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CITIZENSHIP: United States of America
RESIDENCY: New Zealand
PROFESSION: Coastal Engineer/Oceanographer
Tsunami Researcher
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Education

Ph.D. Ocean and Coastal Engineering, University of Southern California ----- August 2002
M.S. Ocean and Coastal Engineering, University of Southern California ----- May 1997
B.S. Civil and Environmental Engineering, University of Southern California ----- December 1995
B.S. Journalism, Telecommunications Production, University of Florida ----- May 1993

Employment History

– Director, Senior Consultant	eCoast Ltd,	May 2012 - Present
– Senior Consultant	ASR Ltd., Marine Consulting and Research	Jan. 2010 – April 2012
– Manager, Coastal Science Group	ASR Ltd., Marine Consulting and Research	Feb. 2006 – Dec. 2009
– Adjunct Assistant Professor	University of Southern California	July 2009 - Present.

Professional Experience

– Research Assistant Professor	University of Southern California	August 2003 – July 2008
– Research Associate	Humboldt State University	June 2003 – June 2006
– Post Doctoral Research Associate	University of Southern California	August 2002 – August 2003
– Consultant	The Surfrider Foundation San Clemente, CA	2001, 2002
– Consultant	Inst. of Geological and Nuclear Sciences Wellington, New Zealand	June 2003

Professional Output at a Glance:

44 peer reviewed journal articles (12 lead author) since 1997.

30+ technical and consulting reports since 2006

12 post-tsunami reconnaissance surveys (4 as team leader/principal scientist)

5 field investigations of near-shore hydrodynamics involving instrument deployments

2 large scale hydraulic physical laboratory experiments

3 organized or co-organized international conferences

2 co-editorship conference proceedings volume

Peer Reviewed Journal Articles

In Review, Accepted for Publication or In Press

- Lebreton, L. C.-M. and **Borrero, J.C.** (2012) Modeling the transport and accumulation floating debris generated by the 11 March 2011 Tohoku-oki tsunami, *Marine Pollution Bulletin*, accepted, in revision.
- **Borrero, J.C.** and Greer, S.D. (2012) Comparison of the 2010 Chile and 2010 Japan tsunamis in the Far-field – *Pure and Applied Geophysics*, in press.

2012

- **Borrero, J.**, Bell, R., Csato, C., DeLange, W., Greer, D., Goring, D., Pickett, V. and Power, W. (2012) Observations, Effects and Real Time Assessment of the March 11, 2011 Tohoku-oki Tsunami in New Zealand, *Pure and Applied Geophysics*, DOI 10.1007/s00024-012-0492-6.
- Hill, E, **Borrero, J.**, Huang, Z., Qiu, Q., Banerjee, P., Natawidjaja, D., Elosegui, P., Fritz, H., Pranantyo, I., Li, L., Macpherson, K., Skanavis, V., Synolakis, C., and Sieh, K. (2012) The 2010 Mw 7.8 Mentawai earthquake: Very shallow source of a rare tsunami earthquake determined from tsunami field survey and near-field GPS. *Journal of Geophysical Research*, Vol 117, B06402, doi:10.1029/2012JB009159.
- Lebreton, L.C.-M., Greer, S.D. and **Borrero J.C.**, (2012) Numerical modelling of floating debris in the world's oceans. *Mar. Pollut. Bull.*, doi:10.1016/j.marpolbul.2011.10.027.
- Lynett, P., **Borrero, J.**, Weiss, R., Son, S., Greer, D., Renteria, W. (2012) Observations and Modeling of Tsunami-Induced Currents in Ports and Harbors, *Earth and Planetary Science Letters*, 327-328 (68-74).

2011

- Okal, E.A. and **Borrero, J.C.** (2011) The "tsunami earthquake" of 22 June 1932 in Manzanillo, Mexico: Seismological study and tsunami simulations, *Geophysical Journal International*, 187, 1443–1459.
- Fritz, H.M., **Borrero, J.C.**, Synolakis, C.E., Okal, E.A., Weiss, R., Titiov, V., Jaffee, B., Foteinis, S., Lynett, P., Chan, I., and Liu, P.L-F (2011) Insights on the 2009 South Pacific Tsunami in Samoa and Tonga from Field Surveys and Numerical Simulations, *Earth Sci. Revs.*, 107, 66–75.
- Okal, E.A., **J.C. Borrero**, and C. Chagué-Goff (2011) Tsunamigenic predecessors to the 2009 Samoa earthquake, *Earth Sci. Revs.*, 107, 128 – 140.
- Prasetya, G., **Borrero, J.**, de Lange, W., Black, K., and Healy, T., Modelling of inundation on Banda Aceh, Indonesia during the great Sumatra tsunamis December 26, 2004. (2011) *Natural Hazards*, DOI 10.1007/s11069-010-9710-7.
- Barberopoulou, A., **Borrero, J.C.**, Uslu, B., Legg, M. and Synolakis, C.E. (2011) A Second Generation of Tsunami Inundation Maps for the State of California, *Pure and Applied Geophysics*, DOI10.1007/s00024-011-0293-3
- **Borrero, J.C.**, McAdoo, B., Jaffe, B., Dengler, L., Gelfenbaum, G., Higman, B., Hidayat, R., Moore, A., Kongko, W., Lukijanto, Peters, R., Prasetya, G., Titov, V., Yulianto, E. (2011) Field Survey of the March 28, 2005 Nias-Simeulue Earthquake and Tsunami, *Pure and Applied Geophysics* DOI 10.1007/s00024-010-0218-6
- Prasetya, G., Black, K., de Lange, W., **Borrero, J.** Healy, T. (2011) Debris dispersal modeling for the great Sumatra Tsunamis on Banda Aceh and surrounding waters *Natural Hazards* DOI 10.1007/ s11069-011-9903-8

2010

– Okal, E.A., Fritz, H.M., Synolakis, C.E., **Borrero, J.C.**, Weiss, R., Lynett, P., Titov, V.V., Foteinis, S., Jaffe, B.E., Liu, P. L.-F and Chan, I-c., Field Survey of the Samoa Tsunami of 29 September 2009, *Seismological Research Letters* 81(4): 577-591

2009

– **Borrero, J.C.**, Weiss, R., Okal, E., Hidayat, R., Suranto, Arcas, D., and Titov, V.V., (2009), The Tsunami of September 12, 2007, Bengkulu Province, Sumatra, Indonesia: Post-Tsunami Field Survey and Numerical Modeling, *Geophysical Journal International*, Vol 178, p. 180–194 doi: 10.1111/j.1365-246X.2008.04058.x

– Barberopoulou, A., **Borrero, J.C.**, Kalligeris, N., Goltz, J.D., Wilson, R.I. and Synolakis, C.E. (2009) Unprecedented coverage of the Californian coast promises improved tsunami preparedness. *Eos, Transactions of the American Geophysical Union*, Vol.90, No. 16, p. 137-138.

2008

– Dengler, L.A., Uslu, B., Barberopoulou, A., **Borrero, J.C.**, and Synolakis, C. (2008). The Vulnerability of crescent city, California, to Tsunamis Generated by Earthquakes in the Kuril Islands Region of the Northwestern Pacific, *Seismological Research Letters*, Vol. 79, No. 5, September/October, 2008, 608 – 619.

– Fritz, H. M., Kalligeris, N., **Borrero, J.C.**, Broncano, P., and Ortega, E. (2008). 15 August 2007 Peru tsunami runup observations and modeling, *Geophysical Research Letters*, Vol. 35, L10604, doi:10.1029/2008GL033494, 2008.

2007

– Uslu, B., **Borrero, J.C.**, Dengler, L., and Synolakis, C.E. (2007). Tsunami Inundation at Crescent City, California generated by earthquakes on the Cascadia Subduction Zone. *Geophysical Research Letters*, Vol. 34, L20601.

– Mead, S.T., **Borrero, J.C.**, Black, K.P., Anderson, K. (2007). Multi-Faceted Beach Management at St. Francis Bay Beach, South Africa, *Shore and Beach*, V 75 (4): 43 – 54.

– B.G McAdoo, Richardson N., and **Borrero J.C.** (2007). Inundation distances and run-up measurements from ASTER, QuickBird and SRTM data, Aceh coast, Indonesia. *International Journal of Remote Sensing* V28, No. 13-14, July 2007.

– Satake, K., E.A. Okal, and **J.C. Borrero** (2007), Tsunami and its hazard in the Indian and Pacific Oceans: Introduction to the topical issue, *Pure Appl. Geophys.*, 164, 249-259, 2007.

2006

– **Borrero, J.C.**, Sieh, K., Chlieh, M. and Synolakis, C.E. (2006), Tsunami Inundation Modeling for Western Sumatra, *Proceedings of the National Academy of Science*, V. 103, No. 52, p. 19673 – 19677.

– E.A. Okal, **J.C. Borrero**, and C.E. Synolakis (2006) Evaluation of Tsunami Risk from Regional Earthquakes at Pisco, Peru. *Bulletin of the Seismological Society of America* 96, 1634-1648.

– **Borrero, J.C.**, C.E. Synolakis, H.M Fritz (2006) Northern Sumatra Field Survey after the December 2004 Great Sumatra Earthquake and Indian Ocean Tsunami, *Earthquake Spectra*, V 22, S3, June 2006, S93 – S104.

– Bruce E. Jaffe, **Jose C. Borrero**, Gegar S. Prasetya, Robert Peters, Brian McAdoo, Guy Gelfenbaum, Robert Morton, Peter Ruggiero, Bretwood Higman, Lori Dengler, Rahman Hidayat,

Ettiene Kingsley, Widjo Kongko, Lukijanto, Andrew Moore et al. (2006) Northwest Sumatra and Offshore Islands Field Survey after the December 2004 Indian Ocean Tsunami, *Earthquake Spectra*, V 22, S3, June 2006, S105 – S135.

– H.M. Fritz and **J.C. Borrero** (2006) Somalia Field Survey after the December 2004 Indian Ocean Tsunami, *Earthquake Spectra*, V 22, S3, June 2006, S219 – S233.

– Fritz, H.M., **J.C. Borrero**, C.E. Synolakis, J.Yoo (2006) 2004 Indian Ocean tsunami flow velocity measurements from survivor videos, *Geophysical Research Letters*, V 33.

2005

– **Borrero, J.C.** (2005). Field Data and Satellite Imagery of Tsunami Effects in Banda Aceh, *Science*, V. 308, p. June 10, 2005.

– **Borrero, J.C.** (2005). Field Survey of Northern Sumatra and Banda Aceh, Indonesia after the Tsunami and Earthquake of 26 December 2004, *Seismological Research Letters* V. 74, No. 3, 309 – 317, May/June 2005.

– Liu, P. L.-F. and Wu, T.-R. and Raichlen, F. and Synolakis, C. E. and **Borrero, J. C.** (2005) Runup and rundown generated by three-dimensional sliding masses. *Journal of Fluid Mechanics*, 536 (1). pp. 107-144. ISSN 0022-1120.**

2004

– **Borrero, J.C.**, Legg, M.R., and Synolakis (2004). C.E., Nearshore Tsunami Sources in Southern California, *Geophysical Research Letters*. Vol 31, July 2004.

– Legg, M.R., **J.C. Borrero**, C.E. Synolakis (2004). Tsunami Hazards from the Catalina Fault Offshore Southern California, *Earthquake Spectra*, Vol. 20, No. 3, p. 917 – 950, August 2004.

– Okal, E.A., **J.C. Borrero**, and C.E. Synolakis (2004). The earthquake and tsunami of 17 November 1865: Evidence for farfield tsunami hazard from Tonga. *Geology and Geophysics International*, V.157, 164-174, 2004.

2003

– Lynett, P.J., **J.C. Borrero**, P.L.-F. Liu, and C.E. Synolakis (2003). Field Survey and Numerical Simulations: A Review of the 1998 Papua New Guinea Earthquake and Tsunami. *Pure and Applied Geophysics*, V. 160, no. 10-11, pp. 2119 – 2146, October 2003.

– **Borrero, J.C.**, J. Bu, C. Saiang, B. Uslu, J. Freckman, B. Gomer, E.A. Okal, and C.E. Synolakis (2003). Field survey and preliminary modeling of the Wewak, Papua New Guinea earthquake and tsunami of September 9, 2002, *Seismological Research Letters*, V. 74, No.4, pp.393 – 405, July/August 2003.

– Okal, E.A., G. Plafker, C.E. Synolakis, and **J.C. Borrero** (2003). Near-field survey of the 1946 Aleutian tsunami on Unimak and Sanak Islands, *Bull. Seismol. Soc. Amer.*, V. 93, No. 3, pp. 1226 – 1234, June 2003.

2002

– Okal, E.A., L. Dengler, S. Araya, **J.C. Borrero**, B. Gomer, S. Koshimura, G. Laos, D. Olcese, M. Ortiz, M. Swensson, V.V. Titov, and F. Vegas (2002), A field survey of the Camaná, Peru tsunami of June 23, 2001, *Seismological Research Letters*., 73, 904-917, 2002.

– Okal, E.A., C.E. Synolakis, G.J. Fryer, P. Heinrich, **J.C. Borrero**, C. Ruscher, D. Arcas, G. Guille, and D. Rousseau, A field survey of the 1946 Aleutian tsunami in the far field, *Seismological Research Letters*, 73, 490-503, 2002.

- Okal, E.A., G.J. Fryer, **J.C. Borrero**, and C. Ruscher (2002). The landslide and local tsunami of 13 September 1999 on Fatu-Hiva (Marquesas Islands; French Polynesia), *Bull. Soc. Géol. France*, 173, 359-367, 2002.
- Synolakis, C.E., J.-P. Bardet, **J.C. Borrero**, H.L. Davies, E.A. Okal, E.A. Silver, S. Sweet, and D.R. Tappin (2002). The slump origin of the 1998 Papua New Guinea tsunami, *Proceedings of the Royal Society (London)*, Ser. A, 458, 763-789, 2002.

2001

- **Borrero, J.C.**, Dolan, J., Synolakis, C.E., (2001) Tsunami Sources Within the Eastern Santa Barbara Channel, *Geophysical Research Letters*, V. 28 (4), 643-647.

1999

- Kawata, Y., B. Benson, **J.C. Borrero**, J.L. Borrero, H.L. Davies, W.P. deLange, F. Imamura, H. Letz, J. Nott, and C.E. Synolakis (1999) Tsunami in Papua New Guinea was as Intense as First Thought, *Eos, Transactions of the American Geophysical Union*, Cover Article, V. 80, # 9, March 2, 1999.

1997

- **Borrero J.C.**, Titov, V., Ortiz, M. and Synolakis, C. E., (1997) Mexican Earthquake Generates Tsunami, New Data and Unusual Photos, *Eos, Transactions of the American Geophysical Union*, Cover Article, Vol. 78, # 8, Feb. 25, 1997.

Consulting and Technical Reports

2011

- **Borrero, J.C.** (2011) Local Tsunami Source Models for Northern Chile, Prepared for Golder and Associates, Irvine CA.
- **Borrero, J.C.** and S. D. Greer, (2011) Wheatstone LNG Terminal Tsunami Hazard Study, Prepared for Chevron Australia Pty. Ltd.
- Mead S.T., **Borrero, J.C.**, Grant, D., Lebreton, L., and Moores, A. (2011) Design of a Submerged Reef for Coastal Protection, Prepared for US Army Corps of Engineers, National Erosion Control Development and Demonstration Program, Ventura County Demonstration Site.
- **Borrero, J.C.** and Grant, D. (2011) Oceanographic Analysis of Beran Island, Ainglaplap Atoll, Republic of the Marshall Islands, Prepared for B.V. Resorts LLC
- **Borrero, J.C.**, Lebreton, L., Greer, S.D., Csato, C., Mueller, H. (2011) Plastic Pollution in the World Ocean, A research study in to the origin, transport and distribution of floating debris. Prepared for the Sea•thos Foundation, Venice Beach, CA.
- **Borrero, J.C.**, (2011) Review of WYB0004 Seismic Hazard Assessment: Stage 2 Interim Tsunami Hazard Assessment Report, Prepared for Arup, London.

2010

- **Borrero, J.C.**, (2010) Borth Reef: Physical Modelling Study of Coastal Protection and Surfability, Prepared for Royal Haskoning, Peterborough, UK

- **Borrero, J.C.**, Lebreton, L., Oldman, J. (2010), Assessment of Submerged Reefs for Coastal Protection in Port Phillip Bay, Report prepared for the Department of Sustainability and Environment, Victoria, Australia
- **Borrero, J.C.**, Lebreton, L., Mead, S. and Frazerhurst, J. (2010), “Re-Imagining the Folkestone Shore” Report prepared for Folkestone Re-Development Group. February, 2010.
- Mead, S., **Borrero, J.C.**, Lebreton, L., Grant, D., “Scoping Study of the New Zealand West Coast Physical Marine Environment”, Report Prepared for Golders, New Zealand.

2009

- **Borrero, J.C.**, Mead, S., Campbell, A.(2009) “Borth Multipurpose Reef: Final Design Note” Prepared for Royal Haskoning, December 2009.
- **Borrero, J.C.** and Mead, S.T. (2009) “La Roche Percée: Review of a Proposed Beach Renourishment Plan” Prepared for CAPSE-Nord, Noumea, April 2009.
- **Borrero, J.C.**, Mead, S.T and LeBreton, L. (2009) “La Roche Percée [New Caledonia]: Hydrodynamic Analysis of the Littoral Environment, Design of a Multi-Purpose Erosion Control Structure” Prepared for CAPSE-Nord, Noumea, March 2009.
- **Borrero, J.C.**, Harrison, S. and Mead, T. (2009) Uitoé Bay, New Caledonia Field Data Collection and Hydrodynamic Analysis of Proposed Channel Configurations, Prepared for CAPSE-Nord, Noumea, May 2009
- **Borrero, J.C.** (2009) Stability Assessment for Submerged Reef Breakwaters constructed from Large Sand Filled Geotextile Containers.
- **Borrero, J.C.**, Mead, T., Harrison, S. (2009) Weather and Sea Conditions Leading Up to the Grounding of the San Cuvier 27th July 2008
- Frazerhurst, J. **Borrero, J.C.**, Mead S., Harrison, S. (2009) Tidal and Wave Energy Resource Study – Victoria. Prepared for: SKM Consultants, July 2009.

2008

- Harrison, S., **Borrero, J.C.** and Black, K.P. (2008) “Extreme Water Levels at the Powlett River Mouth” Prepared for GHD, Australia, July 2008.
- **Borrero, J. C.**, Mead, S.T., Black, K.T., Bosserelle, C. and Healy, T. (2008). “Matakana Island [New Zealand] Access Numerical Modelling & Assessment” Prepared for the Pritchard Group, June 2008.
- **Borrero, J.C.** (2008) “Historical Assessment of Tsunamis Affecting the Southern Coast of the Dominican Republic” Prepared for Sandwell Engineering, Vancouver, Canada, May 2008.
- Mead, S. T., Black, K.P., **Borrero, J.C.**, Bosserelle, C. and Bou, A. (2008) “Design and Assessment of Physical Effects of Multi-Purpose Reef for Beach Sand Retention at Orewa Beach [New Zealand]” Prepared for the Orewa Beach Reef Trust and Rodney District Council, March 2008.

2007

- **Borrero, J.C.** and Mead, S.T. (2007) “Channel Sedimentation at Gisborne prior to the Grounding of the Jodi F. Millennium Prepared for TT Club c/- Langley Twigg Lawyers, October 2007.
- **Borrero, J. C.**, Mead, S.T., Black, K.T. and Bosserelle, C. (2007). “Matakana Island [New Zealand] Data Collection Report” Prepared for the Pritchard Group, September 2007.

- Mead, S. T., **J. C. Borrero**, K. P. Black and J. Frazerhurst, (2006) “Multipurpose Reefs for Port Elizabeth South Africa: Detailed Design Report for Multipurpose Reefs at 4 locations in Port Elizabeth, South Africa” Prepared for Africoast Engineers, November 2007.
- Black, K.P., Mathew, J., and **Borrero, J.C.** (2007) “Southern Pipeline Estuarine and Hydrodynamic Physical Process Assessments” prepared for URS, New Zealand and Tauranga City Council, August 2007.
- Mead, S.T., **Borrero, J.C.**, Black, K.P. and Fraerhurst, J. (2007) “Investigations into the Development of Multi-Purpose Reefs at Las Rosadas [Mexico] for Beach Access and Amenity Enhancement” Prepared for Costa Chamela Corporation, May 2007.
- **Borrero, J.C.**, Raichlen F., and Yeh, H., (2007) “Third Party Review of Samoa Town (Humboldt County, CA) Master Plan Tsunami Vulnerability Report”, prepared for GeoEngineers, February 2007.

2006

- **Borrero, J. C.**, Mead, S. T., Black, K. P. and Frazerhurst, J. (2006) “Feasibility and Design Study for a Multi-Purpose Reef in Long Branch, New Jersey” Prepared for Surfers' Environmental Alliance and the State of New Jersey Department of Environmental Protection, July 2006.
- Mead, S. T., Black, K. P., **Borrero, J.C.**, Frazerhurst, J., Anderson, D., Phillips, D.J. and Kramer, M (2006). “St Francis Bay Beach Project: Feasibility Study. Investigations into the Application of Multi-Purpose Reefs at St Francis Beach for Coastal Protection and Amenity Enhancement.” Prepared for the St Francis Bay Beach Reef Trust, June 2006.
- **Borrero, J.C.**, L. Dengler, B. Uslu, C.E. Synolakis (2006) “Numerical Modeling of Tsunamis Effects at Marine Oil Terminals in San Francisco Bay”, Prepared for California State Lands Commission, Marine Facilities Division,
http://www.slc.ca.gov/division_pages/MFD/MOTEMS.html June 2006.

2003

- Legg, M.R., **J.C. Borrero**, C.E. Synolakis (2003) Evaluate Tsunami Risk to Southern California Coastal Cities, 2002 EERI/FEMA NEHRP Professional Fellowship. Submitted January 2003.

2002

- **Borrero, J.C.**, Cho, S., Gordon, S., Moore, J., Richardson, H.W. and Synolakis, C.E. (2002) "Natural Disasters and California: The Regional Economic Cost of a Tsunami Wave Generated by the Palos Verdes Slide," Final Report to the USC Zumberge Research and Innovation Fund, August, 2002.

2001

- **Borrero, J.C.** (2001, 2002) “Pratte’s Reef Quarterly Monitoring Reports”, 2001 and 2002. 8 reports Prepared for The Surfrider Foundation, San Clemente, CA. September 2001 – October 2002.

Full Length Conference Papers, Extended Abstracts and Book Chapters

2011

- **Borrero, J.C.**, Greer, S.D., Lebreton, L. and Fritz, H.M. (2011) Field Surveys and Numerical Modelling of the 2009 South Pacific and 2010 Mentawai Islands Tsunamis, Proceedings of Coasts and Ports Conference, Perth, Australia, September 28-30, 2011.
- Mead, S.T. and **Borrero, J.C.**, (2011), Multi-Purpose Reefs: A Decade of Applications Proceedings of Coasts and Ports Conference, Perth, Australia, September 28-30, 2011.

2010

- Prasetya, G., **Borrero, J.C.**, (2010) Modelling a General Distribution of Suspended Materials and Flotsam Throughout the Affected Regions in Banda Aceh During the 26 December 2004 Tsunami Event, Proceedings of the *Indian Ocean Tsunami Modelling Symposium*, Fremantle, Australia, 12-15 October 2010.
- **Borrero, J.C.**, Mead, S.T., and Moores, A. (2010) Stability Considerations for Structures Constructed from Large, Sand Filled Geotextile Containers, *Proceedings of the 32nd International Conference on Coastal Engineering (ICCE)*, Shanghai, China, July 2010.
- Mead, S.T., Bleinkinsopp, C., Moores, A., and **Borrero, J.C.** (2010) Design and Construction of the Boscombe Multipurpose Reef, *Proceedings of the 32nd International Conference on Coastal Engineering (ICCE)*, Shanghai, China, July 2010.
- Mead, S.T., Black, K.P. and **Borrero, J.C.**,(2010) Design and Construction of the Boscombe Reef, Proceedings of Coastal Structure, Institute of Civil Engineers Conference, Edinburgh, Scotland, September 2009.

2009

- Phillips, D., Mead, S., Harrison, S., Frazerhurst, J., Dodet, G., Klinginger, C., and **Borrero, J.**, (2009) Oceanography in the Public Interest: Tales from Raglan, *Proceedings of the 20th Australasian Port and Harbour Conference, Wellington New Zealand*
- Harrison, S., **Borrero, J.**, Klinginger, C., Mead, S., Phillips, D. (2009) Hydrodynamic Modelling of Whaingaroa Harbour Proceedings of the 20th Australasian Port and Harbour Conference, Wellington New Zealand

2008

- Uslu, B., **Borrero, J.C.**, Dengler, L., Synolakis, C., Barberopoulou, A. (2008). “Tsunami Inundation from Great Earthquakes on the Cascadia Subduction Zone Along the Northern California Coast” in: Wallendorf, L. (ed) *Solutions to Coastal Disasters 2008 Tsunamis: Proceedings of sessions of the conference, April 13 – 16, 2008: Oahu, Hawaii.*
- Chawla A., **Borrero, J.C.** and Titov, V.V. (2008) “Evaluating wave propagation and inundation model characteristics of the MOST tsunami model over a complex 3D beach” in Liu, P. L-F., Yeh, H. and Synolakis, C. (eds.) *Advanced Numerical Models for Simulating Tsunami Waves and Runup* World Scientific, 344 pages, 2008.

2007

- **J.C. Borrero**, C. Bosserelle, G. Prasetya and K.P. Black (2007). “Using 3DD to model tsunami inundation” *Proceedings of Coasts and Ports 2007*.
- **J.C. Borrero**, D. Goring, C. Bosserelle and K.P. Black (2007).” Observations and modelling of the May 4, 2006 Tonga tsunami in New Zealand”, *Proceedings of Coasts and Ports 2007*

2006

- **Borrero, J.C.**, B. Uslu, C.E. Synolakis, and V.V. Titov (2006) Modeling Far-Field Tsunamis for California Ports and Harbors, *Proceedings of the 30th International Conference on Coastal Engineering*, San Diego, CA September 2006.
- Synolakis, C.E., **Borrero, J.C.**, Fritz, H., Titov, V., Okal, E. (2006). Inundation During the 26 December 2004 Tsunami, *Proceedings of the 30th International Conference on Coastal Engineering*, San Diego, CA September 2006.

2005

- **J.C. Borrero**, J. Moore, S. Cho, and C.E. Synolakis "Natural Disasters and California: The Regional Economic Cost of a Tsunami Wave Generated by the Palos Verdes Slide," *Infrastructure risk Management Processes: Natural, Accidental, and Deliberate Hazards*, ASCE Council on Disaster Risk Management Monograph No. 1, May, 2005, edited by Craig Taylor and Erik VanMarcke (2006): 67-94. Presented at the Workshop on Acceptable Risk Processes for Natural and Manmade Hazards Affecting Lifelines, American Society of Civil Engineers Technical Council on Lifeline Earthquake Engineering Sixth U.S. Conference and Workshop on Lifeline Earthquake Engineering, Long Beach, August 10-13, 2003; and the 2005 Annual ASCE Civil Engineering Conference Next Generation Infrastructure: Projects that Create the Future, Los Angeles, October 27- 29, 2005.

2004

- **Borrero J.C.**, A.C. Yalciner, U. Kanoglu, V. Titov, D. McCarthy, and C.E. Synolakis (2003) Producing Tsunami Inundation Maps: The California Experience. *Submarine Landslides and Tsunamis* Yalciner, Pelinovsky, Okal and Synolakis (eds), NATO Science Series IV: Earth and Environmental Sciences – Vol. 21, Kluwer Academic Press.

2003

- Dengler, L., **J. Borrero**, G. Gelfenbaum, B. Jaffe, E. Okal, M. Ortiz, and V. Titov, Tsunami, in: Southern Peru earthquake of 23 June 2001, Reconnaissance Report, Edited by A. Rodriguez-Marek and C. Edwards, *Earthquake Spectra*, 19, Supp. A., 115-144, 2003.
- **Borrero, J.C.** and Nelsen, C. (2003) Results of a comprehensive monitoring program at Pratte’s Reef, *Proceedings of the 3rd International Surfing Reef Symposium*, Raglan New Zealand.

2002

- **Borrero, J.C.** for the ITST, Field survey of the June 23, 2001 earthquake and tsunami in Southern Peru, in: *Solutions to Coastal Disasters '02*, Ed. By L. Ewing and L. Wallendorf Amer. Soc. Civil Eng., pp. 892 – 904, 2002.
- Okal, E.A., **J.C. Borrero**, and C.E Synolakis, Solving the puzzle of the 1998 Papua New Guinea tsunami: The case for a slump, in: *Solutions to Coastal Disasters '02*, Ed. by L. Wallendorf and L. Ewing, Amer. Soc. Civil Eng., pp. 863-877, 2002.

2001

- “Changing field data gives better model results. An example from Papua New Guinea”, **Borrero, J.C.**, Presentation, International Tsunami Symposium, August 8-9, 2001, Seattle, WA
- Yalçiner, A. C., Synolakis, C. E., Alpar, B., **Borrero, J. C.**, Altinok, Y., Imamura, F., Tinti, S., Ersoy, S., Kuran, U., Pamukcu, S. and Kanoglu, U., (2001). Field Surveys and Modeling of the 1999 Izmit tsunami, Proceedings of the International Tsunami Symposium, August 8-9, 2001, Seattle, WA.

1997

- Synolakis, C.E., D. McCarthy, V.V. Titov, **J.C. Borrero**, Evaluating the Tsunami Risk in California, in: *California and the World Oceans '97*, Amer. Soc. Civil Eng.

Journal Reviews, Editorships, Conference Organizing Committees

2011-2012 Guest editor, Pure and Applied Geophysics Special Issue on the Tohoku Tsunami

2010

- Referee for Pure and Applied Geophysics (PAGEOPH)
- Referee for Journal of Earth Systems Science (India)

2009

- Referee for Journal of Geology
- Referee for South African Journal of Geology
- Referee for Comptes Rendes Geoscience
- Organising Committee for 6th International Surfing Reef Symposium, Jeffrey's Bay. South Africa.

2008

- Article review for Geofísica Internacional “Late Holocene tectonically induced sea-level changes and marine incursions on the Guerrero lagoon marshes, Mexican Pacific coast” November 2008.
- Article review for CSIRO Marine and Freshwater Science “Observations of the 2007 Solomon Islands tsunami along the Queensland coast, Australia” November 2008.
- Proposal Reviews for the National Science Foundation (NSF), May 2008.
- Article Review for Journal of Offshore Mechanics and Arctic Engineering “Modeling of Possible Tsunami Offshore the Southern Coast of Iran”, May 2008.
- Article review for Pure and Applied Geophysics (PAGEOPH) Special Issue “Reconstruction of Tsunami Inland Propagation on December 26, 2004 in Banda Aceh, Indonesia, through Field Investigations”, March 2008.

2007

- 3rd Party Review of the Samoa (Humboldt County, California) Tsunami Vulnerability Report
- Article Review for Geophysical Research Letters “Tsunamis generated by voluminous pyroclastic flow entering sea at Kikai caldera, Japan: numerical investigations using a two-layer shallow water model” March 2007.

2006

- Co-Editor Pure and Applied Geophysics (PAGEOPH) Topical Issue: Tsunami and its hazard in the Indian Ocean. Reviews and editorial duties throughout 2006, published in 2007.
- Article Review, Journal of Coastal Research, “The Relationship Between Morphodynamics and Surfability at Brava Beach, Southern Brazil”, December 2006.

2004/2005

- 4th International Surfing Reef Symposium, Manhattan Beach California. Primary Organizer.

Conference Presentations, Posters, Abstracts and Attendance

2011

July 2011, IUGG – Melbourne Australia Presentations on Mentawai Tsunami and on Far Field Effects of the Tohoku Tsunami

September 2011, Coasts and Ports, Perth Australia, Numerical modeling of the 2009 Samoa and 2010 Mentawai Islands Tsunamis

November 2011 – New Zealand Coastal Society – The Tohoku Tsunami in New Zealand

December 2011 – American Geophysical Union Fall Meeting, San Francisco, CA.

2010

- Okal, E.A., **Borrero, J.C.**, Chague-Goff, C. (2010). Tsunamigenic Predecessors to the 2009 Samoa Earthquake (*Invited*). *Eos Trans. AGU*, 91(52), Fall Meet. Suppl
- Stark, N., Greer, D., Phillips, D., **Borrero, J.C.**, Harrison, S., Kopf, A. (2010) In-situ geotechnical investigation of sediment dynamics over ‘The Bar’, Raglan, New Zealand, *Eos Trans. AGU*, 91(52), Fall Meet. Suppl
- New Zealand Coastal Society Annual Meeting, Whitianga, New Zealand, November 2010.
- International Conference on Coastal Engineering (ICCE), Shanghai, China, July 2010

2009

- Wilson, R I, Barberopoulou, A, **Borrero, J C**, Bryant, W A, Dengler, L A, Goltz, J D, Legg, M, McGuire, T, Miller, K M, Real, C R, Synolakis, C, Uslu, B (2009), Development Of New Databases For Tsunami Hazard Analysis In California, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract OS43A-1370
- **Borrero, J C**, Okal, E, Fritz, H M, Weiss, R, Synolakis, C., Foteinis, S, Liu, P, Chan, I, Simcock, J (2009), Field Survey and Preliminary Analysis of the September 29, 2009 Tsunami on Upolu and Manono Islands, Samoa, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract U23F-06

- Fritz, H M, **Borrero, J C.**, Okal, E, Synolakis, Weiss, R., Jaffe, B E., Lynett, P J, Titov, V V, Foteinis, S., Chan, I., Liu, P. (2009) *Reconnaissance Survey of the 29 September 2009 Tsunami on Tutuila Island, American Samoa*, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract U23F-04
- **Borrero, J C.**, Synolakis, C., Okal, E., Liu, P., Titov, V V., Jaffe, B E., Fritz, H M (2009) The past, present and future of tsunami field surveys post-Samoa, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract U23F-02
- Mead, S.T., Black, K.P., and **Borrero, J.C.**, (2009) Design and Construction of the Boscombe Multi-Purpose Reef. Institute of Civil Engineers (ICE) Coastal Structures, Edinburgh, Scotland, September 2009.
- **Borrero, J.C.**, (2009) A comparison of Multipurpose Reef Structures Completed To Date, 6th International Surfing Reef Symposium, Jeffrey's Bay South Africa, June, 2009.
- **Borrero, J.C.**, Mead, S.T. and Anderson, D. (2009) Design of Multipurpose Reef Structures as part of a shoreline protection scheme for Port Elizabeth South Africa, 6th International Surfing Reef Symposium, Jeffrey's Bay South Africa, June, 2009.

2008

- Invited Speaker: Padang City Tsunami Inundation Mapping Workshop, Padang, West Sumatra, Indonesia, August 2008.
- **Borrero, J.C.**, Fritz, H., Kellegeris, N., Broncano, P., and Ortega, E. (2008) Near Source 2007 Peru Tsunami Runup Observations and Modeling, *Eos, Trans AGU* 89(52) Fall Meeting Supplement, Abstract OS43D-1341.
- New Zealand Coastal Society Annual Meeting, New Plymouth, New Zealand, November 2008.
- ASCE Solutions to Coastal Disasters, April 2008, Honolulu, Hawaii.

2007

- **Borrero, J.C.**, Uslu, B., Okal, E.A., Synolakis, C.E. (2007) Probabilistic Tsunami Hazard Assessment for California from Distant Sources, *Eos, Trans AGU* 89(52) Fall Meeting Supplement, Abstract S51C-07.
- Uslu, B., **Borrero, J.C.**, Barberopoulou, A., Synolakis, C. (2007) Tsunami Hazard Assessment and Inundation Maps for Crescent City, *Eos, Trans AGU* 89(52) Fall Meeting Supplement, Abstract S53A-1013.
- **Borrero, J.C.**, Hidayat, R., Suranto, Bosserelle, C., Okal, E. (2007) Field Survey and Preliminary Modelling of the Near-Field Tsunami from the Bengkulu Earthquake of 12 September 2007, *Eos, Trans AGU* 89(52) Fall Meeting Supplement, Abstract U54A-04.
- New Zealand Coastal Society Annual Meeting, Tauranga, New Zealand November 2007
- 18th Australasian Coasts and Ports Conference, July 2007, Melbourne Australia.

2006

- **Borrero, J.C.**, Fritz, H., Kong, L.S., Synolakis, C.E., Okal, E.A. (2006) Basin-wide runup measurements of the 26 December 2004 Indian Ocean tsunami, *Eos, Trans AGU* 89(52) Fall Meeting Supplement, Abstract U53C-03.
- **Borrero, J.C.**, B. Uslu, C.E. Synolakis, and V.V. Titov (2006) Modeling Far-Field Tsunamis for California Ports and Harbors, *Proceedings of the 30th International Conference on Coastal Engineering*, San Diego, CA September 2006.

- Fritz, H.M., **J.C. Borrero**, C.E. Synolakis and E.A. Okal, Comparison between the effects of the Hurricane Katrina Storm Surge and the Indian Ocean Tsunami, *Proceedings of the 30th International Conference on Coastal Engineering*, San Diego, CA September 2006.
- Synolakis, C.E., **J.C. Borrero**, H.M. Fritz and E.A. Okal, Effects of the 26 December Tsunami in the Near and Far Field, *Proceedings of the 30th International Conference on Coastal Engineering*, San Diego, CA September 2006.
- **Borrero, J.C.** “Surfbreaks and Tsunamis, What a Traveling Surfer Needs to Know”, *5th International Surfing Reef Symposium*, Lombok, Indonesia, August, 2006.
- Fritz, H.M., **Borrero, J.C.**, Synolakis, C.E., Okal, E.A. (2006) Field Surveys of the 2004 Indian Ocean Tsunami from Sumatra to East Africa, Tsunami Society, Third Tsunami Symposium, Honolulu Hawaii, May 26 – 29, 2006.

2005

- Jaffe, B. E., **Borrero, J. C.**, Prasetya, G. S.; Dengler, L., Gelfenbaum, G., Hidayat, R., Higman, B.; Kingsley, E., Lukiyanto, L.; McAdoo, B (2005) “Field Survey of the effects of the 26 December 2004 and 28 March 2005 Tsunamis and Earthquakes in Indonesia” *American Geophysical Union Fall Meeting*, December, 2005, San Francisco CA
- Fritz, H.M., **J.C. Borrero** (2006). Somalia field survey of the 2004 Indian Ocean tsunami. Proc. Fall Meeting AGU, San Francisco, 5-9 Dec., 2005.
- Japan Tsunami Conference on Sumatra Tsunami, Tokyo, December 2005
- Synolakis, C.E., H.M. Fritz, **J.C. Borrero** (2005). Far field surveys of the Indian Ocean tsunami: Sri Lanka, Maldives and Somalia. *Proc. 22nd IUGG International Tsunami Symposium*, Chania, Greece, 27-29 June 2005, Eds. Satake and Okal.
- McAdoo, B., **J.C. Borrero**, H. Rahman, B. Higman, E. Kingsley, W. Kongko, Lukijanto, R. Peters, G. Prasetya, and V.V. Titov “A Tale of Two Tsunamis: Field Observations from the March/April 2005 ITST – Batus, Nias, Banyaks, Simeulue and Aceh” *Proc. 22nd IUGG International Tsunami Symposium*, Chania, Greece, 27-29 June, 2005, Eds. Satake and Okal.
- 4th International Surfing Reef Symposium, Manhattan Beach, CA, January 2005.

2004

- C.E.Synolakis, E.A. Okal and **J.C. Borrero** (2004) “Quantifying the tsunami risk at the Pisco Peru LNG Terminal project” *American Geophysical Union Fall Meeting*, December 13 – 17, 2004, San Francisco CA
- L.A. Dengler, **J.C. Borrero** and J. Patton (2004) “Tsunami Hazards in San Francisco Bay” *American Geophysical Union Fall Meeting*, December 13 – 17, 2004, San Francisco CA
- J.C. Borrero, F. Gonzalez, V.V. Titov, J.C. Newman, A.J. Venturato and G. Legg (2004) “Application of FACTS as a tool for modeling, archiving and sharing tsunami simulation results” *American Geophysical Union Fall Meeting*, December 13 – 17, 2004, San Francisco CA
- **J.C. Borrero** and C.E. Synolakis (2004) Advances in Tsunami Inundation Mapping in California, *Caribbean Tsunami Hazards, Proceedings of the NSF Caribbean Tsunami Hazard Workshop*, March 30 – 31, 2004, San Juan Puerto Rico.

2003

- **Borrero, J.C.**, Synolakis C.E., and Eisner, R.K., “Tsunami Inundation Mapping for the State of California”, *American Geophysical Union Fall Meeting*, San Francisco, CA December 8 – 12, 2003.

- C.E. Synolakis, M. Eskijian, **J.C. Borrero** and R. McCarthy (2003) “Construction of Coastal Structures”, *American Geophysical Union Fall Meeting*, San Francisco, CA December 8 – 12, 2003.
- M.R. Legg, J.C. Borrero and C.E. Syntolakis (2003) “Tsunami Hazards from Strike-Slip Earthquakes”, *American Geophysical Union Fall Meeting*, San Francisco, CA December 8 – 12, 2003.
- 3rd International Surfing Reef Symposium, Raglan, New Zealand, July 2003.
- C.E. Synolakis, F. Raichlen, J.C. Borrero and B. Uslu (2003) “Waves and runup generated by a 3-dimensional sliding mass”, *International Union of Geophysics and Geodesy 2003*, June 30 – July 11, 2003, Sapporo Japan.
- “Field Survey and Preliminary Modeling of the 9 September 2002 Tsunami near Wewak, Papua New Guinea”, **Borrero, J.C.**, Synolakis, C.E., Uslu, B., and Okal, E.A. *IUGG 2003*, June 30 – July 11, 2003, Sapporo Japan.
- F. Raichlen, C.E. Synolakis, and J.C. Borrero, “Solid Landslide 3D Experiments”, *Workshop on Model Validation and Benchmarking for Tsunami Generation by Submarine Mass Failure*, Honolulu, Hawaii, May 30 – 31, 2003.
- “A comparison of Near-shore Tsunami Sources Offshore of Los Angeles and Orange Counties in Southern California”, **Borrero, J.C.**, Legg, M.R., and Synolakis, C.E., *Seismological Society of America Annual Meeting*, San Juan Puerto Rico, April 29 – May 4, 2003.
- “Detailed Modeling of of the 9 September 2002 Tsunami near Wewak, Papua New Guinea and Comparison to the 1998 Aitape Tsunami”, **Borrero, J.C.**, Synolakis, C.E., Uslu, B., and Okal, E.A., *Seismological Society of America Annual Meeting*, San Juan Puerto Rico, April 29 – May 4, 2003.

2002

- “Tsunami Generation From the Santa Catalina Island Restraining Bend Offshore of Los Angeles, California”, Legg, M.R., **Borrero, J.C.**, Synolakis, C.E., *American Geophysical Union Fall Meeting*, San Francisco, CA December 6 – 10, 2002.
- “Tsunami Generation From the Santa Catalina Island Restraining Bend Offshore of Los Angeles, California”, Legg, M.R., **Borrero, J.C.**, Synolakis, C.E., *American Geophysical Union Fall Meeting*, San Francisco, CA December 6 – 10, 2002.
- “Preliminary Modeling of Tsunami Waves Generated by the Earthquake of 9 September 2002 Offshore of Northern Papua New Guinea”, **J.C., Borrero**, Uslu, B., Okal, E.A., Synolakis, C. E. *American Geophysical Union Fall Meeting*, San Francisco, CA December 6 – 10, 2002.
- “Preliminary results of field survey, 2002 PNG earthquake at Wewak”, Davies, H.L., **Borrero, J.C.**, Saiang, C. Bu, J., Uslu, B., Freckman, J.T., *American Geophysical Union Fall Meeting*, San Francisco, CA December 6 – 10, 2002.
- “Modeling Landslides in the Laboratory” F. Raichlen, **J.C. Borrero**, B. Uslu, and C.E. Synolakis, *Ninth International Symposium on Natural and Human-Made Hazards*, Antalya, Turkey, October 3-6, 2002.
- AGU West Pacific Meeting, Wellington, New Zealand.

2001

- “One Year of Pratte’s Reef, America’s First Artificial Surfing Reef”, J.C. Borrero, S.I. Innes, and D.W. Skelly, *Restoring the Beach, Science, Policy and Funding*, California Shore and Beach Preservation Association (CSBPA) 2001 annual conference, San Diego, CA, November 2001.
- “Tsunami Potential of Major Restraining Bends along Submarine Strike-Slip Faults”, M. Legg, **Borrero, J.C.**, Poster, *International Tsunami Symposium*, August 8-9, 2001, Seattle, WA.

- “Changing field data gives better model results. An example from Papua New Guinea”, **Borrero, J.C.**, Presentation, International Tsunami Symposium, August 8-9, 2001, Seattle, WA.
- Probability Distributions of Landslide Tsunamis, P. Watts, **J.C. Borrero**, Poster, International Tsunami Symposium, August 8-9, 2001, Seattle, WA.

2000

- “Tsunami Inundation Maps for Santa Barbara and Santa Monica Bay”, **J.C. Borrero**, C.E. Synolakis, A.C. Yalciner, D. McCarthy, Fall AGU Meeting, San Francisco, 2000.
- “Modeling the 1994 Skagway, Alaska Tsunami”, C.E. Synolakis, **J.C. Borrero**, A.C. Yalciner, G. Plafker, H.G. Greene, P. Watts, Fall AGU Meeting, San Francisco, 2000.
- “Construction of and Monitoring the Impact of Pratte's Reef, America's First Artificial Surfing Reef”, S.I. Innes, **Borrero, J.C.**, Skelly, D.W. Fall AGU Meeting, poster, San Francisco, 2000.
- “1946 Aleutian tsunami field survey in the Marquesas Islands”, Okal, E.A., Fryer, G.J., Synolakis, C.E., Rousseau, D., **Borrero, J.C.**, Ruscher, C., Heinrich, P., Guille, G., Fall AGU Meeting, San Francisco, 2000.
- “Recent observations of Tsunamis Generated or Enhanced by Large Ground Failures”, Conference on the Probability and Prediction of Underwater Landslides offshore Southern California, March 10, 2000, Los Angeles, CA.

1999

- Locally Generated Tsunami Offshore Southern California and the Inundation Mapping Project, **J.C. Borrero**, J. Dolan, C.E. Synolakis, Fall AGU meeting, poster, San Francisco, 1999.
- Probabilistic Predictions of Tsunami Generation by Mass Failure Off of Southern California, P. Watts, **J. C. Borrero**, C. E. Synolakis, Fall AGU Meeting, San Francisco, 1999.
- Field Survey of the 1999 Izmit Tsunami and Modeling Effort of a New Tsunami Generation Mechanism, A.C. Yalciner, **J.C. Borrero**, U. Kanoglu, P. Watts, C.E. Synolakis, and F. Imamura Fall AGU Meeting, San Francisco, 1999.
- Submarine Slump Generation of the 1998 Papua New Guinea Tsunami, D.R. Tappin, P. Watts, **J.C. Borrero**, E.A. Okal, J.P. Bardet, S.T. Grilli, T. Matsumoto, C.E. Synolakis, Fall AGU Meeting, San Francisco, 1999.
- Novel Simulation Technique Employed on PNG Event P. Watts, **J.C. Borrero**, D.R.. Tappin, J.P. Bardet, S.T. Grilli, C.E. Synolakis, 22nd General Assembly IUGG, Birmingham, England, 1999.

1998

- Modeling Locally Generated Tsunami in Southern California, **J.C. Borrero**, J. Dolan, C.E. Synolakis, Okushiri Tsunami/UJNR Workshop 1998, Sapporo, Japan, July 9-14, 1998.

1997

- How Small-Scale Bathymetry Affected Coastal Inundation in the 1992 Nicaraguan Tsunami, **J.C. Borrero**, J. Bourgeois, G Harkins, C E Synolakis, Fall AGU Meeting, San Francisco, 1997.

Unrefereed Publications

- **J.C. Borrero**, M.L. Eskijian, J. Moore and C.E. Synolakis "The Cost of Tsunamis in US Ports," *Pacific Maritime*, **23**, 4 (2005): 20-21.
- **J.C. Borrero**, S. Cho, J. Moore, H. W. Richardson and C.E. Synolakis "Could it Happen

Here?," *Civil Engineering*, **75**, 4 (2005): 54-65.

Invited Talks and Presentations

- “What’s the Beef Against a Reef” February 28, 2009 SASIC8 - The 8th Annual Groundswell Society Meeting, Scripps Institution of Oceanography, La Jolla, CA, February 28, 2009.
- “The Tsunami of September 7, 2007 Bengkulu Province, Sumatra” University of Waikato, Departmental Seminar “ May 2008.
- “Tsunami Modelling Methods” Nanyang Technical University, Singapore, September 2007.
- “Tsunamis”, Shell Seminar Speaker, National Science Teachers Association (NSTA) Convention, Anaheim, California, April 2006.
- “Alternative Forms of Coastal Protection for Exposed Coasts”, Shell Seminar Speaker, National Science Teachers Association (NSTA) Convention, Anaheim, California, April 2006.
- “Tsunami Hazards for Southern California Port Areas”, California State Lands Commission-Prevention First Workshop, Long Beach, CA. September 10, 2002.
- “Tsunami Hazard Planning for Southern California: Lessons Learned from Tsunamis Around the World”, given to: Seismo Lab, California Institute of Technology, Pasadena, CA, April 20, 2001.
- “Recent Tsunamis Around the World and Hazard Planning for Southern California”, given to: Los Angeles County Sheriff’s Department, Lomita, CA, March 22, 2001.
- “Tsunami Inundation Modeling for Southern California”, given to: California Shore and Beach Preservation Association, Costa Mesa, CA, June 28, 2000.
- “Generation of Inundation maps for Tsunami Hazard Planning”, given to: Association of Bay Area Governments, Tsunami Hazard Planning Meeting #3, April 21, Anaheim, CA.
- “Generation of Inundation maps for Tsunami Hazard Planning”, given to: Association of Bay Area Governments, Tsunami Hazard Planning Meeting #2, April 4, 2000 Santa Barbara, CA.
- “Tsunami Field Survey of Fatu Hiva, Marquesas Islands” Seminar, USC Department of Civil Engineering, November 1999.
- “The Tsunami Hazard for Southern California” given to: California State Lands Commission, Customer Service Meeting, Long Beach, CA, May 27, 1999.

Field Studies and Data Collection

- **Tsunami Field Survey** – Team leader, reconnaissance survey of the October 25, 2010 Earthquake and tsunami in the Mentawai Islands, Sumatra, Indonesia.
- **Tsunami Field Survey** of the September 2009 Earthquake and Tsunami in Samoa and American Samoa (September 2009).
- **Instrument Deployment** – Uitoe, New Caledonia. Programming and deployment of Aquadopp current meters and pressure sensors (January, 2009).
- **Field Data Collection** – Orewa, New Zealand. Deployment and retrieval of surf-zone sled for surf zone current velocity measurements (February 2008).
- **Tsunami Field Survey** of the September 2007 Earthquake and Tsunami in Bengkulu, Sumatra, Indonesia (September 2007).
- **Instrument Retrieval** – Chamela Bay, Mexico. SCUBA retrieval of Aquadopp Current meter and frame (March, 2007).
- **Tsunami Field Survey** of the March 28, 2005 Earthquake and Tsunami in Nias, Sumatra, Indonesia (April 2005).

- **Tsunami Field Survey** of the December 26, 2004 Earthquake and Tsunami in Aceh, Sumatra, Indonesia. Includes extensive surveys of Banda Aceh (January 2005, March 2005, April 2005)
- **Tsunami Field Survey** of the December 26, 2004 Earthquake and Tsunami Along the Northeast Coast of Somalia (March 2005).
- **Field Survey** of tsunami deposits from the September 1992 Nicaraguan tsunami (March 2003).
- **Tsunami field survey** – Leader of the International Tsunami Survey Team (ITST) after the September 9, 2002 earthquake and tsunami in Wewak Papua New Guinea (September 2002).
- **Tsunami field survey** – Member of the International Tsunami Survey Team (ITST) after the June, 2001 Tsunami in Camana, Peru (June 2001).
- **Bathymetric Surveying and Monitoring** – Regular profiling and collection of high-resolution bathymetry offshore of Dockweiler State Beach, El Segundo, CA. Project is in conjunction with the construction of an artificial surfing reef (2001/2002).
- **Tsunami field survey** – Member of the International Tsunami Survey Team (ITST) after the September, 1999 Tsunami on Fatu Hiva Island in French Polynesia.
- **Tsunami field survey** - Joined the ITST after the August, 1999 Izmit Bay, Turkey Earthquake and Tsunami.
- **Tsunami field survey** - Joined the ITST after the July 17,1998 Papua New Guinea Tsunami and Earthquake.
- **Tsunami field survey** - Joined the ITST after the February 17,1996 Biak, Irian Jaya, Indonesia Tsunami.
- **Tsunami field survey** - Led USC's expedition to Manzanillo Mexico after tsunami and earthquake of October 1995.
- **Field Investigation** - Participated in a joint USC/ US Army Corps of Engineers survey to Nicaragua to perform detailed mapping of nearshore bathymetry for use in numerical models, March 1995.
- **Technical Advisory Committee** – Junior member of advisory committee overseeing design and construction of Pratte's Reef, America's first artificial surfing reef, El Segundo, California (1999-2000).

Other Work Experience

Graduate Research Assistant, University of Southern California

- Assisted and conducted laboratory and numerical experiment on long wave propagation and evolution.
- Refined numerical model simulating the runup of tsunami waves on real shorelines.
- Designed and maintained research group web site.

Teaching Assistant/Grader, University of Southern California

- Teaching Assistant of the year, 1997.
- Conducted discussion groups and review session
- Graded homework, tests, etc...

Undergraduate Research Assistant, University of Southern California

- Assisted in laboratory experiments.
- Maintained lab computers.

- Conducted numerical experiments on long wave refraction and shoaling.

Structural Steel Fabrication and Installation, TWS Steel Inc., La Habra, CA

- Assisted in fabrication (shop work) and installation (field, on site) of structural steel components.
- Performed both labor and management duties as the project demanded.
- Temporary and seasonal work over many years.

Radio News Producer, Reporter, On-Air Host, WRUF FM/AM, Gainesville, FL

- Wrote and produced weekend morning newscast.
- Wrote and produced evening hourly newscasts.
- Covered breaking local news throughout Northern Florida.

Other Jobs - Short order cook, landscaping, construction.