for the NASA Oceanography Program
1998 - 1998	Ocean Sciences panelist for the National Science Foundation
1996 - 1997	Science Steering Group for NOAA/NOS Sea Level Observations
1996 - 1997	Organizing Committee for IGS/JPL Workshop on Tide Gauge Benchmarks
1992 - 1997	Advisory Panel for the Florida State University Sea Level Center
1995 - 1995	NOAA/NOS Global Sea Level Task Force
1993 - 1994	NOAA/NESDIS Advisory Panel for Information Management Project
1991 - 1992	NOAA/NOS Advisory Panel for Global Sea Level Project
1988 - 1990	U.S. WOCE Sea Level Implementation Panel (Chair)
1987 - 1989	U.S. WOCE Data Management Working Group

International

2011 - present	Member, WMO-IOC JCOMM Observation Coordination Group
2011 - present	Chair of the Global Sea Level Observing System (GLOSS) Group of Experts
2011 - present	President of the IUGG/IAPSO Commission on Mean Sea Level and Tides
2001 - present	Steering committee member, Pilot Project for TIGA under the IGS Governing Board
2000 - present	IERS Working Group on ITRF Datum, ITRF2000 Sub-group
1997 - present	IGS/PSMSL Technical Committee on Tide Gauge Positioning
1996 - present	Permanent Service for Mean Sea Level (PSMSL) Advisory Group
1998 - 2017	JASON/OSTM Science Working Team
2013 - 2017	WCRP CLIVAR Atlantic Implementation Panel
1999 - 2011	Chair of the GLOSS Science Steering Group
1987 - 2011	Member, IUGG/IAPSO Commission on Mean Sea Level and Tides
1987 - 2011	Global Sea Level Observing System (GLOSS) Group of Experts
2008 - 2009	Organizer, IOC Workshop on Precise Vertical Motion Estimates at Tide Gauges
2005 - 2007	Member, NOAA/NPOES Altimeter Operational Algorithm Team
2005 - 2006	Steering committee, WCRP/JSC Sea Level Rise Workshop
2005 - 2006	Guest editor, Global sea level portion of Proceedings of Dynamic Planet 2005, Springer-Verlag
2003 - 2006	Steering committee member, IAG Planning Group for an International Altimeter Service
2003 - 2004	Chair, Local Organizing Committee for CLIVAR/GODAE/OSTST meeting in Nov 2004
2000 - 2004	IERS Working Group on ITRF Datum, ITRF2000 Sub-group
2000 - 2004	CLIVAR Ocean Observations Panel (ex officio member representing GLOSS)
1988 - 2000	TOPEX/Poseidon/JASON/OSTM Science Team
1988 - 1989	International WOCE Data Management Panel

Service from Local to State Level

Testimony in Tallahassee before Senator Tom Lee's committee concerning sea level rise (October, 2019)
Meeting in Tallahassee with the state's Chief Resiliency Officer, the DEP Secretary and the Science Officer to discuss the need for a Florida Climate Assessment (October, 2019)
Panelist for Oceans and Ocean Health sponsored by the Institute for Leadership (July, 2019)
Panelist for St. Pete Chamber of Commerce Leadership Coastal Environmental Summit (May 2019)
Invited panelist for "Climate Change in the Sunshine State" at Eckerd College (February 2019)
Invited member of Coastal Resiliency Workshop with Florida DEP Secretary Noah Valenstein (June 2018)
Panelist for St. Pete Chamber of Commerce Leadership Coastal Environmental Summit (May 2018)
Presentation and Q&A with The Ground Truth Project entitled Report for America (June 2018)
Briefing on sea level rise acceleration for the St. Petersburg City Council HERS committee (March 2018)
Briefing on sea level rise acceleration for the St. Petersburg Mayor Kriseman and staff (March 2018)
Speaker at Sustainability Summit sponsored by the St. Petersburg chapter of the League of Women Voters (September 2017)
Flood Insurance Roundtable with Congressman Crist (May 2017)
Presentation about Sea Level Rise in Sea Grant Workshop on Planning and Law for Local Governments (May 2017)
Speaker at Earth, Wind and Fire event at SPC (April 2017)
Speaker at City of St. Petersburg Sustainability Summit (April 2017)
Panelist for Resilient City Workshop in St. Petersburg (December 2016)
Interview about Sea Level Rise for Creative Loafing (July 2016)
Filmed CPALM video about sea level for use in secondary schools (June 2016)
Presentation about Sea Level Rise to Sea Grant meeting in Tavares with representatives from 11 counties (April 2016)
Presentation about CMS activities at CIMAS Fellows meeting in Miami (April 2016)
Invited for discussion of environmental issues concerning Pier Park with city and private architects (March 2016)
Keynote Speaker for the Annual Spoonbill Ocean Sciences Bowl (February 2016)
SLR panel for general public sponsored by the Tampa Bay Climate Science Advisory Panel (November 2015)
Briefing on Sea Level Rise for Tampa Public Works (September 2015)
Briefing on Climate Change for St. Petersburg City Council ENRS committee (May 2015)
Sea Level Rise talk to the St. Petersburg Preservation Society (May 2015)
City of St. Petersburg Climate Community Practice event (May 2015)
Sea Level Rise talk to the Nation Group in Sarasota (April 2015)
Sea Level Rise talk to City of Tampa Emergency Management Steering Committee (February 2015)
Presentation on Sea Level Rise Projection Methodology for TBRPC's One Bay Working Group (2014)
Panelist discussing climate change issues at the Patel Center's Sustainability Connections film series (September 2014)

Talk on Sea Level Rise for Science Educators at the Florida Aquarium (May 2014)
Talk on Sea Level Rise to the Indian Rocks Beach Boat Club (January 2014)
Talk on Sea Level Rise at FCR-STEM Conference, St. Petersburg (December 2012)
Talk on Sea Level Rise for the public at Weedon Island Preserve, St. Petersburg (October 2011)
Invited talk in Sierra Club Workshop for Educators on Global Climate Change (Sarasota, FL, March 1999)
Two broadcasts on satellite remote sensing for Project Oceanography at USF (1998)
Hawaii State Selection Committee, National Science Scholars Program, Member (1991-1995)
Hawaiian Academy of Science: General Secretary (1989-1990), Exec. Council (1991-1995), President (1993-1994)
Lectures and advising for Hawaii Civil Defense on climate change and severe weather frequency (1994-1995)

Scientific Meetings, Workshops, etc., including Service at the National and International Levels

Calendar year 2019

Fall AGU meeting, San Francisco, CA, December 2019
Thompson, P, M. Merrifield, **G. Mitchum**, G. Woppelmann, J. Foster, M. Beavis, and D. Caccamise, Drivers, priorities, and best practices for maintenance and expansion of the global network of GNSS stations co-located with tide gauges

Sunny Side Up, Saint Petersburg, FL, November 2019
Invited speaker on sea level rise and climate change for this series sponsored by the Downtown Partnership

CERF Biennial Conference, Mobile, AL, November 2019
Burke, M., L Carnahan, K. Hammer-Levy, **G.T. Mitchum**, A process model for the co-production of climate knowledge in the Tampa Bay Estuary

Science, Strategies and Solutions: Addressing Climate Change in Tampa Bay, Tampa, FL, November 2019
Co-Chair of the Planning committee, organized one of the four panels and both of the keynote speakers.

FDEP Resiliency Workshop, Tampa, FL, August 2019
(Invited) Panelist to represent USF's activities in climate research

SECOORA Annual Meeting, Wilmington, NC, June 2019
Participated as the USF Representative to SECOORA

CLIVAR workshop "Sea Level Hotspots from Florida to Maine: Drivers, Impacts, and Adaptation, April 2019
Invited to serve on Planning Committee and serve as panelist at the meeting.

IOC GLOSS Group of Experts X, Busan, South Korea, April 2019
As Chair of GLOSS Group of Experts I was the convener for this meeting.

NAS committee meeting, Irvine, CA, February, 2019
(Invited) workshop participant to discuss geodetic infrastructure needs to support the Decadal Survey

Calendar year 2018

Fall AGU meeting, Washington, DC, December 2018
Liu, Y., R. Weisberg, S. Vignudelli, and **G.T. Mitchum**, Dual Self-Organizing Map (SOM) and Joint SOM-Wavelet Analyses: An Application in the Gulf of Mexico Loop Current System

Air and Waste Management Association Annual Meeting, Jupiter Beach, Florida, October 2018
Mitchum, G.T., (invited) Talk on sea level rise as part of the Sea Level Rise/Resiliency Forum

WCRP Sea Level Grand Challenge, Boulder, Colorado, October 2018
Mitchum, G.T., (invited) Presentation on GLOSS sea level activities relevant to regional sea level variations

25 Years of Progress in Radar Altimetry, Ponta Delgado, Azores, September 2018
Beckley, B., X. Yang, **G.T. Mitchum**, R. Ray, F. Lemoine, N. Zelensky, and B. Loomis, Monitoring Jason-3 Sea Surface Height Stability for Global and Regional Sea Level Estimates

Tidally United Summit 2018, Sarasota, Florida, August 2018

Mitchum, G.T., (invited) Featured talk on sea level rise as part of the Public Connections Forum

42nd COSPAR Scientific Assembly, Pasadena, California, July 2018

Nerem, R., B. Beckley, A. Cazenave, J. Church, J. Fasullo, B. Hamlington, B. Meyssignac, **G.T. Mitchum**, and J. Willis (invited), A 25-Year Record of Global Mean Sea Level Change: What Have We Learned?

Sea Level Futures Conference, Liverpool, United Kingdom, July 2018

Zhu, Y., and **G.T. Mitchum**, Coastal versus Open Sea Level Trends – A Revisit

Environmental Summit 2018, Sarasota, Florida, April 2018

Mitchum, G.T., (invited) Featured presentation in CLIMATE: The Times, They are A-Changin'

Citizens' Climate Lobby Climate Action 2018, Tampa, Florida, February 2018

Mitchum, G.T., (invited) Talking About Sea Level Rise and Climate Change

Calendar year 2017

Old Dominion University, Norfolk, Virginia, November 2017

Mitchum, G.T., (invited) Talking to the public (convinced and unconvinced) about climate change and sea level rise

Ocean Surface Topography Science Team, Miami, Florida, October 2017

Zhu, Y., and **G.T. Mitchum**, Comparison of Coastal and Open Ocean Sea Level Trends

Masters, D., R. S. Nerem, **G.T. Mitchum**, Updates to and Reanalysis of the CU Global Mean Sea Level Climate Data Record

Nerem, R.S., J. Fasullo, B. Hamlington, D. Masters and **G.T. Mitchum**, Understanding the Acceleration of Sea Level Rise During the Altimeter Era

Air and Waste Management Association Annual Meeting, Tallahassee, Florida, October 2017

Mitchum, G.T., (invited) Climate Change: Is it happening? Are we causing it? The long-term outlook and the short-term challenge

International WCRP Conference of Regional Sea Level Changes and Coastal Impacts, New York, July 2017

Invited speaker and panelist for Town Hall Meeting "Evolving Requirements of Integrated Sea-level Observations for Regional and Local Decision Making"

Beckley, B.D., F. Lemoine, N. Zelensky, R. Ray, X. Yang, and **G. Mitchum**, Assessment of Revised TOPEX/Jason Global and Regional Mean Sea Level Estimates Referenced to ITRF2014.

Zhu, Y., **G. Mitchum**, P. Thompson, Diagnosis of Large-scale, Low-frequency Sea Level Variability in the NE Pacific Ocean.

Nerem, R.S., J. Fasullo, B. Hamlington, D. Masters, K. McMenamin, M. Merrifield, **G. Mitchum**, P. Thompson, and B. Beckley, Understanding the Acceleration of Sea Level Rise during the Altimeter Era.

Road to Ocean Obs '19 FOO-ward Progress, Silver Spring, Maryland, May 2017

Invited Panel member in the Regional and Global Sea Level Change and Impacts session

JCOMM Observations Coordination Group, Qingdao, China, May 2017

Invited as GLOSS Chair to give a presentation about the state of the global sea level observing system.

Florida Floodplain Managers Association Conference, St. Petersburg, April 2017

Mitchum, G.T., (invited) The Science of Assessing and Predicting Sea Level Rise

Calendar year 2016

Fall AGU meeting, San Francisco, December 2016

Nerem, R.S., J. Fasullo, B. Hamlington, D. Masters, M. Merrifield, **G.T. Mitchum**, P. Thompson, and B. Beckley, Has the Rate of Sea Level Rise Accelerated During the Altimeter Era?

National Academies of Sciences, Washington, DC, November 2016

Mitchum (invited) gave a presentation and participated in a panel discussion on the experience of GLOSS concerning sustained climate observations.

Ocean Surface Topography Science Team, La Rochelle, France, November 2016

Mitchum, G.T., B. Hamlington, D. Masters, M. Merrifield, R.S. Nerem, and P. Thompson, Vertical land motion errors at the tide gauges and sensitivity of altimeter drift estimates to these errors.

Beckley, B., D. Hancock, **G.T. Mitchum**, R. Ray, On the 'cal mode' correction to TOPEX altimetry and its effect on the global mean sea-level time series.

Nerem, R.S., J. Fasullo, B. Hamlington, D. Masters, M. Merrifield, **G.T. Mitchum**, and P. Thompson, Has the Rate of Sea Level Rise Accelerated During the Altimeter Era?

Beckley, B., F. Lemoine, N. Zelensky, R. Ray, **G.T. Mitchum**, X. Yang, M. Ricko, D. Vandemark, and H. Feng, Assessment of the Jason-3 extension to the TOPEX/Poseidon/Jason Sea Surface Height Climate Data Record referenced to ITFR2014.

Coastal Adaptation and Resilience in Tampa Bay, St. Petersburg, September 2016

Mitchum, G.T., (invited) Analyzing Coastal Climate Hazards.

Sea Level Rise Summit, Fort Lauderdale, May 2016

Mitchum, G.T., (invited) Sea-Level Rise Observations.

JCOMM-Observations Coordination Group, Mallorca, Spain, April 2016

Invited as GLOSS Chair to give a presentation about the state of the global sea level observing system.

Ocean Sciences, New Orleans, February 2016

Zhu, Y., and **G.T. Mitchum**, A Statistical Simulation Model for Global Mean Sea Level from Altimetry and Tide Gauge Reconstructions.

GOMRI, Tampa, February 2016

Chanton, J., **G.T. Mitchum**, S. Locker, H. Parker, R.E. Turner, and O. Pilkey, Climate and Sea Level Rise (SLR) – The Nuts and Bolts of an Inescapable Coastal Driver.

Calendar year 2015

Fall AGU meeting, San Francisco, December 2015

Mitchum, G.T., (invited) GNSS Estimates of Vertical Land Motion at Tide Gauges: Brief History, Present Status and Current Challenges.

Wdowinski, S., P. Thompson, **G.T. Mitchum**, and J. Park, Decadal-scale sea level rise acceleration along the Florida Atlantic coast and its relations to sea level variability along the Florida Current.

University of Luxembourg, July 2015

Mitchum, G.T., (invited) Sea surface heights from altimetry and sea levels from tide gauges: How do these compare and a couple of examples of what do I do with them.

26th IUGG General Assembly, Prague, Czech Republic, June 2015

Mitchum, G.T., (Session Chair) Sea Level Change and Variability: Past, Present and Future.

Mitchum, G.T., (invited) Rigorous statistical testing of model fits to global mean sea level time series.

University of Florida, March 2015

Mitchum, G.T., (invited) Climate Lessons from the Venerable Tide Gauge.

Calendar year 2014

Fall AGU meeting, San Francisco, December 2014

Beckley, B.D., R. D. Ray, F.G. Lemoine, N.P. Zelensky, X. Yang, S. Desai, S. Brown, **Mitchum, G.T.**, and M. Ricko, Maintaining the accuracy of a sea surface height climate record from multi-mission altimeter data.

Webinar for the Global Ocean Observing System (GOOS), November 2014

Mitchum, G.T. (invited), GLOSS, The Global Sea Level Observing System.

Ocean Surface Topography Science Team, Lake Constance, Germany, October 2014

Mitchum, G.T., B. Beckley, E. Leuliette, S. Masters, M. Merrifield, R. S. Nerem, R. Ray, and P. Thompson, Comparing different alternatives to the tide gauge, altimeter drift estimation problem.

B.D. Beckley, F. G. Lemoine, N. P. Zelensky, S. Melachroinos, **G.T. Mitchum**, Xu Yang, S. Brown, Reassessment of Jason-2 stability based on revised POD standards.

Leuliette, E., J. Lillibridge, **G.T. Mitchum**, R. Scharroo, and W. Smith, Evaluation of Jason-2 GDR-D sea level and retracking parameters.

Nerem, R.S., C. Boening, B. Hamlington, J. Fasullo, F. Landerer, M. Merrifield, **G.T. Mitchum**, and J. Willis, Expectations for the evolution fog local mean sea level during the 2014-2015 El Nino event.

Leuliette, E., and **G.T. Mitchum**, Intermission and tide gauge comparisons of CryoSat-2, SARAL/AltiKa and Jason-2.

Beckley, B., F. Lemoine, N. Zelensky, X. Yang, R. Ray, **G.T. Mitchum**, M. Ricko, S. Luthcke, Impact of recent mass flux and revised time variable gravity realizations on regional geocentric sea level estimates.

Climate Science and Solutions Summit, Eckerd College, St. Petersburg, October 2014

Mitchum, G.T. (invited) served on a moderated panel discussion on Climate Change Science Informing Policy.

Florida Section of the American Water Resources Association and Tampa Bay Estuary Program, Tampa, September 2014

Mitchum, G.T. (invited), Climate change and resiliency in Tampa Bay.

23rd Annual Southwest Florida Water Resources Conference, Fort Myers, January 2014

Mitchum, G.T. (invited as the keynote speaker), Sea level changes in the southeastern United States: Past, present and future.

Calendar year 2013

IOC GLOSS Group of Experts XIII, Liverpool, England, October 2013

As Chair of GLOSS Group of Experts I was the convener for this meeting.

Ocean Surface Topography Science Team, Boulder, October 2013

Beckley, B., F. Lemoine, N. Zelensky, **G.T. Mitchum**, R. Ray, X. Yang, S. Melachroinos, D. Chinn an S.B. Luthcke, Impace3 of recent mass flux and revised geodetic standards on geocentric sea level estimates.

Leuliette, E., **G.T. Mitchum**, R. Scharroo and J. Lillibridge, Inter-mission and tide gauge comparison with Jason-2.

JCOMM-Observations Coordination Group, Washington DC, September 2013

Invited as GLOSS Chair to give a presentation about the state of the global sea level observing system.

IOC GLOSS Group of Experts XIII, Gothenburg, Sweden, July 2013

I was Co-convener for a Joint IAHS/IAPSO Symposium entitled, "Sea level changes and its implications on the coastal zone." Note that I did not attend, but did help with the advance work to organize the session.

Symposium in Honor of Klaus Wyrtki, Honolulu, April 2013

Mitchum, G.T. (invited), Suggestions from Klaus = Career in Oceanography.

University of Dublin, Institute for Advanced Studies, Dublin, Ireland, March 2013

Mitchum, G.T. (invited), Gave a series of 8 lectures on based on my Advanced Time Series Analysis class.

Geological data fusion: Tackling the statistical challenges of interpreting past environmental change, Rutgers, January 2013

Mitchum, G.T. (invited), Can We Determine Sea Level Rise Acceleration from the Instrumental Record?

Calendar year 2012

Fall AGU meeting, San Francisco, December 2012

Mitchum, G.T., P. Thompson and M. Merrifield (invited), Sea Level Change: Is the Volume of the Ocean Changing or is it Redistributing?

Geological Society of America Annual Meeting, Charlotte, November 2012

Mitchum, G.T. (invited), Can we determine acceleration rates?

20 Years of Progress in Radar Altimetry Symposium and Ocean Surface Topography Science Team meeting, Venice, Italy, September 2012

Invited Member of the Science Steering Committee for the meeting.

Nerem, R.S., D. Chambers, M. Merrifield and **G.T. Mitchum**, A 20 Year Climate Data Record of Sea Level Change: What Have We Learned?

Ablain, M., S. Philipps, A. Ollivier, N. Picot, **G.T. Mitchum**, R. Scharroo, J. Lillibridge, B. Haines, B. Beckley and S. Desai, Reciprocal Benefits of Multi-mission Satellite Altimetry Comparison.

Lagerloef, G., S. Springer, C. Jiang, K. Dohan, **G.T. Mitchum** and P. Thompson, Phil, Twenty years of Satellite Altimetry: Understanding the Decadal Variability in the North Pacific Ocean - Overview.

Mitchum, G.T., B. Beckley, E. Leuliette, R.S. Nerem and M. Merrifield, Altimeter Drift Estimation: Past, Present and Future.

Leuliette, E., R. Scharroo, **G.T. Mitchum**, D. Byrne, L. Miller, Development of the NOAA Sea Level Climate Data Record.

Scharroo, R. E. Leuliette, J. Lillibridge, M. Naeije, **G.T. Mitchum** and D. Byrne, RADS: Consistent Multi-mission Products.

Beckley, B. F. Lemoine, R. Ray, N. Zelensky, S. Mealchroinos, X. Yang, S. Holmes, R.S. Nerem, **G.T. Mitchum**, S. Brown, S. Desai, S. Misra, N. Tran, Recent Advances in the Development and Validation of a Sea Surface Height Climate Data Record from Multi-mission Altimeter Data.

Beckley, B., F. Lemoine, N. Zelensky, S. Melachroinos, **G. T. Mitchum**, X. Yang and S. Brown, Reassessment of Jason-2 stability based on revised POD standards.

Leuliette, E., J. Lillibridge, **G.T. Mitchum**, R. Scharroo and W. Smith, Evaluation of Jason-2 GDR-D sea level and retracking parameters.

Risk and Response: Sea Level Rise Summit, Florida Atlantic University, Boca Raton, June 2012

Mitchum, G.T. (invited), Sea Level Change: The Global Perspective.

Calendar year 2011

Florida Climate Institute's Annual Meeting, Gainesville,November 2011

Mitchum, G.T. (invited), Sea Level Changes in the Southeastern United States: Past, Present and Future.

Ocean Surface Topography Science Team, San Diego, October 2011

Beckley, B., F. Lemoine, N. Zelensky, R. Ray, S. Holmes, **G.T. Mitchum**, S. Desai, S. Brown and N. Tran, Assessment of Current Global and Regional Mean Sea Level Estimates Based on ITRF2008.

Leuliette, E., R. Scharoo and **G.T. Mitchum**, Evaluating the Jason-2 Primary Mission Sea Level Climate Record.

Workshop on "Influence of sea level rise on natural systems of the greater Everglades", Boca Raton, April 2011

Mitchum, G.T. (invited), Sea Level Rise in Florida (and beyond): Observations and Obfuscations.

European Geophysical Union Annual Meeting, Vienna, Austria, April 2011

Thompson, P., **G.T. Mitchum** and M. Merrifield, Decadal Variability in Sea Level Rise Rates.

University of Dublin, Institute for Advanced Studies, Dublin, Ireland, April 2011

Mitchum, G.T. (invited), A series of 8 lectures on Advanced Time Series Analysis.

State University System Climate Change Workshop, Boca Raton, March 2011

I was invited to help plan a SUS proposal on Climate Change.

University of Michigan, Department of Geology, Ann Arbor, March 2011

Mitchum, G.T. (invited), Sea Level Rise: What do we know and what do we need to know?

WCRP/IOC Workshop on Regional Sea Level Change, Paris, France, February 2011

P. Thompson and **G.T. Mitchum** (invited), Low Frequency Sea Level Variations on the Boundaries of the North Atlantic. The invitation was extended to Mitchum and the talk was presented by Mitchum.

NASA Goddard Space Flight Center, Washington, DC, February 2011

Mitchum, G.T. (invited), Tide Gauge Calibration of Satellite Radar Altimetry.

AAAS Annual Meeting, Washington, DC, February 2011

Mitchum, G.T. (invited), Sea Level on the Human Scale: Tide Gauge Measurements and Satellite Altimetry.

Calendar year 2010

Fall AGU meeting, San Francisco, December 2010

Mitchum, G.T. (invited) Impact of reference frame uncertainties on global sea level change estimates.

Ocean Surface Topography Science Team, Lisbon, Portugal, October 2010

Beckley, B., F. Lemoine, N. Zelensky, X. Yang, R. Ray, **G.T. Mitchum**, S. Desai, S. Brown and B. Haines, Assessment of Current Global and Regional Mean Sea Level Estimates Based on the TOPEX/Poseidon Jason-1&2 Climate Data Record.

Leuliette, E., L. Miller, R. Scharoo and **G.T. Mitchum**, Tide Gauge Calibrations and the Radar Altimeter Database System.

Symposium on Vertical Rates from GNSS, Newcastle, United Kingdom, July 2010

Mitchum, G.T. (invited), A methodological update of tide gauge, GPS estimates of altimeter drift rates.

IPCC Workshop on Sea Level Rise and Ice Sheet Instabilities, Kuala Lumpur, Malaysia, 21-24 June 2010

Nerem, R.S., D.P. Chambers, B. Hamlington, R. Leben, **G.T. Mitchum**, T. Phillips and J. Willis, Observations of Recent Sea Level Change.

S*ea Level Rise 2010, Harte Research Institute, Corpus Christi, Texas, March 2010*

Mitchum, G.T. (invited), Sea Level Trends Measured from Space and Tide Gauges.

Ocean Sciences, Portland, Oregon, February 2010

Beckley, B., **G.T. Mitchum** and 8 others, Assessment of Current Estimates of Global and Regional Mean Sea Level from the TOPEX/Poseidon, Jason-1, and OSTM 17-year record.

Leuliette, E., R. Scharoo, L. Miller, J. Lillibridge and **G.T. Mitchum**, Evaluation of the Multiple-Altimeter Global and Regional Climate Record.

Keeping our Heads Above Water: Surviving the Challenges of Sea-Level Rise in Florida, Lake Placid, Florida, January 2010

Invited as a discussant and as a moderator for a session on "Adaptations Options for Sea-Level Rise in Florida"

Calendar year 2009

Fall AGU meeting, San Francisco, California, December 2009

Beckley, B., R. Ray, F. Lemoine, N. Zelensky, D. Jacob, S. Holmes, S. Desai, S. Brown, **G.T. Mitchum** and R.S. Nerem, Integrated multi-mission altimeter data for climate research.

Florida State University, December 2009

Invited seminar - Sea level rise: What do tide gauges and altimeters really tell us?

NASA Sea Level Workshop, Austin, November 2009

Mitchum, G.T., M. Merrifield and P. Thompson (invited), Tide gauge observations of sea level rise over the past century.

NASA Ocean Surface Topography Mission, Science Working Team Meeting, Seattle, June 2009

Mitchum, G.T., and K. Doran, Global sea level rise uncertainty due to land motion and reference frame issues.

Mitchum, G.T., M. Robinson, N. Bernier, R.S. Nerem, J. Choe, L. Miller, E. Leuliette, B. Beckley and Merrifield, Tide gauge estimates of altimeter stability: Improved methods and updated results.

Beckley, B., N. Zelensky, S. Holmes, F. Lemoine, R. Ray, S. Desai, S. Brown and **G.T. Mitchum**, Assessment of Jason-1 and OSTM global verification phase sea surface height collinear residuals.

Dohan, K., J. Gunn, G. Lagerloef and **G.T. Mitchum**, Assessment of near real-time OSCAR surface currents.

Nerem, R.S., J. Choe, T. Sazonova, D. Chambers, **G.T. Mitchum** and J. Ries, Extending a climate data record of sea level change with Jason-1 and Jason-2/OSTM data.

Robinson, M., **G.T. Mitchum**, G. Lagerloef, F. Bonjean, J. Gunn and K. Dohan, Evaluating a real-time satellite-derived surface current product in the Intra-Americas Sea.

IOC GLOSS Group of Experts XI, Paris, France, May 2009

Invited as a sea level expert and as Chair of GLOSS Science Steering Group
Chaired and organized a workshop on GPS measurements of land motion at tide gauges

National Conference on Beach Preservation Technology, St. Petersburg Beach, Florida, February 2009

Mitchum, G.T., and N. Elko (invited), A review of what we really know about sea level change.

Calendar year 2008

Ocean Sciences, Orlando, Florida, March 2008

Mitchum, G.T., and N. Bernier, Web access to satellite altimeter calibrations via the global tide gauge network

Li, J., and **G.T. Mitchum,** Mean flow effects on the propagation pathways of eddies

Gunn, J., F. Bonjean, G. Lagerloef, M. Robinson and **G.T. Mitchum**, Real-time surface currents for the global ocean using OSCAR.

European Geophysical Union Annual Meeting, Vienna, Austria, April 2008

Co-convener of the session on global sea level rise

Nerem, R.S., D. Chambers, **G.T. Mitchum** and J. Willis, What have we learned about sea level change from satellite gravity and altimeters measurements

British Association for the Advancement of Science's Festival of Science, Liverpool, England, September 2008

Invited talk on Sea Level Rise

University of South Carolina, October 2008

Invited seminar - Sea level rise: What do we know and what do we need to know?

50th Anniversary Meeting of the National Council of University Research Administrators, Washington, DC, November, 2008

Invited as a panelist in the Climate Change session and as a speaker on Sea Level Rise in the same session

NASA Ocean Surface Topography Mission, Science Working Team Meeting, Nice, France, November 2008

Beckley, B.D., N.P. Zelensky, F.G. Lemoine, R.D. Ray, S. Desai, S. Brown, **G.T. Mitchum** and S. Labroue, Extending the sea surface height climate data record with OSTM data.

Nerem, R.S., D. Chambers, **G.T. Mitchum**, J. Ries, J. Choe and T. Sazonova, Building and understanding a climate record of sea level change.

Lagerloef, G., F. Bonjean and **G.T. Mitchum**, Upper ocean dynamics related to the Pacific Decadal Oscillation using altimeter derived velocity fields.

Lillibridge, J., R. Scharroo, E. Leuliette and **G.T. Mitchum**, Jason-2/OSTM near real-time product validation at NOAA.

Calendar year 2007

University of Hawai'i at Manoa, Department of Oceanography, March 2007

Invited to give a seminar on Sea Level Rise

Ocean Surface Topography Science Team meeting, Hobart, Australia, March 2007

Mitchum, G.T., B. Beckley, N. Bernier, and K. Sedwick, Improved Comparisons of Altimeter Sea Surface Heights and Tide Gauge Sea Levels.

Nerem, R.S., **G.T. Mitchum**, D.P. Chambers, J. Choe, and E. Leuliette, An Assessment of Jason GDR-Bs for Monitoring Long-term Sea Level Change.

Merrifield, M.A., **G.T. Mitchum**, B. Giese, S.T. Merrifield, J. Foster, B. Brooks, and M. Bevis, Global Sea Level Estimates from the GCOS Tide Gauge Network.

Lagerloef, G., F. Bonjean, J. Gunn, L. Miller, **G.T. Mitchum**, Surface Currents and Evolution of the 2006-2007 El Nino.

NASA Workshop on Decadal Climate Variability, Kona, Hawaii, May 2007

Mitchum, G.T., and R. Steven Nerem, Decadal Variability and Sea Level Rise.

AGU Joint Assembly, Acapulco, Mexico, May 2007

Mitchum, G.T., and N. Bernier (invited), Using Tide Gauges to Assure the Quality and Stability of Sea Surface Heights from Satellite Altimetry. (Note: Mitchum was the invited speaker and prepared the talk, but due a last minute schedule conflict with an NSF panel, Bernier attended and presented the talk in his place.)

IOC GLOSS Group of Experts X, Paris, France, June 2007

Invited as sea level expert and as Chair of GLOSS Science Steering Group.

1st International Meeting of Students in Physical Oceanography, Ensenada, Mexico, June 2007

Sedwick-Doran, K., and **G.T. Mitchum**, Improvements to the Method of Altimeter Calibration Using Tide Gauges: Addressing the Problem of Land Motion.

College of Marine Science Brown Bag, September 2007

Mitchum, G.T. (invited), Global Climate Change I: Is the Sky Really Falling and is it our Fault?

Florida Environmental Summit, Jacksonville, Florida, November 2007

Mitchum, G.T. (invited), A Review of the Science Underlying 20th Century Sea Level Rise Estimates.

Calendar year 2006

University of Texas at Austin, November 2006

Invited to give two seminars. One on Sea Level Rise in the Institute for Geophysics and one on circulation controls on swordfish catch in the Center for Nonlinear Dynamics in the Physics department.

World Climate Research Workshop on Global Sea Level Rise, Paris, France, June 2006

Invited as convenor of the 20th Century Sea Level Rise session

Mitchum, G.T., R.S. Nerem, and M. Merrifield (invited), Instrumental estimates of 20th Century Sea Level Rise.

Nerem, R.S., E. Leuliette, **G.T. Mitchum**, D. Chambers, and J. Willis, Sea Level Change: What have we learned from satellite altimetry, satellite gravity, and ocean temperature measurements?

European Geophysical Union General Assembly, Vienna, Austria, April 2006

Bosch, W., C.K. Shum, P. Woodworth, and **G.T. Mitchum**, The International Altimetry Service (IAS) – Servicing Interdisciplinary Earth Science and Applications.

Ocean Surface Topography Science Team meeting and 15 Years of Radar Altimetry Symposium, Venice, Italy, March 2006

Bonjean, F., G. Lagerloef, **G.T. Mitchum**, L. Miller, R. Legeckis, N. Soreide, M. Bourassa, E. Johnson, and J. Gunn, Ocean Surface Current Monitoring from Space: Methodology and Progress.

Bosch, W., C.K. Shum, P. Woodworth, and **G.T. Mitchum**, The International Altimetry Service (IAS) – Focusing Satellite Altimetry for Global Earth Observing Systems.

Nerem, R.S., D. Chambers, E. Leuliette, and G.T. Mitchum, Satellite Measurements of Sea Level Change: Where Have We Been and Where Are We Going.

Ocean Sciences, Honolulu, Hawaii, February 2006

Mitchum, G.T., Consistent Sea Surface Height Time Series From Satellite Altimeters.

Bonjean, F., G. Lagerloef, **G.T. Mitchum**, L. Miller, R. Legeckis, N. Soreide, M. Bourassa, E. Johnson, and J. Gunn, Ocean Surface Current Monitoring from Space: Methodology and Applications.

Calendar year 2005

NASA Workshop on Decadal Climate Variability, Airlie, Virginia, October 2005

Mitchum, G.T., Errors in Sea Level Rise Estimates due to Decadal Variability.

College of Marine Science, University of South Florida, September 2005

Mitchum, G.T., From the time of tide gauges to the age of altimetry.

IAG/IAPSO/IABO Joint Assembly, Cairns, Australia, August 2005

Invited as convenor of the keynote session for this international meeting

Mitchum, G.T., and R.S. Nerem (Invited), From the time of tide gauges to the age of altimetry: A review of the evolution of our knowledge of global sea level change.

Nerem, R.S., . Leuliette, D. Chambers, and **G. T. Mitchum** (Invited), The record of sea level change from geodesy: What does it tell us?

ASAE Annual International Meeting, Tampa, Florida, July 2005

Mitchum, G.T., (Invited), Tsunami physics and tsunami warning: Two very different problems.

NASA Sea Level Workshop, Washington, DC, April 2005

Invited by the Physical Oceanography Program Manager to serve as one of three panelists to evaluate NASA's overall program in sea level rise research

Mitchum, G.T., and M. Merrifield (Invited), Global tide gauge and observation system for global sea level change: Resolution/accuracy/error budgets.

IOC GLOSS Group of Experts IX, Paris, France, February 2005

Invited as sea level expert and as Chair of GLOSS Science Steering Group

Mitchum, G.T., and K. Sedwick (Invited), Land motion results from GPS applied to altimeter calibration.

Calendar year 2004

GODAE Symposium and NASA/CNES Ocean Surface Topography Science Team, St. Petersburg, Florida, November 2004

Mitchum, G.T., M. Merrifield, R. Ray and P. Woodworth, (Invited) From tides to sea level rise – The modern approach to reducing uncertainties: Dedicated to Christian Le Provost.

Sedwick, K., **G.T. Mitchum**, D. Morken and R.S. Nerem, Progress in altimeter calibration using the global tide gauge network.

Leuliette, E., R.S. Nerem and **G.T. Mitchum**, Jason tide gauge calibration results.

Bonjean, F., G. Lagerloef, E. Johnson, J. Gunn, **G.T. Mitchum** and R. Cheney, OSCAR-2: Ocean surface current analyses real-time follow-on project.

AGU Western Pacific Geophysics Meeting, Honolulu, Hawaii, August 2004

Mitchum, G.T., J. Polovina, C. Holland and M. Seki, (Invited) Diagnosing swordfish catch variability using satellite altimetry.

NASA Workshop on Decadal Climate Variability, Kona, Hawaii, February 2004

Lagerloef, G., **G.T. Mitchum**, P. Cummins and J. Polovina, Oceanic and atmospheric evidence for abrupt North Pacific oceanographic changes after 1998. (Note: **Mitchum** presented the talk.)

ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 2004

Mitchum, G.T., J. Polovina and C. Holland, Interannual variability of swordfish catch North of Hawaii.

AGU Ocean Sciences Meeting, Portland, Oregon, January 2004

Mitchum, G.T., R.S. Nerem, E. Leuliette and D. Chambers, Global sea level rise from satellite altimetry and tide gauges: Methods, Current results, Future prospects.

Calendar year 2003

Fall AGU meeting, San Francisco, California, December 2003

Leuliette, E., R.S. Nerem and **G.T. Mitchum**, Results of TOPEX/Poseidon calibration and recent changes in the global mean sea level.

JA*SON-1 Science Working Team, Arles, France, November 2003*

R.S. Nerem, **G.T. Mitchum** and E. Leuliette, (Invited) Tide gauge calibration results for Jason-1 and the implications for measuring global mean sea level.

Holland, C., and **G.T. Mitchum**, Interannual heat content variability and Lagrangian pathways in the tropical Pacific.

Law, J., and **G.T. Mitchum**, Deep ocean effects on outer continental shelf flow: A descriptive study in the Loop Current, Florida Current and Gulf Stream systems.

Bonjean, F., G. Lagerloef, R. Cheney, **G.T. Mitchum**, M. Bourassa, OSCAR: Processing system and applications.

Lagerloef, G., P. Cummins, **G.T. Mitchum** and J. Polovina, Oceanic and Atmospheric evidence for abrupt North Pacific oceanographic changes after 1998.

Nerem, R.S., E. Leuliette, **G.T. Mitchum** and D. Chambers, A continuous record of long-term sea level change from TOPEX/Poseidon and Jason.

IOC GLOSS Group of Experts VII, Paris, France, October 2003

Invited as sea level expert and as Chair of GLOSS Science Steering Group

Mitchum, G.T., (Invited) Requirements for the sea level observing system for satellite altimeter calibration.

IUGG 2003, Sapporo, Japan, July 2003

Lagerloef, G., P. Cummins, J. Polovina, and **G.T. Mitchum**, Oceanic and Atmospheric Evidence for a Pacific Decadal Oscillation Phase Shift After 1998.

Lagerloef, G., R. Lukas, F. Bonjean, J. Gunn, **G.T. Mitchum**, and M. Bourassa, El Nino Tropical Pacific Ocean Surface Current and Temperature Evolution in 2002 and Outlook for La Nina in early 2003.

IGARS '03, Toulouse, France, July 2003

Mitchum, G.T., E. Leuliette and R.S. Nerem, (Invited) Global Mean Sea Level Change from Altimetry. (Note: Talk presented by Leuliette due to Mitchum family emergency)

Intergovernmental Oceanographic Commission (UNESCO) Assembly, Paris, France, June 2003

Woodworth, P., **G.T. Mitchum** and T. Aarup, GLOSS: Global Sea Level Observing System.

J.J. O'Brien "40 Years of Research" Symposium, Tallahassee, Florida, April 2003

Mitchum, G.T., and C. Holland, (Invited) The role of volume variations in ENSO events.

Calendar year 2002

Fall AGU meeting, San Francisco, California, December 2002

Mitchum, G.T., and C. Vonesch, Low frequency Modulations in the Response of Coastal Sea Level to Winter Storms.

Holland, C., and **G.T. Mitchum**, Interannual Volume Changes and Heat Transport Pathways in the Tropical Pacific.

Lagerloef, G., **G.T. Mitchum**, F. Bonjean, and R. Cheney, OSCAR (Ocean Surface Currents Analysis - Real time): An Operational Resource for Various Maritime Applications and El Nino Monitoring Using JASON-1 Data.

Leuliette, E., R.S. Nerem, J. Parker, **G.T. Mitchum**, and D. Chambers, Results of TOPEX/Poseidon-JASON Calibration to Construct a Continuous Record of Global Mean Sea Level.

Bathymetry from satellite altimetry planning meeting, San Diego, California, October 2002

Invited as an expert in satellite altimetry.

TOPEX/Poseidon/JASON-1 Science Working Team meeting, New Orleans, Louisiana, October 2002

Mitchum, G.T., (Invited) Updated JASON-1 stability estimates from global tide gauge measurements.

Holland, C., and **G.T. Mitchum**, Lagrangian Analyses of Interannual Volume Changes in the Tropical Pacific

Lagerloef, G., **G.T. Mitchum**, R. Cheney, L. Miller, M. Bourassa, F. Bonjean, J. Gunn, E. Johnson, N. Soreide, W. Zhu, R. Legeckis, V. Kousky, Y. Zue, J. Polovina, and G. Jacobs, OSCAR (Ocean Surface Current Analysis Real time): A Processing System and Web-server using JASON IGDR Data to Provide Timely Surface Velocity Fields in the Tropical Pacific.

NASA Workshop on Decadal Variability, Madison, Wisconsin, October 2002

Mitchum, G.T., and C. Vonesch, Low frequency modulations in winter storm frequency from tide gauge measurements of sea level.

GPS workshop, Toulouse, France, September 2002

Invited as an expert in altimetry and GPS and to serve as a session chair.

JASON-1 Science Working Team meeting, Toulouse, France, May 2002

Mitchum, G.T., (Invited) JASON Stability and Precision Estimates from the Global Tide Gauge Network.

EGS 2002, Nice, France, April 2002

Nerem, R.S., E. Leuliette, **G.T. Mitchum**, D. Chambers, Comparison of Long-term Sea Level Change Estimates from Satellite Altimetry and Tide Gauges.

Ocean Sciences meeting, Honolulu, Hawaii, February 2002

Lagerloef, G., R. Lukas, F. Bonjean, and **G.T. Mitchum**, The El Nino Onset of 2001 – Or Not: Analysis of Tropical Pacific Surface Current and SST Variations during the Past Year.

Calendar year 2001

Fall AGU meeting, San Francisco, California, December 2001

Lagerloef, G., R. Cheney, **G.T. Mitchum**, Establishing an Operational Data System for Surface Currents Derived from Satellite Altimeters and Scatterometers: Pilot Study for the Tropical Pacific.

JASON-1 Science Working Team, Solvang, California, December 2001

Mitchum. G.T., (invited) Sea Level Rise

Global Sea Level Observing System (GLOSS) Group of Experts and 3 related workshops, Honolulu, Hawaii, April 2001

Nerem, S., and **G.T. Mitchum**, (invited) Observations of sea level change using satellite altimetry

Co-convenor of the Wyrtki Symposium (with M. Merrifield and R. Lukas)

NASA Workshop on Decadal Variability, Honolulu, Hawaii, January 2001

Mitchum, G.T., The future of the sea level observing system

Calendar year 2000

Fall AGU meeting, San Francisco, California, December 2000

Nerem, S., E. Leuliette, D. Chambers, and **G.T. Mitchum** (invited), Observations of sea level change using satellites

TOPEX/Poseidon/JASON-1 Science Working Team meeting, Miami, Florida, November 2000

Mitchum, G.T., (invited) An update on monitoring the stability of satellite altimeters with tide gauge data

Mitchum, G.T., D. Hancock, G. Hayne, and D. Vandemark, (invited) Description of sigma-naught blooms in TOPEX altimeter data

Mitchum, G.T., A. Busalacchi, and G. Lagerloef, Studies of tropical variability

Mitchum, G.T., and R. Scharroo, Intercomparison of TOPEX and ERS and tide gauge sea levels

Lagerloef, G., **G.T. Mitchum**, A. Busalacchi, and J. Gunn, Tropical surface currents estimated from satellite altimeter sea levels and winds

Gilbert, S., and **G.T. Mitchum**, Can TOPEX/Poseidon observe equatorial inertia-gravity waves?

Nerem, S., and **G.T. Mitchum**, Studies of vertical crustal motion and sea level using TOPEX/Poseidon

Department of Geology, University of South Florida, Invited seminar speaker on 17 April 2000

Mitchum, G.T., How much is sea level rising?

Ocean Sciences 2000, San Antonio, Texas, January 2000

Mitchum, G.T., Combining data from satellite altimetry and tide gauges for studies of low frequency sea surface height variations

G. Lagerloef, **G.T. Mitchum**, and P. Niiler, Altimeter-derived surface geostrophic currents apparently underestimated relative to surface drifters

J. Gunn, G. Lagerloef, **G.T. Mitchum**, and A. Busalacchi, Towards a real-time tropical surface current analysis

Calendar year 1999

Physics Department, University of South Florida, Invited seminar speaker on 15 November 1999

Mitchum, G.T., Will sea level rise?

OCEANOBS 99, The Observing System for Climate, St. Raphael, France, October, 1999

Mitchum, G.T., R. Cheney, L.-L. Fu, C. Le Provost, Y. Menard, and P. Woodworth (invited), The future of sea surface height observations

Garzoli, S., D. Enfield, G. Reverdin, **G.T. Mitchum**, R. Weisberg, P. Chang, and J. Carton (invited), COSTA: A climate observing system for the tropical Atlantic

G. Lagerloef, **G.T. Mitchum**, R. Lukas, P. Niiler, and A. Busalacchi, Tropical Pacific near surface currents estimated from altimeter, wind and drifter data

G. Lagerloef, **G.T. Mitchum**, A. Busalacchi, and F. Bonjean, Near-real-time satellite-derived tropical surface current variability as an aid to ENSO monitoring and prediction

TPEM/JASON-1 Science Working Team meeting, St. Raphael, France, October 1999

G.T. Mitchum and S. Nerem, Improved tide gauge calibration, TOPEX Side A to Side B offset, and the present status of the global sea level change estimate

C. Holland and **G.T. Mitchum**, Propagation of Big Island eddies

C. Holland and **G.T. Mitchum**, Decadal and ENSO variability and mass pathways in the Pacific

National Research Council Workshop on Integration of IPO/NPOESS and NASA/ESE Capabilities for Climate Research, Washington, DC, July, 1999

Invited as an expert on satellite altimetry, and helped to draft recommendations for workshop report

Global Sea Level Observing System (GLOSS) Group of Experts, Toulouse, France, May, 1999

Invited as a member of the Group of Experts to review the global sea level observing system, and served as overall convenor for a 2-day workshop at the beginning of the meeting concerned with applications of sea level data to climate research. Organized 30 talks and prepared an IOC workshop proceedings report after the meeting.

TOPEX Alt-B Cal/Val Meeting #1, Goddard Space Flight Center, April, 1999

G.T. Mitchum (invited), Tide Gauge Comparison Potential for Alt-B Calibration

Climate Observing System for the Tropical Atlantic (COSTA), Planning Workshop, Miami, May, 1999

Invited as one of 4 session chairs and charged with writing the sea level portion of the plan.

G.T. Mitchum (invited), An overview of the Atlantic Sea Level Observing System

American Meteorological Society Annual meeting, Dallas, January 1999

G.T. Mitchum (invited), A System for Measuring Long-term Regional to Global Sea Level Change, talk was presented by C. Holland

Calendar year 1998

Fall meeting of the American Geophysical Union, San Francisco, CA, December, 1998

Lagerloef, **G.T. Mitchum**, R. Lukas and A. Busalacchi, Tropical Pacific Surface Currents During the 1997-1998 El Nino-Southern Oscillation cycle.

S. Nerem, E. Leuliette, D. Chambers and **G.T. Mitchum** (invited), Variations in Global Mean Sea Level During the 1997-1998 ENSO event

INSMAP, Melbourne, December 1998

G.T. Mitchum (invited), On Calibrating Satellite Altimeters with Tide Gauges and GPS

TPEM/JASON-1 Science Working Team meeting, Boulder, October 1998

G.T. Mitchum (invited), Improvements to the Estimates of Altimeter Drift from Tide Gauges

G.T. Mitchum, A. Busalacchi and G. Lagerloef, Mean Surfaces for Altimetric Data : Beyond Representativeness

G. Lagerloef, **G.T. Mitchum** and A. Busalacchi, Pacific Surface Currents

International Association of Geodesy, International Symposium, Munich, October 1998

R.S. Nerem, R.J. Eanes, J.C. Ries, and **G.T. Mitchum** (invited), The Use of a Precise Reference Frame in Sea Level Change Studies

NASA Workshop on Interannual to Decadal Climate Variability, Williamsburg, September 1998

G.T. Mitchum (invited), Can We Compute Decadal Anomalies from Decade-long Altimetric Time Series?

World Ocean Circulation Meeting, Halifax, Nova Scotia, Canada, May 1998

G.T. Mitchum, Joint Use of the WOCE "Fast Delivery" Tide Gauges and Satellite Altimeters

T.M.S. Johnston, M.A. Merrifield, and **G.T. Mitchum**, Interannual Sea Level and Geostrophic Current Anomalies in the Western Tropical Pacific

G.S.E. Lagerloef, **G.T. Mitchum**, and A.J. Busalacchi, Tropical Pacific Circulation Studies

Spring meeting of the American Geophysical Union, Baltimore, April, 1998

N. Schmidt, M. Haines, M.E. Luther, and **G.T. Mitchum**, Analyses of ENSO-related Trends in Precipitation in Florida

Ocean Sciences, San Diego, CA, February, 1998

G.S.E. Lagerloef and **G.T. Mitchum**, Tropical Pacific Currents

G.T. Mitchum and J.J. Polovina, Diagnosis of the Variability of Swordfish Catch North of Hawaii

M.P. Seki, D.R. Kobayashi, J.J. Polovina and **G.T. Mitchum**, Use of Near Real-time TOPEX altimetry to guide fisheries oceanography field studies in the central North Pacific

Calendar year 1997

Fall meeting of the American Geophysical Union, San Francisco, CA, December, 1997

G.T. Mitchum and C. Holland (invited), Sea Level from Tide Gauges

Combined meeting of the TOPEX/Poseidon Science Working Team and an International Symposium entitled Monitoring the Oceans in the 2000s: An Integrated Approach, Biarritz, France, October, 1997

Member of the TOPEX/Poseidon Science Working Team

G.T. Mitchum (invited) TOPEX Stability Evaluated by Tide Gauges : An Improved Determination and Prospects for Future Improvements

G.T. Mitchum, A. Busalacchi and G. Lagerloef, Studies of Tropical Pacific Variability

G.T. Mitchum and M. Merrifield, Using Altimetry to Calibrate In Situ Indices of Tropical Pacific Currents

G.T. Mitchum, A. Busalacchi and G. Lagerloef, Use of In Situ Sea Level and Models to Produce an Improved Altimetric Reference Surface for the Tropical Pacific

Holland, C., and **G.T. Mitchum**, Dynamics of Big Island Eddies

Nerem, S., and **G.T. Mitchum**, Combined Use of Tide Gauges and Satellite Altimetry

Lagerloef, G., **G.T. Mitchum** and A. Busalacchi, Tropical Pacific Surface Circulation

Polovina, J., D. Kobayashi, M. Seki and **G.T. Mitchum**, Application of Altimeter-derived Surface Currents to Fisheries Research and Management

International Sea Level Workshop, Honolulu, HI, June, 1997

Served as a member of the Science Steering Group for the workshop.

G.T. Mitchum (invited), Altimeter Calibration

Methods for Monitoring Sea Level: GPS and Tide Gauge Benchmark Monitoring, GPS Altimeter Calibration, Pasadena, CA, March, 1997

Chair of Session 2 -- An Introduction to the Measurements

G.T. Mitchum (invited), An Overview of Tide Gauge Measurements

G.T. Mitchum (invited), Using Tide Gauges to Calibrate Satellite Altimeter Measurements

Global Sea Level Observing System (GLOSS) Group of Experts, Pasadena, CA, March, 1997

Invited as a member of the Group of Experts to review the global sea level observing system, and to assist in the revision of the IOC's Global Sea Level Observing System Implementation Plan.

Microgal Gravimetry: Instruments, Observations, and Applications, St. Augustine, FL, March, 1997

Invited by conference organizer (W. Carter, UF) to attend because of experience with sea level issues.

Calendar year 1996

Fall meeting of the American Geophysical Union, San Francisco, CA, December, 1996

C. Holland and **G.T. Mitchum**, The Fate of Eddies Generated off the Big Island of Hawaii

S. Nerem and **G.T. Mitchum** (invited), Very Low Frequency Sea Level Change Observed by TOPEX/POSEIDON

R. Ray and **G.T. Mitchum** (invited), Surface Manifestation of Internal Tides in the Deep Ocean

S. Nerem and **G.T. Mitchum**, Combined Use of Tide Gauges and Satellite Altimetry for Measuring Changes in Global Mean Sea Level

TOPEX/Poseidon Science Working Team Meeting, Southampton, UK, October, 1996

G.T. Mitchum (invited), Estimating the stability of altimeters from tide gauge sea levels

G. Lagerloef, **G.T. Mitchum**, R. Lukas, A. Busalacchi and P. Niiler, Tropical Pacific near Surface Currents Estimated from Altimeter, Wind and Drifter Data

Tidal Science 96, London, England, UK, October, 1996

R. Ray, **G.T. Mitchum** and S. Chiswell (invited), Two aspects of observed internal tides in the deep ocean: altimetry vs. island gauges