DANIEL M. HANES, PhD

danhanes.com

***Contact*:** Telephone: (314) 977-3703; Emails: dan.hanes@slu.edu; hanesdan@gmail.com;

***Education*:** **B. A.**, 1977, Applied Mechanics and Engineering Science, Univ. of Calif., San Diego
M. S., 1979, Oceanography, U.C.S.D.; Regents Fellowship, FOR Fellow
Ph.D., 1983, Oceanography, Scripps Institution of Oceanography, U.C.S.D.

Positions held following Ph.D.:

1983-1984 Killam Postdoctoral Fellow, Dalhousie University, Nova Scotia, Canada
1984-1989 Assistant then Associate Professor, University of Miami, Florida
1989-2004 Associate then Full Professor, Univ. of Florida, Dept. Civil and Coastal Eng.
2002-2011, Research Oceanographer, United States Geological Survey, Santa Cruz, CA
2011-present: **Professor**, Department of Earth and Atmospheric Sciences, Saint Louis University

Career Summary:

Daniel Hanes is a scientist, educator, and consultant whose career is noted for high quality research, mentoring, and valuable service to his profession. In both academic and federal government organizations Hanes has conceived and carried out numerous basic and applied research projects, and advised approximately 35 graduate students and post-docs. He has over 300 publications and conference presentations in the fields of coastal processes, particle technology, and sedimentation processes. His publications are widely cited in the scientific literature. Hanes has provided scientific and managerial leadership for national and international collaborative projects. He has been principal investigator for research projects funded cumulatively at over $ 10M. Hanes has served as an advisor and reviewer for several government agencies and universities. Hanes provides consulting expertise and litigation support in surf-zone safety, rip current drownings, small boat accidents, coastal development, flooding, environmental contamination, particle science and technology, and sustainable coasts and waterfronts. Hanes is a founding member of the Board of Directors of the PADI Foundation, a not for profit organization that funds research and educational projects related to marine and coastal environments.

Three most recent peer-reviewed journal publications:

Hanes, D.M., Human Instability Related to Drowning Risk in Surf Zones for Novice Beachgoers or Weak Swimmers, Natural Hazards, 83(1), 761-766, doi: 10.1007/s11069-016-2337-6, **2016**.

Talbot, C.J., E. Bennett, K. Cassel, D.M. Hanes, E. Minor, H. Paerl, P. Raymond, R. Vargas, P. Vidon, W. Wollheim, and M.A. Xenopoulos, Gains and losses of aquatic ecosystem services from small and extreme flooding, Biogeochemistry, submitted October, **2017**.

Macmillan S. K., Wilson H.F., Tague, C.L., Hanes, D.M., Inamdar, S., Karwan, D.L., Loecke, T., Morrison, J., Murphy, S.F., Vidon, P., Before the storm: Antecedent conditions as regulators of hydrologic and biogeochemical response to extreme climate events, Biochemistry, submitted October, **2017**.

Five most cited publications from Google Scholar: h-index 31; i10-index 57; over 3740 total citations:

Thorne, P.D. and D. M. Hanes, A review of acoustic methods for the study of small scale sediment transport processes, Continental Shelf Research, 22, 603-632, 2002. 410 citations.

Hanes, D. M**.** and D. L. Inman, Observations of rapidly flowing granular-fluid materials, Journal of Fluid Mechanics, 150, 357-380, 1985. 401 citations.

Jenkins, J.T. and D.M. Hanes, Collisional sheet flows of sediment driven by a turbulent fluid, Journal of Fluid Mechanics, 370, 29-52, 1998. 160 citations.

Vincent, C. E., D. M. Hanes, and A. J. Bowen, "Acoustic measurements of suspended sand on the shoreface and the control of concentration by bed roughness", *Marine Geology*, 96, 1-18, 1991. 145 citations.

Hsu, T.J., and D.M. Hanes, The Effects of Wave Shape on Sheet Flow Sediment Transport, Journal of Geophysical Research Oceans, doi:10.1029/2003JC002075, 2004. 138 citations.

Personal Narrative of Professional Accomplishments

A consistent research theme throughout my career has been to apply granular flow mechanics to the phenomenon of sediment transport. Merging these two fields using the principles of applied mechanics has lead to innovative breakthroughs in sediment transport research. There had previously been no momentum-based theories for intense bedload sediment transport because of the lack of constitutive and energy conservation equations for flowing granular materials. In a series of papers (e.g. Hanes and Inman, 1985; Hanes and Bowen, 1985; Jenkins and Hanes, 1998; Hsu and Hanes, 2004; Yu, Hsu, and Hanes, 2010) my colleagues and I have established a new "granular" paradigm for better understanding the mechanics of intense bedload sediment transport.

A second career-long research theme has been to develop new observational and data analysis techniques in order to carry out innovative experimental studies and interpret the results. For example, in recognition of the disturbance that traditional instrumentation generated when observing sediment transport processes, my colleagues and I developed new acoustic-based instruments for remotely measuring sediment concentration and velocity near sand beds. The development, application, and interpretation of acoustic measurements (Hanes and Huntley, 1986; Hanes et. al, 1988; Vincent, Hanes, and Bowen, 1991; Lee and Hanes, 1995; Lee and Hanes, 1996; Jette and Hanes, 1997; Thosteson and Hanes, 1998; Thorne and Hanes, 2002; Hanes, 2012; Agrawal and Hanes, 2015; Hanes, 2016) has lead to a new era of in-situ sediment transport observations.

While at USGS I led a project that addressed diverse issues such as sustainable sediment management, storm-induced erosion, morphology and dynamics of sandwaves, sediment transport processes near Crissy Marsh, the morphology and evolution of the San Francisco ebb tidal delta, and the impacts of sea level rise on coastal geomorphology and coastal hazards (Barnard et. al, 2006; Elfrink, Hanes, and Ruessink, 2006; Hanes and Barnard, 2007; Shi, Kirby, and Hanes, 2007; Sterlini, Hulscher, and Hanes, 2009; Hanes, 2009; Shi, Hanes, et. al, 2011; Hanes, Ward, and Erikson, 2011; Hanes, 2012; Hanes and Erikson, 2013)

My most recent research focus, at Saint Louis University, has shifted to Watershed Science, and the transport of contaminated sediment in the Meramec River Basin. We seek to discover and quantify the mechanisms for sediment transport and sediment storage that are slowly moving heavy-metal contaminated sediments from Missouri's "old lead mining district" through the watershed toward the Mississippi River.

As a professor and scientist I have contributed toward the advancement of the profession in many ways in addition to research. I have mentored graduate students, post-doctoral fellows, and junior colleagues. I have advised approximately 35 graduate students and post-doctoral fellows. I have also advised more than 10 undergraduates involved in research. I have served on the thesis or dissertation committees of over 100 graduate students, at over 10 universities worldwide. I am frequently requested to write letters of reference for hiring, tenure, and promotion at national and international research universities. I have provided technical reviews for over 235 journal publications and research proposals.

Finally, I consider my philanthropic work as a founding board member of the PADI Foundation as a significant professional accomplishment. Since 1991 I have actively participated in the awarding of grants to a wide variety of people including: graduate students needing research funding; research experiences for disadvantaged youth; assistant professors with novel research ideas; scuba diving recompression chambers in remote parts of the world; shark and other conservation efforts; coral reef protection; and public education.

Academic and Professional Activity Details

Formal Course Instruction: Nearshore Processes; Laboratory in Coastal Processes; Laboratory and Field Measurment Techniques; Ocean Waves: Linear; Ocean Waves: Laboratory; Mechanics of Coastal Sediment Transport; Data Analysis Techniques; Surface Water Hydrology; Environmental Issues; Introduction to Environmental Science; Introduction to Environmental Science Laboratory; Geosciences Journal Club; Environmental Sciences Seminar; Rivers Seminar, Coastal Geomorphology; Transport and Mixing in the Environment.

M.S. Committee Chairman (20): T. Tamura, 1986; E. Gonzales, 1988; K. Ludwig, 1989; S. Tyagi, 1990, J. McCardle, 1993; P. Dompe, 1993; T. Mason, 1993; C. Jette, 1994; E. Thosteson, 1995; D. Stubbs, 1995; K. Marusin, 1995; M. Krecic, 1995; C. Lee, 1996; V. Zakirov, 1997; V. Alymov, 1999; H. Qin, 1999; E. Cranston 2000; O. Mouraenko, 2001; Annika Gomell, 2015, Julia Mudd, 2016-,

Ph.D. Committee Chairman (5): T. Lee, 1994; J. Lee (Co-chairman), 1994; C. Jette, 1997; E. Thosteson, 1997; Y. Chang, 2001.

External or International Ph.D. External Examiner (4): I. Teackle, Queensland University, Australia, 2006; S. Kularatne, Univ West. Australia, 2006; F. M. Sterlini, University Twente, The Netherlands, 2009, Sylvia Rodriguez-Abudo, The University of New Hampshire, 2014.

Post-doctoral Advisor (10): Erdman, M. R., 1989-1990; Dick, J. E., 1990; Karangaonkar, T, 1990-1991; Gu, Z., 1990-1991, N. Wikramanayake, 1994; E. Thosteson, 1998; H. Liu, 2001-2002, P. Barnard, 2003-2005, L. Erikson 2006-2008; Adam J. Pearson, 2015-2017.

Administrative and other University committees:

Engineering library services advisory committee, University of Florida, 1989-1990, 1993-1997.
Ad Hoc committee on Ph.D. Program, Department of Coastal and Oceanographic Engineering, University of Florida, 1990.
Graduate Coordinator, Department of Coastal and Oceanographic Engineering, University of Florida, 1991-1993.
Faculty teaching and advising awards committee, College of Engineering, University of Florida, 1993, 1994, 1995.
Chair, search committee, faculty member in Mechanical Engineering, 1996-1997.
Senate Member, University of Florida, 1999-2001
Weil Hall Renovation and Space Committee, University of Florida, 1999-2001
Chair, search committees, two faculty searches in Coastal and Oceanographic Engineering, University of Florida, 2000-2001.
Chair, search committee, faculty search in Earth and Atmospheric Sciences, Saint Louis University, 2012, 2013, 2015.
Rank and Tenure committee member, Arts and Sciences, Saint Louis University, 2013-15
Rank and Tenure committee member, Center for Sustainability, Saint Louis Univ., 2014-16
Ritter Hall renovation and space committee, 2015-2016

Major Experiment Participation: Torrey Pines, CA**,** Nearshore Sediment Transport Study (NSTS), 1977; Santa Barbara, CA, NSTS, 1980; Pt. Sapin, New Brunswick, Canadian Coastal Sediment Study (C^2S^2), 1983; Stanhope Lane, Prince Edward Island, C^2S^2, 1984; Cape Canaveral, FL, 1988; Supertank, 1990; Vilano Beach, FL 1991; Duck, NC, DUCK'94 1994; SIS95, Duck, NC, 1995; SIS96, Duck, NC, 1996; SANDYDUCK, Duck, NC, 1997; SISTEX99, 1999; South Carolina Coastal Erosion Study, 2003-2005; SAX04/Ripple DRI, Fort Walton Beach, FL 2004; San Francisco Bight Sediment Processes Study, 2004-2008. Crissy Marsh Coastal Processes Study, 2007-2009.

Editorial Boards: *Marine Geology*,1989-2009; Assistant Editor, *A.S.C.E. Journal of Waterway, Port, Coastal & Ocean Engineering*, 2000-2001. Reviewer of approximately 240 journal articles and proposals.

Member or past member: Acoustic Society of America, American Geophysical Union Lifetime Member, American Shore and Beach Preservation Association, American Society of Civil Engineers, Coastal and Estuarine Research Foundation, Florida Shore and Beach Preservation Association, Geologic Society of America, International Association for Hydraulic Research, Sigma Xi

Board of Directors: PADI Foundation, 1991 to present.

Patent**:** No. 5,022,784: "Undertow reduction system for shoreline protection", 11 June 1991.

Consultant**:**
Expert witness on nearshore hydrodynamics, surf zone safety, and small boat accidents.
Coastal erosion, sediment management, and coastal construction permitting.
Instrument development and industrial applications of particle science and technology.
Sustainable coasts and waterfronts

Community Service:
Judge: High School Science and Engineering Fairs.
Coach: Youth sports.
STARS (Students and Teachers as Researchers) advisor.
Participant: Florida and California coastal clean up; Missouri Operation Clean Stream.
Award: U. S. Lifesaving Association.

Invited Lectures:
Second Canadian Coastal Sediment Study Workshop, Halifax, Nova Scotia, 9-10 May 1985.
University of Southampton, 22 October 1985.
University of Chicago, 2 June 1986.
University of California at San Diego, 5 January 1989.
Louisiana State University, 2 March 1989.
U.S. Army Coastal Engineering Research Center, 3 March 1989.
University of South Florida, 6 April 1989
Fall Meeting, American Geophysical Union, 4-8 December, 1989.
Florida Institute of Technology, 21 February, 1990.
Institute of Water and Environmental Problems, Novosibirsk, Russia, 1990.
Acoustic Society of America, New Orleans, LA, 30 October 1992.
Texas A&M University, 1994.
University of East Anglia, Norwich, United Kingdom, 1995.
Laboratoire Central des Ponts et Chaussees, Paris, France, 3 July 1997.
University of Rennes, Rennes, France, 7 July 1997.
Institute of Water and Environmental Problems, Novosibirsk, Russia, NATO expert visit, 1998.
University of Waikato, Hamilton, New Zealand, 1998.
Auckland University, Auckland, New Zealand, 1998.
Nearshore Research Workshop, St. Petersburg, FL, 1998.
University of South Florida, St. Petersburg, FL, 1999.
AGU/ASLO Ocean Sciences Meeting, Honolulu, 2002.
Visiting Professor, Queensland University, Brisbane, Australia, 2003.
Proudman Oceanographic Laboratory, Bidston, United Kingdom, 2003.
Newton Institute of Mathematical Physics, Cambridge, England, 2003.
University of South Carolina, 2004.
Stanford University, 2006.
AGU/ASLO Ocean Science Meeting, Honolulu, 2006.
California Institute of Technology, 2006.
University of California, Los Angeles, 2006.
AGU Fall meeting, San Francisco, 2006.
San Francisco Estuary Institute, 2008.
AGU/ASLO Ocean Science Meeting, Orlando, 2008.
Duke University, 2008.
Saint Louis University, 2011.
Washington University in St. Louis, 2011.
University of Illinois, Champaign-Urbana, 2012.

Colorado State University, 2013.
New Jersey Institute of Technology, 2013.
Kavli Institute of Theoretical Physics, 2013.
Particles in Europe, 2014.
River Flow, The Eighth International Conference on Fluvial Hydraulics, 2016.
Ozarks Environmental and Water Resources Institute, Missouri State University, 2017
University of Queensland, Australia, 2017

List of Publications

Book Chapters and Books edited:

The Sea, Volume 9: Ocean Engineering Science, B. Le Mehaute and D. M. Hanes, Co-editors, J. Wiley and Sons, New York, 1301 pages, 1990.

The Shores of Seas, Natural, and Man-Made Lakes , A. Khabidov, A. Zhindarev, D.M. Hanes, et al., Co-editors, Siberian Branch of the Russian Academy of Sciences Publishers, Novosibirsk, 1999, 271 p. (in Russian).

Vincent, C.E., D.M. Hanes, C.M. Dohmen-Janssen, C. Obhrai, G. Klopman, S.R. McLean and Ribberink, J.S., (1999). The suspension of sand in a large wave flume (SISTEX99). In The Shores of Seas, Natural, and Man-Made Lakes Eds A. Khabidov, D.M.Hanes et al., Siberian Branch of the Russian Academy of Sciences Publishers, Novosibirsk, 271 p. (in Russian).

Ribberink, J.S., C.M. Dohmen-Janssen, D.M. Hanes, S.R. McLean and C.E. Vincent, 2001. Wave-induced sand transport processes in a large scale wave channel. In: Coastal Zone of Seas, Lakes and Man-Made Lakes , V.P. Chichagov (Ed.), Russian Academy of Sciences, Siberian Branch, Inst. for Water and Environmental problems, Novosibirsk, "Nauka", 2001, pp. 139-154 (in Russian).

Vincent, C.E., D.M. Hanes, C.M. Dohmen-Janssen, G. Klopman, S.R. McLean, C. Obhrai and Ribberink, J.S., 2001. The suspension of sand in a large wave flume (SISTEX99). In: Coastal Zone of Seas, Lakes and Man-Made Lakes , V.P. Chichagov (Ed.), Russian Academy of Sciences, Siberian Branch, Inst. for Water and Environmental problems, Novosibirsk, "Nauka", 2001, pp. 155-165 (in Russian).

Constantinescu, G., M. Garcia, and D. Hanes, 2016, Proceedings of the International Conference on Fluvial Hydraulics (River Flow 2016), St. Louis, USA, 11-14 July 2016, CRC Press, Taylor & Francis Group, 822 pages.

Peer-Reviewed Journal Articles:

Seymour, R. J. and D. M. Hanes, "Performance analysis of a tethered float breakwater", *The Journal of the Waterway, Port, Coastal, and Ocean Division,* American Society of Civil Engineers, 105, WW3, 265-280, 1979.

Hanes, D. M**.** and D. L. Inman, "Observations of rapidly flowing granular-fluid materials", *Journal of Fluid Mechanics*, Vol. 150, 357-380, 1985.

Hanes, D. M. and D. L. Inman, "Experimental evaluation of a dynamic yield criterion for granular fluid flows", *Journal of Geophysical Research,* Vol. 90, No. B5, 3670-3674, 1985.

Bridge, J. S. and D. M. Hanes, "Bedload grain velocities and sediment transport rates: a correction", *Water Resources Research,* Vol. 21, No. 5, p. 775, 1985.

Hanes, D. M. and A. J. Bowen, "A granular-fluid model for steady intense bedload transport", *Journal of Geophysical Research,* Vol. 90, No. C5, 9149-9158, 1985.

Hanes, D. M. and D. A. Huntley, "Continuous measurements of suspended sand concentration in a wave dominated nearshore environment", *Continental Shelf Research,* Vol. 6, No. 4, 585-596, 1986.

Hanes, D. M., "Grain flows and bed-load sediment transport: review and extension", *Acta Mechanica,* V. 63, 131-142, 1986.

Hanes, D.M., “Correction”, *Journal of Geophysical Research* –Oceans, 91 (C1): 1035-1035, 1986.

Hanes, D. M., C. E. Vincent, D. A. Huntley, and T. E. Clarke, "Acoustic measurements of suspended sand concentration in the Canadian Coastal Sediment Study experiment at Stanhope Lane, Prince Edward Island", *Marine Geology*, 81:1, 185-196, 1988.

Hanes, D. M. "Intermittent sediment suspension and its implications to sand tracer dispersal in wave-dominated environments", *Marine Geology*, 81:1, 175-183, 1988.

Hanes, D. M., J. T. Jenkins, and M. W. Richman, "The thickness of steady planes shear flows of circular disks between identical boundaries", *Journal of Applied Mechanics, ASME*, v. 55, No. 4, 969-974, 1988.

Hanes, D. M., "Geophysical Grain Flows: Report to Sponsors", Meeting Report, *Transactions, American Geophysical Union*, Vol. 71, No. 7, p. 274, 1990.

Hanes, D. M., "The structure of events of intermittent suspension of sand due to shoaling waves", Chapter 28 in The Sea, Volume 9: Ocean Engineering Science, B. LeMehaute and D.M. Hanes (Eds) , 941-952, 1990.

Ludwig, K., and D. M. Hanes, "A laboratory evaluation of optical backscatterance suspended solids sensors exposed to sand-mud mixtures", *Marine Geology*, 94, 173-179, 1990.

Vincent, C. E., D. M. Hanes, and A. J. Bowen, "Acoustic measurements of suspended sand on the shoreface and the control of concentration by bed roughness", *Marine Geology*, 96, 1-18, 1991.

Hanes, D. M., "Suspension of sand due to wave groups", *Journal of Geophysical Research*, 96, C5, 8911-8915, 1991.

Hanes, D. M., "Workshop on Geophysical Grain Flows," *Transactions, American Geophysical Union*, vol. 74, no. 43, p. 492, 1993.

Jenkins, J.T. and D.M. Hanes, "The balance of momentum and energy at an interface between colliding and freely flying grains in a rapid granular flow", Physics of Fluids A, v5, No. 3, 781-783, 1993.

Dick, J.E., M.R. Erdman, and D.M. Hanes, "Suspended sand concentration events due to shoaled waves over a flat bed", Marine Geology, 119, 67-73, 1994.

Hanes, D.M. and P. E. Dompe, "Field observations of fluctuations in coastal turbidity", Journal of Marine Environmental Engineering, Vol. 1, No. 4, 279-294, 1995.

Lee, T.H. and D.M. Hanes, "Explicit solution to the acoustic backscatter equation to measure the concentration of uniform, suspended particles", Journal of Geophysical Research, 100, C2, 2649-2657, 1995.

Lee, T.H. and D.M. Hanes, “Comparison of field observations of the vertical distribution of suspended sand and its prediction by models”, Journal of Geophysical Research, 101, C2, 3561-3572, 1996.

Locurto, G., X. Zhang, V. Zakirov, R.A. Bucklin, L. Vu-Quoc, D.M. Hanes, and O.R. Walton, Soybean impacts: experiments and dynamic simulations, Transactions of the American Society of Agricultural Engineering, Vol. 40(3): 789-794, 1997.

Jette, C.D., and D.M. Hanes, High resolution sea-bed imaging: an acoustic multiple transducer array, Measurement Science and Technology, 8, 787-792, 1997.

Jenkins, J.T. and D.M. Hanes, Collisional sheet flows of sediment driven by a turbulent fluid, Journal of Fluid Mechanics, 370, 29-52, 1998.

Thosteson, E.D. and D.M. Hanes, A simplified method for determining sediment size and concentration from multiple frequency acoustic backscatter measurements, Journal Acoustic Society of America, 104 (2), 820-830, 1998.

LoCurto, G.J., R.A. Bucklin, D.M. Hanes, A.A. Teixeira, O.R. Walton, and S.H. West, Chute flow of soybeans, Transactions of the American Society of Agricultural Engineering, Vol. 42(5), 1429-1435, 1999.

Hanes, D.M. and O.R. Walton, Simulations and physical measurements of glass spheres flowing down a bumpy incline, Powder Technology, Vol 109/1-3, 134:145, 2000.

Hanes, D.M., V. Alymov, Y. Chang, and C.D. Jette, Wave formed sand ripples at Duck, North Carolina, Journal of Geophysical Research, Vol. 106, No. C10, p. 22,575, 2001.

Thorne, P.D. and D. M. Hanes, A review of acoustic methods for the study of small scale sediment transport processes, Continental Shelf Research, Vol. 22, p. 603-632, 2002.

Vincent, C.E. and D.M. Hanes, The accumulation and decay of nearbed suspended sand concentration due to waves and wave groups, Continental Shelf Research, vol 22/14, p. 1987-2000, 2002.

Dohmen-Janssen, C. M., and D. M. Hanes, Sheet flow dynamics under monochromatic nonbreaking waves, J. Geophys. Res., 107(0), doi:10.1029/2001JC001045, 2002.

Puleo, J. A.; Holland, K. T.; Plant, N. G.; Slinn, D. N.; Hanes, D. M., Fluid acceleration effects on suspended sediment transport in the swash zone, J. Geophys. Res., Vol. 108, No. C11, doi: 10.1029/2003JC001943, 2003.

Chang, Y.S. and D.M. Hanes, Field observation and numerical investigation of the suspended sediment distribution over ripples seabeds, Journal of Geophysical Research Oceans,109, C07022, doi:10.1029/2003JC001900, 2004.

Hsu, T.J., and D.M. Hanes, The Effects of Wave Shape on Sheet Flow Sediment Transport, Journal of Geophysical Research Oceans, doi:10.1029/2003JC002075, 2004.

Puleo, J. A., O.Mouraneko, and D.M. Hanes, 1D wave bottom boundary layer comparison: specific eddy viscosity and turbulence closure models, ASCE Journal of Waterways, Port, Coastal and Ocean Division, Vol 130, No. 6, November 1, 2004.

Haas, K.A., and D.M. Hanes, Process Based Modeling of Total Longshore Sediment Transport, Journal of Coastal Research, Vol. 20, No. 3, 853-861, 2004.

Dohmen-Janssen, C.M., and D.M. Hanes, Sheet flow and suspension under wave groups in a large wave flume, Continental Shelf Research, 25, 333-347, 2005.

Puleo JA, Mouraenko O, Hanes DM, Closure to "One-dimensional wave bottom boundary layer model comparison: Specific eddy viscosity and turbulence closure models" by Jack A. Puleo, Oleg Mouraenko, and Daniel M. Hanes - Novernber/December 2004, Vol. 130, No. 6, pp. 322-325. Journal of Waterway Port Coastal and Ocean Engineering-ASCE 132 (2): 141-142 Mar-Apr, 2006.

Barnard, P., D.M. Hanes, D.M. Rubin, and R.G. Kvitek, Giant sand waves at the mouth of San Francisco Bay, EOS, V. 87, No. 29, pp 285-286, 2006.

Elfrink, B., D.M. Hanes, and G.B. Ruessink, Parameterization and simulation of near bed orbital velocities under irregular waves in shallow water, Coastal Engineering, v. 53, No. 11, 915-927, 2006.

Barnard, P.L. and Hanes, D.M., Cover Photograph: San Francisco Bay, California, U.S.A., Journal of Coastal Research, cover photograph w/ extended caption. Volume 23, No. 3. pp. ii, 2007.

Hanes, D.M. and P.L. Barnard, Morphological evolution in the San Francisco bight, Journal of Coastal Research, SI 50 (Proceedings of the 9th International Coastal Symposium), 21 – 24. Gold Coast, Australia, ISSN 0749.0208, 469-473, 2007.

Shi, F., J.T. Kirby, and D.M. Hanes, An efficient mode splitting method for a curvilinear nearshore circulation model, Coastal Engineering, V.54, p.811-824 doi:10.1016/j.coastaleng.2007.05.009, 2007.

Lacy, J.R., D.M. Rubin, H. Ikeda, K. Mokudai, and D.M. Hanes, Bedforms created by simulated waves and currents in a large flume, Journal of Geophysical Research Oceans, doi:10.1029/2006JC003942, 2007.

Haas, K.A., L. Check, and D.M. Hanes, Modeling the effects of wave skewness and beach cusps on littoral sand transport, Journal of Coastal Research, 24(4C), 141–149, DOI: 10.2112/06-0759.1, 2008.

Ji, S., Hanes, D.M., and Shen, H.H., Comparisons of Physical Experiment and Discrete Element Simulations of Rapidly Sheared Granular Materials in an Annular Shear Cell, Mechanics of Materials, doi:10.1016/j.mechmat.2009.01.029, 2009.

Sterlini, F., S. J. M. H. Hulscher, and D. M. Hanes, Simulating and understanding sand wave variation: A case study of the Golden Gate sand waves, J. Geophys. Res., 114, F02007, doi:10.1029/2008JF000999, 2009.

Hanes, D. M., Recent technologies usher in new era of coastal geomorphology research, *Eos Trans. AGU, 90*(23), 198–199, 2009.

Yu, X., Hsu, T.J., and Hanes, D.M., Sediment transport under wave groups: Relative importance between nonlinear wave shape and nonlinear boundary layer streaming, Journal of Geophysical Research: Oceans, 115, C02013, doi:10.1029/2009JC005348, 2010.

Shi, F., Hanes, D. M., Kirby, J. T., Erikson, L.H., and Barnard, P.L., Pressure-gradient-influenced nearshore circulations on an inlet-adjacent beach, Journal of Geophysical Research: Oceans, doi:10.1029/2010JC006788, 2011.

Hanes, D.M., K. Ward, and L.H. Erikson, Waves and tides responsible for the intermittent closure of the entrance to a small, sheltered tidal wetland at San Francisco, California, Continental Shelf Research, doi:10.1016/j.csr.2011.07.004, 2011.

Hanes, D.M., On the possibility of single-frequency acoustic measurement of sand and clay concentrations in uniform suspensions, Continental Shelf Research, Vol. 46, Special Issue: SI, 64-82, doi: 10.1016/j.csr.2011.10.008, 2012.

Hanes, D.M., The genesis of an inter-field marine sandwave and the associated anti-asymmetry migration of neighboring crests, Geophysical Research Letters, v. 39, L04402, doi:10.1029/2011GL050641, 2012.

Hanes, D.M., Erratum to ‘‘On the possibility of single-frequency acoustic measurement of sand and clay concentrations in uniform suspensions (Vol 46, 2012)’’, Continental Shelf Research, Vol 54, 117-118, http://dx.doi.org/10.1016/j.csr.2012.10.003, 2013.

Erikson, L.H., Wright, S., Elias, E., Hanes, D.M., Schoellhamer, D.H., and Largier, J., The use of modeling and suspended sediment concentration measurements for quantifying net suspended sediment transport through a large tidally dominated inlet, Marine Geology, http://dx.doi.org/10.1016/j.margeo.2013.06.001, 2013.

Hanes, D.M. and Erikson, L.H., The significance of ultra-refracted waves on sheltered coasts, with application to San Francisco Bay, Estuarine, Coastal, and Shelf Science, 10.1016/j.ecss.2013.08.022, 2013.

Agrawal, Y.C. and Hanes, D.M., The implications of laser-diffraction measurements of sediment size distribution in a river to the potential use of acoustic backscatter for sediment measurements, Water Resources Research, 51, doi:10.1002/2015WR017268, 2015.

Hanes, D.M., Acoustic attenuation due to bi-modal size distributions of suspended sediment, Journal of Coastal Research, No 75, p. 23-27, 2016.

Hanes, D.M., Human Instability Related to Drowning Risk in Surf Zones for Novice Beachgoers or Weak Swimmers, Natural Hazards, 83(1), 761-766, doi: 10.1007/s11069-016-2337-6, 2016.

Talbot, C.J., E. Bennett, K. Cassel, D.M. Hanes, E. Minor, H. Paerl, P. Raymond, R. Vargas, P. Vidon, W. Wollheim, and M.A. Xenopoulos, Gains and losses of aquatic ecosystem services from small and extreme flooding, Biogeochemistry, submitted Oct 2017

Macmillan S. K., Wilson H.F., Tague, C.L., Hanes, D.M., Inamdar, S., Karwan, D.L., Loecke, T., Morrison, J., Murphy, S.F., Vidon, P., Before the storm: Antecedent conditions as regulators of hydrologic and biogeochemical response to extreme climate events, Biochemistry, submitted 10/31/2017

Hanes, D.M., Continental Shelf Seabed Surface Response to Large Hurricane Generated Waves in the Northeast Gulf of Mexico, in preparation.

Hanes, D.M., Sand Waves of the Golden Gate, Journal of Geophysical Research: Earth Surface, in preparation.

Published Proceedings of Conferences and Symposia:

Inman, D. L., J. A. Zampol, T. E. White, D. M. Hanes, B. W. Waldorf and K. A. Kastens, "Field measurements of sand motion in the surf zone", *Proc. 17th International Conference on Coastal Engineering, ASCE*, Sydney, Australia, 1980, 1215-1234.

Hanes, D. M., "Flow resistance due to intense bedload transport", *Proc. 19th International Conf. on Coastal Engineering, ASCE*, Houston, Texas, 1984, 1306-1310.

Hanes, D. M., "On the use of grain-flow dynamics to model intense bedload sediment transport", *Proc. of specialty conf. on Advances in Aerodynamics, Fluid Mechanics and Hydraulics, ASCE*, Ed: R.E.A. Arndt, 1986, 346-352.

Ackerman, N. L., and D. M. Hanes, "Rapid shearing of granular solids: experimental results", *Proc. of specialty conference on Advances in Aerodynamic, Fluid Mechanics and Hydraulics, ASCE*, Ed: R.E.A. Arndt, 1986, 951-958.

Vincent, C. E., D. M. Hanes, T. Tamura and T. L. Clarke, "The acoustic measurement of suspended sand in the surf zone", *International Conf. on Measurement Technology of Hydraulics Phenomena in Offshore, Coastal and Inland Waters*, London, UK, 9-11 April, 1986, 443-451.

Hanes, D. M. and C. E. Vincent, "Detailed dynamics of nearshore suspended sediment", *Proc. Coastal Sediments '87, ASCE*, New Orleans, LA, 12-14 May, 1987, 285-299.

Huntley, D. A., and D. M. Hanes, "Direct measurements of suspended sediment transport", *Proc. Coastal Sediments '87, ASCE*, New Orleans, LA, 12-14 May, 1987, 723-737.

Vincent. C. E., D. M. Hanes, and D.A. Huntley, "Measurements of suspended sand transport in the near-shore zone using an acoustic backscatter profilometer", *Coastal Zone Symposium*, Beijing, China, 1988.

Hanes, D. M., "Wave induced sediment suspension", *Beach Preservation Technology '89*, Tampa, Florida, 22-24 February, 1989, 127-134.

Hanes, D. M., "The structure of intermittent sand suspension events under mild wave conditions", *Int. Conf. on Sediment Transport Modeling, ASCE*, Ed: S. S. Y. Wang, New Orleans, LA, August 14-18, 1989, 405-410.

Hanes, D. M., "The intermittent suspension of sand due to shoaling waves", in Sand Transport in Rivers, Estuaries, and the Sea, R. Soulsby and R. Bettess, Eds, 1991, p. 125-130.

Dompe, P.E., D.M. Hanes, T. Khangaonkar, and J. Anton, "Fluctuations in Turbidity and Waves at Hollywood, Florida", *Proceedings of the National Conference on Beach Preservation Technology, FSBPA*, Charleston, SC, 27 Feb-1 Mar, 1991, 384-399.

Hanes, D.M., Qualitative features of granular flow down an inclined chute, Proceedings of the NSF-DOE Workshop on Flow of Particulates and Fluids, Gaithersgurg, MD, 17-18 Sept., 1992.

Hanes, D. M., T. Lee, E.D. Thosteson, and R. Thieke, "Small scale sediment dynamics in a large scale wave tank", *Proc. 23th International Conf. on Coastal Engineering, ASCE*, Venice, Italy, 4-9 October, 1992.

Hanes, D.M., "Turbidity and suspended sediment associated with beach nourishment dredging", *24th International Conf. on Coastal Engineering, ASCE*, Kobe, Japan, October 23-28, 1994, 3016-3029.

Hanes, D.M. and J. Lee. "Velocity measurement of granular flow utilizing high speed digital images", A.S.M.E. Fluids Engineering Annual Conference, Hilton Head, SC, August 13-18, 1995.

Jette, C.D. and D.M. Hanes. "Measurements and model comparisons of wave generated bedforms", *25th International Conf. on Coastal Engineering, ASCE*, Orlando, Florida, pp. 3129-3142, September 2-6, 1996.

Krecic, M.R., and D.M. Hanes. "A model for particle saltation overlying intense bedload sediment transport", *25th International Conf. on Coastal Engineering, ASCE*, Orlando, Florida, pp. 3846-3859, September 2-6, 1996.

Hanes, D.M., O. Walton, V. Zakirov, G. Locurto, and R. Bucklin. "Observations and simulations of the flow of nearly-ellipsoidal, inelastic particles down a bumpy incline", 3rd International Conference on Powders and Grains, Durham, North Carolina, USA, pp. 459-461, 18-23 May, 1997.

Hanes, D.M., C. D. Jette, E. D. Thosteson, and C. E. Vincent. "Field observations of nearshore, wave-seabed interactions," Coastal Dynamics '97, ASCE, Ed Thornton, Editor, pp. 11-18, 1998.

LoCurto, G.J., V. Zakirov, R.A. Bucklin, D.M. Hanes, A.A. Teixeira, O.R. Walton, X. Zhang, and L. Vu-Quoc, "Soybean friction properties, 1997 Annual International Meeting, Am. Soc. Agr. Eng., Paper No. 97-4108, Minneapolis, MN, 10-14 August, 1997.

Hanes, D.M. and O.R. Walton, "Velocity Fluctuations in Granular Flows", Engineering Mechanics, ASCE, 17-20 May, 1998.

Hanes, D.M., Y.S. Chang, C.D. Jette, E.D. Thosteson, and C.E. Vincent, "Field observations of small scale suspended sedimentation processes," *26th International Conf. on Coastal Engineering, ASCE,* Copenhagen, Denmark, June 22-26, 1998.

Hanes, D.M. & Thosteson, E.D. Field Observations of Nearshore Bedforms and Suspended Sediment (in Russian), in The Shores of Seas, Natural, and Man-Made Lakes , A. Khabidov, A. Zhindarev, D.M. Hanes, et al., Co-editors, Siberian Branch of the Russian Academy of Sciences Publishers, Novosibirsk, 271 p. (in Russian) , 1999, pp. 172-182 .

Marusin, K.V. and Hanes, D.M. Suspended Sediment Concentration and Grain Size Measurement in the Field by Acoustic Sensors (in Russian), in The Shores of Seas, Natural, and Man-Made Lakes , A. Khabidov, A. Zhindarev, D.M. Hanes, et al., Co-editors, Siberian Branch of the Russian Academy of Sciences Publishers, Novosibirsk, 271 p. (in Russian) , 1999, pp. 214-225.

Ribberink, J.S., C.M. Dohmen-Janssen, D.M. Hanes, S.R. McLean, J.A. Taylor, and C. Vincent, "Near-bed sand transport mechanisms under waves: large-scale flume experiments", *27th International Conf. on Coastal Engineering, ASCE,* Sydney, Australia, July 16-21, 2000, pp 1383-1396.

Doering, J.C., B. Elfrink, D.M. Hanes, and G. Ruessink, "Parameterization of velocity skewness under waves and its effect on cross-shore sediment transport", *27th International Conf. on Coastal Engineering, ASCE,* Sydney, Australia, July 16-21, 2000, pp 3263-3276.

Vincent,C.E., D. M. Hanes, C. M. Dohmen-Janssen, G.Klopman, S.R. McLean, C. Obhrai, and J. S. Ribberink, Suspension by regular and groupy waves over bedforms in a large wave flume (SISTEX99), Coastal Dynamics, Lund, Sweden, 2001, pp 303-312.

Dohmen-Janssen, C.M., S.R. McLean, D.M. Hanes, C.E. Vincent, J. S. Ribberink, Sheet flow and suspension under wave groups in a large wave flume (SISTEX99) Coastal Dynamics, Lund, Sweden, 2001, pp 313-322.

Chang, Y.S. and D.M. Hanes, Measurements of the suspended sediment concentration over ripples seabeds during Sandyduck97 experiment, Asian and Pacific Coastal Engineering, Dalian, China, 2001, pp.

Kos'yan R., Hanes D.M., Kuznetsov S., Mouraenko, O., Podymov I., Pykhov N, Suspended Sand Concentration Fluctuations under Unbroken Waves, *MEDCOAST 01,* The Fifth International Conference on the Mediterranean Coastal Environment, 23-27 October 2001, Hamammet, Tunisia, 2001.

Engle, J., MacMahan, J., Thieke, R.J., Hanes, D.M., and Dean, R.G., Formulation of a Rip Current Predictive Index Using Rescue Data, Proceedings, Florida Shore and Beach Preservations Association, Biloxi, MS, 2002.

Kos'yan R., Hanes D.M., Kunz, H., Kuznetsov S., Mouraenko, O., Podymov I., Pykhov N, Suspended Sand Concentration Fluctuations under Breaking Waves, Proceedings of Second Int. Conf. Oceanography of the Eastern Mediterranean and Black Sea: Similarities and Differences of Two Interconnected Basins, Ankara Turkey, 2002.

Grossman, E.E., Eittreim, S.L. , Hanes, D.M. , Field, M.E. , Edwards, B.D. , Fallon, S.J. , and Anima, R.J., Budgeting Postglacial Sedimentation History on the Santa Cruz, California mid-Continental Shelf, OCEANS03, La Jolla, CA, 2003.

Hsu, T.-J., and Hanes, D. M., Toward improved sediment transport parameterization under nearshore waves using a two-phase sheet flow model, *Proc. 29th International Conference on Coastal Engineering*, Lisbon, 2004.

Callaghan D., T. Baldock, P. Nielsen, D. Hanes, K. Haas, J. MacMahan, Pulsing and circulation in rip current system, 29th International Conference on Coastal Engineering, *Proc. 29th International Conference on Coastal Engineering*, Lisbon, 2004.

Barnard, P.L., Hanes, D.M., 2005. Integrating field research, modeling and remote sensing to quantify morphodynamics in a high-energy coastal setting, Ocean Beach, San Francisco, California. 5th International Conference on Coastal Dynamics 2005 Conference Proceedings, Barcelona, Spain, American Society of Civil Engineers, 14 pp.

Ruggiero., P., List. J., Hanes, D., and Eshleman, J., Probabilistic shoreline change modeling, Coastal Engineering 2006 (In 5 Volumes), Proceedings of the 30th International Conference San Diego, California, USA, 3 - 8 September 2006, ed. Jane McKee Smith, 2007.

List, J., Hanes, D., and Ruggiero, P., Predicting longshore gradients in longshore transport: Comparing the CERC formula to DELFT3D, Coastal Engineering 2006 (In 5 Volumes), Proceedings of the 30th International Conference San Diego, California, USA, 3 - 8 September 2006, ed. Jane McKee Smith, 2007.

Erikson, L., Hanes, D.M., Barnard, P.L., and Gibbs, A., Swash zone characteristics at Ocean Beach, CA, Coastal Engineering 2006 (In 5 Volumes), Proceedings of the 30th International Conference San Diego, California, USA, 3 - 8 September 2006, ed. Jane McKee Smith, 2007.

Cambazoglu M.K, Haas, K.A., and Hanes, D.M., Numerical Investigations on the effect of wave skewness on sandbar migration, Coastal Engineering 2006 (In 5 Volumes), Proceedings of the 30th International Conference San Diego, California, USA, 3 - 8 September 2006, ed. Jane McKee Smith, 2007.

Barnard, P.L., Hanes, D.M., Lescinski, J., and Elias, E., Monitoring and modeling nearshore dredge disposal for indirect beach nourishment, Ocean Beach, San Francisco, Coastal Engineering 2006 (In 5 Volumes), Proceedings of the 30th International Conference San Diego, California, USA, 3 - 8 September 2006, ed. Jane McKee Smith, 2007.

Hanes, D.M. and P.L. Barnard, Morphological evolution in the San Francisco bight, Journal of Coastal Research, proceedings of the 9th International Coastal Symposium, Gold Coast, Australia, 2007.

Van der Meer, F. M., Hulscher, S. J. M. H., Hanes, D. M., and Elias, E.. San Francisco Bay sand waves: modelling and observation. In: River, Coastal and Estuarine Morphodynamics: CEM 2007, Dohmen-Janssen, C. M. and H, H. S. J. M.(eds.). Taylor & Francis Group, London, 2007.

Ji, S., D.M. Hanes, and H.H. Shen, Discrete element simulations of slowly shearing granular materials using annular shear cell experiments, Engineering Mechanics Division Conference, American Society of Mechanical Engineers, 2007.

Eshleman, J.L., Barnard, P.L., Erikson, L.H., and Hanes, D.M., Coupling alongshore variations in wave energy to beach morphologic change using the SWAN wave model at Ocean Beach, San Francisco, CA. 10th International Workshop on Wave Hindcasting and Forecasting, Oahu, Hawaii, November 11-16, 2007, Paper F4, 20 pp., 2007.

Van der Meer, F., Hulscher, S. J. M. H., and Hanes, D. M., Non-linear modelling of offshore sand waves near San Francisco. In: 31st International Conference on Coastal Engineering, Hamburg, Germany, 2008.

List, J.H., Benedet, L., Hanes, D.M., Ruggiero, P., Understanding differences between Delft3D and empirical predictions of alongshore sediment transport gradients, Proceedings, 31th International Conference on Coastal Engineering, Hamburg, Germany, Coastal Eng. Found., Paper No. 260, 2008.

Orlando, A.D., Hanes D.M., and Shen H.H., Scaling Effects in Direct Shear Tests, Powders and Grains, Denver, CO, 2009.

Hanes, D.M., Barnard, P.L., Dallas, K., Elias, E., Erikson, L.H., Eshleman, J., Hansen, J., Hsu, T.J., and F. Shi, Recent scientific advances and their implications for sand management near San Francisco, California: The influences of the ebb tidal delta, Proceedings of Coastal Sediments 2011, American Society of Civil Engineers, Miami, FL, 2011.

Healy, K.M, Cox, A.L, Hanes, D.M., and Chambers, L.G., "State of the Practice of Sediment Management in Reservoirs: Minimizing Sedimentation and Removing Deposits", 3rd Joint Federal Interagency Conference on Sedimentation and Hydrologic Modeling (SEDHYD), April 2015, Reno, NV.

Abstracts, Posters, and Presentations (partial list):

Hanes, D. M., "Vertical mixing in surf zone sand beds", *Transactions, American Geophysical Union*, Vol. 63, No. 3, 1982 , p. 64.

Hanes, D. M., "Rapid shear flow in a granular bed", presented at the International Union of Theoretical and Applied Mechanics Symposium on Deformation and Failure in Granular Materials, Delft, Holland, 1982.

Hanes, D. M., "The rapid flow of granular-fluid mixtures", *Transactions, American Geophysical Union*, Vol. 64, No. 45, 1983, p. 705.

Hanes, D. M. and D. A. Huntley, "Suspended sand measurements in a wave dominated nearshore environment", *Transactions, A. G. U.*, Vol. 65, No. 45, 1984, p. 955.

Hanes, D. M., T. Tamura, C. Vincent and T. Clarke, "High resolution acoustic measurements of suspended sand", *Transactions, American Geophysical Union*, Vol. 66, No. 46, 1985, p. 922.

Vincent C.E., D.M.Hanes, T.Tamura and T.L.Clarke, "The acoustic measurement of suspended sand in the surf zone", Proceedings of the International Conference on Measurement Techniques of Hydraulics Phenomena in Offshore, Coastal and Inland Waters. British Hydromechanics Research Association, London, 443-451, 1986.

Hanes, D. M., "Time averaged suspended sediment concentration profiles with high spatial resolution", *Transactions, A.G.U.*, Vol. 67, No. 44, 1986, p. 1026.

Hanes, D. M., "Boundary grain size influence upon the dynamics of rapidly flowing glass spheres", *Sixth Engin. Mechanics Specialty Conference, ASCE*, 20-22 May, 1987, p. 135.

Hanes, D.M., "A grain-flow model for intense bed-load sediment transport", poster presented at the 22nd Congress of the IAHR, Lausanne, Switzerland, 31 August-4 September, 1987.

Hanes, D. M., C.E. Vincent and D.A. Huntley, "Observations of sand suspended by waves", Euromech 215, S. Margherita Ligure, Italy, 15-19 September, 1987.

Hanes, D. M., "A 3-Mhz acoustic concentration meter that measures suspended sand", 114th Meeting of the Acoustical Society of America, *The Journal of the Acoustical Society of America*, Supplement 1, Vol. 82, Fall, 1987, p. S124.

Hanes, D. M., and E. A. Gonzales, "Time averaged acoustic measurements of suspended sand concentration and their comparison with existing models", Joint Oceanographic Assembly, Acapulco, Mexico, 23-31 August, 1988.

Hanes, D. M., and B. E. Jaffe, "Cross-shore sediment transport on a Gulf Coast barrier island shoreface", *Transactions, A. G. U.*, Vol. 69, No. 44, 1988, p 1238.

Pescio, L., and D. M. Hanes, "Event analysis of local suspended sand concentration measurements", *Transactions, A. G. U.*, Vol. 69, No. 44, 1988, p 1250.

Hanes, D. M., "Further considerations of annular shear experiments", 3rd Joint ASME/ASCE Mechanics Conference, La Jolla, California, 9-12 July, 1989.

Hanes, D. M., "The depth of collisional interactions in a granular half-space subjected to gravity and surface traction", Symposium on Geophysical Grain Flows, La Jolla, CA, 13-15 July, 1989.

Hanes, D. M., "The coupling of sediment concentration with fluid velocity: flux or foolishness?", *Transactions, American Geophysical Union*, v. 70, no. 43, p 1128, 1989.

Tyagi, S., and D. M. Hanes, "The near bed fluid and fine sediment response to a storm in 7 meters depth off a Louisiana barrier island coast", *Transactions, American Geophysical Union*, v. 70, no. 43, p. 1128, 1989.

Hanes, D. M., "The thickness of a collisional, granular, shear flow in a half-space with gravity", IUTAM Symposium on Mechanics of Fluidized Beds, 1-4 July, 1991.

Hanes, D. M., J.E. Dick, and M.R. Erdman, "The relationship between sediment entrainment phase and cross-shore suspended sediment transport direction, I*AHR Int. Symposium on The Transport of Suspended Sediments and its Mathematical Modelling*, Preprints page A.31-A.32, 1991.

Hanes, D. M., "Characteristics and design considerations for an inclined chute for the study of granular flow dynamics", Joint DOE/NSF workshop on Flow of Particulates and Fluids, 22-24 October, 1991.

Jenkins, J.T., and D.M. Hanes, "Modelling dense sediment transport incorporating particle velocity fluctuations", *Transactions, American Geophysical Union*, v 72, No 44, p 228, 1991.

Branscome, L.E., and D.M. Hanes, "An optical technique for measuring sand grain velocities", *Transactions, American Geophysical Union*, v 72, No 44, p 229, 1991.

Hanes, D.M., "Suspended sand entrainment phase under inner shelf wave dominated conditions", *Transactions, American Geophysical Union*, v 72, No 44, p 241, 1991.

Hanes, D.M., R.E. Erdman, and T. Mason, "Video monitoring techniques in coastal engineering with emphasis on turbidity", National Conference on Beach Preservation Technology, F.S.B.P.A., St. Petersburg, FL, 12-14 February, 1992.

Hanes, D.M., "Field measurements of suspended sand using acoustic backscatter", Acoustic Society of America, New Orleans, LA, 30 Oct-3 Nov, 1992.

Jenkins, J.T. and D.M. Hanes "A collisional regime in bedload transport", *Transactions, American Geophysical Union*, v 73, No 43, p 282, 1992.

Thosteson, E.D. and D.M. Hanes "Comparison of measured suspended sediment concentration with predictive models", *Transactions, American Geophysical Union*, v 73, No 43, p 283, 1992.

Hanes, D.M., P. Dompe, and T. Mason, "Coastal turbidity associated with beach nourishment," presented at Flow in Florida: A Symposium on Fluid Dynamics in Environmental Problems of Florida, 26-27 March, 1993.

Hanes, D.M., T. Lee, and P. Thorne, "The use of acoustic backscatter techniques to measure the concentration of grains in liquids", Fluid-Particle Interactions III, Davos, Switzerland, 9-14 May 1993.

Hanes, D.M., "Flow development in an Inclined Chute", Granular Flow: Physical Experiments, MEET'N'93, Charlotesville, VA, 6-9 June 1993.

Jenkins, J.T. and D.M. Hanes, "A sheared layer of colliding grains driven from above by a turbulent fluid," *Transactions, American Geophysical Union*, v 74, No 43, p 320, 1993.

Lee, T.H. and D.M. Hanes, "Measurement of suspended sediment in nearshore zone: An explicit solution to the acoustic backscatter inversion problem," *Transactions, American Geophysical Union*, v 74, No 43, p 348, 1993.

Hanes, D.M., T.P. Mason, and P.E. Dompe, "Turbidity and suspended sediments: nearshore fluctuations, structures, and processes," *Transactions, American Geophysical Union*, v 74, No 43, p 348, 1993.

Hanes, D.M. "Turbidity and suspended sediment associated with beach nourishment dredging," F.S.B.P.A. Nat. Conf. on Beach Preservation Technology, Tampa, FL, 9-11 Feb, 1994.

Hanes, D.M. "Observations of granular flow in an inclined chute," 12th U.S. Nat. Congress of Applied Mechanics, Seattle, WA, June 27-July 1, 1994.

Lee, T.H. and D.M. Hanes, "Measurement and model comparisons of the vertical distribution of suspended sediment by waves and currents," *Transactions, American Geophysical Union*, v 75, No 44, p 335, 1994.

Hanes, D.M. and J.T. Jenkins, “Interactions between fluid and particle fluctuations in sheet flow sediment transport”, 10th A.S.C.E. Engineering Mechanics Specialty Conference, Boulder, CO, May 21-24, 1995.

Hanes, D.M. “The effects of base bumpiness on rapid granular flow down an inclined chute”, 10th A.S.C.E. Engineering Mechanics Specialty Conference, Boulder, CO, May 21-24, 1995.

Hanes, D.M., K.V. Marusin, and E.D. Thosteson, "Concentration and size distribution of suspended sand at DUCK94," *Transactions, American Geophysical Union*, v 76, No 46, p 285, 1995.

Jette, C.D. and D.M. Hanes, “Measurements and model comparisons of wave generated bedforms”, *Transactions, American Geophysical Union*, v 76, No 46, p 285, 1995.

Krecic, M.R. and D.M. Hanes, "Bedload transport and saltation predictions using particle trajectory simulations," *Transactions, American Geophysical Union*, v 76, No 46, p 287, 1995.

Hanes, D.M., “Measurements of supended particle concentration and size using multi-frequency acoustic backscatter,” Fluid/Particle Interactions IV, Davos, Switzerland, May 12-17, 1996.

Hanes, D.M. “Dry granular flow regimes,” 5th World Conference of Chemical Engineering, Abstract 256. San Diego, CA, July 14-18, 1996.

Jette, C.D. and D.M. Hanes, “High resolution seabed imaging with an acoustic multiple transducer array”, *Transactions, American Geophysical Union*, v 77, No 46, p F421, 1996.

Thosteson, E.D. and D.M. Hanes, "Characterization of relevant sediment suspension time scales from acoustic concentration profiles”, *Transactions, American Geophysical Union*, v 77, No 46, p F420, 1996.

Jenkins, J.T. and D.M. Hanes, "A collisional model for sheet flow sediment transport", *Transactions, American Geophysical Union*, v 77, No 46, p F268, 1996.

Hanes, D.M., J.T. Jenkins, and O.R. Walton, "Dynamics of granular flow down a bumpy incline", *Transactions, American Geophysical Union*, v 77, No 46, p F268, 1996.

Chang, Y.S., C. Conner, D.M. Hanes, E. Thosteson, and C.E. Vincent, "Suspended sediment dynamics at Duck, NC", *Transactions, American Geophysical Union*, v 78, No 46, p F340, 1997.

Jenkins, J.T. and D.M. Hanes, "Collisional sheet flows of sediment driven by a turbulent fluid," *Transactions, American Geophysical Union*, v 78, No 46, p F258, 1997.

Hanes, D.M. and O.R. Walton, "Velocity Fluctuations in Granular Flows", 12th Engineering Mechanics Conference, ASCE, Abstracts p 140-141, 17-20 May, 1998.

Jenkins, J.T. and D.M. Hanes, "Collisional sheet flows of sediment driven by a turbulent fluid," 13th U.S. National Congress of Applied Mechanics, Abstracts p RB2, 21-26 June 1998.

Hanes, D.M., V. Alymov, E.D. Thosteson, Y.S. Chang, and C.E. Vincent, "Local seabed morphology and small scale sedimentation processes during SandyDuck97," *Transactions, American Geophysical Union*, v 79, No 45, p F444, 1998.

Thosteson, E.D., and D.M. Hanes, "The time lag between fluid forcing and wave generated sediment suspension," *Transactions, American Geophysical Union*, v 79, No 45, p F453, 1998.

Vincent, C.E., K. Black, and D.M. Hanes, "Fine-scale resuspension processes by waves over flat and rippled beds: field observations," *Transactions, American Geophysical Union*, v 79, No 45, p F452, 1998.

Ribberink, J S , M Dohmen-Janssen, D M Hanes, S R McLean, C E Vincent, Small-Scale Sediment Transport Processes under Waves in a Large Wave Flume (SISTEX99) , *Transactions, American Geophysical Union*, 2000.

Dohmen-Janssen, M , S R McLean, J S Ribberink, D M Hanes, C E Vincent, Sheet Flow and Suspension Under Wave Groups in a Large Wave Flume (SISTEX99) , *Transactions, American Geophysical Union*, 2000.

McLean, S R , M Dohmen-Janssen, J S Ribberink, D Hanes, C Vincent, Sediment Suspension from the Sheet Flow Layer in SISTEX '99, *Transactions, American Geophysical Union*, 2000.

Hanes, D M , C E Vincent, On the Suspension of Sand by Wave Groups, *Transactions, American Geophysical Union*, 2000.

MacMahan, J, R J Thieke, R G Dean, D M Hanes, J Engle, R Holman, Rip Currents at Duck, NC: Hydraulically Efficient Flows through Relict Gaps in a Longshore Bar, *Transactions, American Geophysical Union*, 2000.

Chang, Y S, D M Hanes Suspended Sediment Distribution over Rippled Seabeds, *Transactions, American Geophysical Union*, 2000.

Mouraenko, O A , D M Hanes, Field Measurements of Turbulence Near the Seabed, *Transactions, American Geophysical Union*, 2000.

Jenkins, J T, D M Hanes, A Theoretical Analysis of Sheet Flows, *Transactions, American Geophysical Union*, 2000.

Battisto, G.M., C.T. Friedrichs, H.C. Miller and D.M. Hanes, 2000. A comparison of methods used to estimate sand grain size and concentration in suspension under waves. Eos, Transactions, American Geophysical Union, 81 (No. 48, Suppl.): F680.

Elfrink, B, D M Hanes, J C Doering, The Parameterization of Nearbed Velocity Skewness and its Influence Upon Cross-shore Sediment Transport, *Transactions, American Geophysical Union*, 2000.

Slinn, D.N., K.T. Holland, J.A. Puleo, and D. Hanes. 2001. Modeling small-scale nearshore processes. Trans. Amer. Geophys. Union, 82(46).

Hanes, D.M., Sediment transport modeling in the nearshore community model, *Transactions, American Geophysical Union*, Ocean Sciences Spring Meeting, 11-15 February, 2002.

Shen, H.H., D.M. Hanes, and J.T. Jenkins,"Granular Shear Flows: Constitutive Relations and Internal Structures", Sixth Microgravity Fluid Physics and Transport Phenomena Conference, Cleveland, OH. Aug. 14 - 16, 2002.

Near bed orbital velocities under irregular waves, Berry Elfrink, John C. Doering, Daniel M. Hanes, and B.G. Ruessink - 28th. Int. Conference on Coastal Engineering. ASCE, Cardiff, Wales 2002.

Grossman, E.E., Eittreim, S.L. , Hanes, D.M. , Field, M.E. , Edwards, B.D. , Fallon, S.J. , and Anima, R.J., Budgeting Postglacial Sedimentation History on the Santa Cruz, California mid-Continental Shelf, OCEANS03, La Jolla, CA, 2003.

Hsu, J.J., P. L.-F. Liu, J. T. Jenkins and D. M. Hanes, Nearshore Sediment Transport Using Two-phase Appoach, Dean Conference, Gainesville, FL, 2003.

Hanes, D.M., Wave induced sheet flows: Measurements and models, Isaac Newton Institute workshop on granular flows, Cambridge, United Kingdom, October, 2003.

Voulgaris, G., K. Haas, P. Work, D. Hanes, and J.C. Warner, 2004. Nearshore Wave and Current Studies. South Carolina Coastal Erosion Study Public Workshop, Conway, SC, Feb. 25, 2004.

Warner, J. C., G. Voulgaris, D. Hanes, P. Work and K. Haas, 2004. Physical Processes Study of Sediment Transport in Long Bay, SC. South Carolina Coastal Erosion Study Public Workshop, Conway, SC, Feb. 25, 2004.

Ruggiero, P., Walstra, D-J., Lesser, G., Hanes, D., and Gelfenbaum, G.. Modeling nearshore morphological evolution at seasonal scale, Abstract EOS, Transactions, AGU Fall Meeting, San Francisco, CA, 2004.

Hanes, D. M. and Hsu, T-J, The effects of wave induced pressure gradients on sheet flow sediment transport, Eos Trans. AGU, 84 (52), Fall Meet. Suppl., Abstract OS31G-04, 2004.

Barnard, P.L. and Hanes, D.M., The relative effects of wave climatology and tidal currents on beach processes adjacent to a major tidal inlet, Ocean Beach, San Francisco, California, Eos Trans. AGU, 84 (52), Fall Meet. Suppl., Abstract OS31G-04, 2004.

Voulgaris, G., Warner, J.C., Work, P., Hanes, D.M. and Haas, K., 2004, The South Carolina coastal erosion study; Integrated circulation and sediment transport studies; A project overview. Eos, Transactions, American Geophysical Union, Fall Meeting Supplement, San Francisco, Calif., 13-17 December 2004, vol. 85, no. 47, Abstract #OS21B-1224.

Warner, J.C., Sullivan, C., Voulgaris, G., Work, P., Haas, K. and Hanes, D.M., 2004, The South Carolina coastal erosion study; numerical modeling of circulation and sediment transport in Long Bay, South Carolina. Eos, Transactions, American Geophysical Union, Fall Meeting Supplement, San Francisco, Calif., 13-17 December 2004, vol. 85, no. 47, Abstract #OS21B-1226.

Haas, K., Voulgaris, G., Work, P., Hanes, D.M., and Warner, J.C., 2004, The South Carolina coastal erosion study: Nearshore hydrodynamics field experiment. Eos, Transactions, American Geophysical Union,

Fall Meeting Supplement, San Francisco, Calif., 13-17 December 2004, vol. 85, no. 47, Abstract #OS21B-1225.

Nelson, T., Voulgaris, Hanes, D.M., and Warner, J.C., 2004, Spatial and temporal variability of wave ripple wavelengths in the inner shelf. EOS, Transactions, American Geophysical Union, Fall Meeting Supplement, San Francisco, Calif., 13-17 December 2004, vol. 85, no. 47, Abstract #OS21B-1232.

Shen, H.H., D.M. Hanes, and J.T. Jenkins, (2005) "Testing computer simulation of granular flows using annular shear cell experiments", NASA Workshop on Granular Materials in Lunar and Martian Exploration, Orlando, FL, Feb. 2-3, 2005.

Barnard, P.L. and Hanes, D.M., October 2005. Integrating engineering, geology, and nearshore processes: utilizing high resolution survey techniques and numerical modeling to support evolving dredge disposal practices, Ocean Beach, San Francisco, California. American Shore & Beach Preservation Association. San Francisco, CA.

Barnard, P.L. and Hanes, D.M., Integrating field research, modeling and remote sensing to quantify morphodynamics in a high-energy coastal setting, Ocean Beach, San Francisco, California. Coastal Dynamics Conference, Barcelona, Spain, 2005.

Barnard, P.L. and Hanes, D.M. Bedform Morphology Under Significant Wave-Tidal Current Interaction at the Mouth of a Major Tidal Inlet, San Francisco, California. American Geophysical Union Conference. San Francisco, CA. Poster presentation, 2005.

Hsu, T-J, Raubenheimer, B., Trowbridge, J. H., Cox, D., and Hanes, D. M., Modeling surf zone hydrodynamics and sediment transport toward an integrated approach. Eos Trans. AGU, 87 (52) Fall Meet. Suppl., Abstract OS41C-0631, 2006.

Shi, F., Hanes, D.M., Eshleman, J., Erikson, L., Barnard, P.L., and Kirby, J., NearCom Modeling of San Francisco Bight and its Open Coast. Eos Transactions AGU, Volume 87, Number 52, Fall Meeting Supplement, Abstract OS41B-0607, 2006.

Barnard, P.L., Hanes, D.M., Lescinski, J., and Elias, E., Monitoring and modeling nearshore dredge disposal for indirect beach nourishment, Ocean Beach, San Francisco. 30th International Conference on Coastal Engineering, Program with Abstracts, San Diego, CA, Abstract Number 184., 2006.

Erikson, L, Gibbs, A., Barnard, P.L. and Hanes, D.M., Swash zone characteristics at Ocean Beach, CA. 30th International Conference on Coastal Engineering, Program with Abstracts, San Diego, CA , Abstract Number 351., 2006.

Barnard, P.L., Hanes, D.M., and Kvitek, R.G., Massive bedforms and their movement mapped at the mouth of San Francisco Bay using multibeam sonar. Eos Transactions AGU, Volume 87, Number 52, Fall Meeting Supplement, Abstract NS22A-01 (INVITED), 2006.

Hanes, D.M, Barnard, P.L. and Elias, E.,The morphology and dynamics of giant marine sand waves near San Francisco and their relationship to tidal forcing. Eos Transactions AGU, Volume 87, Number 52, Fall Meeting Supplement, Abstract H32C-01 (INVITED), 2006.

Hanes, D.M., Barnard, P.L., Rubin, D.M., Ruggiero, P., Lescinski, J. and Shi, F., From grain size to coastal evolution: the integration of processes through morphology in the San Francisco Bight. Eos Transactions AGU, Volume 87, Number 36, Ocean Sciences Meeting Supplement, Abstract OS52E-01 (INVITED), 2006.

Shi, F., Kirby, J. T., and Hanes, D. M., Modeling of an Erosional Hot Spot at Ocean Beach, CA, ROMS workshop, Los Angles, Oct. 2007.

Hanes, D.M., Barnard, P.L., Kvitek, R.G. and Iampietro, P.J., Giant sand waves at the mouth of San Francisco Bay. State of the Estuary Conference, Oakland, CA, October 16-18 (POSTER PRESENTATION), 2007.

Barnard, P.L., Hanes, D.M., Erikson, L.H., Elias, E., Rubin, D.M., Dartnell, P., and Kvitek, R.G., Sediment transport patterns in the San Francisco Bay Coastal System based on bedform morphology and numerical modeling. State of the Estuary Conference, Oakland, CA, October 16-18 (POSTER PRESENTATION), 2007.

Erikson, L.H., Elias, E., Shi, F., Barnard, P.L. and Hanes, D.M., Numerical modeling of the Golden Gate and Ocean Beach. State of the Estuary Conference, Oakland, CA, October 16-18 (POSTER PRESENTATION), 2007

Erikson, L.H., Eshleman, J.L., Barnard, P.L. and Hanes, D.M., Physical process measurements near the mouth of San Francisco Bay. State of the Estuary Conference, Oakland, CA, October 16-18 (POSTER PRESENTATION), 2007.

Eshleman, J.L., Shi, F., Erikson, L.H., Elias, E., Barnard, P.L. and Hanes, D.M., Wave conditions and focusing patterns seaward of the Golden Gate and at adjacent Ocean Beach. State of the Estuary Conference, Oakland, CA, October 16-18 (POSTER PRESENTATION), 2007

Eshleman, J.L., Barnard, P.L., Erikson, L.H., and Hanes, D.M., 2007. Coupling alongshore variations in wave energy to beach morphologic change using the SWAN wave model at Ocean Beach, San Francisco, CA [abs.]: International Workshop on Wave Hindcasting and Forecasting, 10th, Oahu, Hawaii, November 11-16 (ORAL PRESENTATION), 2007.

Erikson, L.H., Barnard, P.L., Elias, E., Hanes, D.M. and Mull, P., Coastal morphodynamic response of a shallow sediment mound forced by strong tidal currents and large waves. Eos Transactions AGU, Volume 88, Number 52, Fall Meeting Supplement, Abstract H41B-0510 (POSTER PRESENTATION), 2007.

Hanes, D.M., Erikson, L.H., and Traykovski, P., Sand Ripples and Surficial Grain Size on the Florida Continental Shelf Following 2004 Hurricane Ivan, Eos Transactions AGU, Volume 88, Number 52, Fall Meeting Supplement, 2007.

Barnard, P.L. and Hanes, D.M, The performance of dredge disposal off Ocean Beach, San Francisco, California. Dredged Material Management Office (DMMO) Meeting, United States Army Corps of Engineers, Oakland, CA (ORAL PRESENTATION, INVITED), 2008.

Barnard, P.L., Hanes, D.M., Erikson, L.H., Rubin, D., Determining sediment transport pathways in the San Francisco Bay Coastal System by utilizing multibeam bathymetry, numerical modeling, and mineral provenance. AGU Ocean Science Meeting, 2008.

Hanes, D.M., Erikson, L.H., Elias, E., Barnard, P.L., Rubin, D.M., 2008. Evolution of the San Francisco ebb tidal delta over the past half century, AGU Ocean Science Meeting, 2008.

Yu, X., Hsu, T.-J., Hanes, D. M., Sediment transport under wave group - a two-phase model study, 2008 Ocean Science Meeting, Nearshore Process 028, abstract ID: 1504, 2008.

Cambazoglu, M.K., K.A. Haas, and D.M. Hanes, Numerical Modeling of Cross-shore Sediment Transport and Seasonal Bar Migration Events, AGU Ocean Science Meeting, 2008.

Shi, F., Kirby, J. T., and Hanes, D. M., San Francisco Bar - A Single-Focus Lens For Ocean Waves, AGU Ocean Science Meeting, 2008.

Shi, F., Kirby, J. T., and Hanes, D. M., Alongshore Currents on a Wave-Focused Beach, The University of Delaware - Xiamen University Coastal Ocean Processes Workshop, 2008, Newark, DE., 2008.

Erikson, L., Barnard, P.L. and Hanes, D.M., February 2008, "USGS Scientists Investigate Coastal Processes Affecting a Restored Tidal Wetland in the San Francisco Presidio." USGS Monthly Newsletter, 4 pp., http://soundwaves.usgs.gov/2008/01/fieldwork2.html

Wright, S.A., Erikson, L.H., Hanes, D.M., and Schoellhamer, D.H., A combined observation-modeling approach for estimating water and suspended sediment flux through a large tidal inlet: the Golden Gate, San Francisco, CA, EOS Transactions, AGU, 89(53), Abstract OS34A-08, 2008.

List, J.H., Hanes, D.M., Ruggeiro, P., Benedet, L., Elias, E.P., and Erikson, L.H., Modeling Coastal Morphodynamics using Local Estimates of Alongshore Sediment Transport: Limits and Alternatives, EOS Transactions, AGU, 89(53), Abstract OS34A-01 INVITED, 2008.

Shi. F., Kirby, J.T., and Hanes, D.M., Is the Erosional Hotspot at Ocean Beach, San Francisco, Caused by Wave Focusing? - From Modeling Point of View, EOS Transactions, AGU, 2010.

Hanes, D.M., Barnard, P.L., Dallas, K., Elias, E., Erikson, L.H., Eshlemean, J., Hansen, J., Hsu, T.J., and F. Shi, Recent scientific advances and their implications for sand management near San Franscisco, California: The influence of the ebb tidal delta, Proceedings, Coastal Sediments 11, Miami, FL, May. 2011.

Hanes, D.M., The growth and disappearance of an inter-field marine sandwave and the associated anti-asymmetry migration of neighboring crests, , Annual Meeting, Geological Society of America, Minneapolis, MN, Oct. 2011.

Hanes, D.M., Waves and tides responsible for the intermittent closure of the entrance of a small, sheltered tidal wetland at San Francisco, CA. 21st Biennial conference of the Coastal and Estuaring Research Foundation, Daytona Beach, FL, Nov. 2011.

Hanes, D.M. and L.H. Erikson, The significance of ultra-refracted swell waves to coastal processes in sheltered areas, with application to Crissy Field Marsh, San Francisco, AGU Ocean Sciences Meeting, Salt Lake City, Feb. 2012.

Erikson, L.H., S. Wright, E. Elias, D.M. Hanes, and D. H. Schoellhamer, The use of continuous SSC measurements as a proxy for sediment flux through the Golden Gate inlet, San Francisco Bay, American Shore and Beach Preservation Association 2012 National Coastal Conference, San Diego, CA 2012.

Erikson, L.H., S. Wright, E. Elias, D.M. Hanes, and D. H. Schoellhamer, The Use of Measured Suspended Sediment Concentrations at Alcatraz to Infer Net Suspended Sediment Transport at the Golden Gate, Abstract OS23D-07, EOS Transactions, American Geophysical Union Fall Meeting, San Francisco, CA, 2012.

Hanes, D.M., The contributions of process-based coastal evolution modeling toward formulating local and regional strategies for adaptation to sea-level rise, Penrose-Chapman conference on , Sea Level Rise, Galveston, TX, April, 2013.

Hanes, D.M., The Significance of Ultra-Refracted Ocean Waves to Sediment Dynamics and Water Quality in Sheltered Areas, With Application to Crissy Field Marsh, San Francisco Abstract 1802792, EOS Transactions, American Geophysical Union Fall Meeting, San Francisco, CA, 2013.

Andes, L., F. Wu, J. Lo, M. MacWilliams, C. Lu, R. Dean, and D.M. Hanes, Estimating the Response and Uncertainty Limits of Physical Processes in the South San Francisco Bay for Extreme Water Elevation Frequency Analysis, Abstract 1807554, EOS Transactions, American Geophysical Union Fall Meeting, San Francisco, CA, 2013.

Hanes, D.M., Field observations of pattern formation and evolution of marine sandwaves, European Geophysical Research Abstracts, Vol. 16, EGU2014-3095, 2014.

Andes, L., Wu, F., Lo, J-M., MacWilliams, M., Lu, C-C., Dean, R., and D.M. Hanes, South San Francisco Bay shoreline study-A case study in estimating extreme water surface elevation, International Workshop on the Application of Fluid Mechanics to Disaster Reduction, Sendai, Japan, 22-24 February, 2014.

Hanes, D.M., The confounding effects of particle characteristics on acoustic backscatter measuring techniques, Particles in Europe, Keynote Speaker, Esbjerg, Denmark, October, 2104.

Andes, L.C. and D.M. Hanes, Flood Risk and Warning Time in Communities Near River Confluences, Mississippi River Education Symposium, National Great Rivers Center, Alton, IL, 14 November 2014.

Healy, K.M., A.L. Cox, D.M. Hanes, and L.G. Chambers, State of the Practice of Sediment Management in Reservoirs, Minimizing Sedimentation and Removing Deposits, 3rd Joint Federal Interagency Conference on Sedimentation and Hydrologic Modeling (SEDHYD), Reno, NV. 2015.

Hanes, D.M., and Y.C. Agrawal, On Acoustic Measurement of Sediments in a River, International Coastal Symposium, Sydney, Australia, 2016.

Agrawal Y.C. and D.M. Hanes, On Acoustic Measurement of Sediments in a River, 9th Symposium on River, Coastal and Estuarine Morphodynamics, Iquitos City, Peru, 2015.

Agrawal Y.C. and D.M. Hanes, Acoustic Attenuation and Backscatter Properties of a River Water Column Derived from Laser Diffraction Profiles of Particle Size Distribution, American Geophysical Union Fall Meeting, 2015.

Hanes, D.M., The historic Meramec River basin flood of 2015 (invited), Riverflow2016, St. Louis, MO, 2016.

Pearson, A.J., and D.M. Hanes, How much sediment have we added to a floodplain? Preliminary results of using contaminated sediments to tease out enhanced deposition to a floodplain of the lower Meramec River, MO, American Geophysical Union Fall Meeting, 2016.

Hanes, D.M., The historic Meramec River Basin Flood of 2015, AGU Chapman Conference on Extreme Climate Events on Aquatic Biogeochemical Cycles and Fluxes, 2017.

Technical Reports and other publications:

Hanes, D. M., and R. J. Seymour, "Design limits on critical float emergence in a tethered float breakwater", Institute of Marine Resources, Reference 76-2, 1976.

Hanes, D. M., and R. J. Seymour, "Investigation of the effects of bio-fouling on the performance of a tethered float breakwater", Inst. of Marine Resources, Ref 76-3, 1976.

Haines, J., D. A. Huntley, A. J. Bowen, D. M. Hanes, C. S. Kim and R. Boyd, "Determination of the vertical structure of mean current flows in the nearshore zone, Pte. Sapin, New Brunswick", Can. Coastal Sed. Study Ref. Series, 1984.

Tamura, T., and D. M. Hanes, "Laboratory calibration of a 3-megahertz Acoustic Concentration Meter to measure suspended sand concentration", RSMAS 86-004, 1986, 87 pp.

Holman, R.A., A.J. Bowen, R.A. Dalrymple, R. Dean, S. Elgar, R. Flick, M. Freilich, R.T. Guza, D. Hanes, J. Kirby, O. Madsen, R. Sternberg, and I. Svendsen, Report for the Nearshore Processes Workshop, St. Petersburg, FL, Report OSU-CO-90-6, Oregon State University, 42 pp., 1989.

Dompe, P.E., and D.M. Hanes, Wave data summary: Hollywood Beach, Florida, January 1990 to May 1992, UFL/COEL 92/016, 65 pp., 1992.

Dompe, P.E., and D.M. Hanes, Turbidity data: Hollywood Beach, Florida, January 1990 to May 1992, UFL/COEL 92/017, 1993.

Hanes, D.M., T.H. Lee, and E.D. Thosteson, "Intermittent near-bed sediment suspension in the offshore at Supertank", Chap. 10 in Supertank laboratory data collection project, ed: N. C. Kraus and J.M. Smith, US Army Corps of Engineers Technical Report CERC-94-3, 274pp, 1994.

Warner, J.C., Hanes, D.M., and Martini, M. (Dec. 2003 / Jan. 2004). “Investigating Sediment Transport Off South Carolina—Part of the South Carolina Coastal Erosion Study” Soundwaves, US Geological Survey, http://soundwaves.usgs.gov/2004/01/fieldwork2.html.

Barnard, P.L. and Hanes, D.M., 2006. Coastal monitoring of the May 2005 dredge disposal offshore of Ocean Beach, San Francisco, California. U.S. Geological Survey, Open-File Report, Report Series 2006-1140, 27 pp. [available on the World Wide Web at http://pubs.usgs.gov/of/2006/1140/ .

Barnard, P.L., Hanes, D.M., Kvitek, R.G, and Iampietro, P.J. 2006. Sand waves at the mouth of San Francisco Bay, California. U.S. Geological Survey, Scientific Investigations Map 2006-2944, 5 map sheets, http://pubs.usgs.gov/sim/2006/2944/.

Dartnell, P., P. Barnard, J. L. Chin, D.M. Hanes, R. G. Kvitek, P. J. Iampietro, and J. V. Gardner, 2006, Under the Golden Gate Bridge - views of the sea floor near the entrance to San Francisco Bay, California: U.S. Geological Survey Scientific Investigations Map 2917, 1 sheet. http://pubs.usgs.gov/sim/2006/2917/

Sullivan, C.M., Warner, J.C., Martini, M.A., Voulgaris, G., Work, P.A., Haas, K.A., Hanes, D. South Carolina Coastal Erosion Study, Data Report for Observations, October 2003-April 2004. USGS Open-File Report: 2005-1429. http://pubs.er.usgs.gov/publication/ofr20051429

Hanes, D.M., L. H. Erikson, J. M.R. Lescinski, J. N. Harney, C. L. Carter, G. A. Hatcher, J. R. Lacy, D. M. Rubin, Seabed Ripple Morphology and Surficial Sediment Size at the SAX04 Experiments near Fort Walton Beach, Florida, Fall 2004, USGS Open File Report 2007-1232, 2007, http://pubs.usgs.gov/of/2007/1232/

Barnard, P.L., Eshleman, J.L., Erikson, L.H., and Hanes, D.M., Coastal processes study at Ocean Beach, San Francisco, CA: summary of data collection 2004-2006. U.S. Geological Survey Open-File Report 2007-1217, 165 pp., http://pubs.usgs.gov/of/2007/1217/, 2007.