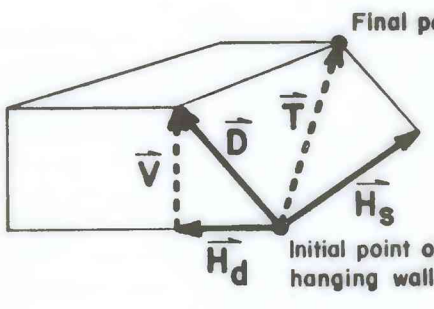


DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

Map Location #	Fault	Location	Latitude/ Longitude	Fault Strike	Style: ¹ Component	Slip ² mm - mx	Age of offset ^{2,4} (1000 Years) mm - mx	Slip Rate ² (mm / yr) mm mx pf	Feature Offset	Method of Age Estimation	Us U ³	References	Comments	Compiler's Initials
NC ZAV04	Zayante-Vergeles	Fern Flat Road	37°01.8' / 121°52.2'	130	RR:V H _v H _h T ⁺	5-9 m 4-11.3 m 18-11.3 m	8-30	.03 1.4 .2	palaeosol	ZAV04 soil development	B D	Coppersmith (1979); Coppersmith, oral comm., (1993)	Apparent dip at roadcut 35°, true dip less than 50°. Slickenside rakes range 8-58° SE, averaging 20°. Average rake gives preferred value. Only vertical offset accurate; strike slip component is a speculative estimate using slickenside rake.	JL
Peninsular Ranges														
PR CHN01	Chino	Prado Dam trenches	33°53.3' / 117°37.8'	140	RR:V	7.5 m P	125-500	.02 .06 .06	palaeosol	CHN01 soil development, correlation	B C	Heath and others (1982)	Assumes vertical separation approximates V; H _v may be much greater.	JZ
PR CLK01	Clark	Anza Valley	33°34' / 116°39'	126	RV:V _h	5.7-11 km	10-730	8 -- >12	gravel bed-- source terrane	CLK01 K-Ar on tuff, NAA correlation	A A	Sharp (1981)	No good way to determine maximum slip and rate. 25 mm/yr not impossible.	RS
PR ING01	Inglewood	Baldwin Hills	34°00.3' / 118°21.9'	155	RR:V	60 m P	100-500	.1 .6 --	base of upper Pleistocene alluvial terrace	ING01 soil development, correlation	C C	Castle (1960); Castle and Yerkes (1976); J. C. Tinsley, unpub. data	Same as for CHN01. Rate calculated by compiler.	JZ
PR NIN01	Newport-Inglewood (North Branch)	Bolsa Chica Mesa	33°42.5' / 118°02.5'	140	RV:V	12 m E	10-126	.1 1.2 --	late Holocene land surface	NIN01 correlation	C B	Poland and Piper (1956); California Department of Water Resources (1968); K. R. Lajoie, unpub. data	Vertical separation estimated by compiler from topographic map and assumed to approximate V; H _v may be much greater.	JZ
PR NIN02	Newport-Inglewood	Bolsa Gap	33°41.8' / 118°01.7'	125	RV:V	6 m E	1-11	.6 6 .6	base of Bolsa aquifer	NIN02 correlation	D B	California Department of Water Resources (1968)	Vertical separation measured by compiler from cross-section based on water-well data and assumed to approximate V; H _v may be much greater.	JZ
PR PWH01	Palos Verdes Hills (strand F-5)	Inner San Pedro shelf	33°41.7' / 118°13.6'	140	RR:V	3 m P	10 E	-- -- .3	seismic reflector	PWH01 seismic correlation with nearby cores	B B	Darrow and Fischer (1983)	Vertical separation assumed to approximate V; H _v may be greater. Reflector presumed to be base of the Holocene Gaspar formation.	JZ
PR PWH02	Palos Verdes Hills (strand S-4)	middle San Pedro shelf	33°39.0' / 118°11.5'	140	RR:V	--	10 E	.3 .4 --	seismic reflector	PWH02 seismic correlation with nearby cores	D B	Darrow and Fischer (1983)	V not reported, hence D rating. Rate reported by Darrow and Fisher is for V; H _v may be greater.	JZ
PR PWH03	Palos Verdes Hills (strand M-3)	outer San Pedro shelf	33°34.8' / 118°06.7'	135	RR:V	3 m P	30-130	.02 .1 --	seismic reflector	PWH03 seismic correlation with nearby cores	B B	Darrow and Fischer (1983)	Vertical separation assumed to approximate V; H _v may be greater.	JZ
PR RSC01	Rose Canyon	La Jolla Bay	32°51.0' / 117°15.4'	120	RR:V	55 m P 150 m P 160 m P	130-130	1.2 1.5 --	marine-terrace shoreline angle	RSC01 uranium-series on corals	B A	Kern (1977)	Rate calculated by compiler from data in Kern (1977). Assumes that shoreline angle NE of fault correlates with that of Nestor terrace. However, if shoreline angle is that of younger Bird Rock terrace, T would be 550 m and corresponding slip rate 6.1-7.9 mm/yr.	JZ
PR RSC02	Rose Canyon	Mount Soledad	35°50.6' / 117°14.5'	135	RR:V	130 m P	300-1000	.1 .4 .4	wave-cut platform of marine terrace	RSC02 amino-acid ratio, correlation	B C	Moore and Kennedy (1975); Kern, unpub. data	Rate calculated by compiler. Vertical separation estimated from topographic sheet, and assumed to approximate V; H _v may be greater. Younger age is preferred for Lindavista Formation near Mount Soledad.	JZ
PR UNM01	Unnamed	Santa Rosa Mountains	33°25' / 116°12'	170	N:R	2.3-U km 1-U km	2000-U	-- 1 --	gravel bed	UNM01 correlation with fossil-bearing strata	C D	R. V. Sharp, unpub. data	Variable dip with depth makes slip component values uncertain. No evidence here that this fault has been active in Holocene time. H _v possible.	RS
Sierra Nevada-Great Basin														
SB BRB01	Bridgeport Basin	Buckeye Creek	36°14.2' / 119°18.0'	012	N:V	3-5 m 3-7 m	10-13	.2 .7 .5	late Tioqa outwash	BRB01 correlation	A A	M. M. Clark, unpub. data	T derived from assumed fault dip of 50-70°. Late Tioqa outwash assumed to be 10,000-15,000 yr B.P. See correlation comment for RND01.	MC
SB CRW01	Carson Valley	Woodfords	36°46.5' / 119°49.3'	010	N:V	8-12 m 9-16 m	10-13	.7 1.6 1	late Tioqa outwash	CRW01 correlation	C B	M. M. Clark, unpub. data	T derived from assumed fault dip of 50-70°. See correlation comment for RND01, age comment for BRB01.	MC
SB DWT01	Dewitt	Hubbard Road	36°56.2' / 121°8.1'	145	N:V	0.15-0.6 m	9-130	.001 .07 --	R horizon of buried soil	DWT01 correlation	B B	Woodward-Clyde Consultants (1977); Borchardt and others (1978); Harden and Marchand (1980); J. W. Harden, oral comm., 1983	Assumes that vertical separation approximates V. Evidence that drainage improved during soil development; environment changed from reducing to oxidizing, perhaps related to fault movement. Rapid deposition of oxidized sediments may indicate a second slip event prior to deposition of Sonora unit of Harden and Marchand (1980).	DH
SB FSH01	Fish Springs	Fish Springs Clender Cone	37°4.6' / 118°16.1'	002	N:V	30-42 m 33-51 m	65-130	.25 .8 .3	Tahoe alluvium	FSH01 correlation	B B	S. J. Martel, written commun., 1983	T derived from estimated fault dip of 55-60°. Alluvium correlated with Tahoe glaciation from position and relative weathering characteristics. Age of Tahoe glaciation is controversial.	MC
SB FSH02	Fish Springs	Fish Springs Clender Cone	37°4.6' / 118°16.1'	002	N:V	72-76 m 79-93 m	65-1000	0.1 1.4 .4	clender cone	FSH02 correlation	B B	S. J. Martel, written commun., 1983	T derived from estimated fault dip of 55-60°. Clender cone buried by Tahoe alluvium (see comments FSH01). Cone is less weathered than nearby cones radiometrically dated at about 10 ⁵ yr.	MC
SB FSH03	Fish Springs	Fish Springs Clender Cone	37°4.6' / 118°16.1'	002	N:V	2.5-3.5 m 3.2-4.3 m	10-20	.2 .4 .4	Tioqa alluvium	FSH03 correlation	A B	S. J. Martel, written commun., 1983	T derived from estimated fault dip of 55-60°. Alluvium correlated with Tioqa glaciation from position and relative weathering characteristics. See age comments for HLT02 and RND01.	MC
SB HFN01	Highway 49	Smith Property	39°4.7' / 121°5.9'	000	R(2):V	.2 m E	9-130	.002 .02 --	R horizon of buried soil	HFN01 correlation	C B	Woodward-Clyde Consultants (1977); Borchardt and others (1978); Harden and Marchand (1980); J. W. Harden, oral comm., 1983	Assumes that vertical separation approximates V. Palaeosol horizon poorly preserved; apparent offset could result from differential weathering, erosion or soil creep. Minimum age derived from compiler's assumption that unfaulted overlying layer is Sonora deposit of Harden and Marchand (1983).	DH
SB HLT01	Hilton Creek	McGee Creek	37°33.9' / 118°47.2'	160	N:V	24-26 m 28-34 m	13-20	1.4 2.6 2	maximum Tioqa moraine	HLT01 correlation	A A	Clark and Gillespie (1981)	T derived from measured fault dip of 55 ± 5°. Offset measured on maximum Tioqa lateral moraine on west side of canyon. See correlation and age comments for RND01.	MC
SB HLT02	Hilton Creek	McGee Creek	37°33.7' / 118°47.2'	160	N:V	16-18 m 20-25 m	10-15	1.3 2.4 2	Tioqa recessional moraine	HLT02 correlation	A A	Clark and Gillespie (1981)	T derived from estimated fault dip of 55 ± 5°. Tioqa recessional period assumed to be 10,000-15,000 yr B.P. See correlation comment for RND01.	MC
SB HRT01	Hartley Springs	Reversed Peak	37°48.8' / 119°5.8'	160	N:V	1-2 m 1-3 m	13-20	.05 .23 .15	maximum Tioqa moraine	HRT01 correlation	B A	M. M. Clark, unpub. data	T derived from assumed fault dip of 50° and 60°. This strand is about 1 km long and is roughly aligned with more prominent traces of Hartley Springs fault to SE. See correlation and age comments for RND01. May not be maximum for Hartley Springs fault.	MC
SB IND01	Independence	Independence Creek	36°47.3' / 118°18.1'	163	N:V	1.3-1.5 m 1.4-2 m	10.5-18	.08 .19 .1	Tioqa outwash terrace	IND01 correlation	A A	Gillespie (1982), Table 5-11, site 2; and A. R. Gillespie, oral comm., 1983	Gillespie reported V of 1.4 m for scarp cutting late Tioqa glacial outwash, which was assumed by Gillespie to be 10,800-18,000 yr B.P. T derived from assumed fault dips of 50-60°.	MC
SB IND02	Independence	Independence Creek	36°47.4' / 118°18.2'	163	N:V	2.2-2.4 m 2.3-3.1 m	20-35	.07 .16 .1	Tenaya or early Tioqa outwash	IND02 correlation	A B	Gillespie (1982), Table 5-11, site 2; and A. R. Gillespie, oral comm., 1983	Gillespie reported V of 2.3 m for scarp cutting outwash. T derived from assumed fault dips of 50-70°.	MC
SB IND03	Independence	Independence Creek	36°47.1' / 118°18.0'	163	N:V	5.6-5.8 m 6.0-7.6 m	65-130	.05 .12 .1	Tahoe moraine	IND03 correlation	A B	Gillespie (1982), Table 5-11, site 2; and A. R. Gillespie, oral comm., 1983	Gillespie reported V of 5.7 m for scarp across Tahoe moraine. T derived from assumed fault dip of 50-70°. Age of Tahoe glaciation is controversial.	MC
SB LXL01	Little Lake	S. of Little Lake	35°55' / 117°54'	144	RL:V _h	250-U m	<354-444	.6 .7 .7	stream channel wall cut in basalt flow	LXL01 K-Ar date on basalt	B C	Roquemore (1981); Duffield & Smith (1978)	250-m estimated minimum offset of stream channel wall cut in basalt. Age reported are for basalt. Channel wall could be much younger.	MC
SB LPN01	Lone Pine	Lone Pine Fan	36°36.4' / 118°04.6'	173	RR:V _h	5.4-6.9 m 7-8.5 m 1-1.5 m 6-7 m	3-21	.3 2 1	debris flow	LPN01 ¹⁴ C on shoreline tufa	A C	Lubetkin (1980); Lubetkin & Clark (1980)	V and H _d derived from Lubetkin's (1980) estimate of D. He assumed fault dip to range from 70° to 90°. Minimum age of offset assumes that this displacement occurred in 1072, with an average recurrence interval of 3000 yr. Offset is younger than ¹⁴ C-dated 21,000-yr shoreline of Lake Owens.	MC
SB MDU01	Maidu East	Auburn Dam site	36°53.4' / 121°3.2'	000	RV:V	.6 m E	14-130	.005 .07 --	R horizon of buried soil	MDU01 correlation	C B	Woodward-Clyde Consultants (1977); Harwood and Helley (1982); Borchardt and others (1978); Harden and Marchand (1980); J. W. Harden, oral comm., 1983	Assumes that vertical separation approximates V. Minimum vertical separation measured from base of paleo-H horizon on one side of fault; not present on other side. Shrink-swell of expansive clays, downslope creep, and erosion are possible causes of apparent offset. Minimum age determination based on assumption that unfaulted overlying colluvium belongs to the Wandotte and Sonora deposits of Harden and Marchand (1980).	DH
SB MNO01	Mono Lake	Lundy Canyon	38°1.8' / 119°10.7'	170	N:V	22-25 m 23-33 m	10-15	1.8 3.3 2.5	Tioqa recessional moraine	MNO01 correlation	A B	K. R. Lajoie, unpub. data; M. M. Clark, unpub. data	T derived from assumed fault dip of 50-70°. See correlation comment for RND01, age comment for HLT02.	MC
SB PMT01	Panamin Valley	Manly Canyon	35°54.5' / 117°11.0'	160	RR:V _h	20.0 m S 6 m S 6.4-7.6 m 21-21 m	8-20	1 2.6 2	nucliflow levees, alluvial surface	PMT01 correlation, comparison	A B	Smith, (1979)	H _v and V are reported by Smith from separate but adjacent traces within the Panamin Valley fault zone. D is derived from assumed fault dip of 50-70°. T combines these components from two different traces. Minimum age of offset combines Smith's minimum age of faulted deposits (10,000 yr.) and his maximum recurrence interval (3000 yr.). Faulting is younger than latest Pleistocene shorelines, whose age Smith estimates by correlation to older, dated shorelines in Panamin Valley	MC
SB PRK01	Parker Lake	Parker Lake	37°50.1' / 119°5.3'	160	N:V	30-40 m 30-50 m	65-130	.2 .8 .5	Tahoe moraine	PRK01 correlation	C C	Clark (1979); and M. M. Clark, unpub. data	No displacement at this location in last 13,000-20,000 yr. Offset estimated from method in Clark (1979). T derived from assumed fault dip of 50-70°. See correlation and age comment for FSH01.	MC
SB RES01	Rescue	The Knolls	38°46.0' / 120°57.4'	150	N:V	4.3-6 m	9-130	.002 .07 --	R horizon of buried soil	RES01 correlation	B B	Woodward-Clyde Consultants (1977); Borchardt and others (1978); Harden and Marchand (1980); J. W. Harden, oral comm., 1983	Assumes that vertical separation approximates V. Shrink-swell of expansive clays, differential weathering, downslope creep or different soil development on different parent materials could have caused apparent offset. Minimum age derived from compiler's assumption that unfaulted overlying layer is Sonora deposit of Harden and Marchand (1983).	DH
SB RES02	Rescue	Luneman Road	38°46.0' / 120°57.4'	155	N:V	.55 m E	9-130	.004 .06 --	R horizon of buried soil	RES02 correlation	B B	Woodward-Clyde Consultants (1977); Harwood and Helley (1982); Borchardt and others (1978); Harden and Marchand (1980); J. W. Harden, oral comm., 1983	Assumes that vertical separation approximates V. Offset is measured on the top of weathered bedrock; the offset of the overlying paleo-B soil can not be measured directly. Upper layers (expansive soils) disturbed by cattle hooves.	DH
SB RND01	Round Valley	Pine Creek	37°24.1' / 118°39.5'	157	N:V	12-14 m 13-18 m	13-20	.7 1.4 1	maximum Tioqa moraine	RND01 correlation	A A	M. M. Clark, unpub. data	T estimated from assumed fault dip of 50-70°. Offset measured at crest of south lateral moraine, which is correlated with Tioqa glaciation using position and relative weathering characteristics. Maximum Tioqa assumed to range from 13,000-20,000 yr B.P.	MC
SB SPV01	Spenceville	Spenceville	39°5.9' / 121°16.3'	153	N:V	10-6 m	9-130	<.005 .07 --	R horizon of buried soil	SPV01 correlation	B B	Woodward-Clyde Consultants (1977); Borchardt and others (1978); Harden and Marchand (1980); J. W. Harden, oral comm., 1983	Assumes that vertical separation approximates V. Shrink-swell of expansive clays (montmorillonite and vermiculite) contained in fault gouge, Borchardt and others, (1978) and downslope creep are possible causes of apparent offset.	DH
SB SRP01	Surprise Valley	near Steamboat Canyon	41°28.5' / 120°09.1'	163	N:V	9.8-15 m	5.6-13	.75 2.7 1	surface of deposit of Pleistocene Lake Surprise	SRP01 correlation with ¹⁴ C-based Lake Labontan history	B B	Hedel (1980)	Slip values correspond to assumed fault dips of 50° to 70° and fault position ± 3 m from that shown in Hedel, Fig. 27. Displacement is younger than last high-stand of Pleistocene Lake Surprise, whose deposits contain an ash tentatively correlated with an ash in a corresponding position in the ¹⁴ C-dated deposits of nearby Lake Labontan.	MC
SB SWR01	Swains Ravine	Orange Road	39°22.7' / 121°28.4'	148	N:V	.45-11 m	9-130	.003 >.005 --	R horizon of buried soil	SWR01 correlation	C B	Woodward-Clyde Consultants (1977); Borchardt and others (1978); Harden and Marchand (1980); J. W. Harden, oral comm., 1983	Assumes that vertical separation approximates V. Reported V is for only one profile through 3 traces in fault zone. Minimum slip measured in trench exposure. No faulted units can be matched across fault in trench.	DH
SB TNK01	Tank Canyon	Searles Valley	35°44' / 117°14'	330-030	N:V	5-6 m 5-8 m	5-10	.5 1.6 1	alluvium	TNK01 relation to ¹⁴ C-dated lake deposits	B A	Smith and others, 1964; G. I. Smith, written comm., 1983	Faulted alluvial fan overlies 10,000 yr. shoreline of Lake Searles. T assumes fault dip of 50° and 70°. Minimum age of offset combines a reasonable minimum age for alluvium and the possibility of a long recurrence interval.	MC
SB UNM03	Unnamed	Susanville	40°28.2' / 120°40.2'	000	RR:V	120-240 m 130-310 m	700-1900	.07 .44 .2	basalt flow	UNM03 K-Ar	B A	Roberts and Gross, 1982 and written com., 1983	Slip values reported here account for as much as 3/4 of the slip across this 2-km-wide fault zone, which forms the NW border of Honey Lake Valley. General trend of this zone is 145° clockwise. Minor horizontal slip component present, but not measured. Basalt not exposed on downthrown block, but depth constrained by drill data and other geologic relations. Preferred slip rate derived using 180 m for V, 60° for dip and 1.3 by for age.	MC
SB WWR01	West Walker River	Little Walker River	38°19.7' / 119°28.3'	174	N:V	7-9 m 7-12 m	13-20	.3 .9 .6	maximum Tioqa moraine	WWR01 correlation	A A	Clark (1967)	T derived from assumed fault dip of 50-70°. See correlation and age comment for RND01.	MC
Southern Coast Ranges														
SC PLT01	Pleito	east of Tecuya Creek	34°55.9' / 118°56.5'	064	R:V	2.2-2.8 m 4.4-8.2 m	8.1-10.5	0.5 1.0 --	fluvial terrace surface	PLT01 ¹⁴ C	B B	N. T. Hall, oral comm., 1983	Radioisotope sample taken from 3 meters below surface of terrace; length of time of deposition unknown, so slip rate is minimum. T is derived from measured fault dip of 20-30°.	KH
SC PLT02	Pleito	Tecuya fan	34°55.9' / 118°57.5'	090	R:V	1.3 m P 2.5-4 m	.28-1.5	1.7 14 --	fluvial terrace surface	PLT02 ¹⁴ C	B B	N. T. Hall, oral comm., 1983	T derived from measured V and fault dip of 20-30°. The maximum age of the offset is based on the oldest of the radioisotope dates for the youngest layer offset by the fault. The minimum age of the offset is derived from the youngest radioisotope date on the oldest layer not cut by faulting.	KH
SC PLT03	Pleito	Tecuya fan	34°55.9' / 118°57.5'	090	R:V	26 m P 52-76 m	115-130	0.40 0.66 --	palaeosol	PLT03 correlation	D D	N. T. Hall, oral comm., 1983	Palaeosol is assumed to date from last interglacial period. V estimated from profile predicted through three isolated locations of the palaeosol on the hanging wall block and depth (26 m) drilled to palaeosol on downthrown block. D is derived from near-surface fault dips of 20-30°.	KH
SC PLT04	Pleito	western Tecuya fan	34°56.0' / 118°57.9'	068	R:V	3.1-3.7 m 6.2-10.8 m	18-30	0.21 0.60 0.35	fluvial terrace surface	PLT04 ¹⁴ C	C B	N. T. Hall, oral comm., 1983	Best preliminary age is 23,000 yrs. D derived from assumed fault dip of 20-30°.	KH
SC SAN60	San Andreas	Carrizo Plain, Wallace Creek	35°16.3' / 119°49.6'	140	RV:V _h	127-129 m	3.5-4.2	33 37 34	stream channel	SAN60 ¹⁴ C, ± one std. dev.	A A	Sieh & Johns, in press; Hall & Sieh, 1977	The period of time that the 3 m vertical offset applies to is unclear. The preferred value for slip rate is from Sieh and Johns.	JS
SC SAN70	San Andreas	Melendy Ranch	36°34.9' / 121°10.4'	135	RV:V _h	62-66 m 2.4 m 62-66 m	1.7-2.1	30 >39 >34	fluvial terrace riser	SAN70 ¹⁴ C, ± one std. dev.	A B	Perkins and Sims, in press; J. R. Perkins and J. D. Sims, unpub. data; J. W. Harden, oral comm., 1983	Riser separates T ₂ terrace from lower and younger T ₃ terrace. Single, ¹⁴ C date is for T ₂ terrace deposits, not the date of abandonment of the T ₂ terrace (and creation of riser), therefore is older than offset. Soil development suggests a slightly older age for T ₃ terrace.	JP
SC SAS01	San Sineon	Piedras Blancas	35°39.3' / 121°12.4'	124	RV:V _h	760 m P	82-124	6 9 6	ancient marine shoreline	SAS01 geomorphology, dated sea-level curve	C B	Weber (1981)	This fault may be part of a nearly continuous fault zone that includes the offshore Hosgrl to the south and the Seal Cove-San Gregorio to the north.	KL
SC SAS02	San Sineon	Piedras Blancas	35°39.3' / 121°12.4'	124	RV:V _h	1600 m P	340 E	-- -- 4.6	ancient marine shoreline	SAS02 same as SAS01	C D	Weber (1981)	See SAS01 comments.	KL

¹ Style: strike-slip RR right lateral LL left lateral
dip-slip R reverse or thrust, compressional N normal, extensional
oblique-slip RR right-reverse LR left-reverse RR right-normal LL left-normal RV right-vertical LV left-vertical

Components: refer to block diagram
 $T = H_v + D + H_h + H_d + V$
 $T = (H_v^2 + H_h^2 + V^2)^{1/2}$



² m=minimum mx=maximum pf=preferred
* Slip, age, and slip rate apply to a definite period in the past.
E = best estimate or measured value, neither m nor mx.