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U. S. Citizen, Veteran

EDUCATION

- 2002** Ph.D. in Earth Sciences, Scripps Institution of Oceanography, University of California, San Diego
Dissertation title: "Structure and Development of Oceanic Rifted Margins"
Dissertation advisor: Dr. Peter Lonsdale
- 1994** B.A. in Geology—geophysics option, University of Colorado, Boulder, summa cum laude
Honors thesis title: "Petrology and Geochemistry of Steens Basalt, Oregon"
Thesis advisor: Dr. Edwin Larson
- 1982** High School Diploma, Clear Creek Secondary School, Idaho Springs, Colorado

RESEARCH INTERESTS

- Scientific and legal analysis of the outer limits of continental shelves
- Development and evaluation of high-resolution, integrated bathymetric–topographic digital elevation models (DEMs)
- Impact of DEM gridding techniques and elevation uncertainty on tsunami inundation modeling results
- Evolution of oceanic volcanic islands, particularly their growth and collapse through submarine landslides
- Structure and formation of oceanic rifted margins, and evolution of accreting plate-boundaries

PROFESSIONAL APPOINTMENTS

- 2006–present** Research Scientist
Cooperative Institute for Research in Environmental Sciences, University of Colorado at Boulder
Co-located at the NOAA National Centers for Environmental Information (NCEI)
Promoted to Research Scientist III in 2012
- 2004–2006** Postdoctoral Researcher
Marine Physical Laboratory and Geologic Research Division
Scripps Institution of Oceanography, La Jolla, California
- 2004–2005** Lecturer
Department of Geological Sciences, San Diego State University, San Diego, California
- 2002–2004** USGS Mendenhall Postdoctoral Research Fellow
Volcano Hazards Team, U. S. Geological Survey, Menlo Park, California
- 1996–2002** Graduate Research and Teaching Assistant
Scripps Institution of Oceanography, La Jolla, California
- 1995–1996** Geologic Consultant
Geology Department, Peabody Development Co., St. Louis, Missouri
- 1992–1995** Undergraduate Physical Science Aide
Marine Geology and Geophysics Division, National Geophysical Data Center, Boulder, Colorado

RESEARCH EXPERIENCE

- 2006–present** Cooperative Institute for Research in Environmental Sciences, University of Colorado at Boulder
- CIRES Lead at NCEI, Chief Scientist in NCEI's Coastal and Marine Geophysics Section
 - Lead scientist, U.S. Extended Continental Shelf Project
- 2004–2006** Marine Physical Laboratory and Geologic Research Division, Scripps Institution of Oceanography
- Pattern of rifting exposed on the Gulf of California seafloor
 - Submarine geology of the Baja California Borderland
 - Geomorphology of the Louisville Seamount Chain, South Pacific
- 2002–2004** Volcano Hazards Team, U. S. Geological Survey
- Volcano-tectonic processes on the submarine flanks of Hawaiian volcanoes
- 1996–2002** Scripps Institution of Oceanography, University of California, San Diego
- Structure and formation of oceanic rifted margins, South Pacific
 - Tectonic evolution of fossil rise-crest microplates, South Pacific
- 1992–1994** Department of Geological Sciences, University of Colorado, Boulder
- Geochemical evolution of Steens Mountain basalts, Oregon
- 1992–1994** Marine Geology and Geophysics Division, National Geophysical Data Center, Boulder, Colorado
- Sediment thickness variations, South Pacific

LEADERSHIP AND PROJECT MANAGEMENT EXPERIENCE

Leadership and project management experience gained through serving as CIRES Lead at NCEI, Lead Scientist at the U.S. Extended Continental Shelf Project Office, Lead Scientist of NCEI's Coastal Digital Elevation Model (DEM) Project, Chief Scientist of NCEI's Coastal and Marine Geophysics Section, and Project Manager of the OER Data Management Project.

- Led the U.S. Extended Continental Shelf Project Office, including leading the Central Pacific team and documenting the Pacific, Bering Sea and Hawaii Regions, 2013–present.
- Chief Scientist, NCEI Coastal and Marine Geophysics Branch, including guiding research efforts, 2010–present.
- Led 14-member workforce on the OER Data Management Project distributed across four States (CO, MD, MS, and NC) and with three universities/NOAA Cooperative Institutes and contractors, including task planning, work assignments, and communication for the OER Data Management Project, 2018–present.
- Created, oversaw, and managed finance tracking spreadsheet/templates for CIRES project leads at NCEI to track NOAA funding, project expenses, and projecting future expenses, 2016–present.
- Completed CU course EMEN 5030: Fundamental of Project Management, Fall 2017.
- Attended NOAA 3-day workshop on Project Management Principles, 2016.
- Established and led a nationally recognized Coastal DEM Technical Center of Expertise at NOAA NCEI, 2006–2015.
- NCEI Representative to the CIRES Members Council (CMC), CMC representative to CIRES Fellows, 2012–2015.
- Led ~70 CIRES staff at NCEI, including providing work and career guidance, resolving issues, and ensuring effective communication with NCEI and CIRES Administration, 2007–present.
- National and international collaboration: NOAA, USGS, BOEM, and members of the UN-based Commission on Limits of the Continental Shelf, 2006–present.

CU BOULDER GRANTS

Received more than \$2 million in grants related to NOAA NCEI activities.

- \$300,000, 2020–2022, *'Mapping, Charting and Geodesy Services for Archiving of Marine Geophysical Data'*, NOAA 2019 Disaster Recovery Act.
- \$655,384, 2019–2023, *'Enhanced NCEI Data Management Tools'*, NOAA 2018 Disaster Recovery Act.
- \$85,470, 2015–2016, *'Increasing Accessibility of Scientific Ocean Drilling Data in the NOAA NCEI Deep Archive'*, NSF.
- \$882,000, 2014–2016, *'Enhanced Management of and Access to Hurricane Sandy Ocean and Coastal Mapping Data'*, NOAA 2013 Disaster Relief Appropriations Act.
- \$282,317, 2013–2015, *'Seamless Digital Elevation Models for Hurricane Sandy-Impacted Areas'*, NOAA 2013 Disaster Relief Appropriations Act.
- \$145,000, 2012–2013, *'Improve Public Access to International Ocean Floor Data and Products'*, Google.

RECENT PROFESSIONAL ACTIVITIES

- Co-chair for session “Cloud Data: Challenges and Successes,” American Geophysical Union Ocean Sciences Meeting 2020.
- 2015 Graduate of the [Rhodes Academy of Oceans Law and Policy](#) course, Rhodes, Greece.
- 2014 Graduate of the inaugural class of the [Summer Academy on the Continental Shelf](#), Faroe Islands.
- Co-chair for session “Coastal DEM Advances and Challenges,” Association of American Geographers Annual Meeting 2013.
- Co-chair for session “Coastal DEM Advances and Challenges,” Association of American Geographers Annual Meeting 2012.
- Review of numerous manuscripts submitted for peer-reviewed publication.

PROFESSIONAL MEMBERSHIPS

- American Geophysical Union
- Geological Society of America

RECENT AWARDS & RECOGNITION

- 2021 CIRES Gold Award “for successful orchestration of seafloor mapping & data science initiatives imperative to fulfill U.S. Extended Continental Shelf (ECS) project goals.”
- 2019 CIRES Cash in Your Account award for “outstanding, long-term efforts to provide exceptional leadership to NCEI.”
- 2016 CIRES Bronze Award “for planning and establishing a multi-departmental U.S. Extended Continental Shelf Project Office to define and document U.S. territorial limits.”
- 2013 U.S. Department of State Superior Honor Award for “meticulous research and interagency collaboration in leading an Integrated Regional Team of the U.S. Continental Shelf Project.”

MILITARY SERVICE

Honorably discharged from U.S. Navy after serving on active duty from February 1986 to January 1992. Enlisted specialist in anti-submarine warfare (ASW), attaining the rank of Sonar Technician Surface, First Class Petty Officer—STG1(SW)/E-6. Awarded Southwest Asia Campaign Medal for service in support of Operation Desert Shield, Persian Gulf, August–November 1990.

COMMUNITY SERVICE

- 2019 served on a Boulder County murder trial, was selected as jury foreman, and successfully reached a verdict.
- 2017–2020 co-coach of the Fairview High School ocean sciences club, which competed at the National Ocean Sciences regional ‘Trout Bowl.’
- 2016–2020 volunteer with the Fairview High School marching band. I led the prop/road crew that built and moved prop and band equipment to performance sites, including two out-of-state trips.
- 2008–present regular volunteer for the CIRES Roadside clean-up.

RECENT PUBLICATIONS (overall H-index: 13)

- Pockalny, R., G. Barth, **B. Eakins**, K.A. Kelley, and C. Wertman, in prep. *Multiple melt source origin of the Line Islands*, to be submitted to *Geology*.
- Ruby, C.A., J. Varner, F. Dahl, M. Cromwell, and **B. Eakins**, 2020. *Enhanced Geospatial Functionality for NOAA’s Ocean Exploration Data*, Global OCEANS 2020 Conference, Oct 5–14, 2020, U.S. Gulf Coast, 4 pp.
- Mesick, S., S. Gottfried, **B. Eakins**, C. Ruby, A. Lienesch, C. Edrington, J. Varner, and M. Cromwell, 2020. *Playing FAIR: Enabling Ocean Exploration Through Open Data Sharing*, *Oceanography*, 33(1), 74–77, <https://doi.org/10.5670/oceanog.2020.supplement.01>.
- Eakins, B.**, S. Gottfried, P. Murphy, D. Lovalvo, and D. Sowers, 2019. *It Takes a Village! Managing Data from Okeanos Explorer*, *Oceanography*, 32(1), 106–109 pp., doi: <https://doi.org/10.5670/oceanog.2019.supplement.01>.
- Amante, C.J. and **B.W. Eakins**, 2016. *Accuracy of interpolated bathymetry in digital elevation models*. In: Brock, J.C.; Gesch, D.B.; Parrish, C.E.; Rogers, J.N., and Wright, C.W. (eds.), *Advances in Topobathymetric Mapping, Models, and Applications*. Journal of Coastal Research, Special Issue, No. 76, pp. 123–133. Coconut Creek (Florida), ISSN 0749-0208.
- Eakins, B.W.**, M.L. Bohan, A.A. Armstrong, M. Westington, J. Jencks, E. Lim, S.J. McLean, and R.R. Warnken, 2015. *NOAA’s role in defining the U.S. Extended Continental Shelf*. *Mar. Technol. Soc. J.*, 49(2), p. 204–210.
- Eakins, B.W.**, J.J. Danielson, M.G. Sutherland, S.J. McLean, 2015. *A framework for a seamless depiction of merged bathymetry and topography along U.S. coasts*, U.S. Hydro Conference, March 16–19, 2015, National Harbor, MD.
- Eakins, B.W.**, and P.R. Grothe, 2014. *Challenges in building coastal digital elevation models*. *J. Coast. Res.*, 30(5), p. 942–953. doi: [10.2112/JCOASTRES-D-13-00192.1](https://doi.org/10.2112/JCOASTRES-D-13-00192.1)
- Eakins, B.**, R. Hare, and M. Jakobsson, 2013. *Data Cleaning*, in The IHO-IOC GEBCO Cook Book, ed. by K.M. Marks, Chapter 6, International Hydrographic Organization, p. 113–120. http://ibis.grdl.noaa.gov/SAT/GEBCO_Cookbook/index.php
- Eakins, B.**, 2012. *Understanding the marine realm through coastal digital elevation models (DEMs)*. *Earth System Monitor*, 19(2), p. 10. https://www.nodc.noaa.gov/media/pdf/esm/ESM_NOV2012vol19no2.pdf

FEDERAL REPORTS

- Contributed to, forthcoming 2021. *Submission of the United States of America to the Commission on the Limits of the Continental Shelf: Atlantic Region*, U.S. Government technical report – draft, 300 pp.
- Leader**, forthcoming 2021. *Submission of the United States of America to the Commission on the Limits of the Continental Shelf: Methods and Approaches*, U.S. Government technical report – draft, 70 pp.
- Leader**, 2020. *Submission of the United States of America to the Commission on the Limits of the Continental Shelf: Bering Sea Region*, U.S. Government technical report - draft, 287 pp.
- Leader**, 2020. *Submission of the United States of America to the Commission on the Limits of the Continental Shelf: Pacific Region*, U.S. Government technical report - preliminary, 152 pp.
- Contributed to, 2020. *Submission of the United States of America to the Commission on the Limits of the Continental Shelf: Arctic Region*, U.S. Government technical report – draft, 325 pp.
- Contributed to, 2020. *Submission of the United States of America to the Commission on the Limits of the Continental Shelf: Mariana Islands Region*, U.S. Government technical report – draft, 111 pp.
- Contributed to, 2019. *Submission of the United States of America to the Commission on the Limits of the Continental Shelf: Eastern Gulf of Mexico Region*, U.S. Government technical report - preliminary, 130 pp.
- Contributed to, 2019. *Submission of the United States of America to the Commission on the Limits of the Continental Shelf: Western Gulf of Mexico Region*, U.S. Government technical report - preliminary, 98 pp.
- Eakins, B.**, G. Barth, D. Scheirer, and K. Baumert, 2019. *Summary of ECS Analyses at Kingman Reef and Palmyra Atoll, Central Pacific Ocean*, U.S. ECS technical report, 19 pp.
- Eakins, B.**, J. Gardner, G. Barth, D. Scheirer, M. Westington, R. Warnken, E. Lim, and K. Baumert, 2015. *Summary of recent ECS analyses at Johnston Atoll, Central Pacific Ocean*, U.S. ECS technical report, 11 pp.

RECENT NOAA TECHNICAL REPORTS

- Carignan, K.S., **B.W. Eakins**, M. Lancaster, M.G. Sutherland, and M.R. Love, 2017. *Digital Elevation Models of Adak and Atka, Alaska: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 8 pp.
- Carignan, K.S., **B.W. Eakins**, M. Lancaster, M.G. Sutherland, and M.R. Love, 2017. *Digital Elevation Model of Easter Island, Chile: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 8 pp.
- Carignan, K.S., **B.W. Eakins**, M. Lancaster, M.G. Sutherland, and M.R. Love, 2016. *Digital Elevation Model of the Galapagos Islands, Ecuador: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 9 pp.
- Carignan, K.S., **B.W. Eakins**, C. Amante, M. Lancaster, M.R. Love and M. Sutherland, 2016. *Digital Elevation Model of Port Lions, Alaska: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 6 pp.
- Carignan, K.S., **B.W. Eakins**, C. Amante, M. Lancaster, M.R. Love and M. Sutherland, 2016. *Digital Elevation Model of Larsen Bay, Alaska: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 6 pp.
- Carignan, K.S., **B.W. Eakins**, M. Lancaster, M.R. Love and M. Sutherland, 2016. *Digital Elevation Model of False Pass, Alaska: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 6 pp.
- Carignan, K.S., **B.W. Eakins**, M. Lancaster, M.R. Love and M. Sutherland, 2016. *Digital Elevation Model of the Society Islands, French Polynesia: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 9 pp.
- Lancaster, M.N., K.S. Carignan, **B.W. Eakins**, M. Love and M. Sutherland, 2016. *Digital Elevation Model of Niue: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 9 pp.
- Love, M.R., K.S. Carignan, **B.W. Eakins**, M.G. Sutherland, and M. Lancaster, 2016. *Digital Elevation Model of Kanehoe, Hawaii: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 5 pp.
- Love, M.R., K.S. Carignan, **B.W. Eakins**, M.G. Sutherland, and M. Lancaster, 2016. *Digital Elevation Model of Marquesas Islands, French Polynesia: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 4 pp.
- Love, M.R., K.S. Carignan, **B.W. Eakins**, M.G. Sutherland, M. Lancaster, and S.J. McLean, 2016. *Digital Elevation Model of Destin, Florida: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 6 pp.
- Carignan, K.S., S.J. McLean, **B.W. Eakins**, L. Beasley, M.R. Love, and M. Sutherland, 2015. *Digital Elevation Model of Miami, Florida: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 11 pp.
- Carignan, K.S., S.J. McLean, **B.W. Eakins**, L. Beasley, M.R. Love, and M. Sutherland, 2015. *Digital Elevation Model of the Strait of Juan de Fuca: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 12 pp.
- Carignan, K.S., S.J. McLean, **B.W. Eakins**, L. Beasley, M.R. Love, and M. Sutherland, 2015. *Digital Elevation Model of the Central Washington Coast: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 9 pp.
- Carignan, K.S., S.J. McLean, **B.W. Eakins**, L. Beasley, M.R. Love, and M. Sutherland, 2015. *Digital Elevation Model of Orange County, California: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 12 pp.
- Carignan, K.S., S.J. McLean, **B.W. Eakins**, M.R. Love, and M. Sutherland, 2015. *Digital Elevation Models of Ouzinkie and Chiniak, Alaska: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 7 pp.
- Love, M.R., K.S. Carignan, **B.W. Eakins**, M.G. Sutherland, L. Beasley, and S.J. McLean, 2015. *Digital Elevation Model of Pensacola, Florida: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 4 pp.
- Love, M.R., K.S. Carignan, **B.W. Eakins**, M.G. Sutherland, L. Beasley, and S.J. McLean, 2015. *Digital Elevation Model of San Juan, Puerto Rico: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 4 pp.
- Love, M.R., K.S. Carignan, **B.W. Eakins**, M.G. Sutherland, L. Beasley, and S.J. McLean, 2015. *Digital Elevation Model of Eastern Canada: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 7 pp.
- Love, M.R., K.S. Carignan, **B.W. Eakins**, M.G. Sutherland, L. Beasley, and S.J. McLean, 2015. *Digital Elevation Model of Port Alberni, Canada: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 7 pp.
- Love, M.R., K.S. Carignan, **B.W. Eakins**, M.G. Sutherland, L. Beasley, and S.J. McLean, 2015. *Digital Elevation Model of Barkley Sound, Canada: Procedures, Data Sources, and Analysis*, NOAA NCEI technical report, 7 pp.
- Carignan, K.S., S.J. McLean, **B.W. Eakins**, L. Beasley, M.R. Love, and M. Sutherland, 2014. *Digital Elevation Model of Puget Sound, Washington: Procedures, Data Sources, and Analysis*, NOAA National Geophysical Data Center technical report, 13 pp.
- Carignan, K.S., S.J. McLean, **B.W. Eakins**, L. Beasley, M.R. Love, and M. Sutherland, 2014. *Digital Elevation Models of Chignik, Perryville, and Ivanof Bay, Alaska: Procedures, Data Sources, and Analysis*, NOAA National Geophysical Data Center technical report, 9 pp.
- Love, M.R., M. Sutherland, L. Beasley, K.S. Carignan, and **B.W. Eakins**, 2014. *Digital Elevation Models of the U.S. Virgin Islands: Procedures, Data Sources and Analysis*, NOAA National Geophysical Data Center technical report, 14 pp.
- Eakins, B.**, J. Gardner, G. Barth, D. Scheirer, M. Westington, R. Warnken, and E. Lim, 2012. *Addendum to the Central Pacific IRT Preliminary Report*, NOAA NGDC technical report, 14 pp.
- Eakins, B.**, J. Gardner, G. Barth, D. Scheirer, M. Westington, R. Warnken, and E. Lim, 2012. *Central Pacific IRT Preliminary Report*, NOAA NGDC technical report, 136 pp.