

## Peter J. Haeussler

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### EDUCATION:

1984 B. Sc. (Geology) Michigan State University  
1991 Ph. D. (Earth Sciences) University of California Santa Cruz

### PROFESSIONAL EXPERIENCE:

1985 Geologist, Lancer Energy Corporation, Wilmore, Kentucky  
1985-1988 Teaching Assistant, University of California Santa Cruz  
1986-1991 Research Assistant, University of California Santa Cruz  
1992 Geologist, U.S. Geological Survey, Menlo Park, California  
1992-1994 Postdoctoral Researcher, U.S. Geological Survey, Anchorage, Alaska  
1994-present Geologist, U.S. Geological Survey, Anchorage, Alaska

### SOCIETIES:

1985-present American Geophysical Union  
1985-present Geological Society of America  
1983-present American Association of Petroleum Geologists  
1992-present Alaska Geological Society

### HONORS AND AWARDS

USGS, Anchorage, Alaska, post-doctoral fellowship (2 years), 1991-1993  
Geological Society of America (GSA), Harold T. Stearns award for best student proposal for Circum-Pacific Research, 1990

### PROFESSIONAL SERVICE:

1996-2002 Commissioner, Geotechnical Advisory Commission for the Municipality of Anchorage  
1997-2002 Alaska RISC (Alaska Regional Interagency Steering Committee) Earthquake Scenario Team (AREST)  
1996-2003 Stering committee - Anchorage Strong Motion Research Project (N. Biswas, PI).  
2000-present ANSS Regional Advisory Council for Alaska  
2003-2004 Guest editor, Earthquake Spectra special issue on the 2002 Denali fault earthquake, to be published in August of 2004.

### FIELDTRIPS

1995 Field trip leader. Stanford University Alpine Project. Led 1-day field trip across the accretionary complex near Anchorage, AK. Discussed tectonic setting, neotectonics, glacial history, Mesozoic sedimentology and deformational history, ridge subduction, lode-gold mineralization, and effects of the 1964 earthquake.  
1997 Field trip stops. Alaska Geological Society. Provided an overview of the geologic and tectonic setting of south-central Alaska at the first stop of this large field trip. Wrote text for

guidebook for this stop and another that discussed the tectonic setting of gold in the Chugach and Kenai Mountains.

- 1999 Field trip coleader USGS Geologic Division Policy Council (Chief Geologist, Regional Geologists, and others). Co-led a one day field trip in the Anchorage and Turnagain Arm areas showing effects of 1964 earthquake, neotectonics, glacial history, Mesozoic accretionary history, ridge subduction, and lode-gold mineralization.
- 1999 Field trip leader. National Meeting of American Institute of Professional Geologists. Led a one day field trip along Turnagain Arm in south-central Alaska showing effects of 1964 earthquake, neotectonics, glacial history, Mesozoic accretionary history, ridge subduction, and lode-gold mineralization.
- 2000 Field trip coleader. Northwest Geological Society. Led Day 1 of a two day field trip that outlined the bedrock geology of the Puget Lowland. Discussed Paleocene-Eocene magmatic history, Seattle basin sedimentary history, tectonics, earthquake hazards, and neotectonics.
- 2002 Field trip contributions. American Association of Petroleum Geologists. At the request of the field trip leaders, I gave presentations on the structural geology, neotectonics, earthquake hazards, and aeromagnetic interpretations of the Cook Inlet basin.

#### PUBLICATIONS:

- 1991 Haeussler, Peter J., 1991, Paleomagnetic and structural constraints on the accretion history of the Alexander terrane, southeastern Alaska: Ph.D. Dissertation, University of California Santa Cruz, 213 pp.
- 1992 Haeussler, Peter J., Coe, Robert S., and Onstott, T. C., 1992, Paleomagnetism of the Late Triassic Hound Island Volcanics: revisited: *Journal of Geophysical Research*, v. 97, p. 19,617-19,639.
- Haeussler, Peter J., Coe, Robert S., and Renne, Paul, 1992, The paleomagnetism and geochronology of 23-Ma gabbroic intrusions in the Keku Strait, Alaska, and implications for the Alexander terrane: *Journal of Geophysical Research*, v. 97, p. 19,641-19,649.
- Haeussler, Peter J., 1992, Structural evolution of an arc-basin: the Gravina belt in central southeastern Alaska: *Tectonics*, v. 11, p. 1245-1265.
- 1993 Haeussler, Peter J., and Bradley, Dwight C., 1993, Map and compilation of structural data from lode-gold mineral occurrences in the Chugach-Prince William terrane of southern Alaska: U.S. Geological Survey Open-File Report, 93-325, 53 pp. plus 1 sheet, scale 1: 500,000.
- Haeussler, Peter J., and Paterson, Scott, 1993, Tilting, burial, and uplift of the Guadalupe Igneous Complex, Sierra Nevada, California: *Geological Society of America Bulletin*, v. 105, p. 1310-1320.
- Haeussler, Peter J., and Nelson, Steven R., 1993, Structural evolution of the Chugach-Prince William terrane at the hinge of the orocline in Prince William Sound, and implications for ore deposits: in Till, A., and Dusel-Bacon, C., eds., *Geologic studies in Alaska by the U.S. Geological Survey*, 1992, U. S. Geological Survey Bulletin 2068, p. 143-162.
- Bradley, Dwight C., Haeussler, Peter J., and Kusky, Timothy M., 1993, Timing of early Tertiary ridge subduction in southern Alaska: in Till, A., and Dusel-Bacon, C., eds., *Geologic studies in Alaska by the U.S. Geological Survey*, 1992, U.S. Geological Survey Bulletin 2068, p. 163-177.
- 1994 Haeussler, Peter J., 1994, Possible active fault traces on or near the Castle Mountain fault between Houston and the Hatcher Pass Road: in Till, A., and Moore, T., eds., *Geologic*

studies in Alaska by the U.S. Geological Survey, 1993, U.S. Geological Survey Bulletin 2107, p. 49-58.

Haeussler, Peter J., 1994, The next big earthquake in southern Alaska may come sooner than you think: public service earthquake preparedness pamphlet published with funds provided by the U.S. Geological Survey, Alaska Division of Geological and Geophysical Surveys, and FEMA, 150,000 copies were printed and distributed: 28 pp, <http://www.uaf.edu/seagrant/earthquake/>

- 1995 Haeussler, Peter J. and Plafker, George, 1995, Earthquakes in Alaska: U.S. Geological Survey Open-File Report, 95-624, 1 sheet; updated 2004.
- Haeussler, Peter J., Bradley, Dwight C., Goldfarb, Richard J., Snee, Lawrence W., and Taylor, Cliff, 1995, Link between ridge subduction and gold mineralization in southern Alaska: *Geology*, v. 23, no. 11, p. 995-998.
- Page, Robert A., and Haeussler, Peter J., 1995, Earthquake information needs in south-central Alaska: U.S. Geological Survey Open-File Report, 95-696, 9 p.
- Goldfarb, R.J., Christie, T., Skinner, D., Haeussler, P., and Bradley, D., 1995, Gold deposits of Westland, New Zealand and southern Alaska--Products of the same tectonic processes?, in Mauk, J., ed., PACRIM '95: Symposium Volume, p. 239-244.
- 1997 Haeussler, Peter J., and Anderson, Robert S., 1997, The 'Twin Peaks fault': not a tectonic or seismogenic structure, in Dumoulin, J., and Gray, J. eds., *Geologic studies in Alaska by the U.S. Geological Survey, 1995*, U.S. Geological Survey Professional Paper 1574. p. 93-99. <http://vulcan.wr.usgs.gov/Projects/Deformation/Alaska/Katmai/PP1574/framework.html>
- Kusky, Timothy M., Bradley, Dwight C., and Haeussler, Peter, 1997, Progressive deformation of the Chugach accretionary complex, Alaska, during a Paleogene ridge-trench encounter, *Journal of Structural Geology*, v. 19, p. 139-157.
- Bradley, Dwight C., Kusky, Timothy M., Karl, Susan M., and Haeussler, Peter J., 1997, Field guide to the Mesozoic accretionary complex along Turnagain Arm and Kachemak Bay, south-central Alaska: in Karl, S.M., Vaughn, N.R., and Ryherd, T.J., eds, 1997 *Guide to the geology of the Kenai Peninsula, Alaska*: Alaska Geological Society, Anchorage, p. 2-12.
- Kusky, Timothy M., Bradley, Dwight C., Haeussler, Peter, and Karl, Susan M., 1997, Controls on accretion of flysch and melange belts at convergent margins; evidence from the Chugach Bay thrust and Iceworm Melange, Chugach accretionary wedge, Alaska, *Tectonics*, v. 16, p. 855-878.
- 1998 Haeussler, Peter J., 1998, Surficial geologic map along the Castle Mountain fault between Houston and Hatcher Pass Road, Alaska: U. S. Geological Survey Open File Report 98-480, scale 1:25,000, 1 sheet, <http://caldera.wr.usgs.gov/OF98-480/>
- Wilson, Frederic H., Dover, James H., Bradley, Dwight C., Weber, Florence R., Bundtzen, Thomas K., Haeussler, Peter J., 1998, Geologic map of central (interior) Alaska, Open-File Report - U. S. Geological Survey, OF 98-0133, 3 sheets, scale 1:500,000, and pamphlet 76 pp. OF 98-133-A, has GIS data of this compilation, 1 disc. <http://wrgis.wr.usgs.gov/open-file/of98-133-a/>
- 1999 Bradley, Dwight C., Kusky, Timothy M., Haeussler, Peter J., Karl, Susan M., and Donley Thomas D., 1999, Geologic map of the Seldovia quadrangle, south-central Alaska: U. S. Geological Survey Open File Report 99-362, scale 1:250,000. 1 sheet: <http://wrgis.wr.usgs.gov/open-file/of99-18/>
- Nelson, Steven W., Miller, Marti L., Haeussler, Peter J., Snee, Lawrence W., Phillips, Patti J., Huber, Carol, 1999, Preliminary geologic map of the Chugach National Forest Special Study Area, Alaska: U. S. Geological Survey Open File Report 99-362, scale 1:63,360. 1 sheet, <http://geopubs.wr.usgs.gov/open-file/of99-362/>.

- Haeussler, Peter J., Yount, Jim, Wells, Ray, 1999, Preliminary geologic map of the Uncas 7.5' quadrangle Clallam and Jefferson counties, Washington: U. S. Geological Survey Open File Report 99-421, scale 1:24,000, 1 sheet, <http://wrgis.wr.usgs.gov/open-file/of99-421/>
- Karl, Susan M., Haeussler, Peter J., and McCafferty, Anne, 1999, Reconnaissance geologic map of the Duncan Canal-Zarembo Island area, southeastern Alaska: U. S. Geological Survey Open File Report 99-168, scale 1:150,000, 1 sheet, <http://geopubs.wr.usgs.gov/open-file/of99-168/>
- Haeussler, Peter, and Dilley, Lorie, 1999, Turnagain Arm; American Institute of Professional Geologists Annual Meeting Field Trip, v. 36, no. 2, variously paginated.
- 2000 Haeussler, Peter J., Bruhn, Ronald L., and Pratt, Thomas L., 2000, Potential seismic hazards and tectonics of upper Cook Inlet basin, Alaska, based on analysis of Pliocene and younger deformation: Geological Society of America Bulletin, v. 112, p. 1414-1429.
- Haeussler, Peter J., and Clark, Kenneth M., 2000, Geologic map of the Wildcat Lake 7.5' quadrangle, Kitsap county, Washington: U. S. Geological Survey Open File Report 00-356, scale 1:24,000, 1 sheet: <http://geopubs.wr.usgs.gov/open-file/of00-356/>
- Haugerud, Ralph, and Haeussler, Peter, 2000, Bedrock geology of Seattle: Northwest Geological Society Fieldtrip Guide, 33 p.
- 2001 Saltus, R.W., Haeussler, P.J., Bracken, R.E., Doucette, J.P., and Jachens, R.C., 2001, Anchorage Urban Region Aeromagnetics (AURA) Project – Preliminary Geophysical Results; USGS Open-File Report 01-0085, 21 pp. <http://geology.cr.usgs.gov/pub/open-file-reports/ofr-01-0085/>
- Haeussler, P.J., and Karl, S.M., 2001, Outcrop structural data from parts of the Petersburg and Sumdum 1:250,000-scale quadrangles, southeastern Alaska: U.S. Geological Survey Open-File Report 01-427, 6 p., and data tables. <http://geopubs.wr.usgs.gov/open-file/of01-427/>
- Haeussler, P.J., Karl, S.M., and Labay, K., 2001, Outcrop structural data from Wales Group and adjacent rocks, Dall and Prince of Wales Islands, southeastern Alaska: U.S. Geological Survey Open-File Report 01-428, 6 p., and data tables. <http://geopubs.wr.usgs.gov/open-file/of01-428/>
- Labay, Keith, and Haeussler, Peter J., 2001, GIS coverages of the Castle Mountain fault, south-central Alaska: U.S. Geological Survey Open File Report 01-504, 5 pp., and digital files. <http://geopubs.wr.usgs.gov/open-file/of01-504/>
- 2002 Altstatt, A.A., Saltus, R.W., Bruhn, R.L., and Haeussler, P.J., 2002, Magnetic susceptibilities measured on rocks of the upper Cook Inlet, Alaska: U.S. Geological Survey Open-File Report 02-0139, 17 p., <http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-02-0139>
- Haeussler, Peter J., Best, Timothy C., and Waythomas, Christopher F., 2002, Paleoseismology at high latitudes: seismic disturbance of late Quaternary deposits along the Castle Mountain fault near Houston, Alaska: Geological Society of America Bulletin, v. 114, p. 1296-1310, 1 plate.
- 2003 Haeussler, Peter J., Bradley, Dwight C., Wells, Ray E., and Miller, Marti, 2003, Life and death of the Resurrection plate: evidence for its existence and subduction in the NE Pacific in Paleocene-Eocene time: Geological Society of America Bulletin, v. 115, p. 867-880.
- Zumsteg, Cathy L., Himmelberg, Glen R., Karl, Susan M., and Haeussler, Peter J., 2003, High-temperature/low-pressure metamorphism within the forearc on Baranof Island, southeastern Alaska: in Sisson, V. B., Roeske, S. M., and Pavlis, T. L., Geology of a transpressional orogen developed during ridge-trench interaction along the north Pacific margin: in Sisson, V. B., Roeske, S. M., and Pavlis, T. L., Geology of a transpressional orogen developed during ridge-trench interaction along the north Pacific margin: Geological Society of America Special Paper 371, p. 253-268.

Eberhart-Phillips, D., Haeussler, P.J., Freymueller, J. T. , Frankel, A. D. , Rubin, C. M., Craw, P., Ratchkovski, N. A., Anderson, G., Carver, G. A. , Crone, A. J., Dawson, T. E., Fletcher, H., Hansen, R., Harp, E.L., Harris, R.A., Hill, D.P., Hreinsdóttir, S., Jibson, R.W., Jones, L.M., Kayen, R. Keefer, D.K., Larsen, C.F., Moran, S.C., Personius, S.F., Plafker, G., Sherrod, B., Sieh, K., Sitar, N., and Wallace, W.K., 2003, The 2002 Denali Fault Earthquake, Alaska: A Large Magnitude, Slip-Partitioned Event, *Science*, v. 300, p. 113-11.

Haeussler, Peter J., Bradley, Dwight C., and Goldfarb, Richard J., 2003, Brittle deformation along the Gulf of Alaska margin in response to Paleocene-Eocene triple junction migration: in Sisson, V. B., Roeske, S. M., and Pavlis, T. L., *Geology of a transpressional orogen developed during ridge-trench interaction along the north Pacific margin: Geological Society of America Special Paper 371*, p. 119-140.

Bradley, Dwight, Kusky, T., Haeussler, Peter, Goldfarb, Rich, Miller, Marti, Dumoulin, Julie, Nelson, Steven W., and Karl, Sue, 2003, Geologic signature of early Tertiary ridge subduction in Alaska: in Sisson, V. B., Roeske, S. M., and Pavlis, T. L., *Geology of a transpressional orogen developed during ridge-trench interaction along the north Pacific margin: Geological Society of America Special Paper 371*, p. 19-50.

Kusky, T.M., Bradley, D., Donley, D.T., Rowley, D., and Haeussler, P.J., 2003, Controls on intrusion of near-trench magmas of the Sanak-Baranof belt, Alaska, during Paleogene ridge subduction, and consequences for forearc evolution: in Sisson, V. B., Roeske, S. M., and Pavlis, T. L., *Geology of a transpressional orogen developed during ridge-trench interaction along the north Pacific margin: Geological Society of America Special Paper 371*, p. 269-292.

2004 Doser, D.I., Ratchkovski, N.A., Haeussler P.J., and Saltus, R., 2004, Changes in crustal seismic deformation rates associated with the 1964 Great Alaska Earthquake: *Bulletin of the Seismological Society of America*, v. 94, p. 320-325.

Himmelberg, G.R., Haeussler, P.J., Brew, D.A., 2004, Emplacement, rapid burial, and exhumation of 90-Ma plutons in southeastern Alaska: *Canadian Journal of Earth Sciences*, v. 41, p. 87-102.

In press

Haeussler, Peter J., Karl, Susan M., Mortensen, James K., Smith, Bruce, McCafferty, Anne, and Wynn, Jeffery, in press, Structural geology of the Duncan Canal-Zarembo Island-Mosman Inlet area, southeastern Alaska: U. S. Geological Survey Professional Paper, 115 manuscript p.

Haeussler, P.J., Schwartz, D.P., Dawson, T.E., Stenner, H.D., Lienkaemper, J.J., Cinti, F.R., Montone, P., Sherrod, B., Craw, P., in press, Surface rupture of the November 2002 M7.9 Denali fault earthquake, Alaska, and comparison to other strike-slip earthquakes: *Earthquake Spectra*, ~50 manuscript pages

Submitted

Haeussler, P.J., Schwartz, D.P., Dawson, T.E., Stenner, H.D., Lienkaemper, J.J., Sherrod, B., Cinti, F.R., Montone, P., Craw, P., Crone, A.J., and Personius, S.F., submitted, Surface rupture and slip distribution of the Denali and Totschunda faults in the 3 November 2002 M7.9 earthquake, Alaska: *Bulletin of the Seismological Society of America*, 81 manuscript pages.

Crone, A.J., Personius, P.A., Haeussler, P.J., Staft, L.A., submitted, The Susitna Glacier thrust fault—characteristics of ruptures that initiated the 2002 Denali fault earthquake: *Bulletin of the Seismological Society of America*, 43 manuscript pages.

Karl, S.K., Haeussler, P.J., Himmelberg, G., Zumsteg, C.Z., submitted, Geologic map of Baranof Island, Alaska: U.S. Geological Survey Miscellaneous Investigations Map, 1 sheet.

Haeussler, Peter J., and Saltus, Richard W., submitted, Mapping Quaternary volcanic deposits in the Cook Inlet region of south-central Alaska using high-frequency filtered aeromagnetic data: Tectonophysics, 26 manuscript pages.

Haeussler, P.J., and Saltus, R.W., submitted, Twenty-six kilometers of offset since late Eocene time on the Lake Clark fault: in Wilson, F., and Galloway, eds., Geologic Studies in Alaska by the USGS, 2004, USGS Professional Paper, 10 manuscript pages.

Haeussler, P.J., and Saltus, R.W., submitted, Location, extent, and estimates of deformation rates of Tertiary structures in the Cook Inlet basin, Alaska: U.S. Geological Survey Professional Paper, 26 manuscript pages.

## PERSONAL

Born: June 8, 1962

Marital Status: Married with three children, ages 9-14.

Some Interests: Climbing, speedskating, cycling, sailing, skiing, music, fishing