Table A1 provides a list of 756 accelerograms that were individually examined and processed as part of the New Zealand strong-motion database development. These recordings can be considered as candidate accelerograms for time-domain analysis of structures. The inclusion of records on this list does not necessarily mean they will provide a good fit to a given target seismic hazard spectrum, and it is the responsibility of the engineer to determine the quality of fit.

M_w is the moment magnitude, R_{rup} is the closest distance between the site and rupture plane, R_{JB} is the closest distance from the site to a surface projection of the rupture plane and Z_{TOR} is the depth to the top of the rupture plane. Recordings in this that are marked as being from 'Interface' earthquakes, all correspond to events on the Fiordland place interface. Given the very different geophysical properties of the two regions, the records should only be used to representing Fiordland subduction scenarios, and should not be used to represent Hikurangi subduction scenarios.

The forward directivity flag indicates a record with a two-sided velocity pulse that is likely to be from forward directivity source effects. The angle associated with each flag indicates the horizontal component orientation for the velocity pulse. These recordings were manually inferred by Joshi (2013) as exhibiting forward directivity, and details on the evidence for the classification can be found within the reference. The Joshi (2013) study only analysed events in the 2010-2011 Canterbury earthquakes, and the remainder of the database has not yet been assessed for forward directivity effects. Hence some accelerograms in this list may also contain pulse-like motions, but they have not yet been identified.

To further aid ground motion selection, $D_{5\text{-}75\%}$ and $D_{5\text{-}95\%}$ significant durations are also provided for each record in the database. These can be found in the significant duration flatfile.

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20120525_024450_SUMS	5.07	14.2	2.7	13.6	B	Crust	Reverse	-
20120525_024450_PARS	5.07	14.4	2.7	13.6	B	Crust	Reverse	-
20120525_024450_GODS	5.07	14.6	3.6	13.6	B	Crust	Reverse	-
20120525_024450_NNBS	5.07	15.0	5.0	13.6	D	Crust	Reverse	-
20120525_024450_AKSS	5.07	36.4	33.3	13.6	C	Crust	Reverse	-
20120525_024450_EYRS	5.07	37.8	34.7	13.6	D	Crust	Reverse	-
20130816_035139_RCS2_20	5.18	19.4	7.6	17.7	D	Crust	Strike slip	-
20130816_035143_KEKS_20	5.18	36.9	31.4	17.7	B	Crust	Strike slip	-
20130816_035122_RCS1_20	5.18	50.9	47.5	17.7	D	Crust	Strike slip	-
20080612_210624_PXZ	5.23	268.9	269.3	3.5	B	Crust	Normal	-
20030930_193749_MLZ	5.58	88.0	87.6	3.2	B	Crust	Normal	-
20110222_015029_RHSC	5.63	9.7	6.7	5.3	D	Crust	Strike slip	-
20110222_015029_MQZ	5.63	12.4	10.4	5.3	B	Crust	Strike slip	-
20110222_015029_NNBS	5.63	13.6	11.7	5.3	D	Crust	Strike slip	-
20110222_015029_CACS	5.63	15.2	13.1	5.3	D	Crust	Strike slip	-
20110222_015029_SWNC	5.63	27.1	25.8	5.3	D	Crust	Strike slip	-
20110222_015029_ASHS	5.63	35.1	34.2	5.3	D	Crust	Strike slip	-
20110222_015029_CSTC	5.63	36.6	35.6	5.3	D	Crust	Strike slip	-
20110222_015029_OXZ	5.63	54.8	54.0	5.3	B	Crust	Strike slip	-
20110222_015029_INZ	5.63	134.8	134.4	5.3	B	Crust	Strike slip	-
20110222_015029_LBZ	5.63	212.5	211.8	5.3	B	Crust	Strike slip	-
20110222_015029_ODZ	5.63	223.3	222.9	5.3	B	Crust	Strike slip	-
20150105_174842_APPS_20	5.64	27.1	26.2	2.2	C	Crust	Strike slip	-
20150105_174849_INZ_20	5.64	38.5	38.2	2.2	B	Crust	Strike slip	-
20150105_174846_WVAS_20	5.64	40.0	39.7	2.2	D	Crust	Strike slip	-
20150105_174854_SPRS_20	5.64	61.3	60.9	2.2	D	Crust	Strike slip	-
20150105_174856_WHFS_20	5.64	74.0	73.7	2.2	D	Crust	Strike slip	-
20150105_174857_WHAS_20	5.64	78.5	78.2	2.2	C	Crust	Strike slip	-
20150105_174859_MAYC_20	5.64	84.7	84.5	2.2	D	Crust	Strike slip	-
20150105_174905_HUNS_20	5.64	125.7	125.4	2.2	B	Crust	Strike slip	-
20150105_174907_HSES_20	5.64	140.1	139.7	2.2	D	Crust	Strike slip	-
20150105_174909_GVZ_20	5.64	143.7	143.2	2.2	B	Crust	Strike slip	-
20150105_174908_CVZ_20	5.64	146.9	146.9	2.2	B	Crust	Strike slip	-
20150105_174908_DSZ_20	5.64	150.9	150.9	2.2	B	Crust	Strike slip	-
20150105_174909_AKSS_20	5.64	159.7	159.3	2.2	C	Crust	Strike slip	-
20150105_174917_ODZ_20	5.64	224.1	224.2	2.2	B	Crust	Strike slip	-
20150105_174925_KEKS_20	5.64	253.4	252.9	2.2	B	Crust	Strike slip	-
20130720_191718_WDFS_20	5.74	39.1	34.3	17.2	C	Crust	Unknown	-
20130720_191719_MGCS_20	5.74	41.4	36.3	17.2	D	Crust	Unknown	-
20130720_191720_WNKS_20	5.74	43.4	38.3	17.2	C	Crust	Unknown	-
20130720_191720_WNAS_20	5.74	44.4	39.5	17.2	D	Crust	Unknown	-
20130720_191720_RQGS_20	5.74	44.6	39.7	17.2	D	Crust	Unknown	-
20130720_191720_FKPS_20	5.74	45.1	40.2	17.2	D	Crust	Unknown	-
20130720_191720_TEPS_20	5.74	45.1	40.2	17.2	D	Crust	Unknown	-

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20130720_191720_MISS_20	5.74	45.7	40.8	17.2	D	Crust	Unknown	-
20130720_191719_MKBS_20	5.74	45.8	41.1	17.2	B	Crust	Unknown	-
20130720_191720_POTS_20	5.74	45.9	41.2	17.2	B	Crust	Unknown	-
20130720_191720_WEMS_20	5.74	46.0	41.3	17.2	D	Crust	Unknown	-
20130720_191720_TFSS_20	5.74	46.2	41.4	17.2	D	Crust	Unknown	-
20130720_191719_BWRS_20	5.74	46.0	41.2	17.2	B	Crust	Unknown	-
20130720_191720_QCCS_20	5.74	46.5	41.7	17.2	D	Crust	Unknown	-
20130720_191720_NEWS_20	5.74	51.4	47.1	17.2	C	Crust	Unknown	-
20130720_191720_SOMS_20	5.74	52.1	47.9	17.2	B	Crust	Unknown	-
20130720_191722_PGMS_20	5.74	55.1	51.2	17.2	D	Crust	Unknown	-
20130720_191721_KEKS_20	5.74	56.9	53.5	17.2	B	Crust	Unknown	-
20130720_191723_LHRS_20	5.74	57.3	53.5	17.2	B	Crust	Unknown	-
20130720_191722_LHES_20	5.74	57.4	53.6	17.2	D	Crust	Unknown	-
20130720_191722_WANS_20	5.74	57.9	54.0	17.2	B	Crust	Unknown	-
20130720_191722_PWES_20	5.74	59.7	56.2	17.2	C	Crust	Unknown	-
20130720_191722_FAIS_20	5.74	59.9	56.3	17.2	B	Crust	Unknown	-
20130720_191725_POLS_20	5.74	60.1	56.5	17.2	D	Crust	Unknown	-
20130720_191722_BMTS_20	5.74	60.2	56.6	17.2	B	Crust	Unknown	-
20130720_191729_TMDS_20	5.74	82.0	79.3	17.2	B	Crust	Unknown	-
20130720_191728_WVFS_20	5.74	87.9	85.5	17.2	D	Crust	Unknown	-
20130720_191727_NNZ_20	5.74	93.5	91.1	17.2	B	Crust	Unknown	-
20130720_191730_MAVS_20	5.74	95.9	93.5	17.2	D	Crust	Unknown	-
20130720_191730_NLMS_20	5.74	99.4	97.1	17.2	C	Crust	Unknown	-
20130720_191734_OTKS_20	5.74	107.4	105.4	17.2	D	Crust	Unknown	-
20130720_191738_TSFS_20	5.74	153.2	151.6	17.2	B	Crust	Unknown	-
20130720_191737_HSES_20	5.74	167.1	165.8	17.2	D	Crust	Unknown	-
20130720_191742_KHLS_20	5.74	185.8	184.4	17.2	B	Crust	Unknown	-
20130720_191748_RCBS_20	5.74	258.9	258.2	17.2	B	Crust	Unknown	-
20130720_191750_MENS_20	5.74	259.8	259.1	17.2	C	Crust	Unknown	-
20130720_191754_INHS_21	5.74	264.7	264.3	17.2	D	Crust	Unknown	-
20130720_191714_DHSS_20	5.74	265.9	265.2	17.2	C	Crust	Unknown	-
20130720_191710_GOVS_20	5.74	270.0	269.3	17.2	C	Crust	Unknown	-
20130720_191749_AKSS_20	5.74	274.4	273.8	17.2	C	Crust	Unknown	-
20130720_191752_SPRS_20	5.74	281.5	280.6	17.2	D	Crust	Unknown	-
20130720_191754_DSLC_20	5.74	293.8	293.1	17.2	D	Crust	Unknown	-
20111223_005838_PARS	5.79	9.7	8.5	1.0	B	Crust	Reverse	-
20111223_005838_GODS	5.79	10.6	9.1	1.0	B	Crust	Reverse	-
20111223_005838_CBGS	5.79	13.4	13.4	1.0	D	Crust	Reverse	-
20111223_005838_PPHS	5.79	13.4	13.4	1.0	E	Crust	Reverse	-
20111223_005838_CRLZ	5.79	15.9	15.9	1.0	B	Crust	Reverse	-
20111223_005838_HHSS	5.79	16.8	16.7	1.0	D	Crust	Reverse	-
20111223_005838_STKS	5.79	17.3	17.1	1.0	B	Crust	Reverse	-
20111223_005838_CACS	5.79	19.6	19.5	1.0	D	Crust	Reverse	-
20111223_005838_D14C	5.79	20.6	20.3	1.0	B	Crust	Reverse	-
20111223_005838_TPLC	5.79	25.4	25.4	1.0	D	Crust	Reverse	-
20111223_005838_ASHS	5.79	26.7	26.7	1.0	D	Crust	Reverse	-
20111223_005838_OXZ	5.79	61.8	61.7	1.0	B	Crust	Reverse	-
20111223_005838_SPRS	5.79	70.0	69.9	1.0	D	Crust	Reverse	-
20111223_005838_WCSS	5.79	73.5	73.3	1.0	D	Crust	Reverse	-
20111223_005838_LBZ	5.79	230.7	230.3	1.0	B	Crust	Reverse	-
20111223_005838_FOZ	5.79	239.1	238.5	1.0	B	Crust	Reverse	-
20111223_005838_NEWS	5.79	299.6	299.6	1.0	C	Crust	Reverse	-
20111223_021803_SHLC	5.85	7.2	7.1	1.2	D	Crust	Oblique	FD (160°)
20111223_021803_PARS	5.85	9.3	7.5	1.2	B	Crust	Oblique	-
20111223_021803_GODS	5.85	10.2	8.3	1.2	B	Crust	Oblique	-
20111223_021803_SMTC	5.85	10.4	10.3	1.2	D	Crust	Oblique	FD (160°)
20111223_021803_PPHS	5.85	11.1	11.0	1.2	E	Crust	Oblique	FD (180°)
20111223_021803_D15C	5.85	11.4	10.0	1.2	B	Crust	Oblique	-
20111223_021803_CBGS	5.85	11.6	11.5	1.2	D	Crust	Oblique	-
20111223_021803_CMHS	5.85	13.8	13.4	1.2	D	Crust	Oblique	FD (110°)
20111223_021803_CRLZ	5.85	14.5	14.0	1.2	B	Crust	Oblique	-
20111223_021803_HHSS	5.85	15.1	15.0	1.2	D	Crust	Oblique	-
20111223_021803_STKS	5.85	16.1	15.2	1.2	B	Crust	Oblique	-
20111223_021803_CACS	5.85	17.2	17.1	1.2	D	Crust	Oblique	-
20111223_021803_HALS	5.85	18.9	18.6	1.2	E	Crust	Oblique	-
20111223_021803_D14C	5.85	19.3	18.5	1.2	B	Crust	Oblique	-
20111223_021803_TPLC	5.85	23.3	23.3	1.2	D	Crust	Oblique	-
20111223_021803_MQZ	5.85	25.1	24.6	1.2	B	Crust	Oblique	-
20111223_021803_OXZ	5.85	59.3	59.2	1.2	B	Crust	Oblique	-
20111223_021803_WCSS	5.85	71.1	70.9	1.2	D	Crust	Oblique	-

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20111223_021803_LTZ	5.85	85.7	85.7	1.2	B	Crust	Oblique	-
20111223_021803_GLWS	5.85	98.3	98.3	1.2	D	Crust	Oblique	-
20111223_021803_LBZ	5.85	228.8	228.4	1.2	B	Crust	Oblique	-
20111223_021803_FOZ	5.85	236.6	236.1	1.2	B	Crust	Oblique	-
20111223_021803_ODZ	5.85	241.0	240.7	1.2	B	Crust	Oblique	-
20130816_053120_RCS2_20	5.9	17.7	11.9	10.3	D	Crust	Strike slip	-
20130816_053123_MGCS_20	5.9	33.4	30.0	10.3	D	Crust	Strike slip	-
20130816_053124_BWRS_20	5.9	40.5	37.5	10.3	B	Crust	Strike slip	-
20130816_053127_RCS1_20	5.9	53.7	51.6	10.3	D	Crust	Strike slip	-
20130816_053128_WNKS_20	5.9	56.5	54.6	10.3	C	Crust	Strike slip	-
20130816_053128_WNHS_20	5.9	57.0	55.2	10.3	B	Crust	Strike slip	-
20130816_053129_WNAS_20	5.9	57.1	55.3	10.3	D	Crust	Strike slip	-
20130816_053129_TEPS_20	5.9	58.1	56.4	10.3	D	Crust	Strike slip	-
20130816_053128_FKPS_20	5.9	58.2	56.4	10.3	D	Crust	Strike slip	-
20130816_053129_MISS_20	5.9	58.5	56.8	10.3	D	Crust	Strike slip	-
20130816_053129_WEMS_20	5.9	59.3	57.6	10.3	D	Crust	Strike slip	-
20130816_053128_MKBS_20	5.9	59.3	57.5	10.3	B	Crust	Strike slip	-
20130816_053129_NEWS_20	5.9	65.1	63.4	10.3	C	Crust	Strike slip	-
20130816_053131_LHUS_20	5.9	69.2	67.7	10.3	D	Crust	Strike slip	-
20130816_053131_LHRS_20	5.9	71.2	69.7	10.3	B	Crust	Strike slip	-
20130816_053131_ARKS_20	5.9	71.5	70.0	10.3	C	Crust	Strike slip	-
20130816_053130_WANS_20	5.9	71.5	70.0	10.3	B	Crust	Strike slip	-
20130816_053130_LHBS_20	5.9	71.8	70.3	10.3	B	Crust	Strike slip	-
20130816_053131_BMTS_20	5.9	74.2	72.7	10.3	B	Crust	Strike slip	-
20130816_053132_NNZ_20	5.9	88.5	87.1	10.3	B	Crust	Strike slip	-
20130816_053137_KIRS_20	5.9	101.3	100.1	10.3	C	Crust	Strike slip	-
20130816_053138_MAVS_20	5.9	109.2	108.1	10.3	D	Crust	Strike slip	-
20130816_053143_HSES_20	5.9	148.4	147.6	10.3	D	Crust	Strike slip	-
20130816_053148_KHLS_20	5.9	184.7	183.8	10.3	B	Crust	Strike slip	-
20130816_053152_RCBS_20	5.9	241.3	241.0	10.3	B	Crust	Strike slip	-
20130816_053207_HUNS_20	5.9	246.6	246.2	10.3	B	Crust	Strike slip	-
20130816_053153_DHSS_20	5.9	248.5	248.1	10.3	C	Crust	Strike slip	-
20130816_053234_IFPS_20	5.9	254.9	254.0	10.3	D	Crust	Strike slip	-
20130816_053204_SPRS_20	5.9	263.0	262.4	10.3	D	Crust	Strike slip	-
20110613_022049_PARS	5.99	3.6	0.0	2.8	B	Crust	Unknown	FD (98°)
20110613_022049_HVSC	5.99	4.6	2.3	2.8	C	Crust	Unknown	-
20110613_022049_D15C	5.99	4.9	1.7	2.8	B	Crust	Unknown	FD (130°)
20110613_022049_NBLC	5.99	5.6	4.9	2.8	D	Crust	Unknown	FD (164°)
20110613_022049_LPCC	5.99	6.6	2.6	2.8	B	Crust	Unknown	FD (152°)
20110613_022049_CMHS	5.99	8.8	7.9	2.8	D	Crust	Unknown	-
20110613_022049_CRLZ	5.99	9.0	8.2	2.8	B	Crust	Unknown	-
20110613_022049_D13C	5.99	9.2	8.0	2.8	B	Crust	Unknown	FD (146°)
20110613_022049_D14C	5.99	12.1	11.0	2.8	B	Crust	Unknown	-
20110613_022049_PPHS	5.99	12.4	11.8	2.8	E	Crust	Unknown	-
20110613_022049_MQZ	5.99	16.0	14.6	2.8	B	Crust	Unknown	-
20110613_022049_CACS	5.99	18.0	17.6	2.8	D	Crust	Unknown	-
20110613_022049_EYRS	5.99	33.5	33.2	2.8	D	Crust	Unknown	-
20110613_022049_SLRC	5.99	35.3	35.0	2.8	D	Crust	Unknown	-
20110613_022049_DFHS	5.99	50.8	50.5	2.8	D	Crust	Unknown	-
20110613_022049_SCAC	5.99	69.5	69.4	2.8	B	Crust	Unknown	-
20110613_022049_LTZ	5.99	93.5	93.5	2.8	B	Crust	Unknown	-
20110613_022049_GLWS	5.99	107.9	107.9	2.8	D	Crust	Unknown	-
20110613_022049_HSES	5.99	114.3	114.4	2.8	D	Crust	Unknown	-
20110613_022049_IFPS	5.99	137.4	137.2	2.8	D	Crust	Unknown	-
20110613_022049_HAFS	5.99	181.4	180.9	2.8	D	Crust	Unknown	-
20110613_022049_MCNS	5.99	212.7	212.1	2.8	C	Crust	Unknown	-
20110613_022049_LBZ	5.99	223.3	222.8	2.8	B	Crust	Unknown	-
20110613_022049_ODZ	5.99	232.8	232.5	2.8	B	Crust	Unknown	-
20110613_022049_FOZ	5.99	234.9	234.2	2.8	B	Crust	Unknown	-
20110613_022049_NNZ	5.99	264.3	264.5	2.8	B	Crust	Unknown	-
20150424_033651_MOLS_20	6.05	50.4	12.3	47.4	B	Slab	Unknown	-
20150424_033653_THZ_20	6.05	60.8	35.4	47.4	B	Slab	Unknown	-
20150424_033700_NNZ_20	6.05	108.3	96.4	47.4	B	Slab	Unknown	-
20150424_033702_DSZ_20	6.05	120.0	108.3	47.4	B	Slab	Unknown	-
20150424_033708_MNZS_20	6.05	176.1	168.3	47.4	B	Slab	Unknown	-
20150424_033708_NEWS_20	6.05	177.4	170.0	47.4	C	Slab	Unknown	-
20110221_235142_CBGS	6.19	5.9	5.8	0.5	D	Crust	Oblique	FD (113°)
20110221_235142_LPOC	6.19	7.1	4.7	0.5	D	Crust	Oblique	FD (169°)
20110221_235142_LPCC	6.19	7.3	4.8	0.5	B	Crust	Oblique	FD (51°)
20110221_235142_PPHS	6.19	8.9	8.9	0.5	E	Crust	Oblique	FD (151°)

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20110221_235142_RHSC	6.19	10.0	9.9	0.5	D	Crust	Oblique	FD (83°)
20110221_235142_SMTC	6.19	10.5	10.4	0.5	D	Crust	Oblique	FD (156°)
20110221_235142_CACS	6.19	14.6	14.5	0.5	D	Crust	Oblique	FD (163°)
20110221_235142_MQZ	6.19	17.3	15.9	0.5	B	Crust	Oblique	-
20110221_235142_LINC	6.19	19.5	19.4	0.5	D	Crust	Oblique	-
20110221_235142_SWNC	6.19	25.0	24.9	0.5	D	Crust	Oblique	-
20110221_235142_ASHS	6.19	29.7	29.7	0.5	D	Crust	Oblique	-
20110221_235142_SLRC	6.19	32.9	32.8	0.5	D	Crust	Oblique	-
20110221_235142_CSTC	6.19	35.9	35.9	0.5	D	Crust	Oblique	-
20110221_235142_AMBC	6.19	40.4	40.4	0.5	D	Crust	Oblique	-
20110221_235142_DFHS	6.19	47.7	47.5	0.5	D	Crust	Oblique	-
20110221_235142_OXZ	6.19	58.0	57.9	0.5	B	Crust	Oblique	-
20110221_235142_WAKC	6.19	61.8	61.8	0.5	D	Crust	Oblique	-
20110221_235142_SPFS	6.19	65.6	65.5	0.5	D	Crust	Oblique	-
20110221_235142_SCAC	6.19	65.9	65.9	0.5	B	Crust	Oblique	-
20110221_235142_KOWC	6.19	71.9	71.7	0.5	D	Crust	Oblique	-
20110221_235142_LSRC	6.19	73.9	74.0	0.5	D	Crust	Oblique	-
20110221_235142_ADCS	6.19	85.2	85.0	0.5	D	Crust	Oblique	-
20110221_235142_CSHS	6.19	85.8	85.6	0.5	B	Crust	Oblique	-
20110221_235142_CECS	6.19	88.8	88.8	0.5	D	Crust	Oblique	-
20110221_235142_LTZ	6.19	90.5	90.5	0.5	B	Crust	Oblique	-
20110221_235142_GLWS	6.19	104.4	104.5	0.5	D	Crust	Oblique	-
20110221_235142_HSES	6.19	110.7	110.8	0.5	D	Crust	Oblique	-
20110221_235142_INZ	6.19	136.3	136.1	0.5	B	Crust	Oblique	-
20110221_235142_KHZ	6.19	138.0	138.0	0.5	B	Crust	Oblique	-
20110221_235142_KIKS	6.19	142.8	142.8	0.5	B	Crust	Oblique	-
20110221_235142_KOKS	6.19	145.6	145.3	0.5	D	Crust	Oblique	-
20110221_235142_FDCS	6.19	161.4	161.0	0.5	D	Crust	Oblique	-
20110221_235142_WVAS	6.19	166.8	166.4	0.5	D	Crust	Oblique	-
20110221_235142_DSZ	6.19	211.6	211.7	0.5	B	Crust	Oblique	-
20110221_235142_LBZ	6.19	221.2	220.8	0.5	B	Crust	Oblique	-
20110221_235142_FOZ	6.19	231.9	231.4	0.5	B	Crust	Oblique	-
20110221_235142_ODZ	6.19	232.1	231.8	0.5	B	Crust	Oblique	-
20110221_235142_NNZ	6.19	260.8	261.0	0.5	B	Crust	Oblique	-
20140120_025252_MRZ_20	6.31	38.5	18.5	32.5	B	Slab	Normal	-
20140120_025255_WRCS_20	6.31	49.9	37.7	32.5	D	Slab	Normal	-
20140120_025257_FXBS_20	6.31	62.5	50.5	32.5	D	Slab	Normal	-
20140120_025257_TSZ_20	6.31	68.2	58.9	32.5	B	Slab	Normal	-
20140120_025300_FTPS_20	6.31	75.0	67.4	32.5	D	Slab	Normal	-
20140120_025300_KIRS_20	6.31	76.9	69.0	32.5	C	Slab	Normal	-
20140120_025259_PGFS_20	6.31	79.0	71.8	32.5	D	Slab	Normal	-
20140120_025303_PWES_20	6.31	104.8	98.6	32.5	C	Slab	Normal	-
20140120_025303_PHHS_20	6.31	107.8	102.1	32.5	C	Slab	Normal	-
20140120_025303_SOMS_20	6.31	110.6	104.9	32.5	B	Slab	Normal	-
20140120_025304_EBPS_20	6.31	110.7	105.2	32.5	C	Slab	Normal	-
20140120_025304_NEWS_20	6.31	111.6	105.8	32.5	C	Slab	Normal	-
20140120_025306_WEMS_20	6.31	117.0	111.6	32.5	D	Slab	Normal	-
20140120_025306_FKPS_20	6.31	118.0	112.6	32.5	D	Slab	Normal	-
20140120_025305_TEPS_20	6.31	118.0	112.6	32.5	D	Slab	Normal	-
20140120_025304_WEL_20	6.31	118.4	113.0	32.5	B	Slab	Normal	-
20140120_025305_MKBS_20	6.31	119.2	113.6	32.5	B	Slab	Normal	-
20140120_025307_WAZ_20	6.31	121.8	116.0	32.5	C	Slab	Normal	-
20140120_025310_KFHS_20	6.31	142.5	138.5	32.5	C	Slab	Normal	-
20140120_025312_NCDS_20	6.31	152.9	149.4	32.5	E	Slab	Normal	-
20140120_025319_NSPS_21	6.31	155.6	152.2	32.5	B	Slab	Normal	-
20140120_025311_NGHS_20	6.31	155.9	152.5	32.5	B	Slab	Normal	-
20140120_025320_HWHS_20	6.31	175.7	171.5	32.5	C	Slab	Normal	-
20140120_025313_BWRS_20	6.31	186.1	182.4	32.5	B	Slab	Normal	-
20140120_025315_RCS2_20	6.31	188.5	184.9	32.5	D	Slab	Normal	-
20140120_025319_TUHS_20	6.31	200.0	197.0	32.5	D	Slab	Normal	-
20140120_025317_MTHZ_20	6.31	213.3	210.6	32.5	B	Slab	Normal	-
20140120_025320_OPSS_20	6.31	212.4	208.8	32.5	C	Slab	Normal	-
20140120_025317_KEKS_20	6.31	214.8	211.6	32.5	B	Slab	Normal	-
20140120_025319_KNZ_20	6.31	236.0	233.7	32.5	B	Slab	Normal	-
20140120_025321_RTZ_20	6.31	241.9	239.6	32.5	B	Slab	Normal	-
20140120_025319_KHLS_20	6.31	271.7	268.6	32.5	B	Slab	Normal	-
20140120_025327_GKBS_20	6.31	284.5	282.5	32.5	B	Slab	Normal	-
20140120_025325_MWZ_20	6.31	290.8	289.1	32.5	B	Slab	Normal	-
20121207_181940_GKBS_20	6.35	232.0	167.3	158.0	B	Slab	Unknown	-
20130721_050938_WDFS_20	6.58	23.9	22.1	7.2	C	Crust	Strike slip	-

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20130721_050939_MGCS_20	6.58	32.5	29.7	7.2	D	Crust	Strike slip	-
20130721_050938_BWRS_20	6.58	39.3	36.7	7.2	B	Crust	Strike slip	-
20130721_050940_KEKS_20	6.58	42.2	41.1	7.2	B	Crust	Strike slip	-
20130721_050940_QCCS_20	6.58	46.1	43.2	7.2	D	Crust	Strike slip	-
20130721_050940_WNKS_20	6.58	48.1	46.9	7.2	C	Crust	Strike slip	-
20130721_050941_WNHS_20	6.58	48.7	47.7	7.2	B	Crust	Strike slip	-
20130721_050940_TRTS_20	6.58	48.8	47.7	7.2	C	Crust	Strike slip	-
20130721_050941_WNAS_20	6.58	48.9	48.0	7.2	D	Crust	Strike slip	-
20130721_050941_RQGS_20	6.58	49.4	48.3	7.2	D	Crust	Strike slip	-
20130721_050941_TEPS_20	6.58	49.8	48.8	7.2	D	Crust	Strike slip	-
20130721_050941_FKPS_20	6.58	49.9	48.8	7.2	D	Crust	Strike slip	-
20130721_050941_MISS_20	6.58	50.3	49.4	7.2	D	Crust	Strike slip	-
20130721_050940_VUWS_20	6.58	50.5	49.4	7.2	D	Crust	Strike slip	-
20130721_050941_SEAS_20	6.58	50.8	49.9	7.2	C	Crust	Strike slip	-
20130721_050940_MKBS_20	6.58	50.9	49.6	7.2	B	Crust	Strike slip	-
20130721_050941_POTS_20	6.58	50.9	49.8	7.2	B	Crust	Strike slip	-
20130721_050941_WEMS_20	6.58	51.0	49.9	7.2	D	Crust	Strike slip	-
20130721_050941_TFSS_20	6.58	51.1	50.0	7.2	D	Crust	Strike slip	-
20130721_050941_NEWS_20	6.58	56.8	55.7	7.2	C	Crust	Strike slip	-
20130721_050942_EBPS_20	6.58	57.3	56.6	7.2	C	Crust	Strike slip	-
20130721_050941_SOMS_20	6.58	57.4	56.5	7.2	B	Crust	Strike slip	-
20130721_050942_PGMS_20	6.58	60.7	59.8	7.2	D	Crust	Strike slip	-
20130721_050943_LHUS_20	6.58	61.1	60.2	7.2	D	Crust	Strike slip	-
20130721_050942_INSS_20	6.58	62.6	61.8	7.2	B	Crust	Strike slip	-
20130721_050943_LHRS_20	6.58	63.0	62.1	7.2	B	Crust	Strike slip	-
20130721_050943_LHES_20	6.58	63.1	62.2	7.2	D	Crust	Strike slip	-
20130721_050943_WANS_20	6.58	63.4	62.6	7.2	B	Crust	Strike slip	-
20130721_050943_ARKS_20	6.58	63.4	62.7	7.2	C	Crust	Strike slip	-
20130721_050943_LHBS_20	6.58	63.6	62.7	7.2	B	Crust	Strike slip	-
20130721_050943_FAIS_20	6.58	65.7	64.9	7.2	B	Crust	Strike slip	-
20130721_050943_PWES_20	6.58	65.8	64.7	7.2	C	Crust	Strike slip	-
20130721_050944_PFAS_20	6.58	65.8	64.8	7.2	B	Crust	Strike slip	-
20130721_050943_BMTS_20	6.58	66.0	65.2	7.2	B	Crust	Strike slip	-
20130721_050946_NWFS_20	6.58	73.4	72.6	7.2	B	Crust	Strike slip	-
20130721_050948_WVFS_20	6.58	76.7	75.1	7.2	D	Crust	Strike slip	-
20130721_050946_UHCS_20	6.58	77.8	77.1	7.2	D	Crust	Strike slip	-
20130721_050947_NNZ_20	6.58	88.2	86.8	7.1	B	Crust	Strike slip	-
20130721_050949_TMDS_20	6.58	88.6	87.9	7.2	B	Crust	Strike slip	-
20130721_050951_NELS_20	6.58	92.0	90.6	7.2	B	Crust	Strike slip	-
20130721_050951_NCBS_20	6.58	92.1	90.7	7.2	D	Crust	Strike slip	-
20130721_050950_NLMS_20	6.58	92.8	91.5	7.2	C	Crust	Strike slip	-
20130721_050948_KIRS_20	6.58	93.4	92.8	7.2	C	Crust	Strike slip	-
20130721_050952_MOLS_20	6.58	97.2	96.3	7.2	B	Crust	Strike slip	-
20130721_050950_FTPS_20	6.58	97.3	96.7	7.2	D	Crust	Strike slip	-
20130721_050952_KIKS_20	6.58	99.0	98.6	7.2	B	Crust	Strike slip	-
20130721_050950_MAVS_20	6.58	102.0	101.4	7.2	D	Crust	Strike slip	-
20130721_050953_OTKS_20	6.58	114.7	113.9	7.2	D	Crust	Strike slip	-
20130721_050956_MOTS_20	6.58	119.8	118.6	7.2	D	Crust	Strike slip	-
20130721_050958_WRCS_20	6.58	129.9	129.4	7.2	D	Crust	Strike slip	-
20130721_050957_HOCS_20	6.58	133.4	132.6	7.2	D	Crust	Strike slip	-
20130721_050957_FXBS_20	6.58	145.9	145.2	7.2	D	Crust	Strike slip	-
20130721_050959_TSFS_20	6.58	149.6	148.7	7.2	B	Crust	Strike slip	-
20130721_050958_HSES_20	6.58	153.4	153.0	7.2	D	Crust	Strike slip	-
20130721_051005_MCAS_20	6.58	161.9	160.8	7.2	D	Crust	Strike slip	-
20130721_051005_PNBS_20	6.58	174.1	173.5	7.2	D	Crust	Strike slip	-
20130721_051006_GLWS_20	6.58	179.1	178.6	7.2	D	Crust	Strike slip	-
20130721_051002_KHLS_20	6.58	183.7	182.8	7.2	B	Crust	Strike slip	-
20130721_051006_FAHS_20	6.58	184.7	184.1	7.2	D	Crust	Strike slip	-
20130721_051007_SJFS_20	6.58	188.9	187.9	7.2	D	Crust	Strike slip	-
20130721_051010_WDPS_20	6.58	189.2	188.6	7.2	D	Crust	Strike slip	-
20130721_051008_WCDS_20	6.58	193.4	193.0	7.2	D	Crust	Strike slip	-
20130721_051002_WAKC_20	6.58	194.5	194.2	7.2	D	Crust	Strike slip	-
20130721_051006_TSZ_20	6.58	213.4	212.9	7.1	B	Crust	Strike slip	-
20130721_051014_HWHS_20	6.58	222.9	222.7	7.2	C	Crust	Strike slip	-
20130721_051015_MNGS_20	6.58	232.6	232.1	7.2	B	Crust	Strike slip	-
20130721_051014_UTKS_20	6.58	240.5	240.1	7.2	D	Crust	Strike slip	-
20130721_051017_THHS_20	6.58	245.0	244.6	7.2	C	Crust	Strike slip	-
20130721_051010_MENS_20	6.58	247.3	247.2	7.2	C	Crust	Strike slip	-
20130721_051028_CBGS_20	6.58	248.6	248.4	7.2	D	Crust	Strike slip	-
20130721_051009_HUNS_20	6.58	251.6	251.5	7.2	B	Crust	Strike slip	-

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20130721_051009_DHSS_20	6.58	253.5	253.4	7.2	C	Crust	Strike slip	-
20130721_051021_ARPS_20	6.58	255.5	254.6	7.2	D	Crust	Strike slip	-
20130721_051010_GOVS_20	6.58	257.5	257.4	7.2	C	Crust	Strike slip	-
20130721_051021_ORCS_20	6.58	257.6	257.4	7.2	D	Crust	Strike slip	-
20130721_051023_WAKS_20	6.58	258.2	257.7	7.2	D	Crust	Strike slip	-
20130721_051024_IFPS_20	6.58	259.8	259.0	7.2	D	Crust	Strike slip	-
20130721_051010_AKSS_20	6.58	262.6	262.5	7.2	C	Crust	Strike slip	-
20130721_051012_SPRS_20	6.58	268.2	267.8	7.2	D	Crust	Strike slip	-
20130721_051015_INHS_21	6.58	270.7	270.6	7.2	D	Crust	Strike slip	-
20130721_051014_DSLC_20	6.58	280.9	280.7	7.2	D	Crust	Strike slip	-
20130721_051023_NPCS_20	6.58	281.7	281.7	7.2	D	Crust	Strike slip	-
20130816_023109_WDFS_20	6.6	8.8	8.5	1.5	C	Crust	Strike slip	-
20130816_023108_RCS2_20	6.6	9.3	4.7	1.5	D	Crust	Strike slip	-
20130816_023112_KEKS_20	6.6	23.8	23.3	1.5	B	Crust	Strike slip	-
20130816_023113_MGCS_20	6.6	29.6	25.6	1.5	D	Crust	Strike slip	-
20130816_023115_RCS1_20	6.6	44.9	43.5	1.5	D	Crust	Strike slip	-
20130816_023120_QCCS_20	6.6	46.0	43.9	1.5	D	Crust	Strike slip	-
20130816_023119_MKVS_20	6.6	56.4	55.6	1.5	C	Crust	Strike slip	-
20130816_023122_WNKS_20	6.6	56.9	56.1	1.5	C	Crust	Strike slip	-
20130816_023120_WNHS_20	6.6	57.6	56.9	1.5	B	Crust	Strike slip	-
20130816_023121_TRTS_20	6.6	57.7	57.0	1.5	C	Crust	Strike slip	-
20130816_023122_WNAS_20	6.6	57.9	57.2	1.5	D	Crust	Strike slip	-
20130816_023121_TEPS_20	6.6	58.7	58.0	1.5	D	Crust	Strike slip	-
20130816_023122_FKPS_20	6.6	58.8	58.1	1.5	D	Crust	Strike slip	-
20130816_023119_MKBS_20	6.6	59.3	58.6	1.5	B	Crust	Strike slip	-
20130816_023122_MISS_20	6.6	59.3	58.6	1.5	D	Crust	Strike slip	-
20130816_023120_VUWS_20	6.6	59.4	58.7	1.5	D	Crust	Strike slip	-
20130816_023123_POTS_20	6.6	59.7	59.0	1.5	B	Crust	Strike slip	-
20130816_023120_SEAS_20	6.6	59.8	59.1	1.5	C	Crust	Strike slip	-
20130816_023121_WEMS_20	6.6	59.8	59.2	1.5	D	Crust	Strike slip	-
20130816_023122_TFSS_20	6.6	60.0	59.3	1.5	D	Crust	Strike slip	-
20130816_023121_PIPS_20	6.6	60.8	60.1	1.5	E	Crust	Strike slip	-
20130816_023121_WVFS_20	6.6	62.8	61.9	1.5	D	Crust	Strike slip	-
20130816_023120_NEWS_20	6.6	65.6	65.0	1.5	C	Crust	Strike slip	-
20130816_023124_EBPS_20	6.6	66.4	65.8	1.5	C	Crust	Strike slip	-
20130816_023123_PGMS_20	6.6	69.7	69.0	1.5	D	Crust	Strike slip	-
20130816_023125_LHUS_20	6.6	70.1	69.5	1.5	D	Crust	Strike slip	-
20130816_023122_LIRS_20	6.6	71.6	71.0	1.5	C	Crust	Strike slip	-
20130816_023124_LHRS_20	6.6	72.0	71.4	1.5	B	Crust	Strike slip	-
20130816_023125_LHES_20	6.6	72.1	71.5	1.5	D	Crust	Strike slip	-
20130816_023122_WANS_20	6.6	72.4	71.8	1.5	B	Crust	Strike slip	-
20130816_023124_ARKS_20	6.6	72.5	71.9	1.5	C	Crust	Strike slip	-
20130816_023124_LHBS_20	6.6	72.6	72.0	1.5	B	Crust	Strike slip	-
20130816_023124_SOCS_20	6.6	73.4	72.8	1.5	D	Crust	Strike slip	-
20130816_023121_PWES_20	6.6	74.4	73.8	1.5	C	Crust	Strike slip	-
20130816_023126_PFAS_20	6.6	74.6	74.0	1.5	B	Crust	Strike slip	-
20130816_023126_POLS_20	6.6	74.8	74.2	1.5	D	Crust	Strike slip	-
20130816_023122_BMTS_20	6.6	75.0	74.4	1.5	B	Crust	Strike slip	-
20130816_023127_NBSS_20	6.6	75.9	75.3	1.5	E	Crust	Strike slip	-
20130816_023126_MOLS_20	6.6	77.9	77.4	1.5	B	Crust	Strike slip	-
20130816_023126_KIKS_20	6.6	81.2	81.1	1.5	B	Crust	Strike slip	-
20130816_023122_NNZ_20	6.6	83.1	81.6	1.5	B	Crust	Strike slip	-
20130816_023129_UHCS_20	6.6	86.9	86.4	1.5	D	Crust	Strike slip	-
20130816_023129_BTWS_20	6.6	89.1	88.2	1.5	D	Crust	Strike slip	-
20130816_023124_TOTS_20	6.6	91.3	90.8	1.5	D	Crust	Strike slip	-
20130816_023130_TMDS_20	6.6	97.7	97.2	1.5	B	Crust	Strike slip	-
20130816_023128_PAPS_20	6.6	102.2	101.8	1.5	D	Crust	Strike slip	-
20130816_023130_KIRS_20	6.6	102.6	102.1	1.5	C	Crust	Strike slip	-
20130816_023131_FTPS_20	6.6	106.4	105.9	1.5	D	Crust	Strike slip	-
20130816_023131_MAVS_20	6.6	111.1	110.5	1.5	D	Crust	Strike slip	-
20130816_023133_OTKS_20	6.6	123.3	123.0	1.5	D	Crust	Strike slip	-
20130816_023131_HSES_20	6.6	134.0	133.7	1.5	D	Crust	Strike slip	-
20130816_023140_WRCS_20	6.6	139.1	138.7	1.5	D	Crust	Strike slip	-
20130816_023138_HOCS_20	6.6	142.0	141.7	1.5	D	Crust	Strike slip	-
20130816_023136_TSFS_20	6.6	144.7	143.8	1.5	B	Crust	Strike slip	-
20130816_023138_MCAS_20	6.6	145.7	145.1	1.5	D	Crust	Strike slip	-
20130816_023138_FXBS_20	6.6	154.2	154.0	1.5	D	Crust	Strike slip	-
20130816_023134_MRZ_20	6.6	155.3	154.9	1.5	B	Crust	Strike slip	-
20130816_023134_GVZ_20	6.6	159.6	159.5	1.5	B	Crust	Strike slip	-
20130816_023138_GLWS_20	6.6	159.7	159.4	1.5	D	Crust	Strike slip	-

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20130816_023142_EKTS_20	6.6	164.0	163.6	1.5	C	Crust	Strike slip	-
20130816_023140_SJFS_20	6.6	170.0	169.4	1.5	D	Crust	Strike slip	-
20130816_023141_KARS_20	6.6	173.1	172.3	1.5	D	Crust	Strike slip	-
20130816_023140_INGS_20	6.6	177.1	176.4	1.5	C	Crust	Strike slip	-
20130816_023137_KHLS_20	6.6	179.9	179.1	1.5	B	Crust	Strike slip	-
20130816_023146_PNBS_20	6.6	182.9	182.6	1.5	D	Crust	Strike slip	-
20130816_023207_PNRS_20	6.6	185.9	185.6	1.5	D	Crust	Strike slip	-
20130816_023146_FAHS_20	6.6	193.3	193.1	1.5	D	Crust	Strike slip	-
20130816_023145_WCDS_20	6.6	201.0	201.0	1.5	D	Crust	Strike slip	-
20130816_023155_DVHS_20	6.6	222.6	222.3	1.5	C	Crust	Strike slip	-
20130816_023155_HWHS_20	6.6	228.4	228.3	1.5	C	Crust	Strike slip	-
20130816_023149_SUMS_20	6.6	228.5	228.5	1.5	B	Crust	Strike slip	-
20130816_023200_CBGS_20	6.6	230.3	230.3	1.5	D	Crust	Strike slip	-
20130816_023145_HUNS_20	6.6	233.5	233.5	1.5	B	Crust	Strike slip	-
20130816_023144_DHSS_20	6.6	235.6	235.6	1.5	C	Crust	Strike slip	-
20130816_023143_GOVS_20	6.6	239.5	239.4	1.5	C	Crust	Strike slip	-
20130816_023207_IFPS_20	6.6	240.8	240.2	1.5	D	Crust	Strike slip	-
20130816_023159_MNGS_20	6.6	241.1	241.0	1.5	B	Crust	Strike slip	-
20130816_023224_OPSS_20	6.6	245.6	245.6	1.5	C	Crust	Strike slip	-
20130816_023149_SPRS_20	6.6	249.0	248.7	1.5	D	Crust	Strike slip	-
20130816_023154_UTKS_20	6.6	249.1	248.9	1.5	D	Crust	Strike slip	-
20130816_023149_DSLC_20	6.6	262.2	262.1	1.5	D	Crust	Strike slip	-
20130816_023201_HUKS_20	6.6	265.7	265.7	1.5	D	Crust	Strike slip	-
20130816_023209_KOKS_20	6.6	273.6	272.9	1.5	D	Crust	Strike slip	-
20130816_023156_INHS_21	6.6	276.0	276.0	1.5	D	Crust	Strike slip	-
20130816_023152_MTHS_20	6.6	281.8	281.5	1.5	D	Crust	Strike slip	-
20071220_075516_GISS	6.65	63.3	46.1	43.3	D	Slab	Normal	-
20071220_075516_GWTS	6.65	70.8	56.0	43.3	D	Slab	Normal	-
20071220_075516_TBAS	6.65	72.0	57.6	43.3	D	Slab	Normal	-
20071220_075516_PUZ	6.65	100.8	91.0	43.3	B	Slab	Normal	-
20071220_075516_TUDS	6.65	123.5	114.8	43.3	B	Slab	Normal	-
20071220_075516_TDHS	6.65	144.2	137.7	43.3	D	Slab	Normal	-
20071220_075516_NCHS	6.65	158.3	151.6	43.3	E	Slab	Normal	-
20071220_075516_HCDS	6.65	169.2	162.9	43.3	D	Slab	Normal	-
20071220_075516_KAFS	6.65	183.1	177.7	43.3	D	Slab	Normal	-
20071220_075516_KFHS	6.65	188.6	182.7	43.3	C	Slab	Normal	-
20071015_122933_MSZ	6.79	45.7	41.9	15.7	A	Interface	Oblique	-
20071015_122933_DCZ	6.79	68.4	64.7	15.7	A	Interface	Oblique	-
20071015_122933_TAFS	6.79	72.3	68.8	15.7	D	Interface	Oblique	-
20071015_122933_MANS	6.79	73.8	70.4	15.7	A	Interface	Oblique	-
20071015_122933_MLZ	6.79	87.1	84.0	15.7	B	Interface	Oblique	-
20071015_122933_QTPS	6.79	105.1	103.3	15.7	D	Interface	Oblique	-
20071015_122933_MOSS	6.79	117.5	115.3	15.7	D	Interface	Oblique	-
20071015_122933_NSBS	6.79	132.0	130.6	15.7	D	Interface	Oblique	-
20071015_122933_WNPS	6.79	138.6	137.1	15.7	D	Interface	Oblique	-
20071015_122933_RRKS	6.79	142.7	141.0	15.7	C	Interface	Oblique	-
20071015_122933_MECS	6.79	157.4	156.0	15.7	C	Interface	Oblique	-
20071015_122933_EAZ	6.79	159.7	158.1	15.7	B	Interface	Oblique	-
20071015_122933_HDWS	6.79	163.6	162.4	15.7	D	Interface	Oblique	-
20071015_122933_GORS	6.79	188.8	187.4	15.7	D	Interface	Oblique	-
20071015_122933_LPLS	6.79	199.1	197.9	15.7	D	Interface	Oblique	-
20071015_122933_LBZ	6.79	225.0	223.6	15.7	B	Interface	Oblique	-
20071015_122933_FOZ	6.79	236.5	235.4	15.7	B	Interface	Oblique	-
20071015_122933_FGPS	6.79	254.3	253.2	15.7	D	Interface	Oblique	-
20071015_122933_TMBS	6.79	262.0	260.7	15.7	C	Interface	Oblique	-
20071015_122933_FJDS	6.79	269.9	268.8	15.7	D	Interface	Oblique	-
20071015_122933_DKHS	6.79	273.0	271.7	15.7	D	Interface	Oblique	-
20071015_122933_SKFS	6.79	274.0	272.7	15.7	D	Interface	Oblique	-
20071015_122933_RPZ	6.79	313.9	312.6	15.7	B	Interface	Oblique	-
20100903_163541_HORC	7.08	0.8	0.0	0.5	D	Crust	Strike slip	FD (18°)
20100903_163541_GDLC	7.08	1.3	0.0	0.5	D	Crust	Strike slip	FD (149°)
20100903_163541_ROLC	7.08	2.1	0.4	0.5	D	Crust	Strike slip	FD (152°)
20100903_163541_TPLC	7.08	4.2	4.2	0.5	D	Crust	Strike slip	FD (168°)
20100903_163541_DFHS	7.08	4.7	1.1	0.5	D	Crust	Strike slip	-
20100903_163541_LINC	7.08	6.4	4.8	0.5	D	Crust	Strike slip	FD (185°)
20100903_163541_DSLC	7.08	7.9	6.2	0.5	D	Crust	Strike slip	FD (48°)
20100903_163541_RHSC	7.08	11.6	11.6	0.5	D	Crust	Strike slip	FD (161°)
20100903_163541_CACS	7.08	12.8	12.8	0.5	D	Crust	Strike slip	FD (133°)
20100903_163541_CMHS	7.08	15.7	15.7	0.5	D	Crust	Strike slip	FD (197°)
20100903_163541_CBGS	7.08	16.1	16.0	0.5	D	Crust	Strike slip	FD (163°)

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20100903_163541_CHHC	7.08	16.5	16.4	0.5	D	Crust	Strike slip	FD (169°)
20100903_163541_RKAC	7.08	16.6	16.0	0.5	D	Crust	Strike slip	-
20100903_163541_PPHS	7.08	16.8	16.8	0.5	E	Crust	Strike slip	FD (160°)
20100903_163541_REHS	7.08	17.5	17.5	0.5	E	Crust	Strike slip	FD (159°)
20100903_163541_CCCC	7.08	18.0	17.9	0.5	D	Crust	Strike slip	FD (169°)
20100903_163541_SMTC	7.08	18.9	18.8	0.5	D	Crust	Strike slip	FD (144°)
20100903_163541_OXZ	7.08	19.6	19.5	0.5	B	Crust	Strike slip	-
20100903_163541_SWNC	7.08	20.1	19.6	0.5	D	Crust	Strike slip	-
20100903_163541_SHLC	7.08	20.3	20.2	0.5	D	Crust	Strike slip	-
20100903_163541_PRPC	7.08	21.1	21.0	0.5	E	Crust	Strike slip	FD (156°)
20100903_163541_HVSC	7.08	22.6	22.4	0.5	C	Crust	Strike slip	FD (200°)
20100903_163541_SPFS	7.08	22.7	21.3	0.5	D	Crust	Strike slip	-
20100903_163541_LPCC	7.08	24.1	23.7	0.5	B	Crust	Strike slip	FD (206°)
20100903_163541_NNBS	7.08	24.8	24.7	0.5	D	Crust	Strike slip	FD (188°)
20100903_163541_KPOC	7.08	28.8	28.7	0.5	D	Crust	Strike slip	-
20100903_163541_DORC	7.08	31.1	31.1	0.5	D	Crust	Strike slip	-
20100903_163541_ASHS	7.08	33.2	32.9	0.5	D	Crust	Strike slip	-
20100903_163541_ADCS	7.08	36.0	36.0	0.5	D	Crust	Strike slip	-
20100903_163541_CSHS	7.08	38.8	38.3	0.5	B	Crust	Strike slip	-
20100903_163541_WAKC	7.08	67.7	67.5	0.5	D	Crust	Strike slip	-
20100903_163541_RPZ	7.08	67.7	67.1	0.5	B	Crust	Strike slip	-
20100903_163541_APPS	7.08	71.9	71.6	0.5	C	Crust	Strike slip	-
20100903_163541_LSRC	7.08	73.5	73.4	0.5	D	Crust	Strike slip	-
20100903_163541_LTZ	7.08	78.4	78.4	0.5	B	Crust	Strike slip	-
20100903_163541_KOKS	7.08	95.7	95.4	0.5	D	Crust	Strike slip	-
20100903_163541_IFPS	7.08	97.6	97.4	0.5	D	Crust	Strike slip	-
20100903_163541_FDCS	7.08	101.9	101.5	0.5	D	Crust	Strike slip	-
20100903_163541_TRCS	7.08	104.0	103.9	0.5	C	Crust	Strike slip	-
20100903_163541_WVZ	7.08	107.4	107.0	0.5	B	Crust	Strike slip	-
20100903_163541_WVAS	7.08	107.6	107.2	0.5	D	Crust	Strike slip	-
20100903_163541_CECS	7.08	107.9	107.7	0.5	D	Crust	Strike slip	-
20100903_163541_WTMC	7.08	114.6	114.5	0.5	C	Crust	Strike slip	-
20100903_163541_HAFS	7.08	116.5	116.1	0.5	D	Crust	Strike slip	-
20100903_163541_HSES	7.08	116.9	116.8	0.5	D	Crust	Strike slip	-
20100903_163541_HMCS	7.08	119.6	119.3	0.5	D	Crust	Strike slip	-
20100903_163541_ARPS	7.08	120.5	120.4	0.5	D	Crust	Strike slip	-
20100903_163541_SJFS	7.08	127.4	127.5	0.5	D	Crust	Strike slip	-
20100903_163541_TKAS	7.08	123.3	122.8	0.5	B	Crust	Strike slip	-
20100903_163541_GMTS	7.08	134.3	134.2	0.5	D	Crust	Strike slip	-
20100903_163541_FJDS	7.08	137.8	137.3	0.5	D	Crust	Strike slip	-
20100903_163541_MCNS	7.08	144.0	143.4	0.5	C	Crust	Strike slip	-
20100903_163541_FGPS	7.08	150.0	149.4	0.5	D	Crust	Strike slip	-
20100903_163541_RDCS	7.08	153.0	153.2	0.5	D	Crust	Strike slip	-
20100903_163541_PKIS	7.08	154.3	153.8	0.5	B	Crust	Strike slip	-
20100903_163541_TWAS	7.08	160.9	160.4	0.5	D	Crust	Strike slip	-
20100903_163541_KIKS	7.08	162.2	162.0	0.5	B	Crust	Strike slip	-
20100903_163541_LBZ	7.08	162.3	161.9	0.5	B	Crust	Strike slip	-
20100903_163541_FOZ	7.08	165.9	165.3	0.5	B	Crust	Strike slip	-
20100903_163541_AVIS	7.08	170.4	170.0	0.5	B	Crust	Strike slip	-
20100903_163541_MOLS	7.08	174.9	174.8	0.5	B	Crust	Strike slip	-
20100903_163541_BENS	7.08	173.3	172.9	0.5	B	Crust	Strike slip	-
20100903_163541_INGS	7.08	181.1	181.3	0.5	C	Crust	Strike slip	-
20100903_163541_OAMS	7.08	182.7	182.7	0.5	C	Crust	Strike slip	-
20100903_163541_MCAS	7.08	187.3	187.5	0.5	D	Crust	Strike slip	-
20100903_163541_ODZ	7.08	189.6	189.5	0.5	B	Crust	Strike slip	-
20100903_163541_DSZ	7.08	194.9	195.1	0.5	B	Crust	Strike slip	-
20100903_163541_WBCS	7.08	196.9	197.1	0.5	D	Crust	Strike slip	-
20100903_163541_LPLS	7.08	197.8	197.2	0.5	D	Crust	Strike slip	-
20100903_163541_KLDS	7.08	209.1	209.2	0.5	D	Crust	Strike slip	-
20100903_163541_MECS	7.08	223.8	223.2	0.5	C	Crust	Strike slip	-
20100903_163541_HDWS	7.08	230.0	229.3	0.5	D	Crust	Strike slip	-
20100903_163541_KARS	7.08	247.9	248.2	0.5	D	Crust	Strike slip	-
20100903_163541_WNPS	7.08	250.9	250.4	0.5	D	Crust	Strike slip	-
20100903_163541_NSBS	7.08	262.3	261.5	0.5	D	Crust	Strike slip	-
20100903_163541_NNZ	7.08	268.8	269.0	0.5	B	Crust	Strike slip	-
20100903_163541_OPZ	7.08	274.2	274.2	0.5	A	Crust	Strike slip	-
20100903_163541_EAZ	7.08	274.5	274.1	0.5	B	Crust	Strike slip	-
20100903_163541_DGNS	7.08	274.6	274.6	0.5	C	Crust	Strike slip	-
20100903_163541_DCDS	7.08	276.2	276.2	0.5	C	Crust	Strike slip	-
20100903_163541_SKFS	7.08	278.4	278.4	0.5	D	Crust	Strike slip	-

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20100903_163541_DKHS	7.08	279.3	279.3	0.5	D	Crust	Strike slip	-
20100903_163541_QRZ	7.08	296.6	296.9	0.5	B	Crust	Strike slip	-
20100903_163541_TSFS	7.08	297.5	297.8	0.5	B	Crust	Strike slip	-
20100903_163541_WNHS	7.08	316.3	316.2	0.5	B	Crust	Strike slip	-
20100903_163541_MISS	7.08	317.4	317.2	0.5	D	Crust	Strike slip	-
20100903_163541_WEL	7.08	317.5	317.3	0.5	B	Crust	Strike slip	-
20100903_163541_TEPS	7.08	317.5	317.4	0.5	D	Crust	Strike slip	-
20100903_163541_TUZ	7.08	317.7	317.6	0.5	B	Crust	Strike slip	-
20100903_163541_WEMS	7.08	318.9	318.7	0.5	D	Crust	Strike slip	-
20100903_163541_TFSS	7.08	318.9	318.8	0.5	D	Crust	Strike slip	-
20100903_163541_PHHS	7.08	327.3	327.1	0.5	C	Crust	Strike slip	-
20100903_163541_PGMS	7.08	328.4	328.2	0.5	D	Crust	Strike slip	-
20100903_163541_LHES	7.08	330.7	330.6	0.5	D	Crust	Strike slip	-
20100903_163541_SOCS	7.08	332.0	331.9	0.5	D	Crust	Strike slip	-
20041122_202632_RRKS	7.09	158.9	158.2	0.0	C	Interface	Reverse	-
20041122_202632_ICCS	7.09	216.4	215.5	0.0	D	Interface	Reverse	-
20041122_202632_TAFS	7.09	217.2	216.7	0.0	D	Interface	Reverse	-
20041122_202632_MOSS	7.09	235.3	234.7	0.0	D	Interface	Reverse	-
20041122_202632_QTPS	7.09	301.8	301.2	0.0	D	Interface	Reverse	-
20041122_202632_TUZ	7.09	324.3	323.2	0.0	B	Interface	Reverse	-
20041122_202632_EAZ	7.09	332.1	331.2	0.0	B	Interface	Reverse	-
20041122_202632_WKZ	7.09	337.9	337.3	0.0	B	Interface	Reverse	-
20030821_121249_MANS	7.17	34.8	13.2	11.0	A	Interface	Reverse	-
20030821_121249_TAFS	7.17	46.6	32.8	11.0	D	Interface	Reverse	-
20030821_121249_MOSS	7.17	88.5	81.9	11.0	D	Interface	Reverse	-
20030821_121249_QTPS	7.17	103.5	99.5	11.0	D	Interface	Reverse	-
20030821_121249_ICCS	7.17	145.8	141.9	11.0	D	Interface	Reverse	-
20030821_121249_WNPS	7.17	147.7	144.7	11.0	D	Interface	Reverse	-
20030821_121249_JCWJ	7.17	159.2	157.9	11.0	B	Interface	Reverse	-
20030821_121249_MECS	7.17	177.1	174.7	11.0	C	Interface	Reverse	-
20030821_121249_HDWS	7.17	190.4	188.5	11.0	D	Interface	Reverse	-
20030821_121249_BDCS	7.17	216.1	213.1	11.0	B	Interface	Reverse	-
20030821_121249_DCDS	7.17	255.5	252.7	11.0	C	Interface	Reverse	-
20030821_121249_DKHS	7.17	255.6	252.9	11.0	D	Interface	Reverse	-
20030821_121249_DGNS	7.17	256.0	253.3	11.0	C	Interface	Reverse	-
20030821_121249_SKFS	7.17	256.8	254.0	11.0	D	Interface	Reverse	-
20030821_121249_FGPS	7.17	279.0	277.3	11.0	D	Interface	Reverse	-
20030821_121249_OAMS	7.17	282.2	280.1	11.0	C	Interface	Reverse	-
20030821_121249_FDCS	7.17	295.6	293.7	11.0	D	Interface	Reverse	-
20090715_092229_DCZ	7.81	66.1	61.6	8.8	A	Interface	Reverse	-
20090715_092229_MANS	7.81	72.2	67.4	8.8	A	Interface	Reverse	-
20090715_092229_RRKS	7.81	85.0	76.8	8.8	C	Interface	Reverse	-
20090715_092229_TAFS	7.81	107.1	103.6	8.8	D	Interface	Reverse	-
20090715_092229_MLZ	7.81	137.7	134.7	8.8	B	Interface	Reverse	-
20090715_092229_MOSS	7.81	138.7	135.0	8.8	D	Interface	Reverse	-
20090715_092229_NZAS	7.81	162.8	158.4	8.8	D	Interface	Reverse	-
20090715_092229_ICCS	7.81	154.0	149.4	8.8	D	Interface	Reverse	-
20090715_092229_MSZ	7.81	165.2	163.7	8.8	A	Interface	Reverse	-
20090715_092229_QTPS	7.81	190.8	188.6	8.8	D	Interface	Reverse	-
20090715_092229_GORS	7.81	191.6	188.2	8.8	D	Interface	Reverse	-
20090715_092229_WKZ	7.81	225.8	223.9	8.8	B	Interface	Reverse	-
20090715_092229_EAZ	7.81	230.0	227.4	8.8	B	Interface	Reverse	-
20090715_092229_WNPS	7.81	241.4	239.7	8.8	D	Interface	Reverse	-
20090715_092229_TUZ	7.81	243.3	240.4	8.8	B	Interface	Reverse	-
20090715_092229_NSBS	7.81	259.5	258.4	8.8	D	Interface	Reverse	-
20090715_092229_TMBS	7.81	287.0	284.4	8.8	C	Interface	Reverse	-
20090715_092229_HDWS	7.81	289.8	288.7	8.8	D	Interface	Reverse	-
20090715_092229_DUNS	7.81	307.9	305.3	8.8	C	Interface	Reverse	-
20090715_092229_DKHS	7.81	309.6	307.1	8.8	D	Interface	Reverse	-
20090715_092229_DCDS	7.81	310.4	307.8	8.8	C	Interface	Reverse	-
20090715_092229_SKFS	7.81	310.9	308.4	8.8	D	Interface	Reverse	-
20090715_092229_OPZ	7.81	317.9	315.2	8.8	A	Interface	Reverse	-
20090715_092229_LPLS	7.81	324.6	323.5	8.8	D	Interface	Reverse	-
20090715_092229_LBZ	7.81	330.2	328.4	8.8	B	Interface	Reverse	-
20161113_110309_KIKS_20	7.85	1.91	0	0	B	Crust	Oblique	-
20161113_110317_KEKS_20	7.85	2.96	0	0	B	Crust	Oblique	-
20161113_110259_WTMC_20	7.85	1.47	0	0	D	Crust	Oblique	-
20161113_110320_WDFS_20	7.85	3.26	2.84	0	D	Crust	Oblique	-
20161113_110300_HSES_20	7.85	11.3	4.86	0	D	Crust	Oblique	-
20161113_110308_MOLS_20	7.85	22.58	10.16	0	C	Crust	Oblique	-

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20161113_110301_WIGC_20	7.85	11.13	11.02	0	D	Crust	Oblique	-
20161113_110322_SEDS_20	7.85	13.98	13.9	0	D	Crust	Oblique	-
20161113_110301_CULC_20	7.85	16.49	16.43	0	D	Crust	Oblique	-
20161113_110303_CECS_20	7.85	26.92	26.25	0	D	Crust	Oblique	-
20161113_110304_GLWS_20	7.85	31.1	30.84	0	D	Crust	Oblique	-
20161113_110322_MGCS_20	7.85	34.21	34.15	0	E	Crust	Oblique	-
20161113_110304_SCAC_20	7.85	34.79	34.8	0	D	Crust	Oblique	-
20161113_110316_WVFS_20	7.85	44.84	37.97	0	D	Crust	Oblique	-
20161113_110304_GVZ_20	7.85	38.19	38.2	0	B	Crust	Oblique	-
20161113_110305_WAKC_20	7.85	40.39	40.38	0	D	Crust	Oblique	-
20161113_110322_BWRS_20	7.85	42.09	42.04	0	B	Crust	Oblique	-
20161113_110329_WNAS_20	7.85	46.31	46.23	0	D	Crust	Oblique	-
20161113_110329_WNKS_20	7.85	47.18	46.95	0	C	Crust	Oblique	-
20161113_110329_MISS_20	7.85	47.8	47.72	0	D	Crust	Oblique	-
20161113_110330_TEPS_20	7.85	48.26	48.1	0	D	Crust	Oblique	-
20161113_110329_WEL_20	7.85	48.34	48.14	0	B	Crust	Oblique	-
20161113_110333_FKPS_20	7.85	48.4	48.24	0	D	Crust	Oblique	-
20161113_110330_VUWS_20	7.85	49.16	48.98	0	D	Crust	Oblique	-
20161113_110331_WEMS_20	7.85	49.72	49.54	0	D	Crust	Oblique	-
20161113_110330_POTS_20	7.85	49.73	49.54	0	B	Crust	Oblique	-
20161113_110330_TFSS_20	7.85	49.78	49.6	0	D	Crust	Oblique	-
20161113_110336_PIPS_20	7.85	50.66	50.49	0	E	Crust	Oblique	-
20161113_110330_MKBS_20	7.85	51.59	51.25	0	B	Crust	Oblique	-
20161113_110325_QCCS_20	7.85	53.16	53.19	0	D	Crust	Oblique	-
20161113_110307_LTZ_20	7.85	53.37	53.27	0	B	Crust	Oblique	-
20161113_110313_THZ_20	7.85	59.04	53.56	0	B	Crust	Oblique	-
20161113_110330_SOMS_20	7.85	55.25	55.15	0	B	Crust	Oblique	-
20161113_110332_NEWS_20	7.85	55.59	55.41	0	B	Crust	Oblique	-
20161113_110331_PHHS_20	7.85	57.71	57.66	0	B	Crust	Oblique	-
20161113_110331_SEVS_21	7.85	58.05	57.98	0	D	Crust	Oblique	-
20161113_110331_PTOS_20	7.85	58.16	58.03	0	C	Crust	Oblique	-
20161113_110332_PVCS_20	7.85	58.64	58.52	0	D	Crust	Oblique	-
20161113_110331_PGMS_20	7.85	58.92	58.82	0	D	Crust	Oblique	-
20161113_110331_LHUS_20	7.85	59.05	58.96	0	D	Crust	Oblique	-
20161113_110332_WDAS_20	7.85	59.64	59.59	0	E	Crust	Oblique	-
20161113_110331_LRSS_20	7.85	59.7	59.62	0	D	Crust	Oblique	-
20161113_110331_LIRS_20	7.85	60.22	60.15	0	C	Crust	Oblique	-
20161113_110308_AMBC_20	7.85	60.18	60.22	0	D	Crust	Oblique	-
20161113_110332_ARKS_20	7.85	60.69	60.64	0	C	Crust	Oblique	-
20161113_110343_WANS_20	7.85	60.93	60.87	0	B	Crust	Oblique	-
20161113_110333_LHES_20	7.85	61.25	61.15	0	D	Crust	Oblique	-
20161113_110334_LHRS_20	7.85	61.39	61.27	0	B	Crust	Oblique	-
20161113_110332_LHBS_20	7.85	62.09	61.96	0	B	Crust	Oblique	-
20161113_110309_SJFS_20	7.85	64.45	62.12	0	C	Crust	Oblique	-
20161113_110332_SOCS_20	7.85	62.53	62.43	0	D	Crust	Oblique	-
20161113_110324_HAVS_20	7.85	62.98	62.96	0	B	Crust	Oblique	-
20161113_110333_FAIS_20	7.85	63.47	63.4	0	B	Crust	Oblique	-
20161113_110332_NWFS_20	7.85	63.8	63.62	0	B	Crust	Oblique	-
20161113_110332_BMTS_20	7.85	64.19	64.09	0	B	Crust	Oblique	-
20161113_110333_NBSS_20	7.85	64.62	64.56	0	E	Crust	Oblique	-
20161113_110333_PFAS_20	7.85	65.61	65.4	0	B	Crust	Oblique	-
20161113_110333_PWES_20	7.85	65.92	65.68	0	B	Crust	Oblique	-
20161113_110333_POKS_20	7.85	66.38	66.15	0	C	Crust	Oblique	-
20161113_110332_TAIS_20	7.85	66.6	66.52	0	D	Crust	Oblique	-
20161113_110320_BTWS_20	7.85	73.51	69.47	0	D	Crust	Oblique	-
20161113_110335_HSSS_20	7.85	70.47	70.39	0	C	Crust	Oblique	-
20161113_110322_NELS_20	7.85	77.78	74.53	0	B	Crust	Oblique	-
20161113_110334_UHCS_20	7.85	75.73	75.68	0	D	Crust	Oblique	-
20161113_110311_ASHS_20	7.85	75.93	75.96	0	D	Crust	Oblique	-
20161113_110323_NLMS_20	7.85	79.79	76.7	0	C	Crust	Oblique	-
20161113_110324_NNZ_20	7.85	82.27	79.31	0	B	Crust	Oblique	-
20161113_110313_SMHS_20	7.85	83.83	83.81	0	D	Crust	Oblique	-
20161113_110312_KPOC_20	7.85	85.41	85.47	0	D	Crust	Oblique	-
20161113_110414_TMDS_20	7.85	86.06	86.01	0	B	Crust	Oblique	-
20161113_110313_CSTC_20	7.85	86.76	86.76	0	D	Crust	Oblique	-
20161113_110313_SWNC_20	7.85	88.62	88.66	0	D	Crust	Oblique	-
20161113_110321_MATS_20	7.85	93.45	90.14	0	B	Crust	Oblique	-
20161113_110343_KIRS_20	7.85	90.41	90.34	0	C	Crust	Oblique	-
20161113_110316_MCAS_20	7.85	94.46	92.07	0	D	Crust	Oblique	-
20161113_110314_OHSS_20	7.85	92.87	92.94	0	D	Crust	Oblique	-

Table A1: New Zealand strong motion recordings that are candidates for structural analyses

Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20161113_110340_FTPS_20	7.85	93.21	93.11	0	D	Crust	Oblique	-
20161113_110338_PAPS_20	7.85	93.85	93.66	0	D	Crust	Oblique	-
20161113_110315_RDCS_20	7.85	97.41	95.84	0	C	Crust	Oblique	-
20161113_110340_MAVS_20	7.85	96.35	96.18	0	D	Crust	Oblique	-
20161113_110314_SMTC_20	7.85	96.18	96.24	0	D	Crust	Oblique	-
20161113_110314_NNBS_20	7.85	97.64	97.71	0	D	Crust	Oblique	-
20161113_110314_PPHS_20	7.85	99.04	99.11	0	E	Crust	Oblique	-
20161113_110314_MPSS_20	7.85	99.13	99.2	0	D	Crust	Oblique	-
20161113_110314_SHLC_20	7.85	99.45	99.52	0	D	Crust	Oblique	-
20161113_110314_CACS_20	7.85	99.64	99.7	0	D	Crust	Oblique	-
20161113_110326_MOTS_20	7.85	102.8	100	0	D	Crust	Oblique	-
20161113_110317_DALS_20	7.85	100.03	100.1	0	E	Crust	Oblique	-
20161113_110316_SACS_20	7.85	100.38	100.44	0	E	Crust	Oblique	-
20161113_110315_STAS_20	7.85	100.7	100.77	0	E	Crust	Oblique	-
20161113_110315_PRPC_20	7.85	101.41	101.49	0	E	Crust	Oblique	-
20161113_110315_REHS_20	7.85	101.7	101.77	0	E	Crust	Oblique	-
20161113_110315_CBGS_20	7.85	102.76	102.83	0	D	Crust	Oblique	-
20161113_110315_CCCC_20	7.85	103.26	103.34	0	D	Crust	Oblique	-
20161113_110316_MORS_20	7.85	103.84	103.91	0	D	Crust	Oblique	-
20161113_110315_OXZ_20	7.85	104.15	104.1	0	B	Crust	Oblique	-
20161113_110316_RHSC_20	7.85	104.55	104.61	0	D	Crust	Oblique	-
20161113_110315_MENS_20	7.85	104.65	104.73	0	C	Crust	Oblique	-
20161113_110315_OPWS_20	7.85	104.99	105.07	0	D	Crust	Oblique	-
20161113_110315_PARS_20	7.85	105.3	105.39	0	B	Crust	Oblique	-
20161113_110316_SUMS_20	7.85	105.4	105.48	0	B	Crust	Oblique	-
20161113_110315_HHSS_20	7.85	106.29	106.37	0	D	Crust	Oblique	-
20161113_110315_GODS_21	7.85	106.3	106.38	0	B	Crust	Oblique	-
20161113_110315_CMHS_20	7.85	106.63	106.71	0	D	Crust	Oblique	-
20161113_110319_HVSC_20	7.85	107.02	107.1	0	C	Crust	Oblique	-
20161113_110316_MTPS_21	7.85	107.39	107.47	0	B	Crust	Oblique	-
20161113_110318_INGS_20	7.85	108.86	107.54	0	C	Crust	Oblique	-
20161113_110316_HUNS_20	7.85	107.63	107.71	0	B	Crust	Oblique	-
20161113_110316_SHFC_20	7.85	110.32	110.26	0	D	Crust	Oblique	-
20161113_110316_STKS_20	7.85	110.78	110.86	0	B	Crust	Oblique	-
20161113_110316_SPRS_20	7.85	111.09	110.99	0	D	Crust	Oblique	-
20161113_110316_DHSS_20	7.85	112.4	112.49	0	C	Crust	Oblique	-
20161113_110317_MNZS_20	7.85	112.51	112.61	0	B	Crust	Oblique	-
20161113_110317_APPS_20	7.85	113.8	113.52	0	C	Crust	Oblique	-
20161113_110316_GOVS_20	7.85	113.74	113.82	0	C	Crust	Oblique	-
20161113_110316_KOWC_20	7.85	114.34	114.21	0	D	Crust	Oblique	-
20161113_110338_OTKS_20	7.85	114.98	114.83	0	D	Crust	Oblique	-
20161113_110316_ROLC_20	7.85	115.1	115.15	0	D	Crust	Oblique	-
20161113_110317_DFHS_20	7.85	115.37	115.34	0	D	Crust	Oblique	-
20161113_110317_CSHS_20	7.85	116.13	115.95	0	D	Crust	Oblique	-
20161113_110318_LINC_20	7.85	115.98	116.05	0	D	Crust	Oblique	-
20161113_110318_IFPS_20	7.85	116.48	116.17	0	D	Crust	Oblique	-
20161113_110318_INZ_20	7.85	118.8	118.49	0	B	Crust	Oblique	-
20161113_110319_ARPS_20	7.85	121.92	121.36	0	D	Crust	Oblique	-
20161113_110316_MQZ_20	7.85	121.56	121.65	0	B	Crust	Oblique	-
20161113_110318_WCSS_20	7.85	124.54	124.45	0	D	Crust	Oblique	-
20161113_110347_WRCS_20	7.85	125.89	125.74	0	D	Crust	Oblique	-
20161113_110318_HORC_20	7.85	126.56	126.51	0	D	Crust	Oblique	-
20161113_110318_DSLC_20	7.85	128.64	128.66	0	D	Crust	Oblique	-
20161113_110318_AKSS_20	7.85	131.75	131.86	0	C	Crust	Oblique	-
20161113_110344_HOCS_20	7.85	133.51	133.38	0	D	Crust	Oblique	-
20161113_110318_TOKS_20	7.85	133.28	133.38	0	B	Crust	Oblique	-
20161113_110331_TSFS_20	7.85	136.53	134.45	0	B	Crust	Oblique	-
20161113_110323_WBCS_20	7.85	137.97	136.85	0	D	Crust	Oblique	-
20161113_110327_KARS_20	7.85	142.74	140.55	0	D	Crust	Oblique	-
20161113_110321_RKAC_20	7.85	143.47	143.47	0	D	Crust	Oblique	-
20161113_110321_MTHS_20	7.85	143.99	143.87	0	D	Crust	Oblique	-
20161113_110323_KOKS_20	7.85	146.4	146.03	0	D	Crust	Oblique	-
20161113_110332_QRZ_20	7.85	151.41	149.48	0	B	Crust	Oblique	-
20161113_110321_LRSC_20	7.85	151.48	151.43	0	D	Crust	Oblique	-
20161113_110321_DORC_20	7.85	155.24	155.28	0	D	Crust	Oblique	-
20161113_110327_HMCS_20	7.85	157.98	157.56	0	D	Crust	Oblique	-
20161113_110324_ADCS_20	7.85	169.38	169.35	0	D	Crust	Oblique	-
20161113_110323_MSMC_20	7.85	170.16	170.01	0	D	Crust	Oblique	-
20161113_110337_KHLS_20	7.85	173.04	171.43	0	B	Crust	Oblique	-
20161113_110325_MAYC_20	7.85	178.54	178.42	0	D	Crust	Oblique	-

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Record	M_w	R_{rup} (km)	R_{JB} (km)	Z_{TOR} (km)	Site Class	Event type	Mechanism	Forward directivity
20161113_110327_WVAS_20	7.85	182.6	182.16	0	D	Crust	Oblique	-
20161113_110328_WVZ_20	7.85	182.67	182.27	0	B	Crust	Oblique	-
20161113_110327_RPZ_20	7.85	191.97	191.75	0	B	Crust	Oblique	-
20161113_110327_PEEC_20	7.85	197.02	196.87	0	D	Crust	Oblique	-
20161113_110330_HAFS_20	7.85	199.11	198.64	0	D	Crust	Oblique	-
20161113_110333_WHFS_20	7.85	218.04	217.58	0	D	Crust	Oblique	-
20161113_110332_WHAS_20	7.85	222.51	222.01	0	C	Crust	Oblique	-
20161113_110333_FDCS_20	7.85	233.72	233.5	0	D	Crust	Oblique	-
20161113_110337_FJDS_20	7.85	236.13	235.61	0	D	Crust	Oblique	-
20161113_110336_CVZ_20	7.85	247.5	247.41	0	B	Crust	Oblique	-
20161113_110339_MCNS_20	7.85	258.22	257.74	0	C	Crust	Oblique	-
20161113_110345_TWAS_20	7.85	289.33	288.97	0	D	Crust	Oblique	-