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Birthplace and Date: Acushnet, Massachusetts; September 1942

Education: B.S. Geology, summa cum laude, Boston College, 1964; M.S. Geology, California Institute of Technology, 1966; Ph.D. Geology and Geophysics, California Institute of Technology, 1971 (Thesis: *Geological and geophysical studies of the Atacama fault zone in northern Chile*, supervised by Professor Clarence R. Allen)

Professional Experience: Post-Doctoral Research Fellow, Department of Scientific and Industrial Research, Geophysics Division, Wellington, New Zealand (1970–73); Research Scientist, Lamont-Doherty Geological Observatory (1973–74); University of Utah (1974–present): Research Professor of Geology and Geophysics (1983–2010); Director, University of Utah Seismograph Stations (1985–2010); Research Professor Emeritus of Geology and Geophysics (since July 2010). Licensed Professional Geologist, State of Utah.

Statement of Interests: Research interests include network seismology, earthquake-hazard analysis, mining-induced seismicity, and tectonics and seismicity of the Intermountain West. Extensive involvement since the mid-1980s in national and state public policymaking for U.S. network seismology and earthquake risk reduction; since 1977, professional consulting relating to earthquake hazards and risk for dams, nuclear facilities, and other critical structures and facilities.

Society Affiliations: Seismological Society of America, American Geophysical Union, Geological Society of America, Earthquake Engineering Research Institute (associate member), Utah Geological Association.

Current Professional Activities (in retirement): Member, Working Group on Utah Earthquake Probabilities.

Awards and Honors: Seismological Society of America's Frank Press Public Service Award, for extraordinary public service in modernizing, expanding, and promoting seismic monitoring for public safety in the United States, 2015; Earthquake Engineering Research Institute's Alfred E. Alquist Medal, for contributions to advancing seismic safety in the United States and the state of Utah, 2015; Western States Seismic Policy Council Lifetime Achievement Award in Earthquake Risk Reduction, for extraordinary commitment, level of service, and contribution of the application of earthquake risk reduction to public policy, 2008; John Wesley Powell Award, U.S. Geological Survey, for significant contributions in advancing national earthquake monitoring and earthquake safety, 2007; Boston College Alumni Award of Excellence for Science, 2006; Outstanding Service Award, Utah Seismic Safety Commission, 2001; Governor's Medal for Science and Technology, State of Utah, 1996; Distinguished Faculty Research Award, University of Utah Dept. of Geology and Geophysics, 1987–88; Certificate of Appreciation, U.S. Geological Survey and Federal Emergency Management Agency, for leadership and recognized accomplishments toward earthquake loss reduction in Utah, 1987; U.S. National Research Council Post-Doctoral Fellowship, 1974 (declined in preference for position at Univ. of Utah); New Zealand National Research Advisory Council Post-Doctoral Fellowship, 1970–73; California Institute of Technology: National Science Foundation Summer Fellowships, 1965, 1966; California State Scholarship, 1968–69; Boston College: four-year scholarship, 1960–64, and various awards for exceptional academic achievement (Scholar of the College, 1963–64; Hamilton Award, 1964; Order of the Cross and Crown, 1963–64).

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ABSTRACTS

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- Pankow, K. W. J. Arabasz, R. Carey, G. Christenson, J. Groenveld, P. W. McDonough, B. Welliver, and T. L. Youd (2015). Scenario for a magnitude 7.0 earthquake on the Wasatch fault—Salt Lake City segment, Report by the Earthquake Engineering Research Institute, Utah Chapter, Salt Lake City, Utah, June 4, 2015, 53 pp., online at <https://ussc.utah.gov/pages/help.php?section=EERI+Salt+Lake+City+M7+Earthquake+Scenario>.

PROFESSIONAL COMMITTEES AND WORKING GROUPS
(Since 1980)

- 1981–1982** Member, Peer Review Panel, U. S. Geological Survey Earthquake Hazards Reduction Program
- 1983** Co-Organizer, 1983 Annual Meeting of the Seismological Society of America, Salt Lake City, Utah
- 1983** Co-Convener and editor of Proceedings of "Workshop on Guidelines for Instrumentation Design in Support of a Proposed Lithospheric Seismology Program," Salt Lake City, Utah (sponsored by the National Science Foundation)
- 1983** Chairperson: Working Group on Earthquake Hazard Research Needs and Dissemination of Information, Governor's Conference on Geologic Hazards, Salt Lake City, Utah
- 1984** Co-Organizer and editor of "Proceedings of a Seminar on Defining Tectonic Mechanisms Causing Earthquakes in the Eastern United States," Salt Lake City, Utah (sponsored by the Electric Power Research Institute)
- 1984** Member of steering committee, co-organizer of scientific technical sessions, and moderator, U. S. Geological Survey Workshop on Evaluation of Regional and Urban Earthquake Hazards and Risk in Utah, Salt Lake City, Utah
- 1984–1986** Member, Seismic Hazard Methodology Team, Electric Power Research Institute, for development of state-of-the-art methodologies for evaluating earthquake hazards in the central and eastern United States for siting nuclear facilities
- 1985** Member, Peer Review Panel, U. S. Geological Survey Earthquake Hazards Reduction Program
- 1985** Co-Organizer and editor of "Proceedings of a Seminar on Maximum Earthquakes in Intraplate Regions," Menlo Park, California (sponsored by the Electric Power Research Institute)
- 1985** Member, Resource Team, multiple workshops jointly sponsored by the U.S. Geological Survey, the Utah Geological and Mineral Survey, the Federal Emergency Management Agency, and the Utah Division of Comprehensive Emergency Management—"Earthquake and Landslide Hazards in the Wasatch Front Region of Utah"
- 1985** Regional coordinator for Great Basin-Intermountain-Rocky Mountain region, Symposium and Workshop on Regional Seismographic Networks, Knoxville, Tenn.
- 1985–1986** Member, ACORN, National "Ad Hoc Committee on Regional Networks"
- 1986** Member, Peer Review Panel, U. S. Geological Survey Earthquake Hazards Reduction Program
- 1986** Technical coordinator for tectonic framework and earthquake potential, U.S. Geological Survey Workshop on Earthquake Hazards Along the Wasatch Front, Utah; Salt Lake City, Utah
- 1987** Member, working group for formulation of a science plan for a National Seismic System
- 1985–1988** Associate Editor, *Bulletin of the Seismological Society of America*
- 1988–1989** Member, advisory group to Branch of Global Seismology and Geomagnetism, U.S. Geological Survey

- 1988–1989** Member, organizing committee, Fifth Annual Workshop on Earthquake Hazards and Risk Along the Wasatch Front, Utah
- 1988–1990** Member, Panel on Regional Networks of the Committee on Seismology, National Research Council
- 1989** Co-Organizer, Utah Policy Panel on Earthquake Instrumentation (blue-ribbon panel of nationally prominent seismologists, earthquake engineers, and earthquake policy experts)
- 1989** Organizer, “Earthquake Engineering Colloquium—A Strong-Motion Instrumentation Program for Utah”; Salt Lake City, Utah
- 1989–1991** Primary organizer, \$3M initiative to Utah State Legislature for multi-part package of earthquake instrumentation
- 1989–1991** Member, Committee on Seismology, National Research Council
- 1990** Co-Organizer, “Meeting the Earthquake Challenge in Utah,” a colloquium for public officials and Utah’s emergency management and engineering communities; Salt Lake City, Utah
- 1990–1991** Member, State Earthquake Task Force, Utah Advisory Council on Intergovernmental Relations
- 1991** Member, Peer Review Panel on the Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada
- 1991–1992** Member, Working Group on Seismograph Networks, advisory group to Branch of Global Seismology and Geomagnetism, U.S. Geological Survey
- 1991–1992** Chairman, Steering Committee for Formation of a National Consortium of Regional Seismic Networks
- 1991–1994** Member, Utah Earthquake Advisory Board, State of Utah
- 1991–1994** Reappointed Member, Committee on Seismology, National Research Council
- 1992** Member, Peer Review Panel, U.S. Geological Survey Earthquake Hazards Reduction Program
- 1992** Co-Organizer, Utah Strong-Motion Instrumentation Program, a joint undertaking by the Utah Geological Survey and the University of Utah Seismograph Stations
- 1992–1996** Member, Panel on Seismic Hazard Evaluation, National Research Council
- 1993** Member, Internal Review Panel, U.S. Geological Survey Earthquake Hazards Reduction Program
- 1993–1995** Vice Chair, Council of the National Seismic System
- 1993–1994** Chair, Standing Committee on Earth Sciences, Utah Earthquake Advisory Board, State of Utah
- 1994** Member, Regional Seismic Network Review Panel, U.S. Geological Survey Earthquake Hazards Reduction Program
- 1994–1997** Member, Board of Directors, Seismological Society of America
- 1994–2010** Member, Utah Seismic Safety Commission
- 1995** Organizer, Meeting of Seismic Network Operators in the Intermountain West, Salt Lake City, Utah
- 1995–1997** Chair, Council of the National Seismic System
- 1995–1997** Acting Chair, Geoscience Standing Committee, Utah Seismic Safety Commission

- 1995–1996** Member, Seismic Advisory Committee to Utah Dept. of Transportation, I-15 Corridor Project
- 1996** Member, Peer Review Panel, U.S. Geological Survey National Seismic Hazard Maps
- 1996–1998** Member, Bylaws Review Committee, Seismological Society of America
- 1996–1997** Member, Committee to Review the U.S. Geological Survey's National Earthquake Information Service
- 1996–1997** Co-Convenor, national workshop on U.S. Seismic Networks and the National Seismic System; Memphis, Tennessee, February 1997
- 1996–1997** Co-Organizer, Working Group to Advance a Systems Engineering Approach to a National Seismic System
- 1997–1999** Corresponding Member, U.S. Committee for Advancement of Strong Motion Programs
- 1997–2000** Member, Executive Committee, Council of the National Seismic System
- 1997–2001** Chair, Utah Seismic Safety Commission; Member, Geoscience Standing Committee
- 1998–1999** Member, Senior Advisory Group to U.S. Geological Survey for Report to Congress on an Assessment of Seismic Monitoring in the United States
- 1998–1999** Member, Utah Interagency Technical Team (serving the Utah Division of Comprehensive Emergency Management)
- 1999** Work Group for National Earthquake Hazards Reduction Program (NEHRP) Strategic Plan (Goal D. "Improve the Understanding of Earthquakes and their Effects")
- 1998–2000** Member, Infrastructure Protection Subcommittee, Utah Olympic Public Safety Command
- 2000** Co-organizer, Workshop on "Organizing an 'Intermountain West' Region as Part of an Advanced National Seismic System (ANSS)"; June 19-20, 2000, Salt Lake City, Utah
- 2001** Organizer, "Utah Stakeholder's/User's Meeting—Urban Strong-Motion Monitoring & Rapid Post-Earthquake Notification"; June 15, 2001, Salt Lake City, Utah
- 2001** Organizer, 15-Member Regional Advisory Committee, Intermountain West Region of the Advanced National Seismic System
- 2001** Organizer, 12-Member Utah Advisory Committee for Urban Strong-Motion Monitoring
- 2001–2010** Regional Coordinator, Advanced National Seismic System, Intermountain West Region
- 2001–2010** Member, National Implementation Committee, Advanced National Seismic System
- 2001–2010** Facilitator, 12-Member Utah Advisory Committee for Urban Strong-Motion Monitoring
- 2001–2010** Continuing Member, Utah Seismic Safety Commission (USSC); Member USSC Executive Committee
- 2003–2009** Member, Government Relations Committee, Seismological Society of America
- 2003–2011** Member, Utah Ground Shaking Working Group (organized by the Utah Geological Survey, the U.S. Geological Survey, and the Utah Seismic Safety Commission)
- 2003–2006** Member, Technical Integration Committee, Advanced National Seismic System
- 2004–2005** Chair, Working Group on Evolutionary System Architecture, Advanced National Seismic System
- 2005** Chair, Nominating Committee for Board of Directors, Seismological Society of America
- 2005–2006** Co-Organizer, ANSS Network Operations ("NetOps") Workshop; February 6–7, 2006, Salt Lake City, Utah

- 2006** Organizer, ANSS Intermountain Region Strategic Planning Meeting, August 14–15, 2006, Salt Lake City, Utah
- 2006–2011** Member, Wasatch Front ShakeMap/HAZUS Working Group (sponsored by FEMA to maximize distribution of ground-shaking and near-real time loss-estimate information to stakeholders after the occurrence of a large damaging earthquake)
- 2006–2009** Member, working group for producing and publishing a handbook for earthquakes in Utah, *Putting Down Roots in Earthquake Country*
- 2007–2008** Member, Idaho Seismic Advisory Committee
- 2007–2011** Member, National Earthquake Hazards Reduction Program (NEHRP) Advisory Committee on Earthquake Hazards Reduction
- 2007–2008** Member, Technical Advisory Committee, Utah Mine Safety Commission
- 2008–2009** Lead organizer, International Workshop for an Expert Panel on Seismic Monitoring Applicable to Deep Coal Mines, October 20–22, 2008, Salt Lake City, Utah
- 2008–2009** Member, organizing committee for the 2009 Annual Meeting of the Earthquake Engineering Research Institute (co-sponsored by the Western States Seismic Policy Council), February 11–14, 2009, Salt Lake City, Utah.
- 2009–2011** Member, Utah Mine Safety Technical Advisory Council
- 2009–2010** Member, Advanced National Seismic System, working groups for (a) revision and update of ANSS Management Plan and (b) ANSS continuity-of-operations planning
- 2010–2016** Member, Working Group on Utah Earthquake Probabilities (organized by the Utah Geological Survey and the U.S. Geological Survey)
- 2011–2012** Member, National Research Council Committee on Opportunities and Challenges for International Science at the U.S. Geological Survey
- 2014–2015** Member, Working Group on a “Scenario for a Magnitude 7.0 Earthquake on the Wasatch Fault—Salt Lake City Segment,” Earthquake Engineering Research Institute, Utah Chapter

Note: multiyear activities continuing into 2006–2011 are listed on the previous page

INVITED LECTURES AND PUBLIC PRESENTATIONS

(Excluding numerous brief television and radio interviews)

1. "Earthquake Perspectives in California, New Zealand, Chile, and Utah" (Geology and Geophysics Seminar, University of Utah, October 1974.)
2. "Predicting Earthquakes in Utah" (Sugarhouse-Cottonwood Exchange Club, Salt Lake City, November 1974).
3. "Earthquakes—Global Causes to Local Effect" (Professional Engineers Auxiliary, Salt Lake City, January 20, 1975).
4. "Wasatch Front Earthquake Activity—An Overview and Current Research" (Rotary Club of Ogden; Ogden, Utah, June 23, 1976).
5. "The Feasibility of Earthquake Prediction in Utah" (one-hour interview by W. J. Arabasz and R. B. Smith on KSL Radio's "Public Pulse" program, June 30, 1976).
6. "Earthquakes" (panel participant with R. B. Smith and State Representative Genevieve Atwood in two-hour seminar: Environmental Conference at University of Utah coordinated by Utah Public Interest Research Group, February 16, 1977).
7. "Utah Earthquake Activity—An Overview and Current Research" (Bonneville Unit of Salt Lake City Exchange Club, March 16, 1977).
8. "Current Earthquake Activity and Earthquake Potential in Utah" (Salt Lake City Exchange Club, June 22, 1977).
9. "Earthquakes in Utah" (one-hour interview with Jack McRedmond on KSXX radio talk show, Salt Lake City, August 1, 1977).
10. "Significance of Earthquake Activity Near Magna, Utah" (fifteen-minute interview on KLUB radio program "Public Forum," Salt Lake City, March 12, 1978).
11. "Living in Earthquake Country" (one-hour interview with Lucas Hess on KUER radio talk show—"Open Mike," Salt Lake City, August 23, 1978).
12. "Earthquake Hazards and the Role of Seismology in Emergency Planning" (Utah Society for Industrial Security, Salt Lake City, January 24, 1979).
13. "Earthquake Fundamentals and Current Earthquake Research in Utah" (Utah State Board of Education/Salt Lake City School District, February 6, 1979).
14. "Earthquake Hazards in Utah: Issues and Research, 1979" (Salt Lake Rotary Club, February 13, 1979).
15. "Earthquakes and Geology" (one-hour interview with Don Karnes on KSXX radio talk show—"Talk 63," Salt Lake City, April 10, 1979).
16. "Earthquake Hazards in Utah: Issues and Research, 1979" (part of summer seminar series for local teachers sponsored by the College of Idaho, Salt Lake City section, June 21, 1979).
17. "Emergency Preparedness in Utah" (invited panel participant as part of Emergency Preparedness Conference for Business and Industry, jointly sponsored by the Utah Department of Emergency Services and the Utah Society for Industrial Security, October 5–6, 1979; Sherwood Hills, Utah).
18. "Causes of Earthquakes: Regional Tectonics in Relation to Earthquake Risk" (Conference on "Planning for Seismic and Related Environmental Hazards in Urban Areas of Utah," sponsored by the Utah Seismic Safety Advisory Council, Salt Lake City, April 18, 1980).
19. "Contemporary Tectonics and Seismicity of the Intermountain Seismic Belt" (Earthquake Engineering Research Institute Seminar on "Fundamentals of Intra-Plate Earthquakes," Salt Lake City, May 8, 1980).

20. "The Restless West: What You Should Know About Earthquakes and Volcanoes" (one-hour interview with W. J. Arabasz and W. P. Nash, on KSL Radio's "Public Pulse" program, Salt Lake City, June 12, 1980).
21. "Seismic Activity and Geologic Structure in Southeast Idaho" (seminar presentation to personnel of Department of Energy and EG&G Idaho, Inc., Idaho Falls, Idaho, September 22, 1980).
22. "Earthquakes" (two-hour interview with Salt Lake County Commissioner Robert Salter on KSXX Radio, Salt Lake City, December 16, 1980).
23. "Earthquake Prediction" (fifteen-minute segment with Bob Lee on KSXX Radio, "Bob Lee Magazine," Salt Lake City, January 13, 1981).
24. "Earthquake Problems in the Wasatch Front Area Related to the Insurance Industry" (Society of Chartered Property and Casualty Underwriters, Utah Chapter, Salt Lake City, November 10, 1981).
25. "Earthquakes on the Wasatch Front and in the Utah Region" (One-hour panel discussion: W. J. Arabasz, L. Cluff, B. Kaliser, and C. Taylor on KUED TV's program "Civil Dialog," hosted by Ken Verdoya, Salt Lake City, November 27, 1981).
26. "Earthquake Hazards/Prediction Research in the Intermountain Seismic Belt" (Physics Colloquium, Utah State University, Logan, Utah; February 9, 1982).
27. "Insight—Earthquakes" (one-hour interview on KSL Radio's "Public Pulse" program, Salt Lake City, May 6, 1983).
28. "Recent Earthquake Activity in Idaho, Including Swarm Seismicity near Soda Springs and the M7.3 Borah Peak Earthquake" (Soda Springs, Idaho, Kiwanis Club, December 13, 1983).
29. "Earthquake Risk in the Wasatch Front Area: Update and Perspective" (Salt Lake City Rotary Club, January 17, 1984).
30. "Seismicity and Earthquake Overview of the Wasatch Front/Intermountain Seismic Belt" (one-hour lecture to University of Utah applied geomorphology class, GEOGR-507, May 15, 1984).
31. "Earthquake Studies, Regional Seismic Monitoring, and Seismic Risk in Southeastern Idaho" (together with participation in panel on "Risk Analysis": Workshop on Engineering and Hydrology Research Needs for Phosphate Mined Lands of Idaho, June 5-6, Pocatello, Idaho; sponsored by the Idaho Mining Association, Idaho Falls District of the Bureau of Land Management, and the Intermountain Station and Caribou National Forest, U.S. Dept. of Agriculture).
32. "A Seismologist's Perspective on Earthquake Distributions for Magnitude and Time of Occurrence" (Workshop on Estimation of Seismicity Parameters, sponsored by Electric Power Research Institute; St. Louis, Missouri, October 8, 1984).
33. "Seismic Environment of the Intermountain Region" (Workshop on Mitigating Risk in Older Buildings, sponsored by the National Science Foundation; Salt Lake City, Utah, January 16, 1985).
34. "The Success Ethic and the Modern Christian" (Winter Lecture Series, University of Utah Newman Center, Salt Lake City, February 17, 1985).
35. "Seismic Environment of the Intermountain Region" (Workshop for Architects and Building Professionals on Designing for Earthquakes in the western Mountain States, sponsored by the American Institute of Architects; Salt Lake City, Utah, August 2, 1985).
36. "Earthquakes" (Wasatch Gem Society, Salt Lake City, Utah, November 18, 1985).
37. "Earthquake Hazards in the Wasatch Front Area" (half-hour interview on KUER radio program, "Utah Considered," Salt Lake City, November 18, 1985).
38. "Earthquakes: Prospects and Perspectives" (Utah Museum of Natural History Lecture Series on "The Wasatch Front," Salt Lake City, Utah, January 20, 1986).

39. "The Wasatch Fault" (University of Utah Aztec Club, Salt Lake City, Utah, February 15, 1986).
40. "Seismic Monitoring and Current Research in the Intermountain Seismic Belt" (American Institute of Professional Geologists, Salt Lake City, May 14, 1986).
41. "Earthquake Hazard Potential Along the Wasatch Front" (Northern Utah Earthquake Conference, a Workshop sponsored by URS Corporation/John A. Blume & Associates, Salt Lake City, May 20, 1986).
42. "Observational Seismology and Earthquake Hazard Evaluation in the Wasatch Front Area" (Workshop on "Earthquake Hazards Along the Wasatch Front, Utah, sponsored by the U.S. Geological Survey, Salt Lake City, Utah, July 14, 1986).
43. "Earthquake" (taped television interview for KUTV's "PM Magazine," Salt Lake City, televised December 30, 1986).
44. "Earthquakes in Utah" (Invited Lecture Series, University of Utah Department of Mining Engineering, January 8, 1987).
45. "Seismotectonics of the Basin and Range-Colorado Plateau Transition" (Distinguished Lecture Series, University of Utah Department of Geology and Geophysics, February 26, 1987).
46. "Earthquake Monitoring and Research, Including Updated Information on the Recent Lakeside Earthquakes" (seminar for government officials on "Facing the Earthquake Problems on the Wasatch Front and in Utah," sponsored by the Utah Engineering Experiment Station, Ogden, Utah, October 1, 1987).
47. "Earthquakes, Faulting, and Seismic Hazards in the Wasatch Front Region" (Structural Engineers Association of Utah, Salt Lake City, December 17, 1987).
48. "Observational Seismology Relevant to Seismically Active Structures and Contemporary Deformation in Utah" (Brigham Young University, Department of Geology, Provo, Utah; February 11, 1988).
49. "Earthquake Hazards in the Wasatch Front Region—An update" (Holladay Rotary Club, Salt Lake City, March 2, 1988.)
50. "Recent Advances in Ground Motion Evaluation—Geologic Considerations and Earthquake Potential" (invited panelist, American Society of Civil Engineers Conference on Earthquake Engineering and Soil Dynamics II, Park City, Utah, June 27-30, 1988).
51. "Initiatives in Earthquake Seismology" (12th Annual Utah Conference on Energy, Mining and New Technology—Review of the 1990s; University of Utah, September 9, 1988).
52. "Earthquakes" (one-hour interview on K-TALK radio program with Bob Lesh, Salt Lake City, September 25, 1988).
53. "The Earthquake Threat in the Wasatch Front Area—An Overview" (American Businesswomen's Association, Salt Lake City, November 9, 1988).
54. "The Earthquake Threat in Utah—Sources of Hazards, Effects, and Engineering Implications" (National Earthquake Hazards Reduction Program Conference on Seismic Building Provisions; Salt Lake City, December 6, 1988).
55. "Earthquakes, Faulting, and Contemporary Geological Deformation in Utah" (Snow College, Division of Physical Sciences; Ephraim, Utah, February 13, 1989).
56. "The Earthquake Threat—and Challenge—in Utah" (Preparedness Expo '89; Salt Palace, Salt Lake City, August 18, 1989).
57. "The Earthquake Threat in Utah—What's California Telling Us?" (Kiwanis Club of Salt Lake City, November 9, 1989).
58. "It's Our Fault" (ninety-minute panel interview with Chris Vanocur, KUTV, Salt Lake City, for 5-part special segment televised February 11-15, 1990).

59. "Earthquakes in Utah" (thirty-five-minute interview on KUTV, Salt Lake City, with Rod Decker, "Take Two" program, February 11, 1990).
60. "Seismic Instrumentation (Including Global Positioning Satellite Receivers)—A Five-Element, \$3M State Initiative for Utah's Earthquake Program" (Utah Council of Land Surveyors 1990 Annual Convention, Salt Lake City, February 16, 1990).
61. "Earthquake Preparedness" (public seminar, South Salt Lake City Chamber of Commerce, March 29, 1990).
62. "Seismic Hazard Analysis—A Road Map for the Jargon and an Overview for Utah" (Brigham Young University, Department of Geology; Provo, Utah, April 10, 1990).
63. "The University of Utah Seismograph Stations" (thirty-minute live interview on KALL radio with "Peter B.," Salt Lake City, November 3, 1990).
64. "The Earthquake Threat—and Challenge—in Utah (Relief Society, Monument Park Stake, 14th Ward; Salt Lake City, January 8, 1991).
65. "Safety of Jordanelle Dam" (thirty-minute panel discussion with Phil Reasoner, KUTV, Salt Lake City, August 29, 1991).
66. "The Safety of Jordanelle Dam" (written statement and extended public testimony before the Utah Congressional delegation, Field Hearing on the Safety of Jordanelle Dam; Heber City, Utah, February 1, 1992).
67. "Earthquake Basics for Dam Safety" (The State of Utah Dam Safety Workshop, Salt Lake City, March 19, 1992).
68. "Peer Review of an Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada" (invited presentation to the U.S. Nuclear Waste Technical Review Board, Dallas, Texas; April 7, 1992).
69. "The Earthquake Threat—and Challenge—in Utah (Bonneville Kiwanis Club, Salt Lake City, May 20, 1992).
70. "The Gathering and Communication of Earthquake Information to Crisis Managers—Present Capabilities and Desirable Future Directions in Utah" (Association of Contingency Planners, Utah Chapter; Salt Lake City, January 14, 1993).
71. "The Earthquake Threat—and Challenge—in Utah" (University of Utah Aztec Club, Salt Lake City, January 16, 1993).
72. "Earthquakes in Utah—Quantifying and Dealing With the Threat" (Utah Water Users Association 1993 Workshop; St. George, Utah, March 9, 1993).
73. "Quantifying Earthquake Dangers in Utah" (Salt Lake Community College: Science, Engineering, and Mathematics Council Seminar; Salt Lake City, May 27, 1993).
"Understanding and Coping With Earthquakes in Utah" (Outreach Lecture Series sponsored by the University of Utah College of Mines and Earth Sciences):
 74. — (Canyon View Junior High School; Huntington, Utah, November 9, 1993)
 75. — (College of Eastern Utah Prehistoric Museum; Price, Utah, November 9, 1993)
 76. — (Uintah High School [two lectures]; Vernal, Utah, November 11, 1993)
 77. — (Utah Field House of Natural History; Vernal, Utah, November 11, 1993)
 78. — (Dan O'Laurie Museum; Moab, Utah, November 12, 1993)
79. "Earthquake Studies in Utah—Current Research and Trends" [jointly with J. C. Pechmann] (University of Utah Professors Emeriti Club, Salt Lake City, March 1, 1994).

80. "Seismicity and Seismic Networks" (Western States Seismic Policy Council Annual Meeting, Salt Lake City, September 27, 1994).
81. "Fundamentals of the Wasatch Front's Earthquake Threat" (Earthquake Engineering Research Institute regional seminar for non-technical professionals, Salt Lake City, November 29, 1994).
82. "Wasatch Front Seismicity and Expectable Ground Motion" (Earthquake Engineering Research Institute regional seminar for non-technical earth sciences and engineering professionals, Salt Lake City, November 30, 1994).
83. "How Serious is the Wasatch Front's Earthquake Threat?" (Fort Union-Midvale Rotary Club, Salt Lake City, January 5, 1995).
84. "Seismicity of Utah and the Wasatch Front Urban Corridor" (U.S. Geological Survey Intermountain Region Seismic Source Meeting, Salt Lake City, February 15, 1995).
85. "Fundamentals of the Wasatch Front's Earthquake Threat" (Salt Lake City Newcomers' Club, Salt Lake City, February 21, 1995).
86. "Earthquake 'Events' and Underground Mining" (invited presentation as part of a panel convened to report on an M_L 5.1 mining-related seismic event in the SW Wyoming trona field on Feb. 3, 1995; local chapter meeting of the Society of Mining Engineering–American Institute of Mining Engineering; Rock Springs, Wyoming, March 30, 1995).
87. "Seismic Energy Release and Underground Coal Mining in Utah" (Utah Chapter of the Rocky Mountain Coal Mining Institute, Annual Meeting; Salt Lake City, April 10, 1995).
88. "Perspectives on Earthquake in Utah" (Monument Park Ninth Ward, Salt Lake City, April 30, 1995).
89. "Current Issues Relating to Seismic Research in Utah" (Utah Chapter of the Mining and Metallurgical Society of America, Salt Lake City, May 2, 1995).
90. "Underground Mining and Seismic Energy Release in East-Central Utah" (Museum of the San Rafael; Castle Dale, Utah, May 11, 1995).
91. "Underground Mining and Seismic Energy Release in East-Central Utah" (College of Eastern Utah Prehistoric Museum; Price, Utah, May 12, 1995).
92. "Seismic Energy Release Associated with Underground Mining in Utah and Southwestern Wyoming" (joint presentation by W. J. Arabasz and J. C. Pechmann: Utah Geological Association, Salt Lake City, June 26, 1995).
93. "Utah's Earthquake Threat—and Personal Responsibility for Preparedness" (Monument Park Ninth Ward, Salt Lake City, April 28, 1996).
94. "Fundamentals of the Wasatch Front Earthquake Threat" (Undergraduate Seminar, Department of Metallurgical Engineering, University of Utah, March 11, 1997).
95. "Planning for Earthquakes as Part of Booming Growth Along the Wasatch Front" (Holladay Rotary Club, Salt Lake City, October 22, 1997).
96. "A Real-time Earthquake Information System for Utah and the 2002 Olympics" (invited joint presentation by W. J. Arabasz, A. Becker, and S. J. Nava: Salt Lake Organizing Committee for the Olympic Winter Games of 2002, Salt Lake City, June 23, 1998).
97. "Earthquake Dangers in Utah" (TV documentary produced by Richard Hunt for "700 Club," CBN News, Virginia, October 1998).
98. "Seismic Monitoring and Mining Induced Seismicity in the Wasatch Plateau and Book Cliffs Coal Mining Districts, Utah" (Utah Coal Industry Conference; Price, Utah, March 11, 1999).
99. "Earthquake Dangers in the Salt Lake Valley" (Cathedral Church of St. Mark, Salt Lake City, April 8, 1999).

100. "Seismic Monitoring of Mining Seismicity and Mine Blasts in Utah and the Intermountain Region" (Bureau of Land Management 1999 Solid Minerals Conference, Salt Lake City, June 8, 1999).
101. "Earthquake Safety in Utah and Nevada—What's Working and Where Do We Go From Here?" (Nevada Earthquake Safety Council, Reno, Nevada, November 17, 2000).
102. "Role of Seismic Safety Commissions and Councils in Post-Earthquake Clearinghouses" (Western States Seismic Policy Council Workshop on Basin & Range Province Post-Earthquake Technical Clearinghouse; Salt Lake City, March 26-27, 2001).
103. "New Real-Time Urban Strong-Motion Monitoring in Utah as Part of an Advanced National Seismic System" (Conference on Geologic Hazards in Utah: Practical Information for Geologists and Engineers; Salt Lake City, April 12-13, 2001).
104. "New Earthquake Ground Shaking Maps for the Salt Lake City Area" (The Doug Wright Show, KSL Radio, Salt Lake City, Utah, April 26, 2001).
105. "Faster and Better Earthquake Information for Utah and the 2002 Winter Olympics" (Utah Olympic Public Safety Command, Infrastructure Protection Subcommittee; Salt Lake City, July 10, 2001).
106. "Seismic Issues in Utah" (Departmental Seminar, Department of Civil and Environmental Engineering, University of Utah, Salt Lake City, August 29, 2001).
107. "University of Utah to Monitor Olympic Earthquakes" (20-minute live interview by Blair Feulner, KCPW radio [88.3 FM], Park City/Salt Lake City, February 4, 2002).
108. "Historical Overview of the Utah Seismic Safety Commission" (invited presentation to the Utah Seismic Safety Commission, Salt Lake City, July 12, 2002).
109. "Seismicity of Utah—Overview of Basic Inputs to Seismic Hazard Analyses" (ASCE Geotechnical Group, IBC Strong Motion Short Course; Salt Lake City, April 18, 2003).
110. "Earthquake—Impact, Response, and Recovery" (invited presentation: Workshop on Critical Infrastructure Protection, Natural Disaster and Terrorism in Utah; Salt Lake City, June 20, 2003).
111. "Earthquakes and the [seismic vulnerability of the] Marriott Library at the University of Utah" (one-hour live panel interview—together with Sarah Michalak, director of the Marriott Library, and Barry Welliver, chair of the Utah Seismic Safety Commission—on "Talk of the City," hosted by Robin Sussingham, KCPW radio [88.3 FM], Park City/Salt Lake City, February 13, 2004).
112. "Estimation of Probable Maximum Magnitude for Coal-Mining-Induced Seismicity: A Utah Case Study" (invited presentation at 2004 Combined Mine Safety and Health Conference, International Society of Mine Safety Professionals and Annual Institute of Mining Health, Safety and Research; Salt Lake City, May 25, 2004).
113. "History of the Utah Seismic Safety Commission" (invited presentation for the 10th Anniversary Celebration of the Utah Seismic Safety Commission; Salt Lake City, July 9, 2004).
114. "A Primer for Understanding Earthquake Hazards in Utah for Policy- and Decision-Making" (presentation to the Utah State Building Board, Salt Lake City, July 14, 2004).
115. "Seismicity of Utah—Overview of Inputs to Seismic Hazard Analyses" (invited class presentation to GEO 3075, Introduction to Geological Engineering, University of Utah, September 1, 2004).
116. "ANSS Building Blocks in the Intermountain West" (invited presentation to the Scientific Earthquake Studies Advisory Council, an advisory group to the U.S. Geological Survey; Jackson Hole, Wyoming, September 13, 2004).
117. "An Overview of Utah's Earthquake Threat" (invited presentation to community group, LDS 9th Ward; Salt Lake City, February 6, 2005).
118. "The Earthquake Threat in the Salt Lake Valley" (invited taped interview for new public service show, "Salt Lake City Now," KUPX-TV 16 in Salt Lake City, August 19, 2005).

119. “Earthquakes and Preparedness” (invited 25-minute radio interview, Dr. Liz Hale Show, KUTR AM 820, Salt Lake City, September 7, 2005).
120. “Implementing ANSS” (invited panelist, Western States Science Policy Council Annual Conference, Boise, Idaho, September 14, 2005).
121. “A Primer for Understanding Earthquake Hazards in Utah” (invited presentation to the University of Utah's Disaster Planning and Intel team, Salt Lake City, November 8, 2005).
122. “Underpinnings of Seismic Monitoring for YVO—Some Perspectives” (invited presentation, Yellowstone Volcano Observatory Planning Meeting, Salt Lake City, November 9-10, 2005).
123. “Regional Review: Intermountain West (IMW) Region” (invited presentation, semi-annual meeting of the National Steering Committee of the Advanced National Seismic System, Denver, Colorado, November 21, 2005).
124. “Earthquake Recording and the Wasatch Fault Story—From 1907 to the Internet” (invited presentation, “The Shaky Wasatch,” a two-hour public forum, including six panelists, sponsored by the Utah Science Center and broadcast on KCPW radio [88.3 FM]; Salt Lake City Public Library, March 2, 2006).
125. “Observed Seismicity and Recurrence Modeling on the Wasatch Fault” (invited presentation, Western States Seismic Policy Council, Basin and Range Province Earthquake Working Group Conference, March 8, 2006).
126. “Earthquakes” (invited 20-minute radio interview, Ronnie McMullen, World Harvest Shortwave Radio, “The Prophetic Watch,” March 31, 2006).
127. “Managing Earthquake Risk in Utah—Truth or Consequences” (invited presentation, Utah League of Cities and Towns Midyear Conference, St. George, Utah, April 6, 2006).
128. “University of Utah Seismograph Stations (UUSS)—40th Anniversary, 1966–2006” (invited presentation, Utah Seismic Safety Commission, Salt Lake City, April 7, 2006).
129. “The Earthquake Danger Along the Wasatch Fault” (invited 30-minute radio interview—joint with Dr. Ron Harris, Prof. of Geology, Brigham Young University—moderated by Wesley Sims, “Thinking Aloud,” Classical 89 KBYU-FM, Provo, Utah, May 18, 2006).
130. “The Earthquake Threat in the Salt Lake Valley” (invited presentation, Monument Park Stake Ninth Ward, Salt Lake City, Utah, July 30, 2006).
131. “Managing Earthquake Risk in Utah” (invited presentation—joint with Dr. Kristine Pankow—Utah League of Cities and Towns Annual Convention, Salt Lake City, Utah, September 13, 2006).
132. “Understanding and Living With Earthquakes in Utah” (invited presentation—joint with Dr. Kristine Pankow—Utah League of Cities and Towns Annual Convention, Salt Lake City, Utah, September 13, 2006).
133. “ANSS Intermountain West (IMW) Region—Status of Implementation and Regional Planning” (Annual Meeting of National Implementation Committee, Advanced National Seismic System, Palisades, N.Y., September 26, 2006).
134. “Status of Implementation and Regional Planning—Intermountain West (IMW) Region” (invited presentation, meeting of the National Steering Committee of the Advanced National Seismic System, Salt Lake City, Utah, June 6, 2007).
135. “Earthquake Recording in Utah: The Past 100 Years, the Present, and the Future” (presentation at the Seismographic Centennial celebrating 100 years of earthquake recording at the University of Utah, Salt Lake City, Utah, June 29, 2007).
136. “Mining-Induced Seismicity in the Crandall Canyon Coal Mine Area—Overview and Update” (invited presentation, Utah Seismic Safety Commission, Salt Lake City, Utah, October 26, 2007).

137. “Mining-Induced Seismicity in the Crandall Canyon Coal Mine Area—Overview and Update” (invited presentation, Utah Mine Safety Commission, Salt Lake City, Utah, November 20, 2007).
138. “Coal-Mining Seismicity in Utah—A Primer and Overview” (invited presentation, joint with M. K. McCarter, Utah Geological Association, Salt Lake City, Utah, January 14, 2008).
139. “Seismic Monitoring in the Wasatch Plateau-Book Cliffs Coal-Mining Region” (invited presentation), Bureau of Land Management Meeting on Deep Coal Mining in Utah, Salt Lake City, Utah, March 27, 2008.
140. “The Earthquake Threat in the Salt Lake Valley” (invited presentation), Latter-Day Sigma Chi’s (community discussion group), Salt Lake City, Utah, May 10, 2008.
141. “Earthquakes in Utah” (invited half-hour TV studio interview with Brandy Vega for the program, “Utah Matters”), broadcast on KJAZZ TV, Salt Lake City, Utah, May 18, 2008.
142. “Seismic Monitoring and Coal-Mine Safety, with Examples from Utah” (invited presentation), Third Annual International Symposium on Mining Health & Safety, Salt Lake City, Utah, July 20–22, 2008.
143. “State of Practice of Monitoring Mining-Induced Seismicity in Utah Coal Mines,” presentation at Workshop—Expert Panel on Seismic Monitoring Applicable to Deep Coal Mines, Salt Lake City, Utah, October 20–22, 2008.
144. “Mining Seismicity in the U.S. and NIOSH Interests” (invited presentation), meeting of the National Steering Committee of the Advanced National Seismic System, Golden, Colorado, January 22–23, 2009.
145. “Intermountain West Region—Regional Update” (invited presentation), meeting of the National Steering Committee of the Advanced National Seismic System, Golden, Colorado, January 22–23, 2009.
146. “Paths to Earthquake Risk Reduction” (invited presentation), 2009 EERI-WSSPC National Meeting, Salt Lake City, Utah, February 12, 2009.
147. “Overview of Current Strong-Motion Monitoring in Utah” (invited presentation), EERI Strong-Motion Forum, 2009 EERI-WSSPC National Meeting, Salt Lake City, Utah, February 13, 2009.
148. “Some Basics of Mining-Induced Seismicity in Utah,” presentation at Information Meeting for Stakeholder’s—Seismic Monitoring Applicable to Deep Coal Mines, Price, Utah, April 14, 2009.
149. “Summary of Expert Panel Workshop on Seismic Monitoring Applicable to Deep Coal Mines,” presentation at Information Meeting for Stakeholder’s—Seismic Monitoring Applicable to Deep Coal Mines, Price, Utah, April 14, 2009.
150. “Overview of Seismicity in Utah” (invited presentation), Nevada Earthquake Safety Council and Utah Seismic Safety Commission Joint Meeting, Wells, Nevada, May 20, 2009.
151. “Utah Earthquake! When the Big One Hits” (one-hour live interview with two other panelists), RadioActive, a public forum hosted by Robert Nelson and broadcast on KRCL radio [89.1 FM]; Salt Lake City, June 9, 2009).
152. “Earthquake Hazard in Utah—Seismological Perspectives” (invited joint presentation by W. J. Arabasz and K. L. Pankow), FEMA Regional Interagency Steering Committee Meeting, Salt Lake City, Utah, July 7, 2009.
153. “The Earthquake Threat in the Salt Lake Valley” (invited presentation) half-hour press conference with Mayor Ralph Becker marking National Emergency Preparedness Month in Salt Lake City); Salt Lake City, September 1, 2009.
154. “Overview of Seismicity, Background Earthquakes, and Modeling Earthquake Rates in Utah,” presentation at meeting of the Working Group for Utah Earthquake Probabilities, Salt Lake City, Utah, February 11, 2010.
155. “A Year of Living Dangerously” (invited presentation), Utah Seismic Safety Commission, Salt Lake City, Utah, April 22, 2010).

156. “Update and Path Forward—Background Earthquakes in the Wasatch Front Area,” presentation at meeting of the Working Group for Utah Earthquake Probabilities, Salt Lake City, Utah, December 1, 2010.
157. “Background Earthquakes and Consensus Wasatch Front Earthquake Catalog,” presentation at meeting of the Working Group for Utah Earthquake Probabilities, Salt Lake City, Utah, February 6, 2011.
158. “Update on Consensus Wasatch Front Earthquake Catalog,” presentation at meeting of the Working Group for Utah Earthquake Probabilities, Salt Lake City, Utah, June 29, 2011.
159. “Observed Seismicity and Recurrence Modeling on the Wasatch Fault (Revisited),” presentation at Basin and Range Province Earthquake Working Group II Meeting, Salt Lake City, Utah, November 14, 2011.
160. “University of Utah Earthquake Catalog—Magnitude “Uncertainties and Comparison with the NSHM Catalog,” presentation at Basin and Range Province Earthquake Working Group II Meeting, Salt Lake City, Utah, November 16, 2011.
161. “Update on Consensus Wasatch Front Catalog,” presentation at meeting of the Working Group for Utah Earthquake Probabilities, Salt Lake City, Utah, November 18, 2011.
162. “Understanding the Wasatch Fault—from G. K. Gilbert and James E. Talmage to the Present,” invited presentation, University of Utah Professors Emeriti Club, Salt Lake City, January 3, 2012.
163. “Update on Consensus Wasatch Front Catalog,” presentation at meeting of the Working Group for Utah Earthquake Probabilities, Salt Lake City, Utah, February 16, 2012.
164. “Issues in Considering Alternative Earthquake Catalogs for the NSHMP—Utah Catalog Example,” presentation at U.S. Geological Survey Workshop on Update of Intermountain West Part of the U.S. National Seismic Hazard Maps, Salt Lake City, Utah, June 14, 2012.
165. “Update on Consensus Wasatch Front Catalog,” presentation at meeting of the Working Group for Utah Earthquake Probabilities, Salt Lake City, Utah, August 8, 2012.
166. “Utah’s Earthquake Threat—the Big Picture and the Long View,” presentation at Town Hall Meeting, Annual Meeting of the Seismological Society of America, Salt Lake City, Utah, April 17, 2013.
167. “Utah Earthquake Probabilities and Public Policy Making,” invited presentation, Public Policy Luncheon, Annual Meeting of the Seismological Society of America, Salt Lake City, Utah, April 18, 2013.
168. “A Revised Earthquake Catalog and Unbiased Seismicity Rate Calculations for Background Seismicity in the WGUEP Region, presentation at meeting of the Working Group for Utah Earthquake Probabilities, Salt Lake City, Utah, September 12, 2013.
169. “Utah’s Earthquake Threat—the Big Picture and the Long View,” presentation to Saint Catherine’s Newman Center Men’s Group, Salt Lake City, Utah, March 8, 2014.
170. “A Uniform Moment Magnitude Earthquake Catalog for the Utah Region (1850–2012) and Estimation of Unbiased Recurrence Parameters for Background Seismicity” [poster presentation], Basin and Range Province Seismic Hazards Summit III, Utah Geological Survey and Western States Seismic Policy Council, Salt Lake City, Utah, January 12–17, 2015.

PROFESSIONAL CONSULTING

1. Rollins, Brown and Gunnell, Inc., Provo, Utah (1977). Site–response analysis for proposed hospital in Logan, Utah.
2. International Atomic Energy Agency, Vienna, Austria (Short–Term Expert, Chile, 1979). Seismotectonic considerations in northern Chile, 21°–27° S, with respect to the siting of a nuclear power plant.
3. Weidlinger Associates, Menlo Park, California (1980). Geological and geophysical information relevant to site–dependent ground motions at Wing V (Wyoming–Nebraska–Colorado).
4. EG&G Idaho, Inc. (Department of Energy), Idaho Falls, Idaho (1980–81). Preparation and presentation of proposal for seismic risk zone revision in southeast Idaho to International Conference of Building Officials.
5. EG&G Idaho Inc. (Department of Energy), Idaho Falls, Idaho (1982). Document review: *Site Investigation at Idaho National Engineering Laboratory, LMFBR Large Developmental Plant (LDP), Conceptual Design Study–Phase III*.
6. Lindvall, Richter and Associates, Los Angeles, California (1981–82). Seismic safety investigation of eight Soil Conservation Service dams in southwestern Utah.
7. U.S. Bureau of Reclamation, Engineering and Research Center, Denver, Colorado (1982–83). Review and analysis of geologic, seismotectonic, and design data for the proposed Jordanelle Dam, Bonneville Unit, Central Utah Project, Utah. (Consultant review by W. J. Arabasz, R. H. Jahns, and R. B. Peck.)
8. EG&G Idaho, Inc. (Department of Energy), Idaho Falls, Idaho (1983). Member, Geotechnical Advisory Panel to assist EG&G Idaho, Inc. and DOE regarding programmatic efforts toward site characterization of the Idaho National Engineering Laboratory for the proposed siting of a New Production Reactor Facility.
9. Electric Power Research Institute, Palo Alto, California (1984). Participant, "Data Needs Workshop; regarding data management plan and tectonic evaluation for earthquake hazards in the eastern U.S.;" participant and editor of *Proceedings of a Seminar on Defining Tectonic Mechanisms Causing Earthquakes in the Eastern United States*.
10. Dames & Moore, Golden, Colorado/Electric Power Research Institute (EPRI), Palo Alto, California (1984–85). Member of "Seismic Hazard Methodology Team," EPRI Seismic Hazards Research Program, for evaluation of earthquake hazards in the eastern United States for the siting of nuclear generating facilities. (Participation in seven formal workshops, two academic seminars, and three series of interactive meetings with six teams of tectonic evaluation contractors in the central and eastern U.S.).
11. Electric Power Research Institute, Palo Alto, California (1985–87). Participation in scientific review, technical description, and comparative evaluation of EPRI seismic hazard methodology for the central and eastern United States.
12. U.S. Bureau of Reclamation, Engineering and Research Center, Denver, Colorado (1986–87). Review and analysis of geologic, seismotectonic, and design data for the proposed Jordanelle Dam, Bonneville Unit, Central Utah Project. (Consultant review by R. B. Peck, W. J. Arabasz, G. S. Tarbox, and D. D. Campbell.)
13. U.S. Bureau of Reclamation, Engineering and Research Center, Denver, Colorado (1988). Review and evaluation of seismotectonic conclusions and details of final embankment dam design for Jordanelle Dam, Bonneville Unit, Central Utah Project. (Consultant review by R. B. Peck, W. J. Arabasz, and T. G. McCusker.)
14. Dames & Moore, Los Angeles, California (1989). Member of advisory panel for project on seismic code decisions under risk, sponsored by the National Science Foundation.
15. Lawrence Livermore National Laboratory, Livermore, California (1990–91). Member of Seismicity and

- Tectonic Expert Group, New Production Reactors Project, Idaho National Engineering Laboratory Site.
16. U.S. Bureau of Reclamation, Engineering and Research Center, Denver, Colorado, and Regional Office, Salt Lake City, Utah (1990–92). Review and evaluation of foundation conditions, ongoing geologic mapping procedures, and seismic–safety aspects of the Jordanelle Dam, Bonneville Unit, Central Utah Project. (Consultant review by W. J. Arabasz, R. B. Peck, and D. D. Campbell.)
 17. Science Applications International Corporation, Las Vegas, Nevada (1991). Member of Peer Review Group for Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada.
 18. Geomatrix Consultants, San Francisco, California (1991–92). Member of expert panel, Electric Power Research Institute High Level Waste (EPRI–HLW) project to assess earthquake and tectonic issues for the proposed high–level nuclear waste repository at Yucca Mountain, Nevada.
 19. Risk Engineering, Inc., Golden, Colorado (1992–94). Investigator for Seismology as part of a Seismic Hazard Study for Systematic Evaluation Program, Rocky Flats Plant, conducted for EG&G Rocky Flats, Inc. and sponsored by the U.S. Department of Energy.
 20. Woodward–Clyde Federal Consultants, Las Vegas, Nevada (1993–94). Technical reviewer for (1) *Topical Report: Methodology to Assess Seismic Hazards at Yucca Mountain* and (2) *Seismic Design Inputs for the Exploratory Studies Facility at Yucca Mountain*.
 21. U.S. Bureau of Reclamation, Engineering and Research Center, Denver, Colorado (1994). Review of design, construction, and operation of Jordanelle Dam and Reservoir, Bonneville Unit, Central Utah Project, Utah. (Consultant review by W. J. Arabasz, D. D. Campbell, and R. B. Peck.)
 22. Jack R. Benjamin & Associates, Inc., Mountain View, California (1994). Technical reviewer for *Probabilistic Seismic Hazard Assessment for the U.S. Army Chemical Demilitarization Facility, Tooele, Utah*.
 23. TRW Environmental Safety Systems, Inc., Vienna, Virginia (1995). Member of expert team for seismic source characterization for a probabilistic seismic hazard assessment of a high–level nuclear waste repository at Yucca Mountain, Nevada.
 24. Rutherford & Chekene, San Francisco, California (1995). Technical review and consulting advice on seismicity and ground–motion considerations for design of a manufacturing plant at Lehi, Utah, for Micron Technology, Inc.
 25. TRW Environmental Safety Systems, Inc., Vienna, Virginia (1995). Organizer and chair of plenary session of FOCUS 95—Methods of Seismic Hazard Evaluation (a topical meeting co–sponsored by the American Nuclear Society and the Geological Society of America, September 18–20, 1995, Las Vegas, Nevada).
 26. William Lettis & Associates, Inc., Walnut Creek, California (1995). Technical review and consulting advice on seismic source characterization for the stability evaluation of Lake Almanor and Butt Valley Dams, California.
 27. Parsons Brinckerhoff, Salt Lake City, Utah (1995–96). Member of Seismic Advisory Committee to Utah Department of Transportation for seismic hazard analysis of the I–15 interstate highway corridor (consulting undertaken under a University of Utah contract).
 28. TRW Environmental Safety Systems, Inc., Vienna, Virginia (1996–98). Member of expert team for seismic source characterization for a probabilistic seismic hazard assessment of a high–level nuclear waste repository at Yucca Mountain, Nevada.
 29. Utah Department of Environmental Quality (1998–2003). Seismicity and earthquake expert for evaluation of a proposed high–level radioactive waste storage facility in Skull Valley, Tooele County, Utah (consulting undertaken under a University of Utah contract).
 30. Los Alamos National Laboratory, Los Alamos, New Mexico (2000–02). Member of Laboratory Seismic Review Committee, Nuclear Materials and Stockpile Management Program, an advisory group on the Laboratory's seismic risks and hazards and related technical and operational activities.

31. U.S. Bureau of Reclamation, Engineering and Research Center, Denver, Colorado (2001–03). Review of seismic hazard and design of Deer Creek Dam and Reservoir, Utah. (Consultant review by W. J. Arabasz, J. Mitchell, and R. B. Peck.)
32. Los Alamos National Laboratory, Los Alamos, New Mexico (2004–2007). Member of Steering Committee for Update of Probabilistic Seismic Hazard Analysis for Los Alamos National Laboratory. (Consultant peer review committee consisting of W. J. Arabasz, C. Costantino, and M. N. Machette.)
33. U.S. Geological Survey, Menlo Park, California (2008). Invited participant in three workshops sponsored by the U.S. Nuclear Regulatory Commission addressing “Practical Procedures for Implementation of the SSHAC Guidelines and for Updating Existing PSHAs.” [SSHAC = Senior Seismic Hazard Analysis Committee; PSHA = Probabilistic Seismic Hazard Analysis]
34. Electric Power Research Institute, Palo Alto, California (2008–2011). Co-Chairman of eight-member Participatory Peer Review Panel, Central and Eastern United States Seismic Source Characterization for Nuclear Facilities.
35. Los Alamos National Laboratory, Los Alamos, New Mexico (2009–2011). Chair, Steering Committee, Confirmatory Studies of the Los Alamos National Laboratory Probabilistic Seismic Hazard Assessment. (Consultant peer review committee consisting of W. J. Arabasz, C. Costantino, and M. N. Machette.)
36. Fugro Consultants, Inc., Walnut Creek, California (2011–2012). Resource expert and advisor to Technical Integrator Team, Blue Castle Licensing Project (for a proposed nuclear power plant in Emery County, Utah).
37. Electric Power Research Institute, Palo Alto, California (2012–2013). Chairman of four-member Participatory Peer Review Panel, EPRI (2004, 2006) Ground Motion Model Review Project.
38. Los Alamos National Laboratory, Los Alamos, New Mexico (2011–2013). Chair, Update Steering Committee, Pajarito Fault System (PFS) External Review Project (Consultant peer review committee consisting of W. J. Arabasz and M. N. Machette.)