**Community Fault Model Version 6.0 (CFM6.0) References & Links**

This document includes references for the Southern California Earthquake Center (SCEC) Community Fault Model version 6.0 (CFM6.0). Citations listed in the CFM metadata are provided here in complete and represent the sources used to help delineate the 3D geometry of faults that are included in the model. This reference list should not be considered as a comprehensive set of references describing other aspects of southern California fault systems. Citations include only primary sources that help define fault traces and/or subsurface geometries, as well as subsequent studies that have built upon and modified these representations. In many cases, initial 3D fault representations were generated by the CFM development team. In these cases, we generally list the primary sources for data used for subsurface control, and SCEC abstracts that presented these new 3D representations. If you notice missing or incomplete references, please forward these or other inquiries to the CFM developers by emailing [scec-cfm-l@usc.edu](mailto:scec-cfm-l@usc.edu).

# General CFM Citations and Releases

[***https://www.scec.org/research/cfm***](https://www.scec.org/research/cfm)

[***https://www.scec.org/research/cfm-viewer/***](https://www.scec.org/research/cfm-viewer/)

Nicholson, C. Helping to Evaluate and Improve the SCEC 3D Community Fault Model and Regional Seismicity Catalogs, 2009 SCEC Annual Report, n.09145, 7 pp (2010).

Nicholson, C., Continuing to Evaluate Active 3D Fault Structure and Improve the SCEC Community Fault Model (CFM), 2011 SCEC Annual Report, n.11048, 6 pp (2012).

Nicholson, C., Evaluating 3D Fault Geometry in Special Fault Study Areas and Improving the SCEC Community Fault Model (CFM), 2012 SCEC Annual Report, n.12108, 7 pp (2013).

Nicholson, C., Continuing to Evaluate 3D Fault Geometry in Special Fault Study Areas and to Improve the SCEC Community Fault Model (CFM), *2013 SCEC Annual Report*, n.13108, 7 pp (2014).

Nicholson, C., Updating Active 3D Fault Geometry in Special Fault Study Areas and Improving the SCEC Community Fault Model (CFM), *2014 SCEC Annual Report*, n.14015, 8 pp (2015).

Nicholson, C., Continuing to evaluate & update active 3D fault geometry in Special Fault Study Areas and to improve the SCEC Community Fault Model, *2015 SCEC Annual Report*, n.15154, 9 pp (2016).

Nicholson, C., Continuing to evaluate 3D fault geometry in Special Fault Study Areas and to update & improve the SCEC Community Fault Model, *2016 SCEC Annual Report*, n.16065, 8 pp (2017).

Nicholson, C., Refine 3D Fault & Deformed Surface Geometry to Update & Expand the SCEC Community Fault Model, *2017 SCEC Annual Report*, n.17066, 8 pp (2018).

Nicholson, C., Evaluate & Refine 3D Fault and Deformed Surface Geometry to Update & Improve the SCEC Community Fault Model, *2019 SCEC Annual Report*, n.19031, 11 pp (2020).

Nicholson, C., E. Hauksson, A. Plesch and P. Shearer, Resolving 3D fault geometry at depth along active strike-slip faults: Simple or complex?, *2008 SCEC Annual Meeting Proc. & Abstracts*, **XVIII**, p.143-144 (2008).

Nicholson, C., A. Plesch and J.H. Shaw, CFM v.4.0: Continued upgrades and improvements to the SCEC Community Fault Model and its associated fault database, *2011 SCEC Annual Meeting Proceedings & Abstracts*, **XXI**, p.208 (2011).

Nicholson, C., A. Plesch, J.H. Shaw and E. Hauksson, Upgrades and improvements to the SCEC Community Fault Model: Increasing 3D fault complexity and compliance with surface and subsurface data, *2012 SCEC Annual Meeting Proceedings & Abstracts*, **XXII**, p.125-126 (2012).

Nicholson, C., A. Plesch, J. Shaw, and E. Hauksson, Mapping the 3D Geometry of Active Faults in Southern California, *U.S. Geological Survey Final Technical Report*, 32 pp. (2013).

Nicholson, C., A. Plesch, C. Sorlien, J.H. Shaw and E. Hauksson, Updating the 3D fault set for the SCEC Community Fault Model (CFM-v4) and revising its associated fault database, *2013 SCEC Annual Meeting Proceedings & Abstracts*, **XXIII**, poster 123, p.134 (2013).

Nicholson, C., A. Plesch, C. Sorlien, J.H. Shaw and E. Hauksson, The SCEC 3D Community Fault Model (CFM-v5): An updated and expanded fault set of oblique crustal deformation and complex fault interaction for southern California, *Eos (Transactions of AGU)*, **95** (52), Abstract T31B-4584 (2014).

Nicholson, C., A. Plesch, C.C. Sorlien, J.H. Shaw and E. Hauksson, The SCEC Community Fault Model Version 5.0: An updated and expanded 3D fault set for southern California, *2015 Pacific Section AAPG Joint Meeting Program*, p.77, Oxnard, CA (2015).

Nicholson, C., A. Plesch and J.H. Shaw, Community Fault Model Version 5.2: Updating & expanding the CFM 3D fault set and its associated fault database, *2017 SCEC Annual Meeting Proceedings & Abstracts*, **XXVII**, poster 234, p.142-143 (2017).

Nicholson, C., A. Plesch, J.H. Shaw and S.T. Marshall, Enhancements, Updates, and Improved Access to the Community Fault Model, *2018 SCEC Annual Meeting Proceedings & Abstracts*, **XXVIII**, p.173-174 (2018).

Nicholson, C., A. Plesch, C.C. Sorlien, J.H. Shaw, S. Marshall and E. Hauksson, Continued Updates, Expansion and Improvements to the Community Fault Model (CFM version 5.3), *2019 SCEC Annual Meeting Proceedings & Abstracts*, **XXIX**, poster 323, p.203-204 (2019).

Nicholson, C., A. Plesch, C.C. Sorlien, J.H. Shaw and E. Hauksson, Updates, Evaluation and Improvements to the Community Fault Model (CFM version 5.3), *Poster Presentation at* *2020 SCEC Annual Meeting*, **XXX**, poster 182, contribution 10412 (2020).

Plesch, A., Marshall, S. T., Nicolae, A., Shaw, J. H., Su, M., Maechling, P. J., Huynh, T. T., & Pauk, E. (2022, 09). The SCEC Community Fault Model Version 6.0: additions and updates after community evaluation. Poster Presentation at 2022 SCEC Annual Meeting.

Plesch, A., Marshall, S. T., Nicholson, C., Shaw, J. H., Maechling, P. J., and Su, M., The Community Fault Model version 5.3 and new web-based tools, *Poster Presentation at 2020 SCEC Annual Meeting*, XXX, poster 184, contribution 10547 (2020).

Plesch, A., C. Nicholson, J.H. Shaw, E. Hauksson and P.M. Shearer, New developments for the SCEC Community Fault Model and its associated fault database, *2010 SCEC Annual Meeting Proceedings & Abstracts*, **XX**, p.261-262 (2010).

Plesch, A., C. Nicholson, C. Sorlien, J.H. Shaw and E. Hauksson, SCEC Community Fault Model Version 5.0, *2014 SCEC Annual Meeting Proceedings & Abstracts*, **XXIII**, poster 096, p.171 (2014).

Plesch, A., C. Nicholson, C. Sorlien, J.H. Shaw and E. Hauksson, CFM Version 5.1: New and revised 3D fault representations and an improved database, *2016 SCEC Annual Meeting Proceedings & Abstracts*, **XXVI**, poster 003, p.222-223 (2016).

Plesch, A., Shaw, J.H., Benson, C., Bryant, W., Carena, S., Cooke, M.L., Dolan, J.F. Fuis, G., Gath, E., Grant Ludwig, L., Hauksson, E., Jordan, T., Kamerling, M., Legg, M., Lindvall, S., Magistrale, H., Nicholson, C., Niemi, N., Oskin, M., Yeats, R.S. (2007). Community Fault Model (CFM) for Southern California. *The Bulletin of the Seismological Society of America*. 97. 1793-1802. doi:10.1785/0120050211.

Plesch, A., J.H. Shaw, C. Nicholson, C.C Sorlien, and SCFM Workshop Participants, Release & Evaluation of the Statewide Community Fault Model (SCFM) Version 3.0 and Continued Updates to the SCEC CFM 5.0, *2015 SCEC Annual Meeting Proceedings & Abstracts*, **XXV**, poster 217, p.175 (2015).

Plesch, A., J.H. Shaw, SCFM Working Group and C. Nicholson, SCFM 3.1: Updates, maps and modeling support, *2018 SCEC Annual Meeting Proceedings & Abstracts*, **XXVIII**, poster 144, p.178 (2018).

Shaw, J.H., A. Plesch, C. Tape, M.P. Suess, T. Jordan, G. Ely, E. Hauksson, J. Tromp, T. Tanimoto, R. Graves, K. Olsen, C. Nicholson *et al.*, Unified Structural Representation of the southern California crust and upper mantle, *Earth & Planetary Science Letters,* **415**, p.1-15, doi:10.1016/201501016 (2015).

Shaw, J.H., A. Plesch and C. Nicholson, Developing a Technical Activity Group for the CFM to support SCEC science, community model development, and hazard assessment, *2017 SCEC Annual Report 17027*, 7 pp (2018).

Shaw, J.H., A. Plesch and C. Nicholson, Collaborative Proposal (Harvard and UCSB): Enhancing the Community Fault Model (CFM) to support SCEC science, community model development, and hazard assessment, *2018 SCEC Annual Report 18032*, 8 pp (2019).

Su, M-H., P. Maechling, S. Marshall, E. Hearn, C. Nicholson, A. Plesch, J. Shaw and E. Pauk, Developing a Web-based Interface to the SCEC Community Fault Model (CFM), *Seismological Research Letters***, v.90**, n.2B, p.934 (2019).

Su, M-H., P. Maechling, S. Marshall, C. Nicholson, A. Plesch, J. Shaw, E. Pauk, T. Huynh and E. Hearn, A Queryable Map-Based Web Interface to the SCEC Community Fault Model, *2019 SCEC Annual Meeting Proceedings & Abstracts*, **XXIX**, poster 322, p.224 (2019).

# Fault and Geologic Map Datasets

[***https://www.usgs.gov/natural-hazards/earthquake-hazards/faults***](https://www.usgs.gov/natural-hazards/earthquake-hazards/faults)

[***https://www.conservation.ca.gov/cgs/publications/fault-activity-map-of-california***](https://www.conservation.ca.gov/cgs/publications/fault-activity-map-of-california)

[***https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/***](https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/)

[***https://www.conservation.ca.gov/cgs/maps-data/rgm***](https://www.conservation.ca.gov/cgs/maps-data/rgm)

Bryant, W. A. (compiler) et al., 2005, Digital Database of Quaternary and Younger Faults from the Fault Activity Map of California, version 2.0: Latest CGS release accessed June, 2017 at: http://www.conservation.ca.gov/cgs/rghm/ap/Pages/official\_release.aspx (2017).

Jennings, C.W., and Bryant, W.A., 2010, Fault activity map of California, *California Geological Survey Geologic Data Map No. 6*, map scale 1:750,000.

U.S. Geological Survey and California Geological Survey, 2018, Quaternary fault and fold database for the United States, accessed July 2019 from USGS web site: http://earthquake.usgs.gov/hazards/qfaults/.

Walton, M.A.L., A. Papesh, S.Y. Johnson, J.E. Conrad and D.S. Brothers, 2019. Quaternary Faults Offshore of California, *U.S. Geological Survey Data Release*, GIS digital shapefile.

# Relocated Seismicity and Focal Mechanism Catalogs

[***https://scedc.caltech.edu/research-tools/altcatalogs.html***](https://scedc.caltech.edu/research-tools/altcatalogs.html)

Hardebeck, J. L. and P. M. Shearer, Using S/P Amplitude Ratios to Constrain the Focal Mechanisms of Small Earthquakes, *Bull. Seismo. Soc. Am.,* **93**, p. 2434-2 444, (2003).

Hauksson, E., Crustal structure and seismicity distribution adjacent to the Pacific and North American plate boundary in southern California, *J. Geophys. Res.,* **v.105**, n.B6, p. 13,875-13,899 (2000).

Hauksson, E. and P. Shearer, Southern California hypocenter relocation with waveform cross-correlation; Part 1, Results using the double-difference method, *Bull. Seismol. Soc. Am.,* **v.95**, n.3, p.893-903, (2005).

Hauksson, E., W. Yang and P. Shearer, Waveform relocated earthquake catalog for Southern California (1981 to June 2011), *Bull. Seismol. Soc. Am.,* **v.102,** n.4, p.2239-2238, doi:10.1785/0120110241, (2012).

Lin, G., P. M. Shearer, and E. Hauksson, Applying a three-dimensional velocity model, waveform cross-correlation, and cluster analysis to locate southern California seismicity from 1981 to 2005, *J. Geophys. Res.*, **v.112**, n.B12, 14 pp, B12309, doi:10.1029/2007JB004986, (2007).

Richards-Dinger, K.B. and P.M. Shearer, Earthquake locations in southern California obtained using source specific station terms, *J. Geophys. Res.,* v.**105**, n.B5, p. 10,939-10,960 (2000).

Ross, Z.E., D.T. Trugman, E. Hauksson and P.M. Shearer, Searching for hidden earthquakes in Southern California, *Science*, **364**, 10.1126/science.aaw6888, p.767–771 (2019).

Shearer, P., E. Hauksson and G. Lin, Southern California hypocenter relocation with waveform cross-correlation, Part 2 Results using Source-specific station terms and cluster analysis, *Bull. Seismol. Soc. Am.*, **v.95**, n.3, p.904-915, (2005).

Yang, W., E. Hauksson and P. Shearer, Computing a large refined catalog of focal mechanisms for Southern California (1981–2010): Temporal stability of the style of faulting, *Bull. Seismol. Soc. Am.,* **v.102,** n.3, p.1179-1194, doi:10.1785/0120110311, (2012).

# Example Subsurface Datasets of Multi-Channel Seismic (MCS) Reflection and Industry Well Logs:

[***https://walrus.wr.usgs.gov/namss/search/***](https://walrus.wr.usgs.gov/namss/search/)

[***https://secure.conservation.ca.gov/WellSearch/***](https://secure.conservation.ca.gov/WellSearch/)

Hart, P. E., and J. R. Childs (2005), National archive of marine seismic surveys (NAMSS): Status report on U.S. Geological Survey program providing access to proprietary data, *Eos Trans. AGU*, **86**, Abstract S41A-10.

Johnson, S.Y., P. Dartnell, et al., California State Waters Map Series -- Offshore Ventura and Carpenteria, California, *USGS Scientific Investigations Maps 3254 & 3261*, http://pubs.usgs.gov/sim/3254/, 2013.

Sliter, R.W., Triezenberg, P.J., Hart, P.E., *et al.*, High-resolution chirp and mini-sparker seismic reflection data from the southern California continental shelf—Gaviota to Mugu Canyon: U.S. Geological Survey Open-File Report 2008–1246, available at http://pubs.usgs.gov/of/2008/1246/ (2008).

# References by CFM Fault Area or Major Fault System

## San Andreas Fault System (SAFS)

Allen, C. R., San Andreas fault zone in San Gorgonio Pass, southern California, *Geol. Soc. Am. Bull*., **68**, 315-350, 1957.

Bergh, S.G., Sylvester, A.G., Damte, A. and Indrevær, K., 2019, Polyphase kinematic history of transpression along the Mecca Hills segment of the San Andreas fault, southern California: *Geosphere*, **15**, n. X, p. 1–34, <https://doi.org/10.1130/GES02027.1>.

Biasi, Glenn P; Weldon, Ray J, II., San Andreas Fault rupture scenarios from multiple paleoseismic records; stringing pearls, *Bull. Seismol. Soc. Am*., v. **99**, p. 471-498. DOI:10.1785/0120080287 (2009).

Carena, S., J. Suppe and H. Kao, Lack of continuity of the San Andreas Fault in southern California: Three-dimensional fault models and earthquake scenarios, *Journal of Geophysical Research*, **109**, B04313, doi:10.1029/2003JB002643, 2004.

Catchings, R.D., M.J. Rymer, M.R. Goldman, and G. Gandhok, San Andreas Fault Geometry at Desert Hot Springs, California, and Its Effects on Earthquake Hazards and Groundwater, *Bull. Seismol. Soc. Am*., v. **99**, n. 4, pp. 2190–2207, doi: 10.1785/0120080117 (2009)

Forand, D., J.P. Evans, S. Janecke and J. Jacobs, Insights into fault processes and the geometry of the San Andreas fault system: Analysis of core from the deep drill hole at Cajon Pass, California, *Geological Society of America Bulletin*, **130**(1-2), doi:10.1130/B3168.1, p.64-92 (2017).

Fuis, G.S., D. Scheirer, V. Langenheim and M. Kohler, A new perspective on the geometry of the San Andreas fault in southern California and its relationship to lithospheric structure, *Bull. Seismol. Soc. Am.*, **102**, n.1, pp.236-251, doi: 10.1785/0120110041 (2012).

Fuis, G.S, K. Bauer, M.R. Goldman, et al., Subsurface geometry of the San Andreas fault in Southern California: Results from the Salton Seismic Imaging Project (SSIP) and strong ground motion expectations *Bull. Seismol. Soc. Am.,* **107**, n.4, pp. 1642–1662, doi: 10.1785/0120160309 (2017)

Grant-Ludwig, L., J.N. Brune, A. Anooshehpoor, M.D. Purvance, R.J. Brune and J.C. Lozos (2015). Reconciling Precariously Balanced Rocks (PBRs) with large earthquakes on the San Andreas fault system, *Seism. Res. Lett.* **v.86**, n.5, doi: 10.1785/0220140239, 9 pp.

Jänecke, S.U., D.K. Markowski, J.P. Evans, P. Persaud and M. Kenney, 2018, Durmid ladder structure and its implications for the nucleation sites of the next M >7.5 earthquake on the San Andreas fault or Brawley seismic zone in southern California. Lithosphere 10 (5): 602–631. doi: <https://doi.org/10.1130/L629.1>

Lozos, J.C., A case for historic joint rupture of the San Andreas and San Jacinto faults, *Science Advances,* **2**, e150061, pp. 1-7 (2016).

Matti, J. C., and D. M. Morton (1993), Paleogeographic evolution of the San Andreas fault in southern California: A reconstruction based on a new cross-fault correlation, in *The San Andreas Fault System: Displacement, Palinspastic Reconstruction, and Geologic Evolution*, edited by R. E. Powell, R. J. Weldon, and J. C. Matti, *Geol. Soc. Am. Mem.,* **178**, p. 107–159.

Nicholson, C., Fault Interaction, Segmentation, and Geometry along the San Andreas Fault system, southern California, *U.S. Geological Survey Final Technical Report,* 38 pp. (1992).

Nicholson, C., Seismic behavior of the San Andreas fault in the Northern Coachella Valley, California: Comparison of the 1948 and 1986 earthquake sequences, *Bulletin of the Seismological Society of America,* **v.86**, n. 5, p. 1331-1349 (1996).

Nicholson, C., Evaluating active 3D fault structure through San Gorgonio Pass – A focused natural laboratory for complex fault behavior, *2010 SCEC Annual Report*, n.10125, 6 pp (2011).

Nicholson, C. and J.M. Lees, Travel-time tomography in the northern Coachella Valley using aftershocks of the 1986 ML 5.9 North Palm Springs earthquake, *Geophysical Research Letters,* **19,** p. 1–4 plus cover (1992).

Nicholson, C., E. Hauksson, and A. Plesch, Revised 3D fault models for the Southern San Andreas fault system extending from San Gorgonio Pass to the Salton Sea, *Pacific Section AAPG-GSA Cordilleran Joint Meeting Abstracts w/Program*, **v.42**, n.4, Abstract 21-8, p.69, Anaheim, CA (2010).

Nicholson, C., E. Hauksson and A. Plesch, Active fault geometry and crustal deformation along the San Andreas fault system through San Gorgonio Pass, California: The view in 3D from seismicity, *Eos (Transactions of AGU)*, **93** (52), Abstract T22C-03 (2012).

Nicholson, C., L. Seeber, P. Williams and L.R. Sykes, Seismic evidence for conjugate slip and block rotation within the San Andreas fault system, southern California, *Tectonics,* **5,** p. 629-648 (1986).

Seeber, L. and J. Armbruster, The San Andreas fault system through the Transverse Ranges as illuminated by earthquakes, *J. Geophys. Res*, **100**, p. 8285-8310 (1995).

Scharer, K., Weldon, R., Streig, A., and Fumal, T. (2014), Paleoearthquakes at Frazier Mountain, California delimit extent and frequency of past San Andreas Fault ruptures along 1857 trace, Geophys. Res. Lett., 41, 4527– 4534, doi:10.1002/2014GL060318.

Sieh, K E., Prehistoric large earthquakes produced by slip on the San Andreas Fault at Pallett Creek, California, *Journal of Geophysical Research*, v. **83**, B8, p. 3907-3939 (1978).

Weldon, R.J. (1986), The late Cenozoic geology of Cajon Pass: Implications for tectonics and sedimentation along the San Andreas fault, *Ph.D. Dissertation*, California Institute of Technology, Pasadena, CA, 400 p.

Wood H. O. (1955). The 1857 earthquake in California, Bull. Seism. Soc. Am. 45, 47- 67.

Yule, D. and K. Sieh, Complexities of the San Andreas fault near San Gorgonio Pass: Implications for large earthquakes, J. Geophys. Res., 109, n.B11, 2548, doi:10.1029/2001JB000451 (2003).

## Salton Trough Fault Area (SALT)

Dibblee, T. W., Jr., Geology of the Imperial Valley region, California, in *Geology of Southern California*, edited by R. H. Jahns, *Calif. Div. Mines Bull*., **170**, 21-28, 1954.

Fuis, G. S., W. D. Mooney, J. H. Healey, G. A. McMechan, and W. J. Lutter, Crustal structure of the Imperial Valley region, *U.S. Geol. Surv. Prof. Pap*., **1254**, 25-50, 1982.

Hauksson, E., M.-A. Meier, Z. E. Ross, and L. M. Jones (2017), Evolution of seismicity near the southernmost terminus of the San Andreas Fault: Implications of recent earthquake clusters for earthquake risk in southern California, *Geophys. Res. Lett.,* **44**, 1293–1301, doi:10.1002/2016GL072026.

Hudnut, K. W., L. Seeber, and J. Pacheco (1989), Cross-fault triggering in the November 1987 superstition hills earthquake sequence, southern California, *Geophys. Res. Lett.,* **16**, 199–202, doi:10.1029/GL016i002p00199.

Johnson, C. E., and D. P. Hill (1982), Seismicity of the Imperial Valley, in *The Imperial Valley, California, earthquake of October 15, 1979*, *U.S. Geol. Surv. Prof. Pap*., **1254**, 59–76.

Magistrale, H., The relation of the southern San Jacinto fault zone to the Imperial and Cerro Prieto faults, *Geo. Soc. Am. Spec. Paper,* **v.365,** p. 271-278, 2002.

Nicholson, C. and L. Seeber, Evidence for contemporary block rotation in strike-slip environments: Examples from the San Andreas fault system, southern California, in *Paleomagnetic Rotations and Continental Deformation*, C. Kissel and C. Laj, eds., Kluwer Academic Publishers, Dordrecht, The Netherlands, p. 247-280 (1989).

Thomas, A., Rockwell, T. (1996). A 300- to 550-year history of slip on the Imperial fault near the U.S.-Mexico border: Missing slip at the Imperial fault bottleneck. Journal of Geophysical Research. 101. 5987-5997. 10.1029/95JB01547.

## Peninsular Ranges Fault Area (PNRA)

Axen, G.J., and Fletcher, J.M., 2001, Late Miocene-Pleistocene extensional faulting, northern Gulf of California, Mexico and Salton Trough, California: International Geology Review, v. 40, p. 217-244. Reprinted in Ernst, W.G., and Nelson, C.A., eds., Integrated Earth and environmental evolution of the southwestern United States, The Clarence Hall, Jr. volume: Bellwether Publishing, Ltd. for the Geological Society of America, p. 365-392.

Davis, T. L., Namson, J., and Yerkes, R. F. (1989), A cross section of the Los Angeles Area: Seismically active fold and thrust belt, The 1987 Whittier Narrows earthquake, and earthquake hazard, J. Geophys. Res., 94( B7), 9644– 9664, doi:10.1029/JB094iB07p09644.

Fletcher, J.M, T.K. Rockwell, et al., Distribution and kinematics of surface ruptures associated with the El Mayor-Cucapah earthquake, *2010 SCEC Annual Meeting Proceedings & Abstracts*, **XX**, p.213-214 (2010).

Fletcher, J.M. et al., 2014, Assembly of a large earthquake from a complex fault system: Surface rupture kinematics of the 4 April 2010 El Mayor–Cucapah (Mexico) Mw 7.2 earthquake. *Geosphere* **10**, 797–827 (2014). doi: 10.1130/GES00933.1.

Gordon, E.M., T.K. Rockwell, G.H. Girty and C. Goetz, Geomorphic analysis of late Quaternary activity of the Earthquake Valley and Hot Springs–San Felipe fault zones, and their role in slip transfer betweenthe northern Elsinore and southern San Jacinto faults, p. 95-107 (2015).

Grant, L. B., K. J. Mueller, E. M. Gath, H. Cheng, R. Lawrence Edwards, R. Munro, and G. L. Kennedy (1999), Late Quaternary uplift and earthquake potential of the San Joaquin Hills, southern Los Angeles basin, California, Geology, 27(11), 1031-1034.

Hauksson, E., Seismotectonics of the Newport-Inglewood fault zone in the Los Angeles basin, Southern California, *Bulletin of the Seismological Society of America*, **77**, p. 539-561 (1987).

Hauksson, E., Earthquakes, faulting, and stress in the Los Angeles Basin, *Journal of Geophysical Research*, v. **95**, B10, p. 15,365-15,394 (1990).

Hauksson, E., J. Stock, K. Hutton, W. Yang, J. A. Vidal-Villegas and H. Kanamori, The 2010 Mw 7.2 El Mayor-Cucapah Earthquake Sequence, Baja California, Mexico and Southernmost California, USA: Active Seismotectonics along the Mexican Pacific Margin, *Pure Appl. Geophys*., **v.168**, p. 1255–1277, 2011. 10.1007/s00024-010-0209-7.

Hull, A.G. and C. Nicholson, Seismotectonics of the Northern Elsinore fault zone, southern California, *Bulletin Seismological Society of America,* **82,** p. 800–818 (1992).

Hudnut, K.W., J.M. Fletcher, T.K. Rockwell et al., Earthquake rupture complexity evidence from field observations, *Eos (Transactions of AGU)*, **91** (52), Invited Abstract T51E-02 (2010).

Janecke, S., Dorsey, B., Belgarde, B., 2010, Age and Structure of the San Jacinto and San Felipe fault zones, and their lifetime slip rates, Clifton, H. E., and Ingersoll, R. V., eds., *Geologic excursions in California and Nevada: tectonics, stratigraphy, and hydrogeology: Pacific Section, SEPM (Society for Sedimentary Geology)*, Book **108**, p. 233–271.

Magistrale, H. and T.K. Rockwell, The central and southern Elsinore fault zone, Southern California *Bulletin of the Seismological Society of America*, **v.86**, n.6, p.1793-1803, 1996.

Oskin, M.E. J.R. Arrowsmith, et al., Near-field deformation from the El Mayor-Cucapah earthquake revealed by differential LiDAR, *Science,* v.335, n.6069, p. 702-705 (2012).

Rockwell, T., Akciz, S., and Gordon, E., 2013, Paleoseismology of the Aqua Tibia - Earthquake Valley fault, eastern strand of the Elsinore fault zone, *Seismological Research Letters*, v. **84**, p. 332.

Shaw, J.H., and Shearer, P.H., 1999, An elusive blind-thrust fault beneath metropolitan Los Angeles: *Science*, v. **283**, p. 1516–1518.

Shaw, J.H., and Suppe, J., 1996, Earthquake hazards of active blind-thrust faults under the central Los Angeles Basin, California: *Journal of Geophysical Research*, v. **101**, p. 8623–8642.

Shaw, J.H., Plesch, A., Dolan, J., Pratt, T.L., and Fiore, P., 2002, Puente Hills blind thrust system, Los Angeles, California: *Bulletin of the Seismological Society of America*, v. **92**, p. 2948–2960.

Treiman, J.A., 2012, Faults of the Yuha Desert and the southeastern portion of the Elsinore fault zone, Imperial County, California: California Geological Survey Fault Evaluation Report FER-254, 55 p., website, <ftp://ftp.consrv.ca.gov/pub/dmg/pubs/fer/254/>."

Wright, T.L., 1991, Structural geology and tectonic evolution of the Los Angeles basin, California, in *Active Tectonic Basins*, T.K. Biddle, ed., *AAPG Memoir* **52**, p.35-134.

Yeats, R.S. (2004) Tectonics of the San Gabriel Basin and surroundings, southern California. GSA Bulletin, 116 (9-10): 1158–1182. doi: <https://doi.org/10.1130/B25346.1>

## Offshore Continental Borderland Fault Area (OCBA)

Astiz, L., and P. M. Shearer, 2000, Earthquake relocation in the Inner California Borderland: *Bulletin of the Seismological Society of America*, **90**, p. 425–449, doi:10.1785/0119990022.

DeHoogh, G.L., C.C. Sorlien, C. Nicholson, C.S. Schindler and R.D. Francis, Structure, Evolution and Tectonic Significance of the Eastern Boundary of the Outer Continental Borderland, *SEPM Special Publication*, **110,** doi: 10.2110/sepmsp.110.08, 14 pp (2017).

Legg, M. R. 1991. Developments in understanding the tectonic evolution of the California Continental Borderland. in Osborne, R. H. ed. *From Shoreline to Abyss*, *SEPM Shepard Commemorative Volume*, **46**, 291-312.

Legg, M.R., M.D. Kohler, N. Shintaku and D.S. Weeraratne (2015), High-resolution mapping of two large-scale transpressional fault zones in the California Continental Borderland: Santa Cruz-Catalina Ridge and Ferrelo faults, *J. Geophys. Res.,* **120**, p. 915–942, doi:10.1002/2014JF003322.

Legg, M.R., B.P. Luyendyk, J. Mammerickx, C. de Moustier, et al. Sea beam survey of an active strike-slip fault; the San Clemente Fault in the California Continental Borderland, *South Coast Geological Society Annual Field Trip Guidebook*, v. **32**, p. 63-80 (2004).

Legg, M.R., C. Nicholson, C. Goldfinger, R. Milstein and M.J. Kamerling, Large enigmatic crater structures offshore southern California, *Geophysical Journal International*, **159**, n.2, p.803-815 (2004).

Legg, M.R., C. Nicholson, and C.C. Sorlien, Miocene oblique rifting of the San Diego Trough Region, California Continental Borderland, *AAPG-GSA Cordilleran Joint Meeting Abstracts with Programs*, **42**, n.4, p.56 (2010).

Legg M, Sorlien C, Nicholson C, Kamerling M and Kuhn G., Potential for large complex multi-fault earthquakes offshore southern California. *Proceedings of the 11th National Conference in Earthquake Engineering*, Earthquake Engineering Research Institute, Los Angeles, CA, 11 pp. (2018).

Nicholson, C., C.C. Sorlien, and M.R. Legg, Crustal imaging and extreme Miocene extension of the Inner California Continental Borderland, *Geological Society of America Abstracts w/Programs,* **25,** A-418, (1993).

Nicholson, C., C.C. Sorlien, and M.R. Legg, Crustal Imaging along the California Continental Borderland: Miocene extension, rotation, and tectonic inversion related to an evolving transform system, *7th International Symposium on Deep Seismic Profiling,* Asliomar, California, Sept. 15–20, 1996.

Rivero, C., J.H. Shaw, and K. Mueller, 2000, Oceanside and Thirtymile Bank blind thrusts: Implications for earthquake hazards in coastal Southern California, *Geology*, **28**(10), 891–894.

Rivero, C., and J. H. Shaw, 2005, Fault-related folding in reactivated offshore basins, California, in J. H. Shaw, C. Connors, and J. Suppe, eds., Seismic interpretation of contractional fault-related folds: AAPG Studies in Geology 53, 156 p.

Rivero, C. and J.H. Shaw, Active folding and blind thrust faulting induced by basin inversion processes, inner California borderlands, in K. McClay, J. Shaw, and J. Suppe, eds., *Thrust fault-related folding: AAPG Memoir* **94**, p. 187 – 214 (2011).

Ryan, H. F., M.R. Legg, J.E. Conrad, and R.W. Sliter, 2009, Recent faulting in the Gulf of Santa Catalina: San Diego to Dana Point, in *Earth Science in the Urban Ocean: The Southern California Continental Borderland*, edited by H. Lee and W. Normark, *Geol. Soc. Am. Spec. Pap*., **454**, 291–315.

Schindler, C.S., C. Nicholson and C. Sorlien, 3D Fault Geometry and Basin Evolution in the Northern Continental Borderland Offshore Southern California, *Eos (Transactions of AGU),* v.**88**, n.52, abstr. T43A-1100 (2007).

Sorlien, C.C., J.T. Bennett, M.-H. Cormier, B.A. Campbell, C. Nicholson and R.L. Bauer, Late Miocene-Quaternary fault evolution and interaction in the Southern California Inner Continental Borderland, *Geosphere*, **v.11**, n.4, doi:10.1130/GES01118.1 (2015).

Sorlien, C.C., Kamerling, M.J., Broderick, K. and L. Seeber, 2003, Structure and kinematics along the thrust front of the Transverse Ranges: 3D digital mapping of active faults in Santa Monica Bay using reflection, well, and earthquake data, *USGS NEHRP Final Technical Report 02HQGR0013*, 15 pages.

Sorlien, C.C, M.J. Kamerling, L. Seeber, K.G. Broderick, Restraining segments and reactivation of the Santa Monica-Dume-Malibu Coast fault system, offshore Los Angeles, California, *Journal of Geophysical Research*, **v.111**, n.B11402, 22 pp., doi:10.1029/2005JB003632 (2006).

Sorlien, C.C., L. Seeber, K.G. Broderick, B.P. Luyendyk, M.A. Fisher, R.W. Sliter and W.R. Normark, 2013, The Palos Verdes anticlinorium along the Los Angeles, California coast: Implications for underlying thrust faulting. *Geochemistry, Geophysics, Geosystems*, vol. **14**, no. 6, p. 1866–1890, doi: 10.1002/ggge.20112.

Wolfe, F.D., J.H. Shaw, A. Plesch, D.J. Ponti, J.F. Dolan and M.R. Legg, The Wilmington Blind-Thrust fault: An active concealed earthquake source beneath Los Angeles, California, *Bulletin of the Seismological Society of America*, **109**, n. 5, pp. 1890–1906, doi: 10.1785/0120180335 (2019).

Wolfe, F. D., Shaw, J. H., & Plesch, A., 2022, Origin of the Palos Verdes restraining bend and its implications for 3-D geometry of the fault and earthquake hazards in Los Angeles, California, *Bulletin of the Seismological Society of America*, **112**,no. 5, p. 2689-2714. doi: https://doi.org/10.1785/0120210278

Ziony, J.I., and Yerkes, R.F., 1985, Evaluating earthquake and surface faulting potential, in Ziony, J.I., ed., Evaluating earthquake hazards in the Los Angeles region—An earth-science perspective: U.S. Geological Survey Professional Paper 1360, p. 43–91.

## Western Transverse Ranges Fault Area (WTRA)

Archuleta, R.J., C. Nicholson, J. Steidl, L. Gurrola, C. Alex, E. Cochran, G. Ely and T. Tyler, Initial Source and Site Characterization Studies for the UC Santa Barbara Campus, *Report on the UC/CLC Campus Earthquake Program, LLNL Report UCRL-ID-129196,*  83 pp. (1997).

Astiz, L., Shearer, P. M., and Agnew, D. C. (2000), Precise relocations and stress change calculations for the Upland earthquake sequence in southern California, J. Geophys. Res., 105( B2), 2937– 2953, doi:10.1029/1999JB900336.

Carena, S., and J. Suppe (2002), Three-dimensional imaging of active structures using earthquake aftershocks: the Northridge thrust, California, Journal of Structural Geology, 24, 887-904.

Dibblee, T.W., Jr., Geology of the Santa Ynez Mountains, *Dibblee Geological Foundation Georeferenced Digital Quadrangles*, Santa Barbara, CA, 2002.

Dolan, J.F., and Pratt, T.L., 1997, High-resolution seismic reflection profiling of the Santa Monica fault zone, west Los Angeles, California: Geophysical Research Letters, v. 24, no. 16, p. 2051-2054

Don, J., (2021). Patterns of syntectonic sedimentation in actively growing fault-related folds and its application to earthquake hazard assessment in southern California and reservoir characterization in deepwater depositional systems, Ph.D. dissertation, Harvard University, 139 p.

Grigsby, F.B., Structural development and the Ventura Avenue anticlinal trend at the San Miguelito and Rincon oil fields, Ventura County, California, in *Santa Barbara and Ventura Basins: Tectonics, Structure, Sedimentation, Oilfields Along an East-West Transect,* A.G Sylvester and G.C. Brown, eds., *Coast Geological Survey Guidebook 64*, p. 111-124 (1988).

Hauksson, E., and Jones, L. M. (1991), The 1988 and 1990 upland earthquakes: Left‐lateral faulting adjacent to the central transverse ranges, J. Geophys. Res., 96( B5), 8143– 8165, doi:10.1029/91JB00481.

Hopps, T.E., H.E. Stark, and R.J. Hindle, *Subsurface geology of Ventura Basin, California, Ventura Basin Study Group Report*, 45 pp., 17 structure contour maps and 84 structure cross section panels (<https://projects.eri.ucsb.edu/hopps/>), Rancho Energy Consultants, Inc., Santa Paula, CA, 1992.

Hubbard, J., J.H. Shaw, J.F. Dolan, T.L. Pratt, L. McAuliffe and T. Rockwell, Structure and seismic hazard of the Ventura Avenue anticline and Ventura fault, California: Prospect for large, multisegment ruptures in the Western Transverse Ranges, *Bull. Seismol. Soc. Am.*, **104**, n.3, doi:10.1785/0120130125 (2014).

Hudnut, K. W., et al. (1996), Co-seismic displacements of the 1994 Northridge, California Earthquake, Bulletin of the Seismological Society of America, 86(1B), s19-S36.

Huftile, G. and R.S. Yeats, Convergence rates across a displacement transfer zone in the western Transverse Ranges, Ventura basin, California, *J. Geophys. Res.*, v. **100**, p. 2043–2068 (1995).

Hughes, A., D.H. Rood, A. Whittaker, *et al.,* Geomorphic evidence for the geometry and slip rate of a young, low-angle thrust fault: Implications for hazard assessment and fault interaction in complex tectonic environments, *Earth & Planetary Science Letters,* **504**, doi:10.1016/j.epsl.2018.10.003, p.198–210 (2018).

Hughes, A., R.E. Bell et al., Three-dimensional structure, ground rupture hazards, and static stress models for complex non-planar thrust faults in the Ventura basin, southern California, *Journal of Geophysical Research: Solid Earth*, 125, e2020JB019539. <https://doi.org/10.1029/2020JB019539> (2020).

Kamerling, M. and C. Nicholson, Fault Geometry of blind thrusts along the Oak Ridge trend in the Santa Barbara Channel, *SCEC Annual Report,* **v. 2,** p. C12–C15 (1994).

Kamerling, M. and C. Nicholson, The Oak Ridge fault and fold system, Eastern Santa Barbara Channel, California, *SCEC Annual Report,* **v. 2,** p. C26–C30 (1996).

Kamerling, M.J., C.C. Sorlien, and C. Nicholson (1998), Subsurface faulting and folding onshore and offshore of Ventura basin: 3D map restoration across the Oak Ridge fault, *SCEC 1998 Annual Meeting Report,* Palm Springs, p.68-69.

Kamerling, M.J., C.C. Sorlien, R. Archuleta, and C. Nicholson, Three-dimensional geometry and interactions of faults and structures along the northern margin of the Santa Barbara Channel, California, *Geol. Soc. Am. Abstracts w/Prog.*, **v. 33**, n. 3, p. A41, 2001.

Kamerling, M.J., C.C. Sorlien and C. Nicholson (2003), 3D development of an active oblique fault system, northern Santa Barbara Channel, California, *Seismol. Res. Lett.*, v. **74**, n.2, p. 248.

Marshall, S.T., G.J. Funning and S.E. Owen, Fault slip rates and interseismic deformation in the western Transverse Ranges, California, *J. Geophys. Res,* **v.118**, p.4511-4534, doi:10.1002/jgrb.50312 (2013).

Langenheim, V.E., T.L. Wright, D.A. Okaya, R.S. Yeats, G.S. Fuis, K. Thygesen and H. Thybo, Structure of the San Fernando Valley region, California: Implications for seismic hazard and tectonic history, *Geosphere*, v. **7**, no. 2, p. 528–572, doi: 10.1130/GES00597.1 (2011).

May, S.R., K.D. Ehman, G.C. Gray and J.C. Crowell, A new angle on the tectonic evolution of the Ridge Basin, a "strike-slip" basin in Southern California, *Geol. Soc. Am. Bull*., v. **105**, p. 1357-1372 (1993).

Morton, D.M., Hauser, Rachel M., and Ruppert, Kelly R., 1999, Preliminary digital geologic map of the Santa Ana 30' x 60' quadrangle, Southern California, version 1.0: U.S. Geological Survey Open-File Report 99-0172

Nicholson, C. and M.J. Kamerling, Reliability of 2D kinematic fold models to infer deep fault structure in the western Transverse Ranges, California, *Proceedings of the NEHRP Conference and Workshop on Research on the Northridge, California Earthquake of January 17, 1994,* **v. II,** p. 299–306 (1998).

Nicholson, C. and M.J. Kamerling, Acquisition of 3D Subsurface Well Data Analyses and 3D GIS for the Ventura Basin, California, *U.S. Geological Survey Final Technical Report,* 19 pp., 1999.

Nicholson, C., M.J. Kamerling, C.C. Sorlien, T.E. Hopps and J.-P. Gratier, Subsidence, compaction and gravity-sliding: Implications for 3D geometry, dynamic rupture and seismic hazard of active basin-bounding faults in southern California, *Bulletin of the Seismological Society of America,* **97**, n.5, p.1607-1620 (2007).

Nicholson, C., C.C Sorlien, M.J. Kamerling and T.E. Hopps, An Integrated Onshore-Offshore Re-Evaluation of 3D Fault and Fold Geometry, *USGS Final Technical Report,* Award G16AP00100, 24 pp. (2017).

Novoa, E., Mount, V., Suppe, J. 1998, Map-view interference of monoclinal folds, Journal of Structural Geology, Vol 20. No 4. pp. 339-353.

Oskin, M., K. Sieh, T. K. Rockwell, G. Miller, P. Guptill, M. Curtis, S. McArdle, and P. Elliot (2000), Active parasitic folds on the Elysian Park anticline: Implications for seismic hazard in cantral Los Angeles, California, Geological Society of America Bulletin, 112(5), 693-707.

Redin, T., J. Forman and M.J. Kamerling, 2005, Santa Barbara Channel structure and correlation sections, Pacific Section AAPG Cross Sections CS-32 through CS-42, Bakersfield, CA.

Schneider, C. L., C. Hummon, R. S. Yeats, and G. Huftile (1996). Structural evolution of the northern Los Angeles basin, California, based on growth strata, Tectonics 15, 341–355.

Seeber, L, and Sorlien, C. C., 2000, Listric thrusts in the western Transverse Ranges, California, *Geological Society of America Bulletin*, v. **112**, p. 1067-1079.

Shaw, J.H. and J. Suppe, Active faulting and growth folding in the eastern Santa Barbara Channel, California, *Geol. Soc. Am. Bull.,* v. **106**, p. 607-626, 1994.

Shaw, J. H., A. Plesch, J. F. Dolan, T. L. Pratt, and P. Fiore (2002), Puente Hills blind-thrust system, Los Angeles California, Bulletin of the Seismological Society of America, 92(8), 2946-2960.

Sorlien, C.C. and M.J. Kamerling, Fault displacement and fold contraction estimated from unfolding of Quaternary strata onshore and offshore Ventura basin, California. *U.S. Geological Survey NEHRP Final Technical Report 97-GR-03085*, 16 pp., digital map scale 1/100,000 (1998).

Sorlien, C.C. and M.J. Kamerling, Fault displacement and fold contraction estimated by unfolding of Quaternary strata, onshore and offshore Ventura basin, California, *Final Technical Report to U.S. Geological Survey NEHRP*, contract 99HQGR0080 (2000).

Sorlien, C.C, C. Nicholson, R.J. Behl, C.J. Marshall and J. Kennett, The Quaternary North Channel-Pitas Point Fault System in Northwest Santa Barbara Channel, California, *Eos (Transactions of AGU)*, **95** (52), Abstract T34A-07 (2014).

Sorlien, C.C. and C. Nicholson, Post-1 Ma deformation history of the Pitas Point-North Channel-Red Mountain fault system and associated folds in Santa Barbara Channel, California, *USGS Final Technical Report,* Award G14AP00012, 24 pp. (2015).

Sorlien, C.C, C. Nicholson, R.J. Behl and M.J. Kamerling, Displacement direction and 3D geometry for the south-directed North Channel–Pitas Point fault system and north-directed ramps, decollements, and other faults beneath Santa Barbara Channel, *2016 SCEC Annual Meeting Proceedings & Abstracts*, **XXVI**, poster 007, p.238-239 (2016).

Tsutumi, H. and R.S. Yeats, Tectonic setting of the 1971 and 1994 Northridge earthquakes in the San Fernando Valley, California, *Bull. Seismol. Soc. Am*., v.**89**, n.5, p. 1,232-1,249 (1999).

Tsutsumi, H., Yeats, R.S., and Huftile, G.J., 2001, Late Cenozoic tectonics of the northern Los Angeles fault system, California: *Geological Society of America Bulletin*, v. **113**, p. 454–468.

Wright, T.L., 1991, Structural geology and tectonic evolution of the Los Angeles basin, California, in *Active Tectonic Basins*, T.K. Biddle, ed., *AAPG Memoir* **52**, p.35-134.

Yeats, R.S., 1987, Late Cenozoic structure of the Santa Susana fault zone: *U.S. Geological Survey Professional Paper* **1339**, p. 137–160.

Yeats, R.S., 2001, Neogene tectonics of the east Ventura and San Fernando basins, California: An overview: Los Angeles, *Pacific Section, American Association of Petroleum Geologists Guidebook* **GB 77**, p. 9–36.

Yeats, R. S., Huftile, G. J., and Grigsby, F. B., 1988, Oak Ridge fault, Ventura fold belt, and the Sisar decollement, Ventura basin, California, *Geology*, **v. 16**, p. 1112-1116.

Yeats, R.S., G.J. Huftile, and L.T. Sitt, Late Cenozoic tectonics of the east Ventura basin, California, *American Association of Petroleum Geologists Bulletin,* v. **78**, p.1040-1074, 1994.

Yeats, R.S, Stitt, L.T., Crowell, J.C., Ridge Basin and San Gabriel Fault in the Castaic Lowland, Southern California, *Special Paper - Geological Society of America*, v. **367**, p. 131-156 (2003).

Yeats, R.S. Tectonics of the San Gabriel Basin and surroundings, southern California. 2004, GSA Bulletin, 116 (9-10): 1158–1182. doi: https://doi.org/10.1130/B25346.1

## Eastern Transverse Ranges Fault Area (ETRA)

Meisling, R., and K. Weldon (1989), Late Cenozoic tectonics of the northwestern San Bernardino Mountains, southern California, *Geol. Soc. Am. Bull.,* **101**, 106–128, doi:10.1130/0016-7606.

Nicholson, C., Analysis of the 1992 M6.1 Joshua Tree earthquake sequence and its relation to the Southern San Andreas fault system, California, *U.S. Geological Survey Final Technical Report,* 37 pp. (1995).

Nicholson, C., L. Seeber, P. Williams and L.R. Sykes. Seismicity and fault kinematics through the eastern Transverse Ranges, California: Block rotations, strike-slip faulting and low-angle thrusts, *Journal of Geophysical Research,* **91,** 4891-4908, (1986a).

Webb, T. H. and H. Kanamori, Earthquake focal mechanisms in the Eastern Transverse Ranges and San Emigdo Mountains, southern California, and evidence for a regional decollement, *Bull Seism. Soc. Am.,* **75**, p. 737-757, 1985.

Williams, P.L., L.R. Sykes, C. Nicholson, and L. Seeber. Seismotectonics of the Easternmost Transverse Ranges California: Relevance for seismic potential of the San Andreas fault, *Tectonics,* **9,** 185-204 (1990).

## Mojave Fault Area (MJVA)

Hauksson, E., L.M. Jones, K. Hutton, and D. Eberhart-Phillips (1993). The 1992 Landers earthquake sequence: seismological observations, *J. Geophys. Res.,* **98**, p. 19,835–19,858.

Hauksson, E., L.M. Jones and K. Hutton, The 1999 Mw7.1 Hector Mine, California, Earthquake Sequence: Complex Conjugate Strike-Slip Faulting, *Bull. Seismol. Soc. Am.,* v. **92**, n. 4, pp. 1154–1170 (2002).

Lees, J.M. and C. Nicholson, Three-dimensional tomography of the 1992 Southern California sequence: Constraints on dynamic earthquake rupture?, *Geology,* **21,** p. 387–390 (1993).

Pollitz, F.F. and Sacks, I.S., Stress triggering of the 1999 Hector Mine earthquake by transient deformation following the 1992 Landers earthquake, *Bull. Seismol. Soc. Am.*, 92, 1487-1496 (2002).

Unruh, J., E. Hauksson, J.S. Oldow, P.H. Cashman, 2009, Seismotectonics of an evolving intracontinental plate boundary, southeastern California, *Special Paper - Geological Society of America*, v. **447**, p. 351-372. DOI:10.1130/2009.2447(16).

## Garlock Fault System (GRFS)

McGill, S.F. and K. Sieh, Surficial offsets on the central and eastern Garlock Fault associated with prehistoric earthquakes, *J. Geophys. Res*., **96**, n. B13, p. 21,597-21,621, DOI:10.1029/91JB02030 (1991).

Serpa, L. and R.K. Dokka, Geometry of the Garlock fault zone based on seismic reflection data, *Journal of Geophysical Research*, 97, n. B11, p. 15,297-15,306, DOI:10.1029/92JB00585 (1992).

## Basin and Range Fault Area (BNRA)

Burchfiel, B.C., Hodges, K.V., and Royden, L.H., 1987, Geology of Panamint Valley-Saline Valley pull-apart system, California-Palinspastic evidence for low-angle geometry of a Neogene range-bounding fault: Journal of Geophysical Research, v. 92, no. B10, p. 10,422-10,426.

Chavez-Perez, S., J.N. Louie and S.K. Pullammanappallil, 1998 Seismic depth imaging of normal faulting in the southern Death Valley Basin, *Geophysics*, **63**, n. 1, p. 223-230, DOI:10.1190/1.1444316

Gold, R. D., Stephenson, W. J., Briggs, R. W., DuRoss, C. B., Kirby, E., Woolery, E., et al. 2020. Seismic reflection imaging of the low-angle Panamint Normal fault system, eastern California. Journal of Geophysical Research: Solid Earth, 125, e2020JB020243. <https://doi.org/10.1029/2020JB020243>

Hayman, N.W., J.R. Knott, D.S. Cowan, E.S. Nemser and A.M. Sarna-Wojcicki, 2003. Quaternary low-angle slip on detachment faults in Death Valley, California, Geology, 31, p. 343-346. DOI:10.1130/0091-7613

Machette, M.N., Johnson, M.L., and Slate, J.L., eds., 2001, Quaternary and late Pliocene geology of the Death Valley region—Recent observations on tectonics, stratigraphy, and lake cycles (Guidebook for the 2001 Pacific Cell—Friends of the Pleistocene Fieldtrip): U.S. Geological Survey Open-File Report 01-51.

## Sierra Nevada Fault Area (SNFA)

Beanland, S., and Clark, M., 1994, The Owens Valley fault zone, eastern California, and surface rupture associated with the 1872 earthquake: U.S. Geological Survey Bulletin 1982, 29 p.

Bhattacharyya, J., J.M. Lees, A.F. Glazner, J.D. Walker and J.M. Bartley, Seismicity and seismic stress in the Coso Range, Coso geothermal field, and Indian Wells Valley region, Southeast-Central California, *Memoir - Geological Society of America*, v. **195**, p. 243-257 (2002).

Burchfiel, B.C., Hodges, K.V., and Royden, L.H., 1987, Geology of Panamint Valley-Saline Valley pull-apart system, California-Palinspastic evidence for low-angle geometry of a Neogene range-bounding fault: Journal of Geophysical Research, v. 92, no. B10, p. 10,422-10,426.

Chavez-Perez, S., J.N. Louie and S.K. Pullammanappallil, 1998 Seismic depth imaging of normal faulting in the southern Death Valley Basin, *Geophysics*, **63**, n. 1, p. 223-230, DOI:10.1190/1.1444316

Gold, R. D., Stephenson, W. J., Briggs, R. W., DuRoss, C. B., Kirby, E., Woolery, E., et al. 2020. Seismic reflection imaging of the low-angle Panamint Normal fault system, eastern California. Journal of Geophysical Research: Solid Earth, 125, e2020JB020243. <https://doi.org/10.1029/2020JB020243>

Hayman, N.W., J.R. Knott, D.S. Cowan, E.S. Nemser and A.M. Sarna-Wojcicki, 2003. Quaternary low-angle slip on detachment faults in Death Valley, California, Geology, 31, p. 343-346. DOI:10.1130/0091-7613

Petersen, M.D., Bryant, W.A., Cramer, C.H., Cao, T., Reichle, M.S., Frankel, A.D., Lienkaemper, J.J., McCrory, P.A., and Schwartz, D.P., 1996, Probabilistic seismic hazard assessment for the State of California: California Department of Conservation, Division of Mines and Geology Open-File Report 96-08 (also U.S. Geological Open-File Report 96-706), 33 p.

Plesch, A., J.H. Shaw, Z. Ross and E. Hauksson, Detailed 3D source fault representations for the 2019 Ridgecrest earthquake sequence, *2019 SCEC Annual Meeting Proceedings & Abstracts*, **XXIX**, poster 278, p.209-210 (2019).

Plesch, A., J.H. Shaw, Z.E. Ross, and E. Hauksson (2020). Detailed 3D Fault Representations for the 2019 Ridgecrest, California, Earthquake Sequence, *Bull. Seismol. Soc. Am*., **110**, p. 1818–1831, doi: 10.1785/0120200053.

Ross, Z.E., B. Idini, Z. Jia, *et al.,* Hierarchical interlocked orthogonal faulting in the 2019 Ridgecrest earthquake sequence, *Science*, **366**, doi:10.1126/science.aaz0109, p. 346–351 (2019).

Unruh, J.R., E. Hauksson, F.C. Monastero, R.J. Twiss, et al., Seismotectonics of the Coso Range-Indian Wells Valley region, California: transtensional deformation along the southeastern margin of the Sierran microplate, *Memoir - Geological Society of America,* v. **195**, p. 277-294 (2002).

## Great Valley Fault Area (GVFA)

Bawden, G.W., Source parameters for the 1952 Kern County earthquake, California: A joint inversion of leveling and triangulation observations, *J. Geophys. Res.,* v. **106**, n. B1, p. 771-785, 200.

Goodman, E.D. and P.E. Malin, Evolution of the southern San Joaqin basin and Mid-Tertiary “transitional” tectonics, central California, *Tectonics,* **v.11**, n.3, p.478-498 (1992).

Guzofski, C.A., J.H. Shaw, G. Lin, P.M. Shearer, et al., Seismically active wedge structure beneath the Coalinga Anticline, San Joaquin Basin, California, *Journal of Geophysical Research*, v. **112**, B03S05. DOI:10.1029/2006JB004465 (2007).

Medwedeff, D. A., 1992, Geometry and kinematics of an active, laterally propagating wedge thrust, Wheeler Ridge, California, in Mitra, S., and Fisher, G. W., eds., Structural ecology of fold and thrust belts: Baltimore, Maryland, Johns Hopkins University Press, p. 3–28 ,

Namson, J., and Davis, T. L., 1988, Seismically active fold and thrust belt in the San Joaquin Valley, central California: Geological Society of America Bulletin, v. 100, p. 257–273.

## Coast Ranges Fault Area (CRFA)

Clark, D.G, D.B. Slemmons, S.J. Caskey, D.M. dePolo, et al., Seismotectonic framework of coastal Central California, *Special Paper - Geological Society of America*, **292**, p. 9-30. DOI:10.1130/SPE292-p9 (1994).

Davis, T. L., M. B. Lagoe, W. J. M. Bazeley, S. Gordon, K. McIntosh, and J. S. Namson, 1988, Structure of the Cuyama Valley, Caliente Range, and Carrizo Plain and its significance to the structural style of the southern Coast Ranges and western Transverse Ranges, inW. J. M. Bazeley, ed., Tertiary tectonics and sedimentation in the Cuyama basin, San Luis Obispo, Santa Barbara, and Ventura Counties, California: Pacific Section SEPM, v. 59, p. 141–158.

Hardebeck, J.L., Seismotectonics and fault structure of the California central coast, *Bull. Seismol. Soc. Am*., v. 100, p. 1031-1050, DOI:10.1785/0120090307 (2010).

McLaren, M.K., Hardebeck, J.L., van der Elst, N., Unruh, J.R et al., Complex faulting associated with the 22 December 2003 Mw 6.5 San Simeon, California, earthquake, aftershocks, and postseismic surface deformation, *Bull. Seismol. Soc. Am*., v. **98**, p. 1659-1680 (2008).

Namson, J. and T.L. Davis, Late Cenozoic fold and thrust belt of the southern Coast Ranges and Santa Maria Basin, California, *AAPG Bulletin*, v. **74**, Iss. 4, p. 467-492 (1990). doi:[10.1306/0C9B2335-1710-11D7-8645000102C1865D](https://doi.org/10.1306/0C9B2335-1710-11D7-8645000102C1865D)

Onderdonk, N. W., Minor, S. A., and Kellogg, K. S. (2005), Taking apart the Big Pine fault: Redefining a major structural feature in southern California, Tectonics, 24, TC6002, doi:10.1029/2005TC001817.

## Offshore Central California Fault Area (OCCA)

Hardebeck, J.L., H. Zhang, C.H. Thurber, E. Schweig and R. Williams, Objective determination of the geometry of the Shoreline and Hosgri faults, near Point Buchon, California, from seismicity relocations, Seismological Research Letters, v. **82**, p. 349-350 (2011).

Sorlien. C. C., Kamerling, M. J., and Mayerson, D., Block rotation and termination of the Hosgri strike-slip fault, California, from three-dimensional map restoration: Geology, v. 27, no. 11, p. 1039-1042. 1999.

Sorlien, C.C., Nicholson, C., and Luyendyk, B.P., Miocene extension and post-Miocene transpression offshore of south-central California, *U.S. Geological Survey Bulletin* **1995**, p. Y1-Y38 (1999).

Willingham, C.R., J.D. Rietman, R.G. Heck and W.R. Lettis, Characterization of the Hosgri Fault Zone and adjacent structures in the offshore Santa Maria Basin, south-central California, *Chap. CC of Evolution of Sedimentary Basins/Onshore Oil and Gas Investigations—Santa Maria Province*, M.A. Keller, ed., *U.S. Geological Survey Bulletin 1995-CC*, 105 pp. plus 7 plates (2013).