

Bruce F. Molnia, Ph.D.

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PROFESSIONAL SUMMARY

- More than 45 years of experience leading and managing professional projects, including: directing Civil Applications Committee, organizing and operating US House of Representatives Oceans Caucus, directing National Research Council Polar Research Board, serving as vice president and chief scientist of a geological consulting company, and leading remote research and scientific investigations and expeditions at multiple locations around the world.
- More than 50 years of experience conducting geological, geophysical, marine, and remote sensing research and site investigations resulting in more than 450 peer reviewed abstracts, maps, journal articles, reports, websites, DVDs, and books.
- More than 15 years serving as a Federal Civil Community liaison to Intelligence Community activities, including providing representation to NSMC, NSG, GEOCOM, GRAND, and DNI Historical Imagery Declassification Panel.
- Extensive public speaking and writing experience including presenting more than 200 public lectures.

PROFESSIONAL EXPERIENCE

US Geological Survey (USGS), Department of the Interior (DOI), 12/1983 – Present

Senior Science Advisor for National Civil Applications, Reston, VA – 12/2013-Present; NDAA Appointment - 2/23/2016

- Oversee the use of remotely sensed geospatial data from multiple sources, including US National Imagery Systems for use in Federal Agency scientific and geospatial research and mission area activities.
- Develop presentations and training to inform and educate Federal Civil Community scientists and researchers and the external community about the benefits resulting from the use of US National Imagery Systems Data and related geospatial data.
- Facilitate and coordinate research activities of a cadre of US Government scientists and image analysts

Executive Director, Civil Applications Committee (CAC), Reston, Virginia – 3/2006-12/2013

- Directed the activities of the interagency committee that serves as the liaison between the Federal Civil Community and Defense and Intelligence Community Agencies concerning use and access to US National Imagery Systems Data
- Ensured that access to US National Imagery Systems Data protected sources and methods; did not violate civil rights, civil liberties and personal privacy of US citizens; and occurred in an efficient and timely manner.
- Managed a \$2M annual budget and a staff of as many as eight.
- Ensured that CAC members had access to near-real-time data and information for conducting agency missions, planning, and responding to national and international natural disasters such as wildfires, earthquakes, and volcanic eruptions.
- Participated in US Department of State Environmental Bilateral Agreement with the Government of Chile, serving as a Subject Matter Expert on glaciers and water resources (2009-2014)

Senior Research Geologist, Reston, Virginia – 6/2002-3/2006

- Conducted both classified and unclassified research regarding Earth surface dynamics, climate change, coastal and shallow marine processes, fiord and glacial-marine sedimentation, temperate glaciers, and remote sensing, using multiple data sources and multi-media for outreach and information distribution.

Senior Legislative Fellow, Oceans Caucus, US House of Representatives, Washington, DC, 3/1999 – 6/2002

- Detailed by the Office of the Secretary of the Interior to the Office of Congressman Curt Weldon (R – PA) to provide scientific expertise and to organize and operate the House of Representatives Oceans Caucus.
- During the 106th and 107th Congresses, launched the Ocean Caucus to establish policy and provide information to Congress about critical ocean issues including national security, international borders, sustainable fisheries, and oceanographic research.

USGS International Programs, Deputy Chief, Office of the Chief Geologist, USGS, Reston, VA 10/1987- 6/2002

- Developed more than a dozen new international cooperative programs and implemented international agreements;
- Represented USGS and the DOI on interagency and international committees on environment, Arctic policy, global change, Antarctic environmental protection, remote sensing, ocean pollution, and international data management.
- Developed and coordinated a US-Canada-Mexico tri-lateral agreement focused on sharing data across the three countries and produced a borderless aeromagnetic map of North America.
- Coordinated the Federal Government remote sensing investigation of damage caused by Hurricane Mitch; directed global change research activities; and organized and chaired three international Arctic workshops dealing with pollution and radioactive waste.

Senior Program Officer & Acting Executive Director, Polar Research Board (PRB), National Research Council (NRC), National Academy of Sciences, Washington, D.C. 4/1985 – 10/1987

- Loaned to NRC by USGS Director under the Interdepartmental Personnel Act to directed activities of the NRC's polar research advisory group, its twelve member board, and multiple working groups.
- Responsible for initiating, planning, organizing, and conducting studies used by Federal Agencies, Antarctic Treaty Nations, the Scientific Committee on Antarctic Research and private foundations; responsible for the activities of NRC Committee on Permafrost, Committee on Glaciology, Committee on Remote Sensing of Ice and Snow, Committee on Polar Ocean Research Platforms, and Committee on Arctic Solid-Earth Geosciences.

Deputy Chief for Data Production and Distribution, USGS Earth Resources Observation Systems (EROS) Data Center, Sioux Falls, SD 12/1983 – 4/1985

- Managed day-to-day activities of 100 employees involved in digital mapping, and the processing and distribution of satellite imagery and aerial photography products.
- Responsible for the acquisition and management of large digital geochemical and geophysical data bases (RASS and NURE), evaluation of new remote sensing technologies and instrumentation - Side Looking Airborne Radar (SLAR), Large Format Camera (LFC), video data storage, etc., and in the marketing and public awareness of USGS remote sensing programs and products.

Marine Environmental Science Associates, Inc., Northridge, CA 2/1982 – 12/1983

Vice President and Chief Geologist

- Managed day-to-day activities of more than 50 employees involved in digital mapping, and the processing and interpretation of marine seismic and geophysical data, satellite imagery, and aerial photography.
- Performed marine geophysical and geological consulting and research, marine regional and site-specific mapping, marine surveying, hazards analysis, studies for platform and pipeline installations, and evaluations of resource potential of offshore oil and gas lease sale areas.

US Geological Survey (USGS), Department of the Interior (DOI), 7/1974 – 2/1982

Research Geologist, Menlo Park, California

- As Chief Scientist of Environmental Studies of the Eastern Gulf of Alaska and North Aleutian Shelf Projects, planned, managed, participated in, and analyzed results from marine geological and geophysical research projects and cruises / field studies in the Gulf of Alaska, Bering Sea, and Alaskan coastal zone environments.

- Research included analysis of the geology of Alaskan continental margin, interpretation of coastal and offshore processes, remote sensing, assessment of marine mineral resources, definition and identification of marine geohazards, sea floor mapping, producing side-scan-sonar mosaics, glacier studies, and investigation of glacial-marine sedimentary processes.
- USGS - NRC Associate Program Advisor – 1978-1982

U.S. Bureau of Land Management (BLM), Pacific Outer Continental Shelf Office, Los Angeles, CA 9/1973 – 7/1974

Geological Oceanographer

- Prepared geological and oceanographic chapters of BLM environmental impact statements related to proposed leasing of Federal outer continental shelf oil and gas tracts in California, Oregon, Washington, and Alaska.
- Prepared data summaries and performed systematic evaluations of information required in formulating extent and potential value of candidate outer continental shelf areas being considered for inclusion in future lease offerings.
- Monitored contracts and oversaw contractor data and information submissions.

Amherst College, Amherst, MA and Mt. Holyoke College, South Hadley, MA 5/1972 – 9/1973

Visiting Assistant Professor of Geology

- Taught stratigraphy, marine geology, and introductory geology courses; oversaw two senior theses; conducted research on Connecticut River hydrology and flooding; and supervised summer field program activities in North Carolina

South Carolina Educational Television Network, Columbia, SC 10/1970 – 8/1972

Science Editor

- Prepared and presented as many as three on-air science stories each week as part of a live news and commentary show, *9:30 Newsroom*.
- Co-wrote and participated in a week-long series of live broadcasts and interviews from Kennedy Space Center, Florida, during the April 1972 Apollo 16 Mission.

Lamont Geological Observatory [now Lamont–Doherty Earth Observatory], Columbia University, Palisades, NY 9/1965 – 2/1966 & 9/1966 – 4/1967

Geophysical Technician

- Collected geological and geophysical data on National Science Foundation-funded research cruises on: US Antarctic Research Program (USARP) icebreaker USNS Eltanin (Eltanin21) and RV Robert Conrad (Conrad 11).
- Responsibilities included operation of marine air gun seismic system, stable-table gravimeter, and bottom-camera photographic system.

EDUCATION

University of South Carolina – Ph.D. 1972 - Geological Oceanography (climate history)

Cornell University – 1969-1970

Duke University – M.A. 1969 – Geology (carbonate sedimentation)

Harpur College, State University of New York (now Binghamton University) – B.A. 1967 – Geology

CLEARANCES AND CERTIFICATIONS

TS/TK/SCI Clearance

Certified Professional Geologist (PG) – State of California Board of Professional Engineers, Land Surveyors, and Geologists - Certificate # 3917 – Since 1985

Previously - Registered Professional Geologist in Georgia and Alaska / Certified Professional Geological Scientist # 6553, American Institute of Professional Geologists

AWARDS &, GRANTS

DOI Meritorious Service Award – 2016

Certificates and Letter of Appreciation, National Geospatial-Intelligence Agency – 2013 & 2014

USGS Eugene A. Shoemaker Award for Lifetime Achievement in Communications – 2011

USGS Shoemaker External Communications Award – 2010

Public Service Award, Geological Society of America (GSA) – 2009

Namesake for Molnia Bluff, Dry Valleys, Antarctica – 2005

USGS Shoemaker External Communications Award – 2004

DVD Association DVD Excellence Award - Duane Marquis Government DVD Award – 2003

Distinguished Service Award, GSA – 2000

USGS Shoemaker External Communications Award – 1999

NSF Certificate Appreciation – 1995

Alaska Department of Natural Resources - Certificate and Letter of Appreciation – 1995

Secretary of Interior's Volunteer for Science Award: 1993

Elected Fellow-GSA -1982

Merrill Foundation Trust Grant - 1973-1974

US Antarctic Service Medal - 1968

Multiple awards for 'Best Paper' and 'Best Presentation

Scholarships, fellowships, and grants from private foundations, NSF, USNPS, and all academic institutions attended.

CONTRACTS

Asian Development Bank Funded Contracts from Government of Indonesia – 1996-1998

ONR Contract for Russian Far East Radioactive Contamination Workshops – 1995 & 1996

NSF Small Grant for Exploratory Research (SGER) – 1993-1994

BIA, DOE, EPA, NOAA, NSF contracts for Workshop on Arctic Contamination – 1993-1996

SHELL, ARCO, EXXON, and MMS Contracts – 1982-1983

USGS Climate Program Grant – 1978-1981, 1993-1995

NOAA OCSEAP Program Contract – 1975-1981

PROFESSIONAL SOCIETY POSITIONS HELD

USGIF Certification Governance Board – 2016-present

AAAS Nominations Committee – 2009-2012

US Global Change Program Committee on Climate Change and Variability – 2009-2010

GSA Publication Committee – 1991-1997; 2007- 2010

Councilor, Geological Society of America – 2003-2007

AAAS Steering Committee - Consortium of Affiliates of International Programs - 1996-1999

President, International Division - Geological Society of America – 1994-1995; Vice-President – 1993-1994

ACADEMIC AFFILIATIONS

Adjunct Professor, Delta State University – 2018

Adjunct Professor, Duke University – 1988-2014

Adjunct Professor, University of Alaska Fairbanks – 2006-present

Adjunct Professor, University of Idaho – 1984-2004

Research & Teaching Staff - Juneau Icefield Research Project (JIRP), Juneau, AK – 1975-2013