

75
New Zealand Department of Scientific and Industrial Research
GEOPHYSICS DIVISION

NEW ZEALAND
SEISMOLOGICAL
REPORT

1975

SEISMOLOGICAL OBSERVATORY BULLETIN

E-156



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CHANGE OF ADDRESS

THE OBSERVATORY'S POSTAL ADDRESS IS NOW

SEISMOLOGICAL OBSERVATORY

P O BOX 1320

WELLINGTON

NEW ZEALAND

ALL MEASUREMENT AND INTERPRETATION OF RECORDS
IS CARRIED OUT AT THE CENTRAL STATION.
REQUESTS AND COMMUNICATIONS SHOULD THEREFORE
BE SENT TO THE SUPERINTENDENT AT THE ABOVE ADDRESS.

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INTRODUCTION

The New Zealand Seismological Report for 1975 differs somewhat from its forerunners in both content and presentation. The most fundamental change is the omission of the section giving readings of distant earthquakes. This information is forwarded to international agencies, and appears in the Bulletins of the International Seismological Centre, becoming available as rapidly as it would be if presented in the traditional way. Provisional readings are sent regularly to observatories with a special need for them, and are available to other seismologists on application.

Other changes result from recent instrumental developments. In addition to the standard recording network, two special close networks of stations have been established for research purposes, one close to Wellington, and the other in the Lake Pukaki district of the South Island. Instrumental constants and other data for those networks are given in separate lists following those for the standard network. Specialised research equipment at South Karori, near Wellington, has been similarly treated. A new section has been introduced listing origins obtained using the stations of the Pukaki network, but details of phase arrival-times are not published. Certain of the larger shocks in the Lake Pukaki district may have had origins determined both from the stations of the standard network and from the local one. The independent solutions appear in the appropriate lists. The section on timing arrangements has been revised, and small changes will be found in the descriptive introductions to other sections. A new section draws attention to the availability of a master-file of New Zealand earthquakes and facilities for preparing lists of shocks in particular districts or restricted in other ways.

The report for 1970 is still unpublished, but readings for distant earthquakes have been supplied to international data centres, and local epicentres for January to May and October to December have been worked out. It is expected that this gap in publication, which arose as a result of the accelerated demand for data by the International Seismological Centre, will soon be closed. Current reports are appearing at a satisfactory pace. Seismologists needing unpublished New Zealand data should always consult the Observatory, as sections of the data may be available in manuscript. Definitive epicentres of local earthquakes are normally available within about three months of their occurrence, and these Reports are ready for printing in the latter half of the following year.

STATIONS OF THE NEW ZEALAND NETWORK

THE NETWORK IN 1975

The complete network of seismograph stations now under the scientific direction of the Seismological Observatory, Wellington, comprises the standard network of 36 stations covering the two main islands of New Zealand and extending over the south-west Pacific from Samoa, Fiji, and Rarotonga, to the Antarctic, two smaller and more closely spaced networks near Wellington and in the Lake Pukaki district, and specialised or temporary stations established for research purposes.

The stations of the standard network are of two kinds, one having short-period instruments intended to record shocks originating within about 1 000 km, and the other equipped with long-period instruments designed to provide information about more distant earthquakes and about the internal structure of the Earth. These functions interlock, and every station yields information of both kinds. Most of the instruments record photographically, but at stations where facilities for photographic work would be difficult to provide, or where instantly visible records are needed for tsunami warning or other civil defence purposes, pen-and-ink or heated-stylus recorders are in use.

There were no significant changes to the standard network in 1975, but during the year the New Zealand Electricity Department set up nine stations in the Lake Pukaki district of the South Island to monitor any changes in the seismicity that might accompany the proposed raising of the level of the lake for power generation. The stations of this network, which began operating in July, transmit their outputs to a central recorder at Twizel. Analysis of the records is carried out at the Observatory in Wellington, where they remain available for research. They are not read for all events, but in appropriate cases their readings are listed and used with those of the standard network.

As opportunity permits, a similar network on a smaller scale is being installed in the Wellington area. The first station became operational in May, and three others were in operation by the end of the year. The network is primarily intended for research, but also facilitates the rapid location of shocks of public interest or importance for civil defence.

In November a specialised instrument for research purposes was installed at South Karori, and began operating in December. This is a "Seismic Research Observatory" station sponsored by the United States Geological Survey, and is one of about ten similar installations distributed around the world. The three-component seismometer is enclosed in a gas-filled capsule and has been lowered to a position about 10 m below sea-level in a bore-hole 10 cm in diameter and about 100 m deep. The outputs are transmitted by land-line to the Observatory at Kelburn, where both conventional analogue records on paper and digital records on magnetic tape are made. Three-component long-period and a vertical-component short-period outputs are recorded.

THREE-LETTER STATION CODES

Throughout the tabular sections of this Report, stations are identified by the international three-letter abbreviations allotted by the United States National Earthquake Information Service, and used by the International Seismological Centre, Newbury, Berkshire, England. Codes for stations of the New Zealand networks are:

STANDARD NETWORK

Afiamalau	AFI	Gisborne	GNZ	Onerahi	ONE
Apia	API	Great Barrier	GBZ	Raoul Island	RAO
Auckland	AUC	Kaikoura West	KKY	Rarotonga	RAR
Campbell Island	CBZ	Kaimata	KAI	Roxburgh	ROX
Cape Reinga	CRZ	Karapiro	KRP	Scott Base	SBA
Castlepoint	CAZ	Mangahao	MNG	Taradale	TRZ
Chateau	CNZ	Milford Sound	MSZ	Tarata	TNZ
Chatham Islands	CIZ	Monowai	MNW	Tuai	TUA
Christchurch	CHR	Mount John	MJZ	Waipapa Point	WPZ
Cobb River	COB	Nandi	NDF	Wairakei	WNZ
East Cape	ECZ	Niue	NUE	Wellington	WEL
Gebbies Pass	GPZ	Oamaru	OMZ	Whakatane	WTZ

PUKAKI NETWORK

Bush Stream	BSP	Huxley Gorge	HGP	Mount Mary	MMP
Diadem	DMP	Hogget Hill	HHP	Tara Hills	THP
Gladstone Stream	GSP	Mt John Pukaki	MJP	Tomahawk	TMP

WELLINGTON NETWORK

Baring Head	BHW	Cannon Point	CPW	Wright's Hill	WHW
		South Karori	SNZ		

SEISMIC RESEARCH OBSERVATORY

South Karori SNZO

Note: Except in contexts where it is important to specify the recording instrument, the abbreviation SNZ will be used to indicate the South Karori site. This facilitates tabulation.

TIMING ARRANGEMENTS

The Seismological Observatory is administratively responsible for the New Zealand Time Service, which broadcasts hourly signals through the stations of Radio New Zealand. This service was increased from 15 signals daily on October 26. The signals, whose error seldom exceeds two milliseconds, are automatically impressed upon the records of all stations of the standard network within New Zealand. The arrangements used have been described by B.H. Olsson (N.Z. Journal of Science and Technology, Vol. 37B, pp. 115-8, 1955 Sep). Minute marks are derived from local quartz-crystal clocks.

Stations of the World-Wide Standard Seismograph Network have the timing arrangements usual at such stations. At other stations beyond New Zealand, time-signals originating from the Observatory or from the Australian station VNG are automatically impressed on the records at least once or twice a day. All such stations have quartz-crystal clocks of good stability.

Signals from a quartz clock are impressed on the records of the Wellington and Pukaki networks each second. At Wellington they are derived directly from the national time-service. At Pukaki, one trace of the recorder carries the signals from VNG and provides a continuous check of the clock error.

INDEX OF STATION POSITIONS

STN	LATITUDE			LONGITUDE			ALT M	GEOCENTRIC DIRECTION COSINES							
	D	M	S	D	M	S		A	B	C					
AFI	13	54	34	S	171	46	38	W	706	-0.961	070	-0.138	881	-0.238	865
API	13	48	26	S	171	46	30	W	2	-0.961	482	-0.138	979	-0.237	142
AUC	36	51	36	S	174	46	41	E	79	-0.798	711	+0.072	996	-0.597	271
BHH	41	24	33	S	174	52	17	E		-0.749	202	+0.067	241	-0.658	920
BSP	43	52	14	S	170	06	15	E	750	-0.712	478	+0.124	293	-0.690	598
CAZ	40	54	15	S	176	13	34	E	6	-0.756	343	+0.049	889	-0.652	270
CBZ	52	33	03	S	169	09	33	E	30	-0.599	744	+0.114	649	-0.791	907
CHR	43	31	58	S	172	37	36	E	8	-0.721	282	+0.093	336	-0.686	324
CIZ	43	57	18	S	176	33	56	W	45	-0.720	923	-0.043	266	-0.691	663
CNZ	39	12	00	S	175	32	51	E	1116	-0.774	682	+0.060	322	-0.629	467
COB	41	05	16	S	172	44	02	E	213	-0.749	824	+0.095	603	-0.654	694
CPW	41	05	38	S	175	03	57	E		-0.753	022	+0.665	008	-0.654	776
CRZ	34	25	55	S	172	40	47	E	140	-0.819	834	+0.105	317	-0.562	833
DMP	44	24	51	S	169	49	38	E	820	-0.705	389	+0.126	573	-0.697	428
ECZ	37	41	37	S	178	32	46	E	40	-0.793	026	+0.020	126	-0.606	855
GBZ	36	13	04	S	175	28	52	E	70	-0.806	157	+0.063	712	-0.588	262
GNZ	38	38	39	S	178	01	21	E	30	-0.782	622	+0.027	621	-0.621	911
GPZ	43	41	47	S	172	38	40	E	225	-0.719	365	+0.092	861	-0.688	397
GSP	44	08	01	S	170	01	05	E	840	-0.709	161	+0.124	813	-0.693	911
HGP	44	06	09	S	169	50	39	E	590	-0.709	150	+0.127	031	-0.693	520
HHP	44	19	39	S	170	20	44	E	490	-0.707	544	+0.120	363	-0.696	343
KAI	42	31	33	S	171	24	31	E	82	-0.730	944	+0.110	432	-0.673	443
KKY	42	25	12	S	173	41	31	E	101	-0.735	998	+0.081	359	-0.672	078
KRP	37	55	30	S	175	32	15	E	64	-0.788	423	+0.061	530	-0.612	049
MJP	43	59	28	S	170	27	34	E	960	-0.711	801	+0.119	632	-0.692	118
MJZ	43	59	14	S	170	27	58	E	1000	-0.711	861	+0.119	557	-0.692	069
MMP	44	08	33	S	170	16	42	E	950	-0.709	615	+0.121	572	-0.694	023
MNG	40	37	07	S	175	28	55	E	396	-0.758	859	+0.059	963	-0.648	488
MNW	45	46	49	S	167	37	07	E	155	-0.683	548	+0.150	054	-0.714	315
MSZ	44	40	14	S	167	55	01	E	38	-0.697	720	+0.149	361	-0.700	627
NDF	17	45	25	S	177	27	00	E	30	-0.952	009	+0.042	397	-0.303	118
NUE	19	04	35	S	169	55	41	W	56	-0.931	186	-0.165	398	-0.324	864
OMZ	45	04	14	S	170	54	53	E	95	-0.699	729	+0.111	893	-0.705	591
ONE	35	46	33	S	174	21	45	E	30	-0.809	242	+0.079	881	-0.582	020
RAO	29	15.1		S	177	55.1		W	110	-0.873	304	-0.031	742	-0.486	140
RAR	21	12	45	S	159	46	24	W	28	-0.875	524	-0.322	592	-0.359	711
ROX	45	28	33	S	169	19	13	E	106	-0.691	423	+0.130	391	-0.710	586
SBA	77	51	01	S	166	45	22	E	38	-0.206	194	+0.048	529	-0.977	307
SNZ	41	18	17	S	174	42	37	E	88	-0.750	133	+0.069	525	-0.657	622
THP	44	32	42	S	169	53	17	E	760	-0.703	954	+0.125	544	-0.699	062
TMP	44	18	54	S	170	07	12	E	720	-0.707	215	+0.123	173	-0.696	186
TNZ	39	11	14	S	174	22	49	E	123	-0.773	432	+0.076	103	-0.629	294
TRZ	39	33	12	S	176	49	17	E	17	-0.771	946	+0.042	668	-0.634	241
TUA	38	48	29	S	177	09	02	E	274	-0.780	343	+0.038	839	-0.624	145
WEL	41	17	10	S	174	46	06	E	122	-0.750	486	+0.068	717	-0.657	304
WHH	41	17	51	S	174	44	17	E		-0.750	320	+0.069	102	-0.657	454
WNZ	36	37	53	S	176	06	10	E	350	-0.781	415	+0.053	232	-0.621	736
WPZ	46	39	37	S	168	50	59	E	15	-0.675	767	+0.133	195	-0.724	982
WNT	37	59	05	S	176	59	18	E	43	-0.789	091	+0.041	515	-0.612	871

INSTRUMENTATION AND LITHOLOGY

STANDARD NETWORK

Stations are listed in the alphabetical order of their international three-letter code designations. Pendulum and galvanometer periods T_0 and T_g are given in seconds. The damping of electromagnetic instruments, when not listed, may be assumed to be critical. Magnifications listed are for the period of maximum response, except in the case of World-Wide Standard instruments.

	Instrument	Compt	T_0	T_g	Damping	Magnification
AFI	AFIAMALU					
	World-Wide Standard Station.					
	Foundation: Basaltic lava flows.					
	Beriolf	ZNE	1.0	0.75		12 500 at 1.0 s
	Press-Ewing	ZNE	15	100		750 at 15 s
API	APIA					
	Foundation: Coral sand on Recent and Pleistocene basalt.					
	Johnson-Matheson (photo-cell amplifier used with heated stylus recorder).					
		Z	1.2	0.2		
AUC	AUCKLAND					
	Foundation: Volcanic beds on Tertiary sandstone and mudstone.					
	Willmore I (photo-cell amplifier used with pen-and-ink recorder).					
		Z	1	1		7 600 at 0.8 s
CAZ	CASTLEPOINT					
	Foundation: Quaternary mudstone.					
	Willmore II (with Kinematics pen-and-ink recorder).					
		Z	1.0			20 000 at 0.2 s
	During severe storms the magnification may be temporarily reduced.					
CBZ	CAMPBELL ISLAND					
	Foundation: Basalt.					
	Willmore II	Z	1	0.25		5 000 at 0.25 s
CHR	CHRISTCHURCH					
	Foundation: Alluvial sands, tills and gravels.					
	Willmore I (photo-cell amplifier used with pen-and-ink recorder).					
		Z	1.0	2.0		4 700 at 0.66 s
CIZ	CHATHAM ISLANDS					
	Foundation: Clay over basalt.					
	Willmore II	Z	1.0	0.25		4 440 at 0.2 s
		N	1.0	0.25		5 110 at 0.2 s
		E	1.0	0.25		4 400 at 0.25 s

	Instrument	Compt	To	Tg	Damping	Magnification
CNZ	CHATEAU					
	Foundation:	Volcanic ash and lava.				
	Willmore I	Z	1.0	0.25		45 000 at 0.3 s
COB	COBB RIVER					
	Foundation:	Schist.				
	Willmore II	Z	1.0	0.25		27 500 at 0.2 s
CRZ	CAPE REINGA					
	Foundation:	Cretaceous basic volcanoes.				
	Willmore II	Z	1.0	0.25		9 350 at 0.25 s
		N	1.0	0.25		10 200 at 0.2 s
		E	1.0	0.25		9 790 at 0.2 s
ECZ	EAST CAPE					
	Foundation:	Mudstone and sandstone.				
	Willmore II	Z	1.0	0.25		5 275 at 0.25 s
GBZ	GREAT BARRIER					
	Foundation:	Tertiary volcanics.				
	Willmore II	Z	1.0	0.25		23 750 at 0.25 s
GNZ	GISBORNE					
	Foundation:	Alluvium on Tertiary mudstone.				
	Willmore II	Z	1.0	0.25		24 000 at 0.25 s
		N	1.0	0.25		25 550 at 0.2 s
		E	1.0	0.25		26 100 at 0.2 s
GPZ	GEBBIES PASS					
	Foundation:	Rhyolite.				
	Wood-Anderson	N	0.8		crit.	2 800
KAI	KAIMATA					
	Foundation:	Moraine and river gravels over Tertiary mudstone and sandstone.				
	Wood-Anderson	X	0.8		crit.	2 800
	This instrument is oriented so that the X component lies north-east.					
KKY	KAIKOURA WEST					
	Foundation:	Tertiary limestone and sandstone.				
	Willmore II	Z	1.0	0.2		40 000 at 0.2 s
	35 mm film recorder. Magnification as seen on 8x viewer.					
KRP	KARAPIRO					
	Foundation:	Greywacke.				
	Benioff	Z	1.0	0.25		36 500 at 0.3 s
		N	1.0	0.25		40 000 approx., unstable.
		E	1.0	0.25		43 200 at 0.5 s
	Press-Ewing	Z	15.0	100		1 000 approx. at 15 s
		N	15.0	100		1 000 approx. at 15 s
		E	15.0	100		1 000 approx. at 15 s

	Instrument	Compt	To	Tg	Damping	Magnification
MNG	MANGAHAO					
	Foundation:	Greywacke.				
	Willmore II	Z	1.0	0.25		48 600 at 0.33 s
MSZ	MILFORD SOUND					
	Foundation:	Gneiss.				
	Willmore II	Z	1	0.25		52 650 at 0.25 s
MNW	MONOWAI					
	Foundation:	Tertiary sandstone.				
	Willmore II	Z	1.0	0.25		28 750 at 0.25 s
	Wood-Anderson	N	0.8		crit.	2 800
MJZ	MOUNT JOHN					
	Foundation:	Greywacke.				
	Willmore II	Z	1.0	0.25		30 500 at 0.25 s
		N				43 600 at 0.25 s
		E				41 000 at 0.25 s
NDF	NANDI					
	Foundation:	Recent clays.				
	Willmore II	(photo-cell amplifier used with heated stylus recorder).				
		Z	1.25	0.2		6 000 approx.
NUE	NIUE					
	Foundation:	Hard coral.				
	Willmore II	(with Kinometrics VR-1 pen-and-ink recorder).				
		Z	1.0			approx. 20 000 at 0.2 s
OMZ	OAMARU					
	Foundation:	Recent deposits overlying Tertiary limestone.				
	Willmore II	Z	1.0	0.2		9 350 at 1.0 s
ONE	ONERAHI					
	Foundation:	Basalt.				
	Wood-Anderson	E	0.8		crit.	2 800
RAO	RAOUL ISLAND					
	Foundation:	Volcanic rock.				
	Willmore II	Z	1.0	0.25		4 800 at 0.25 s
RAR	RAROTONGA					
	World-Wide Standard Station.					
	Foundation:	Basalt.				
	Benioff	ZNE	1.0	0.75		6 250 at 1 s
	Press-Ewing	ZNE	15	100		375 at 15 s
ROX	ROXBURGH					
	Foundation:	Chlorite schist.				
	Willmore I	Z	1.0	0.25		12 100 at 0.25 s
	Galatzin	Z	12	12		200 approx.
		NE	24	24		300 approx.

	Instrument	Compt	To	Tg	Damping	Magnification
SBA	SCOTT BASE					
	World-Wide Standard Station.					
	Foundation: Frozen basaltic debris resting on lava flows.					
	Benioff	ZNE	1.0	0.75		6 250 (summer) at 1.0 s 25 000 (winter)
	Press-Ewing	ZNE	15	100		750 (summer) at 15 s 1 500 (winter)
TNZ	TARATA					
	Foundation: Pleistocene mudstone.					
	Willmore II	Z	1.0	0.25		4 665 at 0.2 s
TRZ	TARADALE					
	Foundation: Quaternary sands and silts, overlying Quaternary limestone.					
	Willmore II	Z	1.0	0.25		5 550 at 0.25 s
TUA	TUAI					
	Foundation: Thick Tertiary sandstone and mudstone.					
	Willmore II	Z	1.0	0.25		7 500 at 0.25 s
WEL	WELLINGTON					
	World-Wide Standard Station.					
	Foundation: Greywacke.					
	Benioff	ZNE	1.0	0.75		6 250 at 1.0 s
	Press-Ewing	ZNE	15	100		750 at 15 s
	Willmore II	Z	1.0	0.25		22 750 at 0.2 s
	Wood-Anderson	NE	0.8		crit.	1 400
	Imamura	Z	1		5:1	1
		NE	4		5:1	1
	The Willmore Z instrument operates at the bottom of a borehole approximately 60 metres deep. The Benioff vertical component operates both photographic and heated-stylus recorders. There is also a pen-and-ink recorder operated by a Willmore I seismometer.					
WPZ	WAIKAPA POINT					
	Foundation: Jurassic sandstone.					
	Willmore II	Z	1	0.25		12 900 at 0.2 s
	The seismometer operates at the bottom of a borehole 13 m deep.					
WNZ	WAIKAKEI					
	Foundation: Pumice breccia.					
	Willmore I	Z	1.0	0.25		200 (approx.)
WTZ	WHAKATANE					
	Foundation: Weathered Jurassic greywacke.					
	Willmore II	Z	1.0	0.2		21 200 at 0.2 s

PUKAKI NETWORK

The stations of the Pukaki network are operated by the New Zealand Electricity Department, and are intended to monitor any changes in regional seismicity associated with the use of the lake for the generation of electric power. The records are interpreted and retained at the Observatory and are available for other seismological studies.

The network consists of 9 stations linked by radio to a common recorder at Twizel. The seismometers used are Mark Products L4C instruments with a natural period of one second, and the recorder is a Teledyne Develocorder with galvanometers having a natural period of 0.063 s (frequency 16 Hz). The outputs from some stations are recorded on two traces, after electrical modification to produce different period-response and magnification. Magnifications quoted below are for the period of maximum response and refer to the image projected on the screen of the Develocorder, which magnifies the film ten times.

	Station	Component	Magnification
BSP	Bush Stream	Z	1) 950 000 at 0.1 s 2) 100 000 at 0.2 s
DMP	Diadem	Z	850 000 at 0.1 s
GSP	Gladstone Stream	Z	1) 750 000 at 0.1 s 2) 60 000 at 0.2 s 3) see below
HGP	Huxley Gorge	Z	1) 750 000 at 0.1 s 2) 125 000 at 0.2 s
HHP	Hogget Hill	Z	1) 500 000 at 0.1 s 2) 70 000 at 0.2 s
MJP	Mt John Pukaki	Z	350 000 at 0.1 s (nominal)
MMP	Mount Mary	Z	700 000 at 0.1 s
THP	Tara Hills	Z	1) 800 000 at 0.1 s 2) 150 000 at 0.2 s
TMP	Tomahawk	Z	1) 750 000 at 0.1 s 2) 40 000 at 0.2 s
		N	40 000 at 0.2 s
		E	40 000 at 0.2 s

The equipment at Twizel includes a conventional pen-and-ink type drum recorder, which can be connected to the output of any of several stations. It is normally used to record the output of the Gladstone Stream (GSP) seismometer, providing a magnification of 275 000 at 0.1 s.

The lithological foundation at all stations is Mesozoic Greywacke.

WELLINGTON NETWORK

The stations of the Wellington network are linked by radio or land-line to a common recorder at the main observatory site at Kelburn. The seismometers used are Mark Products L4C instruments with a natural period of 1 second, except in the case of WEL, where the signal is derived from the short-period vertical instrument of the World-Wide Standard station. The recorder used is a Teledyne Develocorder with galvanometers having a period of 0.063 s (freq. 16 Hz). Magnifications quoted refer to the most sensitive channel, as projected on the screen of the Develocorder, which magnifies the film trace ten times. In most cases a second channel operating at a lower gain is also recorded.

	Station	Component	Magnification at 0.1 s
BHW	Baring Head	Z	100 000 nominal
CPW	Cannon Point	Z	225 000
SNZ	South Karori	Z	240 000
WEL	Wellington (Karori)	Z	
WHW	Wright's Hill	Z	320 000

The lithological foundation at all sites is Jurassic-Permian Greywacke.

SEISMIC RESEARCH OBSERVATORY

SNZO SOUTH KARORI

This station is of the type sponsored by the United States Geological Survey. A three-component seismometer sealed in a gas-filled capsule is placed in a bore-hole 10 cm in diameter and about 100 m deep. Both digital and analogue recordings are made from the three long-period and the vertical component short-period outputs. The recorder is at the observatory site in Kelburn, and the signals are transmitted to it by land-line.

The ground surface is 88 m above and the seismometer 10 m below sea-level. Geographical coordinates are identical with those of SNZ.

Magnification	ZNE	40 000 at 25 s
	Z	6 250 at 1.0 s.

The lithological foundation is Jurassic-Permian Greywacke.

EARTHQUAKES IN THE NEW ZEALAND REGION

PRINCIPAL EARTHQUAKES IN 1975

The moderate level of earthquake activity that has persisted in New Zealand in recent years continued during 1975, there being no shock to reach magnitude 6 or to cause serious damage. However, the occurrence of a shock with the unusually great focal depth of 582 km, under north Taranaki on February 7 (Origin 75/070), gives the year's activity scientific interest. This shock becomes the fourth member of a group with depths of about 600 km, all originating in this area. The first of them occurred in 1953 and two more, only four and half minutes apart, in 1960. Apart from these events, the deepest New Zealand earthquakes, at a depth of 380 km, lie beneath the western Bay of Plenty. In northern Taranaki the usual maximum depth is less than 300 km, and phases appearing in the record of the present shock indicate that the Earth's upper mantle contains a structural discontinuity at about that depth. The observations have been discussed by Adams and Ferris (1976) in a note: "A Further Earthquake at Exceptional Depth beneath New Zealand" (N.Z. Journal of Geology and Geophysics Vol.19, pp 269-73). Because of its great depth and comparatively small magnitude (4.9) the shock was not felt.

The largest shallow earthquake, on the evening of June 10 (Origin 75/324) had an epicentre about 15 km south of Dannevirke, where windows were broken and masonry dislodged, indicating a maximum intensity of about MM 7, but MM 6 appears to be a more representative value for the township. The magnitude of the shock was 5.9 and its felt area extended from the Bay of Plenty to Banks Peninsula (See Map 4).

A moderately deep shock also of magnitude 5.9, occurred on January 4 (Origin 75/004, See Map 3) and brought goods and crockery from shelves in coastal districts to the north of Wellington, indicating an intensity of MM 6. It was felt over an area that included most of Taranaki, Hawke's Bay, and parts of Nelson and Marlborough. The standard origin solution, which uses a symmetrical Earth-model, places its centre near Upper Hutt, at a depth of 128 km. Adams and Ware, in a paper submitted to the N.Z. Journal of Geology and Geophysics, have obtained an alternative solution using a model that allows for lateral inhomogeneities in the upper mantle. This is given with the station readings, and places the origin to the west of Kapiti Island, at the smaller depth of 72 km. As this is in better agreement with the observed surface-effects and with teleseismic observations it should be preferred to the standard solution, except for studies involving other shocks and in which it is important to use a consistent model throughout.

Other deep shocks calling for comment include a group of three in the Lake Taupo district. Those on April 29 and August 18 (Origins 75/-240 and 75/451) had focal depths of 135 km and 147 km and magnitudes of 5.7 and 5.8 respectively. Their felt areas extended from the Bay of Plenty to northern parts of the South Island. The third shock, on November 12 (Origin 75/659) had a magnitude of 5.2 and a focal depth of 208 km. It was reported felt only on Kapiti Island and in Wellington city. This large displacement of the felt area from the epicentre is not unusual for shocks of this depth.

The shock in the Tauranga area on November 23 (Origin 75/689) had a magnitude of 5.4 and a focal depth of 279 km. The felt area was again displaced from the epicentre, reports coming only from western Hawke's Bay, Wellington city, and the Manawatu.

A number of other shallow shocks reached magnitude 5. The largest of these (Origin 75/140) had a magnitude of 5.4. It occurred on March 16 and was centred about 20 km south-west of Milford Sound. Although it was widely felt in the western and central parts of Otago and Southland, no intensities above MM 4 were reported. A shock of magnitude 4.9 on June 5 (Origin 75/316) and centred about 100 km to the east of the shock on March 16 produced intensities of MM 5 at Queenstown, Gibbston, and Mount Aspiring station, but the total felt area was somewhat smaller.

A shock of magnitude 5.2 in the Gisborne area on August 26 (Origin 75/481) had an epicentre some 50 km off the coast, and produced only a single felt report of MM 4 from the city. Another shallow shock of the same magnitude, on November 22 (Origin 75/686) had an epicentre in the eastern Wairarapa, where intensities reached MM 5. The felt area covered the central North Island and extended to Wellington.

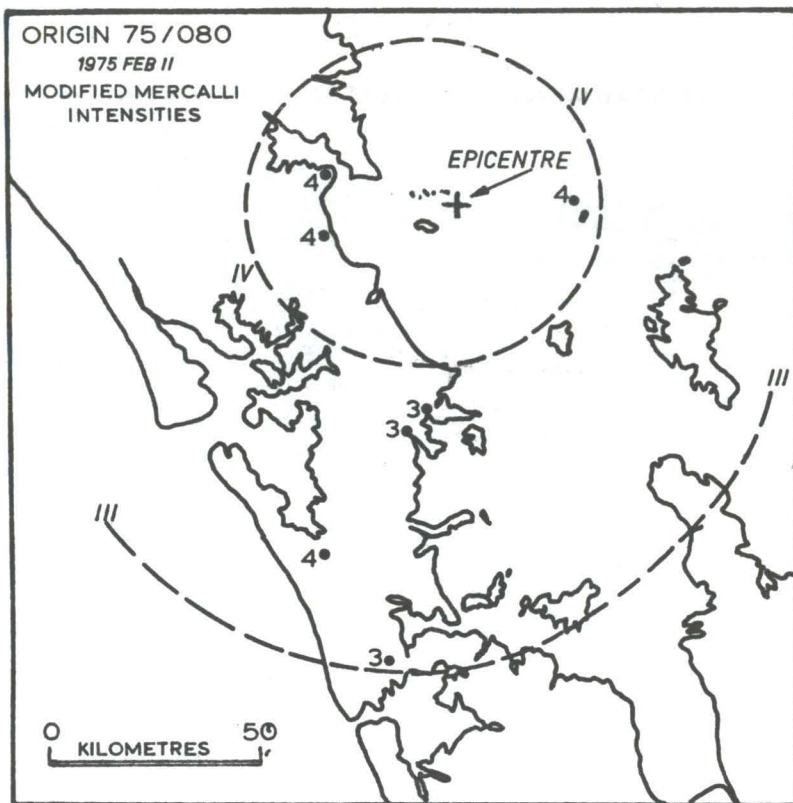
Three shocks, all of magnitude 5.0, attracted wide attention in Wellington city and suburbs, but all were centred in the South Island. The epicentre of the first, on April 13 (Origin 75/204) was in Queen Charlotte Sound, and produced an intensity of MM 5 in the city. It was felt as far north as Stratford, but the only South Island reports were from the Sounds area. The other two shocks, on July 12 (Origin 75/376) and December 29 (Origin 75/761) were both centred to the south of Nelson and produced maximum intensities of MM 5, the first at Murchison and the second at Blenheim and in the Wye Hills.

Shocks of magnitude 4.7 and 4.8 respectively (Origins 75/238 and 75/555) occurred in the mountainous region between Arthur's Pass and Lewis Pass on April 28 and September 24. The first produced only a single felt report from the junction of the Grey and Robinson Rivers, although the epicentre of the second lies some 50 km further east and was felt at several places in Westland and southern Nelson.

Several earthquakes in 1975 occurred in areas of less frequent activity. On February 11 a shock of magnitude 4.4 centred near the Hen and Chickens Islands, about 50 km south-east of Whangarei (Origin 75/080 See Map), was felt over a large area of Northland but although a postal questionnaire was issued, the number of observations collected remained small. A second shock in this area occurred on August 16 (Origin 75/444). The epicentre was about 30 km south of Whangarei, and the shock was felt at Ararua and Papanoa although its magnitude was only 2.8. A shock of magnitude 3.7 about 40 km off the coast to the west of Raglan (Origin 75/136) on March 14 is both farther north and farther to the west than is usual in this part of the country. The shock was not felt.

Three earthquakes to the east of the country call for mention. The shock on April 22 (Origin 75/225, magnitude 3.9) apparently lies on the oceanic side of the Hikurangi Trench. This is not without precedent, but control of epicentres so far beyond the perimeter of the station net is not entirely satisfactory, and all such results must be viewed with caution. The position of the larger shock on the northern flank of the Chatham Rise on June 4 (Origin 75/315, magnitude 4.6) is more satisfactorily established, as is the occurrence of a shock 170 km to the south-east of the Chatham Islands on July 26 (Origin 75/398, magnitude 4.6).

Both Ngauruhoe and Ruapehu erupted spectacularly during the year, but although local tremors were reported at the times of the eruptions, no significant earthquakes were recorded. On February 19, Mount Ngauruhoe erupted ash and steam and threw large rocks several kilometres. This was the most violent eruption since 1954. The eruption of ash from Mount Ruapehu on April 14 caused a greatly increased flow in nearby streams and rivers. Attention should be drawn here to the magnitude 4.0 earthquake on September 30 (Origin 75/562), which had an epicentre coincident with White Island, and a focal depth of 177 km.



A shallow earthquake between Tonga and Samoa in the early morning of December 27 (December 26 U.T.) resulted in the calling of a civil defence alert and the issuance of a tsunami warning advising the public to avoid beaches and low-lying coastal areas. However, it proved that no tsunami had been generated.

LIST OF INSTRUMENTALLY DETERMINED ORIGINS

The following chronological list of the origins of New Zealand earthquakes is a summary of the determinations included in the next section of the Report, in which the detailed readings for each recording station are given. The Reference Number allocated in the first column of this list is used to identify the same shock in other sections of the Report. Date, Origin Time, Latitude and Longitude should be self-explanatory. Focal depths are given in kilometres, but it should be noted that when shocks are within the crust, the computer is restricted to solutions at depths of 12 or 33 km. The shallower depth is assigned if either of the phases Pg or Sg has been identified, and the greater depth if P* or S* is present without Pg or Sg. Quantities so restricted are identified by the letter R. The magnitude given conforms with Richter's original magnitude scale and is a mean of all separate determinations shown with the detailed station readings. S E is the standard error of the time residuals (in seconds), of those phases that have been used in obtaining the solution. In cases where the number of readings is exactly the number needed for a formal solution the letters ND (Not Defined) appear. NUM OBS is the number of separate phase readings used, and NUM STN the number of stations that recorded the shock, whether the readings were used in the epicentral solution or not.

The lists are intended to contain all shocks of magnitude 4.0 and above within the New Zealand region, together with those shocks of lower magnitude or beyond the boundary of the region, that have been reported felt. The boundary of the region is taken at approximately 100 from Wellington. Because accurate distance estimates cannot be made until the final stages of the interpretation, the readings of a few local shocks near the boundary will be found only in the "Distant" section of the Report, and vice versa. An asterisk following a reference number indicates that the shock is known to have been felt.

REF	NUM		ORIGIN	TIME		-LAT	LONG	DEPTH	MAG	S E	NUM	NUM	
			H	M	S	DEG	DEG	KM		SEC	Q9S	STN	
75/	001	JAN	02	11	08	51.2	41.33S	173.38E	95	3.8	1.4	14	9
	002		03	12	51	50.2	33.11S	179.12W	309	5.0	1.8	19	12
	003		04	08	19	29.2	33.86S	175.23E	228	4.1	1.6	15	10
	004*		04	20	37	12.5	41.09S	175.07E	128	5.9	1.3	29	25
	005		05	07	41	10.3	41.02S	175.11E	92	3.8	1.4	13	8
	006		06	01	05	31.5	40.23S	174.39E	107	3.9	1.1	14	10
	007		06	11	50	21.3	40.61S	173.68E	131	4.0	0.7	11	8
	008		07	04	47	11.5	31.00S	177.24E	33 R		2.1	8	5
	009		07	20	36	20.4	33.71S	175.77E	166	3.7	1.7	9	7
	010		07	20	46	20.7	45.19S	167.14E	33 R	4.2	1.5	8	5
	011		08	12	59	43.4	32.56S	178.80W	424	5.3	1.5	18	11
	012		10	03	37	37.1	40.79S	174.44E	71	3.7	1.1	10	5
	013		10	07	45	55.6	45.00S	167.51E	116	4.2	1.4	13	7
	014		10	13	20	04.6	39.40S	177.80E	12 R	3.5	1.2	8	6
	015		10	15	30	09.1	33.05S	176.15E	170	3.9	1.3	14	9
	016		10	21	59	44.8	32.99S	179.80E	33 R	5.3	3.2	17	13
	017		11	04	24	38.0	32.66S	179.81W	274	4.6	2.5	12	10
	018		11	05	15	35.3	36.57S	178.26E	33 R	3.6	1.5	10	5
	019		11	23	05	52.4	34.71S	178.84E	299	4.5	2.2	16	12
	020		12	01	20	35.6	37.15S	176.79E	257	4.3	1.2	14	10
	021		12	17	47	21.0	33.73S	177.19W	33 R	6.2	2.3	21	15
	022		13	02	11	11.3	33.82S	178.01W	362	4.7	2.5	11	8
	023		14	03	54	22.4	45.65S	167.78E	12 R	3.6	1.4	9	4
	024		14	16	47	53.2	40.12S	175.05E	12 R	3.6	1.1	12	6
	025		14	17	31	42.1	38.18S	176.51E	165	4.7	1.4	22	13
	026		15	11	35	43.6	39.60S	175.80E	151	3.9	1.4	16	10
	027		15	22	53	33.2	35.52S	178.70E	323	4.5	1.4	12	8
	028		16	08	11	14.2	32.53S	179.84W	33 R	4.9	2.3	14	10
	029		16	09	07	02.8	41.41S	173.37E	106	4.0	1.6	12	7
	030		16	16	34	49.7	33.41S	179.48W	218	4.5	1.8	14	10
	031		16	17	01	36.5	32.45S	179.82W	450	5.0	2.0	14	9
	032*		17	08	36	42.4	38.98S	178.02E	33 R	4.6	0.6	13	10
	033		17	14	46	40.3	33.19S	176.20E	161	3.9	0.7	14	8
	034		18	02	47	17.3	38.97S	175.25E	223	4.0	1.5	11	6
	035		18	03	19	24.2	39.41S	177.67E	12 R	3.7	1.6	10	5
	036*		18	10	19	00.5	39.10S	175.04E	193	5.2	1.4	25	15
	037		18	10	29	24.4	39.33S	173.35E	12 R	3.8	1.2	13	5
	038		18	10	38	24.9	39.42S	173.41E	12 R	3.7	1.0	12	5
	039		18	10	39	56.9	39.44S	173.43E	12 R	3.6	1.0	13	5
	040		18	13	33	27.3	40.17S	173.85E	12 R	3.4	0.7	10	5
	041		18	21	59	02.3	40.30S	174.15E	12 R	3.4	1.3	10	5
	042		19	22	10	20.2	37.78S	176.84E	168	4.1	0.8	15	9
	043		20	14	30	46.0	45.32S	167.24E	12 R	3.7	1.3	9	5
	044		21	19	56	42.5	39.70S	174.11E	138	4.0	1.3	10	6
	045		22	12	52	41.6	48.22S	165.93E	12 R	4.5	1.2	11	6
	046		22	21	44	24.9	49.89S	164.72E	33 R	4.3	1.1	6	4
	047		23	06	08	20.2	37.06S	177.44E	228	4.0	1.1	13	9
	048		23	09	34	50.9	32.11S	179.24W	427	5.5	2.4	20	13
	049		23	18	55	58.0	37.63S	176.42E	220	4.6	1.2	23	14
	050		23	21	53	34.4	39.84S	174.41E	121	3.8	1.0	12	7

REF NUM		ORIGIN TIME H M S	LAT DEG	LONG DEG	DEPTH KM	MAG	S E SEC	NUM OBS	NUM STN
75/ 051*	JAN	24 13 30 18.8	41.133	173.94E	12 R	4.1	1.4	20	7
052		24 13 38 38.4	40.155	174.23E	12 R	4.0	1.6	22	10
053		25 01 00 40.6	36.63S	177.03E	12 R	4.0	1.2	16	7
054		26 03 04 16.0	39.47S	175.21E	122	3.9	0.8	9	5
055*		27 14 38 25.0	39.40S	175.60E	107	4.9	1.3	19	12
056		28 14 26 56.5	38.07S	179.12E	12 R	4.2	1.4	19	9
057		28 16 12 39.3	39.32S	178.05E	12 R	4.1	0.8	15	8
058		30 02 37 39.4	40.44S	172.02E	12 R	4.0	1.3	19	8
059		30 05 10 22.5	38.67S	176.17E	109	4.5	1.0	16	9
060	FEB	01 12 05 58.9	41.72S	172.92E	33 R	4.0	1.2	16	7
061		01 23 51 44.5	39.55S	175.65E	12 R	3.8	1.2	22	10
062*		02 10 24 57.6	39.19S	175.15E	12 R	3.9	1.7	14	7
063		03 14 08 30.7	33.98S	179.47E	33 R	5.0	1.9	9	6
064*		04 07 17 16.2	39.52S	175.51E	12 R	3.7	0.9	21	10
065		05 04 01 43.4	33.25S	176.37W	12 R	5.0	2.1	17	8
066		06 15 39 44.8	33.37S	176.59W	33 R	5.4	1.9	14	10
067		06 20 08 41.2	45.14S	167.80E	128	4.1	0.5	6	4
068		07 06 51 20.5	40.56S	173.71E	205	4.1	0.7	8	6
069		07 12 51 05.4	45.51S	167.31E	33 R	4.2	1.1	12	6
070		07 15 19 43.0	39.27S	174.26E	582	4.9	1.0	18	12
071		08 10 18 55.4	46.56S	166.59E	33 R	3.7	1.2	5	3
072		08 22 32 47.4	38.30S	176.03E	208	4.0	1.2	12	8
073		09 10 24 30.8	39.45S	174.67E	33 R	3.5	1.1	12	6
074		10 00 04 30.6	37.75S	176.32E	215	4.3	1.2	13	9
075		10 08 31 53.4	45.08S	167.66E	126	4.0	0.4	5	3
076		10 11 23 15.0	44.28S	167.67E	12 R	4.2	1.1	12	6
077		11 02 14 57.1	49.00S	164.39E	33 R	4.5	2.0	12	7
078		11 08 06 02.1	38.06S	176.34E	168	5.1	1.1	22	17
079*		11 15 24 03.6	40.11S	174.84E	12 R	4.2	1.2	22	9
080*		11 16 45 20.3	35.93S	174.76E	12 R	4.4	1.6	18	11
081		11 17 35 46.0	45.39S	167.54E	116	4.1	0.8	10	6
082		12 04 22 39.8	35.31S	179.34E	299	4.9	0.6	11	7
083		12 11 21 42.2	37.90S	176.18E	200	4.2	1.0	17	10
084		12 20 00 17.2	35.26S	179.06E	33 R	4.0	2.6	8	5
085		14 09 12 45.7	38.83S	176.13E	100	4.0	1.3	16	9
086*		14 15 16 04.8	38.66S	176.08E	12 R	3.2	0.5	8	7
087		14 19 54 34.4	42.98S	171.47E	12 R	3.8	1.0	25	9
088*		15 00 31 57.1	41.65S	171.89E	12 R	4.2	1.1	18	9
089		15 03 23 16.1	38.69S	175.22E	224	4.1	1.2	8	5
090		16 02 41 59.9	36.71S	177.55E	235	4.4	1.2	10	7
091		16 06 42 51.9	44.98S	167.73E	131	4.6	0.6	14	9
092		17 06 11 47.0	32.96S	179.55E	33 R	4.5	2.3	13	8
093		17 21 13 55.7	39.48S	173.46E	33 R	4.3	0.8	16	7
094		18 14 09 29.1	32.43S	178.10W	33 R	5.3	2.5	18	11
095		19 06 39 22.5	33.31S	179.68E	475	5.1	0.9	14	9
096		19 09 26 41.5	45.64S	166.41E	12 R	4.0	1.0	15	6
097*		19 11 05 17.6	41.68S	174.35E	33 R	4.0	0.7	12	9
098		20 18 37 28.8	33.38S	178.69W	287	5.0	1.3	13	10
099		20 19 13 42.5	33.91S	179.50W	292	5.0	4.6	8	6
100		21 09 53 43.7	39.51S	173.62E	12 R	4.2	1.3	21	11

REF	NUM		ORIGIN TIME			LAT	LONG	DEPTH	MAG	S E	NJM	NUM	
			H	M	S	DEG	DEG	KM	SEC	03S	STN		
75/	101	FEB	21	13	13	00.5	37.11S	176.97E	302	4.4	1.4	14	9
	102		22	05	38	32.7	33.55S	176.64W	229	5.3	1.6	9	8
	103		22	06	51	31.5	39.47S	173.49E	12 R	3.9	1.1	12	5
	104		22	11	20	41.5	40.54S	174.30E	12 R	4.0	1.3	16	10
	105		24	08	25	22.7	38.19S	176.24E	168	3.9	1.4	14	8
	106		24	15	34	34.9	38.95S	175.00E	228	4.7	1.4	21	12
	107		25	12	01	03.8	47.58S	166.18E	12 R	3.9	2.2	9	5
	108		25	19	40	15.2	39.90S	175.00E	217	4.6	1.6	18	11
	109		25	20	17	18.7	40.55S	175.40E	12 R	4.1	1.6	8	6
	110		25	22	28	53.7	45.65S	166.85E	79	4.0	0.9	12	8
	111		25	22	45	48.9	39.54S	173.67E	12 R	4.4	1.5	22	12
	112		27	01	36	59.8	39.21S	175.31E	12 R	3.8	0.9	9	5
	113*		27	10	26	36.6	37.92S	177.73E	33 R	4.9	1.7	24	15
	114*		27	16	41	27.3	41.19S	175.37E	12 R	3.7	1.1	10	4
	115*		27	19	09	59.7	37.44S	176.82E	12 R	3.1	0.6	7	3
	116		28	03	00	12.8	38.67S	175.68E	157	4.3	1.8	21	13
	117		28	03	36	10.0	38.67S	175.80E	167	3.8	1.6	11	7
	118	MAR	01	18	26	44.3	37.10S	176.86E	240	4.0	1.8	10	7
	119		02	10	42	16.9	36.66S	180.00E	175	4.3	1.7	16	10
	120		02	15	59	33.2	37.19S	176.95E	241	4.2	1.3	17	10
	121*		02	16	42	53.7	39.19S	174.97E	12 R	4.4	1.5	23	13
	122		02	18	12	46.5	39.95S	174.97E	12 R	3.7	1.4	12	6
	123		03	06	11	44.8	38.60S	179.21E	12 R	4.1	1.9	12	7
	124		03	13	47	48.9	39.47S	173.42E	12 R	4.2	1.7	18	8
	125		04	11	13	27.4	37.90S	176.56E	168	4.0	1.8	15	9
	126		05	12	24	33.2	45.51S	166.49E	12 R	3.9	1.9	16	6
	127		05	16	06	12.9	38.33S	175.77E	189	4.4	1.1	18	10
	128		05	20	50	26.8	35.41S	179.45E	12 R	4.6	1.4	22	12
	129		08	01	18	11.4	40.68S	173.95E	12 R	4.0	0.8	17	9
	130		09	00	38	10.2	35.17S	179.53W	341	4.2	1.3	10	6
	131		09	05	53	29.2	39.47S	177.71E	12 R	4.0	1.3	17	9
	132		09	14	09	41.6	31.29S	178.46W	33 R	5.4	2.2	11	7
	133		09	17	29	38.9	38.79S	175.94E	108	4.1	0.6	15	10
	134		10	15	58	01.7	38.10S	175.88E	205	5.1	0.8	12	8
	135		12	21	35	57.9	39.96S	175.19E	12 R	4.0	0.8	10	5
	136		13	20	48	46.4	37.88S	174.45E	12 R	3.7	1.1	14	7
	137		14	08	33	32.4	48.08S	165.35E	33 R	4.0	1.5	7	5
	138		15	01	26	50.6	38.96S	175.33E	221	4.0	1.8	11	8
	139		15	12	12	28.2	45.16S	167.24E	12 R	3.9	1.8	16	7
	140*		16	06	22	31.4	44.79S	167.77E	33 R	5.4	1.2	14	10
	141		16	15	34	43.5	37.72S	177.57E	12 R	4.1	1.7	21	10
	142		16	18	24	24.2	39.40S	173.45E	12 R	3.9	1.4	16	6
	143		17	01	42	55.7	37.25S	178.15E	12 R	3.7	1.6	13	7
	144		17	01	47	57.2	39.22S	175.18E	12 R	3.8	1.3	13	6
	145		17	02	10	59.3	37.52S	176.52E	237	3.9	0.9	8	5
	146		17	04	09	00.0	36.24S	179.84E	33 R	4.2	1.1	14	10
	147		17	08	20	00.3	39.68S	174.16E	185	4.3	1.2	17	11
	148		17	15	22	47.8	42.58S	172.97E	12 R	4.0	1.4	22	10
	149		17	22	05	48.0	39.56S	177.48E	12 R	3.9	1.4	13	8
	150		18	03	26	22.9	39.62S	174.93E	12 R	3.8	1.1	12	6

REF	NUM	ORIGIN TIME			LAT	LONG	DEPTH	MAG	S E	NUM	NUM	
		H	M	S	DEG	DEG	KM	SEC	OBS	STN		
75/	151	MAR	18	06 11	12.6	40.35S	174.40E	12 R	3.7	1.2	14	7
	152		18	17 36	51.9	42.60S	173.32E	33 R	4.2	1.5	25	14
	153		18	18 58	02.3	37.80S	178.10E	33 R	4.0	1.4	18	12
	154		20	14 58	51.4	41.06S	174.04E	12 R	4.0	1.5	19	10
	155		20	23 03	33.6	41.10S	174.10E	12 R	3.9	1.3	16	8
	156		21	06 40	23.0	37.57S	178.43E	120	3.4	1.3	10	6
	157		21	06 41	22.0	40.06S	177.31E	33 R	3.7	1.9	8	5
	158		22	19 01	05.6	39.29S	178.13E	33 R	4.7	1.5	24	15
	159		22	22 36	45.5	49.33S	163.72E	33 R	5.1	2.5	14	9
	160		23	18 32	39.9	37.21S	176.98E	216	3.6	0.2	5	3
	161		24	14 20	12.6	33.81S	179.03W	271	5.1	1.3	14	10
	162		26	03 28	27.9	32.65S	179.71E	493	5.9	1.4	23	16
	163		26	12 38	07.7	38.05S	178.46E	320	5.0	1.1	20	13
	164		26	15 05	40.3	40.14S	174.93E	12 R	4.0	1.3	17	9
	165		27	03 23	18.4	44.37S	168.40E	12 R	3.9	1.8	14	8
	166		27	04 54	42.0	39.51S	173.51E	33 R	4.3	1.2	11	7
	167		27	09 56	22.1	33.12S	179.65W	336	5.2	1.7	19	12
	168		28	00 46	51.3	38.33S	178.59E	65	3.7	1.2	7	5
	169		28	03 00	35.5	35.41S	179.87E	217	4.4	0.6	11	10
	170		29	09 56	19.5	39.42S	174.17E	33 R	3.8	2.4	8	6
	171		29	18 25	52.4	39.95S	175.13E	12 R	4.1	1.9	18	8
	172		29	20 05	45.3	38.12S	176.56E	199	4.7	1.2	17	11
	173		30	03 06	51.4	32.74S	179.87W	475	5.4	2.2	14	9
	174		30	03 28	45.7	37.21S	176.65E	380	4.7	0.9	19	12
	175		30	15 10	10.3	37.95S	176.53E	175	3.9	1.2	14	9
	176		31	05 15	22.4	39.50S	173.52E	33 R	4.0	1.1	13	7
	177		31	22 26	25.8	39.61S	173.60E	12 R	3.7	0.8	12	6
	178	APR	01	21 50	44.7	45.60S	167.16E	83	4.2	1.9	10	6
	179		02	06 10	35.2	40.58S	175.03E	81	4.4	0.5	15	11
	180		02	10 09	41.9	44.90S	167.50E	144	3.8	2.8	8	5
	181		02	14 18	49.8	39.13S	175.13E	12 R	4.1	1.9	16	10
	182		02	14 45	02.5	45.36S	167.81E	65	3.6	0.1	5	3
	183		02	14 50	46.0	38.26S	175.84E	197	4.4	1.1	21	13
	184		02	17 41	49.0	45.11S	168.05E	33 R	3.7	1.1	5	3
	185		03	04 42	30.3	38.24S	177.68E	12 R	3.6	0.8	5	4
	186		03	06 17	24.7	41.63S	171.85E	12 R	4.5	1.1	24	13
	187		03	07 05	18.4	41.72S	172.03E	12 R	4.2	0.9	22	13
	188		03	07 19	29.1	38.09S	176.23E	182	4.1	1.1	14	10
	189		04	09 44	04.0	39.06S	175.03E	229	4.4	1.2	19	10
	190		05	21 45	06.5	39.73S	174.24E	187	4.2	1.6	15	9
	191		06	21 22	57.8	37.43S	177.18E	135	3.9	1.5	13	9
	192		07	03 28	15.2	40.24S	174.01E	110	4.4	1.1	17	11
	193		09	05 51	18.1	41.55S	173.14E	115	4.4	1.8	27	16
	194		09	09 39	04.8	35.38S	178.77W	231	4.3	1.8	16	12
	195		09	15 26	20.5	33.21S	178.47W	421	4.8	2.0	9	10
	196		09	19 02	33.5	39.55S	174.71E	149	4.7	1.5	23	14
	197		10	09 12	25.3	39.53S	173.50E	12 R	3.8	1.1	17	7
	198		10	18 40	14.0	39.56S	173.34E	12 R	4.2	1.7	22	13
	199		11	04 07	29.9	39.43S	174.41E	232	4.0	1.5	15	9
	200		11	18 19	17.7	39.95S	176.93E	12 R	3.9	1.8	24	11

REF	NUM		ORIGIN TIME			LAT	LONG	DEPTH	MAG	S E	NJM	NUM	
			H	M	S	DEG	DEG	KM	SEC	ONS	STN		
75/	201	APR	12	19	01	03.0	39.379	177.07E	12 R	3.4	1.7	13	7
	202		13	04	37	48.4	43.199	171.49E	12 R	3.7	1.5	18	9
	203		13	05	16	33.1	43.229	171.43E	12 R	4.0	0.7	17	9
	204*		13	07	25	20.3	41.223	174.21E	33 R	5.0	1.8	26	16
	205*		13	10	53	27.3	38.643	177.95E	12 R	3.8	1.9	14	8
	206		13	19	16	09.9	37.839	177.23E	147	4.3	1.2	15	10
	207*		13	22	06	21.8	41.399	174.31E	33 R	4.4	1.4	19	10
	208*		14	08	47	49.2	38.599	175.99E	12 R	3.4	0.9	11	8
	209		14	23	45	31.9	38.163	176.27E	159	4.4	1.0	21	13
	210*		15	07	44	19.2	41.213	174.18E	12 R	3.8	1.5	15	9
	211		15	17	43	53.0	37.903	176.00E	284	4.5	1.4	23	13
	212		15	19	54	10.2	39.169	175.38E	33 R	3.8	1.3	11	5
	213		16	12	37	19.2	36.469	177.88E	209	3.9	1.4	11	9
	214		16	13	06	59.2	39.109	174.93E	225	3.9	1.3	15	9
	215		16	16	31	15.7	33.093	178.95W	452	5.1	1.1	15	10
	216		18	16	29	02.6	39.199	177.37E	33 R	3.8	1.4	16	9
	217		19	20	10	39.3	40.299	173.47E	209	4.2	1.4	11	6
	218		20	01	09	00.0	39.143	174.65E	228	4.3	1.3	13	8
	219		20	18	09	29.0	37.209	176.82E	228	5.2	0.7	12	8
	220		21	18	03	37.9	39.579	175.80E	198	4.0	0.3	9	5
	221		21	19	13	46.9	39.079	175.88E	196	4.2	0.4	6	4
	222*		21	20	56	45	VERY NEAR WAIRAKEI.		3				
	223*		21	21	06	44	VERY NEAR WAIRAKEI.		3				
	224		22	03	25	26.5	36.889	177.16E	258	5.1	0.7	13	8
	225		22	04	49	46.0	40.249	179.34E	33 R	3.9	2.7	5	4
	226		22	09	46	24.0	39.643	173.59E	12 R	3.8	2.8	14	6
	227		22	13	12	22.5	35.139	178.71E	274	4.2	0.8	7	5
	228*		22	18	55	31.1	40.209	175.21E	12 R	3.8	0.9	14	8
	229		22	23	31	26.8	34.129	179.29E	243	4.7	1.8	10	6
	230*		24	17	52	21.5	41.809	172.20E	12 R	3.3	2.2	7	4
	231		25	04	40	55.8	30.989	178.94W	33 R	5.8	2.2	13	8
	232		26	06	31	30.3	38.109	177.77E	75	3.9	0.9	8	4
	233*		26	17	41	38.8	39.089	177.34E	33 R	4.9	0.9	20	10
	234*		27	06	46	36.8	43.779	169.58E	12 R	4.1	0.6	15	7
	235*		27	08	06	30.6	43.689	169.56E	12 R	3.2	1.5	10	5
	236		27	08	21	26.2	34.479	179.06W	33 R	5.0	1.1	17	10
	237*		27	12	33	59.8	39.109	173.69E	12 R	4.0	1.8	16	7
	238*		28	04	07	42.7	42.643	171.87E	12 R	4.7	1.1	19	7
	239*		29	12	00	26.4	41.389	175.11E	33 R	3.7	1.3	17	10
	240*		29	15	20	14.7	38.979	175.80E	135	5.7	0.8	18	15
	241*	MAY	01	23	09	41.9	39.443	177.32E	12 R	4.5	1.4	20	11
	242		02	14	02	32.0	37.059	177.14E	279	4.2	0.7	13	10
	243*		02	14	34	06.9	38.689	176.10E	12 R	3.0	1.6	9	7
	244*		02	14	36	56.2	38.689	176.10E	12 R	2.9	R	0	3
	245*		02	19	09	29.2	40.029	176.81E	119	4.4	1.1	15	11
	246		03	02	17	41.0	37.903	178.67E	106	3.6	2.6	6	5
	247*		03	09	03	34.0	39.519	177.80E	12 R	3.5	0.8	10	6
	248		03	09	32	46.5	35.319	179.03W	222	4.4	1.4	12	7
	249		04	02	47	39.7	34.959	177.64E	350	4.8	1.8	10	9
	250		04	16	54	27.0	39.029	175.61E	129	4.1	1.4	19	12

REF NUM		ORIGIN TIME		LAT	LONG	DEPTH	MAG	S E	NUM	NUM
		H M S		DEG	DEG	KM		SEC	OBS	STN
75/ 251	MAY	05 11 22	53.4	39.65S	176.05E	33 R	3.6	2.0	9	8
252		05 17 14	03.4	39.05S	175.32E	12 R	3.6	1.4	12	8
253		05 23 44	29.0	37.41S	176.42E	231	4.2	0.9	13	9
254		06 02 11	56.2	41.27S	174.81E	33 R	3.9	1.8	8	5
255		06 03 28	17.6	37.29S	176.69E	175	4.3	0.7	9	7
256		07 11 21	04.5	38.27S	176.33E	165	3.7	1.4	13	10
257		08 14 30	38.3	39.05S	174.92E	211	4.3	1.9	22	13
258		09 05 59	40.8	39.11S	175.12E	12 R	3.8	1.7	16	10
259		09 13 07	37.3	41.34S	174.60E	74	3.8	1.2	13	11
260		09 18 35	08.3	33.19S	178.78W	33 R	6.6	2.5	23	17
261		09 21 31	20.3	33.35S	178.68W	274	5.1	0.8	9	7
262		10 05 44	51.1	38.85S	176.61E	81	3.9	1.8	9	7
263		11 03 38	10.0	39.50S	173.48E	37	4.0	0.9	12	6
264		11 12 40	30.1	39.15S	174.92E	33 R	3.7	1.0	14	7
265*		11 17 37	38.2	41.39S	173.64E	33 R	4.1	1.1	19	13
266		12 07 59	38.8	32.03S	177.80W	271	5.9	1.8	19	14
267		12 08 07	52.2	39.45S	173.43E	33 R	3.8	1.5	12	7
268		12 13 33	48.7	41.67S	171.99E	12 R	3.7	1.2	16	10
269		12 19 33	34.5	38.53S	176.11E	146	4.0	1.8	16	11
270		13 06 23	14.7	44.65S	170.04E	12 R	3.7	1.0	17	6
271		13 10 47	44.5	39.13S	176.28E	88	4.1	1.8	23	14
272		13 14 16	54.7	44.49S	168.02E	33 R	3.8	1.5	10	6
273		14 08 26	07.3	39.57S	174.88E	151	4.7	1.8	29	17
274		14 11 17	00.3	37.93S	176.27E	235	4.1	1.4	16	11
275		14 13 38	10.5	44.63S	167.48E	12 R	4.1	0.3	11	6
276		14 13 42	47.6	39.10S	175.24E	33 R	3.6	1.5	12	9
277		15 04 42	47.3	37.61S	176.62E	195	5.2	1.2	23	16
278		15 13 09	18.8	36.98S	177.36E	12 R	3.5	1.5	8	7
279		15 18 27	37.1	37.30S	177.20E	159	3.9	1.8	12	9
280		15 23 55	51.1	45.35S	167.22E	73	4.1	1.1	10	5
281		17 09 11	35.0	45.45S	167.48E	129	3.9	1.2	11	6
282		17 12 41	57.2	45.81S	167.49E	164	4.2	1.5	11	6
283		17 12 52	18.9	38.79S	177.97E	33 R	4.1	1.2	16	8
284*		17 13 12	12.6	41.54S	174.26E	33 R	4.2	1.7	24	15
285		17 13 25	51.7	41.03S	173.56E	97	3.8	2.0	17	10
286		18 03 00	34.7	45.32S	167.53E	119	4.3	1.8	12	6
287		18 19 28	34.2	32.96S	178.79W	225	5.2	1.6	14	12
288*		18 22 59	36.7	40.93S	172.43E	12 R	4.2	1.5	16	10
289*		18 23 04	44.6	41.03S	172.48E	12 R	4.9	1.5	25	14
290*		19 00 28	49.5	40.96S	172.35E	12 R	3.7	1.8	15	9
291		19 19 18	08.8	39.43S	174.43E	214	4.2	1.6	18	11
292		20 02 46	15.0	38.43S	174.67E	12 R	3.6	0.8	14	7
293		21 08 04	56.5	33.65S	178.72W	262	4.5	0.7	12	9
294*		24 18 48	29.5	38.49S	176.03E	156	5.2	1.4	23	17
295		25 00 39	09.1	49.86S	164.75E	33 R	4.4	1.4	8	5
296		25 08 23	12.2	36.66S	177.29E	258	4.1	1.2	12	8
297*		26 18 17	58.7	41.51S	173.47E	12 R	4.0	1.9	12	8
298		29 03 04	44.6	35.27S	179.61E	202	4.4	1.5	12	7
299		29 07 11	09.2	38.41S	175.84E	191	3.8	1.3	12	7
300		29 22 41	19.0	40.70S	174.32E	12 R	3.6	1.0	13	7

REF NUM		ORIGIN TIME		LAT	LONG	DEPTH	MAG	S E	NJM	NJM
		H M S		DEG	DEG	KM		SEC	OBS	STN
75/ 301	MAY	30 10 51	50.1	38.743	175.43E	211	3.7	0.7	10	6
302		30 15 12	51.4	37.113	176.79E	191	3.7	0.6	7	4
303*		30 16 14	58.9	38.713	176.05E	12 R	3.1	1.1	8	7
304		30 19 34	57.6	38.803	178.68E	33 R	3.8	1.2	9	5
305	JUN	01 06 23	34.6	33.993	179.69W	33 R	4.5	1.1	8	5
306		01 11 45	55.4	37.413	177.52E	106	4.2	0.8	10	6
307		01 16 12	31.6	42.223	172.75E	12 R	4.2	1.8	23	9
308*		01 16 35	36.5	39.273	174.78E	12 R	3.9	1.9	22	10
309		01 19 51	58.9	39.103	174.87E	214	4.5	1.2	16	10
310*		03 09 35	06.2	40.243	176.63E	33 R	4.1	1.8	23	11
311		03 11 55	59.0	41.783	171.81E	12 R	3.4	0.9	11	4
312		03 13 33	19.9	33.943	179.90W	33 R	4.8	0.8	9	5
313		03 20 50	16.0	39.813	177.19E	12 R	4.2	1.6	15	7
314		04 08 27	50.7	38.163	176.29E	153	4.3	0.6	16	10
315		04 18 02	35.0	43.203	176.27E	33 R	4.6	1.5	21	13
316*		05 04 45	30.3	44.553	168.62E	12 R	4.9	0.8	12	6
317		05 05 10	03.5	44.533	168.62E	12 R	3.9	1.4	13	6
318		05 07 43	46.7	35.953	177.78E	284	4.3	1.0	11	7
319		07 08 20	40.9	32.733	178.32W	33 R	4.9	1.9	12	7
320		07 13 10	06.9	34.793	178.65W	33 R	4.6	2.0	13	6
321		07 18 50	27.0	35.113	179.12E	193	4.5	1.3	9	6
322		08 23 50	34.2	40.163	173.85E	12 R	4.1	2.1	16	8
323*		09 11 07	31.2	40.113	176.86E	12 R	4.4	1.4	31	14
324*		10 10 11	20.5	40.323	176.09E	33 R	5.9	1.3	12	10
325*		11 23 10	06.7	41.893	174.17E	12 R	3.9	1.1	13	6
326		12 00 11	55.7	34.923	179.59W	12 R	4.8	2.0	14	7
327*		16 06 44	06.9	33.933	175.78E	12 R	4.4	1.8	17	12
328		16 11 38	19.2	38.863	175.39E	147	4.1	1.6	18	11
329		16 14 40	11.0	39.213	175.23E	12 R	3.9	1.1	15	7
330		16 17 40	20.9	33.623	179.66E	244	4.2	1.7	10	7
331		17 00 21	45.1	33.103	176.60E	154	4.2	1.2	17	12
332		18 03 28	05.2	45.123	167.52E	89	4.3	0.8	10	5
333		18 03 53	46.9	41.693	171.26E	12 R	4.0	1.4	14	7
334*		18 13 13	50.0	39.153	176.49E	103	5.0	1.2	17	11
335		19 09 42	12.2	38.863	175.82E	12 R	3.7	1.6	14	10
336		19 14 51	59.9	37.983	174.39E	12 R	4.0	1.5	13	7
337		20 07 07	25.0	40.243	175.94E	76	3.9	1.9	10	9
338		20 12 24	08.8	37.593	177.58E	12 R	3.6	2.3	9	6
339*		20 19 46	07.5	38.633	176.11E	12 R	2.6		3	2
340		21 00 13	10.8	37.793	176.49E	172	3.9	1.0	8	6
341		21 03 07	13.3	40.213	174.43E	33 R	4.1	1.6	17	11
342		21 10 18	27.3	35.203	178.65E	328	4.5	1.4	11	9
343		21 18 08	06.7	38.923	177.96E	50	4.1	1.8	9	7
344*		21 22 54	33.6	40.953	173.17E	157	4.9	1.6	24	17
345		22 19 11	22.5	39.143	177.29E	33 R	4.1	1.8	11	10
346		22 19 42	09.7	39.153	177.24E	33 R	4.3	1.8	13	11
347		23 04 51	05.0	37.303	177.48E	141	4.5	1.5	12	8
348		24 01 11	18.6	44.973	167.76E	111	4.2	1.4	10	6
349		24 05 25	28.8	37.273	177.58E	154	4.3	1.7	17	10
350		26 05 44	07.9	37.893	176.53E	203	4.2	1.2	15	10

REF	NUM		ORIGIN TIME				LAT	LONG	DEPTH	MAG	S E	NJM	NUM	
			H	M	S	DEG	DEG	KM		SEC	Obs	STN		
75/	351	JUN	26	16	29	20.5	42.31S	172.88E	12	R	3.8	0.8	12	6
	352		26	17	12	57.7	42.30S	172.82E	12	R	3.6	1.3	15	8
	353		27	07	13	56.1	39.21S	174.71E	232		4.0	1.2	17	10
	354		27	09	41	19.1	37.83S	177.11E	132		3.7	0.9	11	7
	355		27	15	52	04.7	40.08S	174.31E	111		4.4	1.2	16	10
	356		27	17	31	27.1	37.50S	176.67E	213		4.0	1.7	16	10
	357		28	00	17	06.4	49.03S	164.77E	33	R	4.4	1.8	9	6
	358		29	08	57	45.6	39.10S	178.09E	12	R	3.6	1.4	15	7
	359		29	13	13	03.7	39.10S	177.98E	12	R	3.8	1.3	10	6
	360		30	10	54	34.0	38.85S	175.71E	144		4.1	1.6	19	10
	361	JUL	02	03	01	35.9	37.85S	177.51E	72		3.9	1.4	9	7
	362		02	03	33	07.8	37.87S	176.02E	264		4.2	0.9	12	8
	363		02	13	45	50.4	33.51S	178.95W	272		4.8	1.7	16	10
	364		03	16	17	58.8	44.84S	167.56E	99		4.5	1.3	13	8
	365*		03	16	34	42.1	38.48S	175.95E	178		5.4	1.5	22	16
	366*		03	18	25	27.0	41.80S	174.27E	12	R	4.5	1.4	30	18
	367		05	09	30	33.4	31.76S	179.85E	552		6.0	1.6	20	13
	368		06	04	47	27.6	36.75S	177.50E	274		4.5	1.2	15	8
	369		06	22	45	34.1	32.17S	178.83E	354		4.6	2.4	6	4
	370*		07	02	31	22.9	38.65S	176.65E	12	R	3.0	0.4	5	3
	371		07	05	04	08.3	34.77S	179.12E	307		4.1	1.7	6	4
	372		07	12	27	51.2	37.74S	176.65E	254		4.3	1.0	14	9
	373		07	20	42	04.4	38.04S	176.67E	160		4.3	1.6	15	9
	374		08	12	42	23.2	36.57S	177.80E	296		4.2	1.4	9	7
	375		11	00	33	15.7	34.81S	179.95E	12	R	4.9	1.9	10	5
	376*		12	02	42	46.1	41.55S	173.15E	33	R	5.0	1.1	18	9
	377		12	03	13	39.8	42.29S	172.87E	12	R	3.8	1.0	18	6
	378		12	10	55	56.7	33.51S	178.78W	33	R	4.6	2.5	16	10
	379*		14	04	55	30.8	40.58S	172.60E	12	R	3.9	1.5	15	9
	380*		15	07	35	21.7	38.63S	176.14E	12	R	4.2	2.3	20	9
	381		16	11	31	55.8	45.61S	167.22E	80		4.0	0.5	8	4
	382*		19	23	06	12.9	37.80S	177.48E	33	R	4.0	2.2	17	10
	383*		20	02	52	50.0	40.35S	174.45E	12	R	4.0	1.4	18	11
	384		20	03	39	59.4	37.79S	176.26E	195		4.8	0.5	11	9
	385*		20	16	53	38.3	40.26S	176.85E	12	R	4.2	1.2	16	8
	386		20	20	01	07.6	38.66S	176.01E	136		4.8	1.3	14	9
	387		21	02	51	55.5	36.89S	177.54E	178		5.0	0.8	11	7
	388*		21	06	12	22.4	41.03S	172.74E	12	R	4.3	1.1	22	10
	389		22	01	13	20.8	35.90S	178.49E	246		4.2	2.1	15	10
	390		22	22	27	19.2	33.45S	177.33E	33	R	3.7	2.5	10	6
	391*		22	23	18	14.8	39.58S	173.58E	12	R	4.2	0.6	19	6
	392		23	10	25	09.8	33.15S	178.18W	12	R	5.4	1.8	9	5
	393		23	11	59	33.7	37.98S	179.73W	33	R	4.5	1.8	23	13
	394		23	12	49	49.5	38.48S	175.80E	183		3.8	0.7	9	6
	395		25	16	54	49.5	36.54S	177.63E	248		3.9	1.3	8	5
	396		26	06	08	22.2	32.06S	177.88W	33	R	5.6	2.5	11	10
	397		26	08	35	26.8	46.44S	166.59E	33	R	4.3	1.3	7	4
	398		26	11	36	57.7	44.96S	174.83W	33	R	4.6	1.7	9	6
	399*		26	21	05	16.6	40.84S	173.80E	12	R	3.2	1.0	5	3
	400		27	00	54	25.4	39.18S	175.10E	43		3.6	1.5	10	6

REF NUM		ORIGIN TIME	LAT	LONG	DEPTH	MAG	S E	NUM	NUM
		H M S	DEG	DEG	KM		SEC	OBS	STN
75/ 401	JUL	27 06 01 18.0	45.01S	167.29E	33 R	4.2	2.2	9	5
402		28 00 20 29.5	35.06S	179.47W	282	4.5	2.5	10	9
403		29 03 48 45.9	37.93S	176.26E	209	4.2	1.1	15	9
404		29 09 12 51.2	38.63S	175.94E	125	4.7	1.5	20	14
405		30 16 11 41.1	39.05S	176.11E	204	4.3	1.9	18	11
406		30 20 28 40.7	33.19S	179.32W	439	5.2	2.4	13	8
407		31 04 09 20.7	39.79S	177.08E	12 R	3.8	1.0	7	8
408		31 13 48 38.7	36.45S	178.13E	130	4.1	1.9	10	7
409		31 17 40 35.5	39.85S	174.10E	117	4.2	1.6	14	8
410	AUG	04 04 23 49.5	39.43S	173.94E	12 R	3.1	1.4	9	6
411		04 21 57 51.2	37.28S	176.78E	336	4.8	0.8	15	9
412*		04 22 00 47.2	39.16S	173.78E	12 R	4.2	1.0	13	6
413		05 03 37 15.2	31.57S	178.31E	33 R	5.6	1.7	7	5
414		05 06 47 24.9	41.85S	174.19E	33 R	3.9	1.9	12	7
415		06 20 27 56.5	38.82S	176.03E	12 R	3.6	2.0	8	6
416		07 04 32 05.7	36.70S	179.84W	183	4.5	1.2	11	9
417		07 23 27 47.9	37.90S	176.40E	198	4.0	1.2	13	9
418		07 06 23.5	44.73S	167.68E	12 R	3.8	2.3	7	4
419		08 13 28 42.6	44.85S	167.50E	12 R	4.7	1.5	14	6
420		09 00 45 38.5	39.47S	173.57E	12 R	4.3	1.4	13	6
421		09 11 34 23.5	41.70S	174.13E	12 R	4.3	1.4	20	12
422*		09 16 48 13.6	38.03S	176.68E	12 R	4.6	1.6	25	16
423*		09 17 03 20.5	37.88S	176.76E	12 R	3.2	2.0	11	7
424		09 23 12 59.8	46.11S	165.44E	33 R	3.9	2.7	6	3
425		11 13 39 44.5	35.79S	179.86E	293	4.3	1.3	11	7
426		11 14 45 30.3	38.03S	176.71E	12 R	3.6	1.3	12	7
427		11 19 06 35.5	38.07S	176.28E	182	4.4	1.7	19	10
428		12 21 56 10.6	34.97S	179.94W	33 R	4.4	2.5	15	11
429		13 12 25 40.8	38.65S	175.79E	164	4.1	1.1	14	8
430*		13 18 25 10.1	41.58S	171.81E	12 R	4.2	1.2	31	13
431*		13 18 26 52.9	41.62S	171.80E	12 R	3.3	0.9	6	5
432		14 06 59 12.8	37.84S	177.19E	104	4.1	1.5	11	7
433		14 12 02 30.4	42.37S	174.18E	12 R	3.9	1.5	23	10
434*		14 17 08 30.9	39.30S	176.23E	95	5.0	1.1	17	14
435		15 02 48 42.5	39.10S	174.78E	228	4.7	1.3	24	13
436		15 14 31 14.1	40.16S	174.36E	12 R	3.7	0.9	14	8
437		15 16 53 56.1	38.93S	177.22E	12 R	4.0	2.2	19	11
438		15 17 31 23.9	40.63S	174.53E	12 R	3.8	1.1	14	9
439		16 01 49 20.9	39.77S	175.16E	33 R	3.5	1.1	13	7
440		16 01 50 46.2	37.34S	176.91E	215	3.9	0.7	11	6
441		16 09 13 22.2	40.84S	175.84E	12 R	3.7	1.8	21	10
442		16 18 00 34.5	35.32S	179.05E	290	4.4	1.4	16	9
443		16 21 25 31.2	33.46S	177.99W	236	5.3	1.9	16	12
444*		16 23 56 17.3	35.99S	174.37E	12 R	2.8	1.0	6	3
445		17 06 12 47.3	33.05S	177.94W	231	5.4	2.5	20	14
446		17 11 20 19.0	37.51S	176.54E	198	4.0	1.5	17	11
447		17 12 41 18.0	33.40S	177.54W	320	4.7	2.5	16	11
448		17 22 24 45.3	35.00S	179.90E	128	4.2	2.8	11	7
449*		18 01 25 26.7	36.28S	175.96E	198	4.9	1.1	21	11
450		18 05 41 33.8	50.16S	164.17E	33 R	4.9	1.3	10	6

REF	NUM		ORIGIN TIME				LAT	LONG	DEPTH	MAG	S E	NUM	NUM
			H	M	S	DEG	DEG	KM		SEC	OBS	STN	
75/	451*	AUG	18	14	31	40.3	38.66S	175.85E	147	5.8	0.6	17	15
	452*		19	09	56	48.0	41.01S	172.85E	12 R	3.3	1.4	6	3
	453		19	10	26	31.3	33.27S	178.01W	156		3.1	10	7
	454		19	10	29	15.1	33.27S	178.37W	200	5.4	1.9	15	12
	455		19	10	42	29.7	33.10S	178.23W	94		1.7	8	7
	456		19	10	54	44.2	33.39S	177.17W	218	5.3	1.9	12	12
	457		20	00	32	32.6	39.21S	176.18E	92	3.8	1.2	18	10
	458		20	05	41	14.8	33.48S	177.45W	239	4.9	2.5	10	9
	459		20	08	34	47.4	38.70S	175.81E	145	4.1	1.1	16	10
	460		20	12	51	49.5	33.05S	178.59W	281	4.8	1.5	9	7
	461		20	15	38	11.6	41.17S	172.58E	12 R	3.9	1.6	13	8
	462		21	01	46	14.2	39.85S	175.03E	89	3.8	0.7	12	6
	463		21	05	54	53.9	34.12S	177.09W	299	4.5	2.0	13	10
	464		22	03	10	41.1	38.87S	175.07E	231	4.4	1.3	20	11
	465		22	04	12	05.6	32.84S	177.71W	12 R	5.1	2.1	9	6
	466		22	05	12	59.8	36.77S	177.32E	295	4.0	1.8	9	5
	467		22	09	25	44.5	37.68S	177.17E	148	3.9	1.4	9	5
	468		22	09	59	55.8	33.35S	178.58W	33 R	4.4	2.0	7	5
	469*		22	11	08	11.3	38.14S	176.60E	12 R	3.8	1.8	15	9
	470*		22	11	08	52.5	38.12S	176.64E	12 R	3.6	1.8	11	7
	471		22	18	01	43.3	38.37S	176.04E	161	3.6	0.4	9	5
	472		22	20	01	50.7	42.11S	172.77E	12 R	3.9	1.7	23	9
	473*		22	23	48	47.2	39.54S	175.64E	12 R	4.0	2.4	19	8
	474*		23	00	01	03.3	39.51S	175.66E	12 R	4.3	2.1	20	8
	475		24	19	09	41.0	39.18S	175.06E	156	3.7	0.9	8	5
	476		24	19	11	03.2	40.30S	176.51E	12 R	3.9	1.7	27	11
	477		25	02	54	41.1	33.59S	179.14W	33 R	4.7	0.9	8	5
	478*		25	08	52	48.4	41.25S	174.25E	12 R	3.6	1.5	15	7
	479		25	14	39	28.3	38.31S	175.97E	168	4.1	0.6	14	8
	480		25	21	21	18.2	35.87S	178.20E	33 R	4.6	1.9	13	5
	481*		26	00	20	34.3	38.82S	178.46E	12 R	5.2	0.5	11	6
	482		26	03	29	21.8	44.32S	167.10E	12 R	4.3	0.8	15	7
	483		26	07	38	54.3	38.91S	178.61E	12 R	4.0	1.8	11	5
	484		26	12	04	26.3	36.25S	177.52E	266	4.1	0.8	11	7
	485		26	17	06	21.7	37.32S	177.56E	85	3.7	1.8	11	6
	486		27	02	23	18.3	45.54S	167.19E	79	4.4	0.5	7	4
	487		27	17	47	39.5	41.74S	174.23E	12 R	3.7	2.1	24	9
	488		28	05	22	34.3	38.23S	175.99E	195	4.1	0.6	10	5
	489		28	06	19	21.9	38.31S	175.83E	195	3.9	1.3	10	6
	490		28	14	40	26.7	45.95S	166.17E	12 R	4.1	0.9	14	6
	491		29	18	37	26.3	41.81S	174.27E	12 R	4.6	1.2	16	7
	492		29	22	44	45.3	37.38S	176.61E	211	5.3	1.1	9	6
	493		30	06	04	52.9	32.55S	178.34W	33 R	4.9	1.0	10	6
	494		30	23	21	20.9	42.66S	171.69E	12 R	4.7	1.5	19	8
	495*		31	14	51	40.3	37.95S	176.63E	12 R	3.1	0.7	6	3
	496	SEP	01	15	19	59.5	38.58S	179.13E	12 R	3.9	1.8	18	8
	497		01	15	40	14.5	33.24S	179.95E	33 R	4.4	2.7	9	5
	498		02	01	06	55.8	38.55S	179.24E	12 R	4.0	0.9	8	4
	499		02	01	26	11.2	38.61S	179.44E	12 R	3.7	1.0	5	3
	500		02	12	51	48.1	36.67S	178.35E	33 R	3.8	2.0	12	6

REF	NUM		ORIGIN TIME				LAT	LONG	DEPTH	MAG	S E	NJM	NUM
			H	M	S	DEG	DEG	KM		SEC	OBS	STN	
75/	501*	SEP 02	17	27	38.9	38.85S	175.98E	12 R	2.9	2.0	5	4	
	502	05 06 47	37.0			35.95S	179.67W	33 R	4.9	1.5	14	12	
	503	06 00 34	11.9			38.44S	175.77E	171	4.1	1.6	16	11	
	504	06 02 09	37.2			38.25S	175.88E	192	5.0	0.9	21	11	
	505	07 06 38	32.1			38.28S	178.43E	71	3.8	1.9	12	7	
	506	07 13 46	42.3			38.30S	178.53E	33 R	3.7	1.9	12	10	
	507	07 15 40	59.5			35.41S	179.72W	33 R	4.2	2.2	14	10	
	508	08 04 42	36.8			39.16S	175.38E	135	3.9	0.7	13	8	
	509	08 13 21	02.2			35.85S	179.45W	33 R	4.0	2.6	10	8	
	510	08 13 40	32.3			35.58S	179.21W	33 R	3.9	1.8	9	7	
	511	08 13 45	42.7			35.72S	179.13W	33 R	4.1	1.9	10	8	
	512	09 01 25	38.5			42.20S	174.30E	33 R	4.0	0.9	11	9	
	513	09 17 51	34.2			31.92S	178.12W	33 R	4.0	3.2	7	6	
	514	10 11 51	53.5			45.34S	166.89E	33 R	4.0	1.3	9	8	
	515	10 15 48	56.5			49.61S	164.69E	33 R	5.5	2.8	20	13	
	516*	11 00 46	04.2			38.77S	176.12E	12 R	3.1	1.7	5	5	
	517*	11 00 46	56.4			38.77S	176.12E	12 R		R	0	1	
	518	11 17 23	14.9			37.49S	177.37E	130	3.9	1.4	14	10	
	519	11 22 42	18.9			38.29S	176.17E	178	4.6	1.4	23	13	
	520	12 02 37	41.2			33.30S	178.35W	323	5.1	1.7	11	9	
	521	12 03 45	32.6			32.77S	179.93W	405	5.2	2.0	9	7	
	522	12 05 23	16.8			39.12S	173.82E	12 R	4.0	1.5	17	10	
	523	12 11 31	13.6			39.93S	176.94E	33 R	4.0	1.5	13	9	
	524	13 03 41	06.5			41.89S	175.14E	12 R	4.0	1.1	15	10	
	525	13 06 34	54.0			33.23S	178.21W	229	5.7	2.1	22	17	
	526	13 07 15	06.0			33.18S	177.64W	236	5.4	0.8	9	7	
	527	13 11 09	01.8			31.76S	178.92E	345	5.3	1.3	8	5	
	528	14 01 42	57.3			33.10S	179.69E	315	4.7	1.5	14	10	
	529	15 06 24	25.8			40.45S	176.49E	33 R	3.7	1.9	10	7	
	530	16 00 00	31.5			48.41S	164.26E	33 R	5.9	1.8	19	18	
	531	16 15 56	11.0			47.54S	165.09E	33 R	4.2	0.8	6	5	
	532	16 16 21	55.3			48.44S	163.48E	33 R	5.2	1.6	13	12	
	533	17 06 47	39.4			47.98S	165.44E	33 R	4.0	2.3	7	6	
	534	18 01 17	46.4			39.01S	175.04E	217	5.2	1.4	20	14	
	535	18 16 05	39.5			47.58S	165.68E	33 R	4.4	0.8	7	6	
	536	18 16 06	07.0			47.58S	165.68E	33 R	4.6	R	0	5	
	537	18 16 29	04.1			47.63S	165.72E	33 R	4.2	2.5	10	7	
	538	18 16 54	23.2			47.72S	166.44E	33 R	4.4	1.1	11	6	
	539	18 17 13	45.1			47.51S	165.82E	33 R	3.9	0.6	6	4	
	540	19 03 16	40.1			47.66S	165.48E	12 R	4.4	1.8	11	8	
	541	19 04 49	01.2			43.20S	165.47E	33 R	4.1	3.2	4	3	
	542	19 12 24	04.5			38.10S	175.92E	202	3.8	1.2	11	9	
	543*	19 12 54	39.3			39.28S	174.97E	12 R	4.2	1.0	23	12	
	544	19 15 15	06.3			48.10S	164.76E	12 R	4.3	2.2	13	8	
	545	20 08 07	37.8			35.39S	179.37W	33 R	4.1	1.3	10	6	
	546	20 08 27	15.1			47.57S	165.30E	12 R	4.4	1.4	12	9	
	547	20 10 43	18.1			47.11S	165.12E	12 R	4.0	1.6	11	7	
	548	20 11 13	06.9			47.32S	165.30E	12 R	4.2	0.6	11	8	
	549	20 23 09	21.3			49.00S	173.82E	12 R	4.1	1.3	11	9	
	550	22 14 29	28.1			39.92S	177.19E	33 R	3.7	1.0	18	9	

REF NUM	ORIGIN TIME H M S	LAT DEG	LONG DEG	DEPTH KM	MAG	S E SEC	NJM OBS	NUM STN
75/ 551	SEP 23 02 59 39.1	39.82S	174.55E	149	3.9	1.4	11	6
552	23 08 44 25.6	47.39S	165.43E	12 R	4.7	0.9	13	8
553	24 04 27 14.2	37.15S	177.34E	163	4.0	1.3	10	8
554	24 11 50 29.7	47.65S	165.32E	12 R	4.4	1.2	13	7
555*	24 17 36 32.5	42.47S	172.20E	12 R	4.8	1.4	35	21
556	25 09 19 08.9	47.14S	165.24E	12 R	3.7	1.9	6	4
557	26 04 14 37.7	35.33S	178.86W	223	4.4	0.9	15	9
558	28 14 49 36.8	38.87S	178.36E	12 R	4.0	1.5	19	12
559	28 16 57 36.6	33.44S	177.47E	12 R	3.6	1.6	14	7
560	29 00 35 59.2	45.04S	167.73E	98	4.0	1.5	12	7
561	29 21 17 27.9	39.03S	178.52E	12 R	3.7	0.9	7	5
562	30 02 57 56.6	37.94S	177.18E	177	4.0	1.1	14	8
563*	30 08 06 10.8	46.55S	168.76E	12 R	3.0	1.4	11	6
564	OCT 01 00 32 23.8	45.21S	167.70E	101	4.1	1.6	13	9
565	01 09 38 55.8	40.26S	174.07E	12 R	4.0	1.4	19	11
566*	01 13 41 44.6	40.46S	176.28E	12 R	3.8	1.3	14	8
567	02 01 50 28.9	32.33S	179.91E	238	5.1	2.8	9	8
568	02 04 12 54.5	39.53S	174.35E	236	3.9	0.9	12	7
569	02 09 29 43.1	39.68S	175.37E	33 R	4.1	1.8	20	12
570*	02 11 27 30.1	41.04S	174.91E	33 R	4.3	1.4	21	13
571	02 12 13 37.3	37.36S	176.82E	206	5.2	1.2	19	13
572	02 20 29 33.4	34.37S	177.84W	302	4.7	1.4	11	8
573	02 21 24 17.4	34.32S	178.07W	335	4.8	2.2	11	8
574	03 02 49 23.0	38.42S	178.00E	12 R	3.8	2.2	15	7
575	03 13 34 41.5	47.87S	165.04E	12 R	5.2	2.9	14	6
576	03 15 04 56.5	33.82S	178.44W	33 R	4.4	1.1	7	4
577	03 16 43 44.3	43.11S	165.91E	12 R	4.2	1.2	11	5
578	04 01 42 00.4	40.34S	173.56E	204	3.9	0.7	12	6
579	04 03 34 43.8	35.19S	179.18E	12 R	4.5	1.0	12	7
580*	05 15 16 02.7	40.22S	174.90E	73	3.9	0.6	10	5
581	06 04 40 29.6	33.48S	179.00W	33 R	4.7	2.1	10	6
582	06 17 50 05.6	37.95S	179.10E	12 R	4.6	1.9	16	7
583	07 00 36 43.4	34.82S	178.57W	33 R	4.8	2.0	12	7
584	07 03 19 09.7	34.69S	178.85W	33 R	4.5	0.7	10	5
585	07 03 27 34.8	41.72S	174.29E	12 R	3.8	1.3	15	6
586	07 03 51 48.0	38.12S	179.27E	12 R	4.3	0.7	10	5
587	07 05 44 34.4	36.67S	179.77E	33 R	4.6	0.9	12	8
588	07 10 53 40.0	34.05S	179.89W	33 R	4.5	1.4	13	7
589	08 17 15 06.6	44.53S	169.95E	12 R	3.7	0.9	8	4
590	08 20 32 15.5	47.79S	165.46E	12 R	4.5	1.4	15	6
591	09 06 19 45.0	41.57S	175.63E	12 R	4.2	1.1	15	7
592	10 05 22 12.1	37.91S	176.37E	170	4.8	1.3	9	6
593	10 06 39 23.3	39.59S	173.53E	12 R	3.8	1.1	15	5
594	11 00 01 16.5	37.91S	178.90E	12 R	4.7	1.6	16	8
595*	11 01 17 25.0	40.11S	174.92E	12 R	4.0	2.1	14	7
596	11 09 22 09.5	41.69S	174.33E	12 R	4.0	1.1	16	7
597	11 09 24 00.4	41.69S	174.34E	12 R	3.8	1.2	14	7
598	12 03 39 34.5	41.07S	173.97E	12 R	4.0	1.2	16	7
599*	14 02 02	NEAR TAUPŌ (41)		3				
600	14 21 44 59.5	33.05S	179.36E	12 R	4.1	0.6	7	4

REF NUM		ORIGIN TIME H M S	LAT DEG	LONG DEG	DEPTH KM	MAG	S E SEC	NUM OBS	NUM STN
75/ 601	OCT	15 00 24 48.6	33.04S	176.36E	164	4.1	1.2	11	7
602		15 03 26 00.8	47.67S	165.89E	12 R	4.0	1.4	11	4
603*		15 14 41 39.7	38.78S	175.18E	230	4.8	0.6	9	6
604*		15 15 36 38.3	39.27S	173.93E	12 R	3.6	1.6	11	6
605		16 08 59 13.3	41.76S	171.79E	12 R	3.8	1.3	15	6
606		16 16 33 55.0	39.46S	174.19E	227	4.1	1.0	11	7
607		16 18 07 56.5	36.33S	179.64W	12 R	4.0	0.5	8	4
608		16 18 28 57.2	36.17S	179.90E	12 R	4.5	1.2	12	6
609		16 19 15 55.1	36.26S	179.78E	12 R	4.5	1.0	11	5
610		17 05 04 54.4	35.44S	179.64W	238	4.5	1.3	13	10
611		18 02 02 06.3	39.22S	175.13E	12 R	3.8	1.6	15	8
612		18 06 49 07.4	37.26S	176.54E	210	4.0	1.1	13	8
613		19 18 58 16.1	35.65S	178.79E	280	4.5	0.8	14	9
614		21 08 36 31.4	33.41S	178.56W	33 R	5.2	2.6	17	12
615		21 17 14 48.6	36.26S	177.72E	291	3.8	1.4	7	5
616		22 15 44 27.9	38.58S	179.12E	33 R	4.2	1.1	10	8
617		23 13 58 59.7	36.77S	177.11E	12 R	3.5	0.8	8	7
618		24 01 40 57.8	40.32S	173.54E	151	3.8	1.1	13	8
619		24 18 10 25.1	38.38S	177.86E	79	4.0	1.2	14	10
620		26 06 58 35.8	45.14S	167.63E	151	4.7	1.6	19	11
621		26 10 07 14.6	40.66S	176.39E	33 R	3.8	1.6	15	8
622		26 19 48 42.8	40.90S	175.72E	33 R	3.8	1.5	19	11
623		26 21 29 20.7	41.63S	174.33E	12 R	3.8	1.8	12	8
624		27 10 55 21.4	37.18S	177.28E	175	3.7	1.1	10	8
625		28 03 28 18.0	45.04S	167.63E	122	4.3	1.1	13	10
626		28 14 50 33.1	37.53S	177.79E	12 R	3.4	1.2	5	5
627		29 14 28 44.3	37.90S	178.73E	103	4.0	1.9	13	9
628*		29 18 50 21.0	44.86S	169.19E	12 R	2.8	1.6	5	3
629		30 05 41 07.5	37.97S	175.96E	199	4.9	1.6	26	17
630		30 10 33 22.9	38.19S	176.25E	168	4.1	1.4	19	11
631		30 11 34 57.7	38.34S	178.53E	83	4.0	1.7	15	11
632		30 14 10 51.5	38.61S	175.79E	171	4.4	1.4	20	14
633*		31 16 30 07.4	41.01S	172.33E	12 R	4.4	1.9	32	20
634		31 17 17 14.7	38.00S	176.39E	187	3.9	1.5	15	10
635	NOV	01 19 53 38.6	37.90S	177.90E	127	4.8	1.9	18	11
636		02 06 35 43.9	37.75S	178.89E	33 R	4.1	1.4	17	10
637		02 13 57 54.1	37.45S	177.18E	170	4.7	1.5	24	17
638		02 17 41 25.4	38.35S	176.09E	158	4.0	1.1	18	10
639		03 07 41 18.0	39.90S	172.95E	12 R	3.8	1.3	11	5
640		04 04 00 13.1	49.03S	165.30E	33 R	4.1	1.5	7	5
641		05 03 04 46.4	45.17S	167.05E	12 R	4.9	1.2	15	9
642		06 10 46 52.5	37.94S	177.94E	12 R	4.2	1.4	18	10
643		07 12 59 04.3	36.56S	179.16E	33 R	3.9	1.3	10	8
644		08 00 24 46.7	40.21S	172.46E	12 R	3.7	1.1	21	12
645		08 16 10 30.9	39.27S	179.87E	228	4.1	1.1	15	11
646		09 04 18 15.1	37.61S	177.40E	58	3.6	1.2	12	8
647		09 08 12 45.8	40.60S	174.10E	132	4.3	1.6	23	15
648*		10 05 42 04.8	39.27S	178.26E	12 R	4.3	1.3	21	11
649		10 05 46 16.1	39.21S	178.12E	12 R	4.2	1.4	17	12
650		10 07 47 08.9	44.65S	168.27E	72	3.7	0.8	14	8

REF	NUM		ORIGIN TIME			LAT	LONG	DEPTH	MAG	S E	NUM	NUM	
			H	M	S	DEG	DEG	KM	SEC	OBS	STN		
75/	551	NOV	10	11	00	25.8	43.49S	175 67E	12 R	3.4	2.0	13	7
	552		10	11	07	21.4	44.59S	167.19E	12 R	4.2	1.5	23	10
	653		10	15	44	14.5	37.89S	176 55E	158	3.8	1.8	15	9
	654		11	02	50	35.3	39.28S	178.17E	12 R	4.7	1.5	30	13
	655		11	06	20	15.5	49.42S	164.52E	33 R	4.5	1.4	12	7
	656		11	09	50	47.6	41.05S	174.31E	12 R	3.8	1.4	14	9
	657		11	11	02	13.2	47.45S	165.59E	33 R	4.2	1.9	15	9
	658		12	01	13	20.1	41.27S	172.64E	223	3.9	1.1	15	10
	659*		12	01	47	45.0	38.50S	175.71E	208	5.2	1.8	32	20
	660		12	08	49	55.6	39.25S	177.88E	12 R	3.7	1.5	12	8
	661		12	11	46	20.6	37.10S	176.70E	269	4.1	1.1	13	8
	662		13	05	03	15.4	36.88S	177.42E	238	4.1	1.4	12	8
	663*		13	17	48	56.3	42.63S	173.81E	12 R	4.2	1.1	27	16
	664		14	20	11	47.4	33.37S	178.81W	12 R	4.9	1.8	11	6
	665*		15	18	35	47.2	42.58S	173.78E	12 R	3.9	1.0	16	6
	666		15	20	08	41.9	46.63S	165.72E	12 R	4.0	0.5	8	4
	667		15	22	40	40.7	38.32S	176.17E	148	4.3	0.4	9	5
	668*		16	13	26	17.5	37.73S	178.79E	12 R	4.9	1.1	18	9
	669		17	01	07	49.2	47.98S	165.38E	12 R	3.8	1.3	7	4
	670		17	01	59	37.3	49.73S	164.46E	12 R	5.7	1.5	10	5
	671		17	02	01	58.6	31.99S	179.88W	411	5.7	1.4	16	9
	672		17	02	53	21.7	49.70S	164.70E	12 R	5.3	1.0	10	5
	673		17	04	35	11.9	49.74S	164.37E	12 R	4.2	1.5	9	5
	674		17	06	22	38.6	37.95S	176.40E	183	4.0	1.0	8	4
	675		17	06	50	03.0	43.12S	172.72E	33 R	3.6	1.3	12	8
	676*		17	09	22	42.5	40.27S	176.47E	12 R	3.7	1.8	15	8
	677		17	16	01	30.1	45.12S	167.53E	78	3.9	0.1	6	3
	678		18	12	08	20.0	37.86S	176.30E	165	4.9	1.7	13	7
	679*		19	03	42	14.5	40.17S	176.46E	12 R	3.7	1.7	11	6
	680		20	02	48	13.3	39.63S	174.89E	88	4.1	0.9	14	8
	681		20	05	02	30.5	38.53S	175.84E	161	4.8	0.7	10	6
	682*		20	12	46	46.3	38.25S	176.23E	12 R	2.6	1.3	5	5
	683		20	21	29	51.6	38.12S	176.38E	146	4.2	1.3	7	4
	684		21	03	30	29.8	40.38S	174.60E	108	4.2	0.6	9	5
	685		21	19	15	10.9	41.01S	172.85E	211	4.3	1.4	11	6
	686*		22	14	00	54.2	40.33S	176.54E	12 R	5.2	1.1	9	6
	687		22	14	59	15.5	42.65S	174.18E	12 R	4.6	1.2	20	9
	688		22	15	51	12.6	40.02S	176.72E	12 R	3.2	2.2	10	6
	689*		23	07	29	52.9	37.57S	176.29E	279	5.4	1.1	12	8
	690		24	03	09	11.1	41.91S	174.03E	12 R	3.6	2.2	13	6
	691		24	17	07	42.9	36.77S	177.68E	194	3.7	1.9	10	6
	692		24	18	38	20.7	32.95S	177.74W	33 R	5.2	1.1	10	8
	693		24	22	30	28.9	37.73S	176.72E	166	4.0	0.4	7	5
	694		25	02	11	12.5	40.93S	174.68E	69	3.9	0.5	14	8
	695		25	10	37	47.1	45.10S	167.52E	99	4.6	1.0	9	5
	696*		25	11	13	48.5	41.70S	173.83E	12 R	3.7	1.3	13	6
	697		25	22	56	23.9	36.93S	177.79E	207	4.1	1.7	9	7
	698		26	16	00	21.8	32.13S	178.67W	33 R	5.8	1.6	10	6
	699		28	03	20	31.1	37.77S	176.89E	167	4.0	1.6	13	10
	700		28	20	10	37.7	38.70S	175.63E	131	4.0	1.6	17	12

REF NUM		ORIGIN TIME			-LAT	LONG	DEPTH	MAG	S E	NJM	NUM
		H	M	S	DEG	DEG	KM	SEC	OBS	STN	
75/ 701	NOV 28	20	58	24.7	36.443	179.04W	220	4.9	1.4	14	10
702	28	22	32	41.0	37.863	175.99E	327	4.1	0.9	13	10
703	29	09	00	53.2	32.213	177.64W	331	6.1	1.5	20	12
704	DEC 01	00	36	09.1	39.753	179.75E	33 R	4.0	0.9	11	6
705	01	01	30	38.0	37.123	177.85E	181	4.8	1.1	18	10
706	02	04	54	31.2	34.183	178.30W	274	5.1	0.8	18	14
707	02	18	42	26.4	39.133	174.98E	225	4.1	1.5	10	7
708	03	01	17	15.8	45.313	167.57E	92	4.7	1.6	19	11
709	03	19	15	17.4	39.463	174.05E	12 R	3.7	1.1	11	6
710	04	09	52	31.3	38.823	175.59E	132	4.4	1.1	18	11
711	04	18	48	38.5	34.083	177.98W	256	4.6	1.6	11	8
712	06	17	11	13.0	32.073	177.32W	352	5.3	2.1	15	12
713	06	19	42	15.3	37.903	179.00E	33 R	3.9	1.3	7	5
714*	07	02	49	23.0	38.143	176.25E	12 R	2.7	R	0	1
715	08	08	19	38.2	38.533	175.60E	169	3.5	1.3	7	5
716	08	22	21	30.2	40.473	176.08E	73	4.1	1.8	13	10
717	09	20	55	30.1	39.163	174.98E	12 R	3.6	1.2	9	5
718	09	21	27	02.0	45.413	167.14E	76	4.2	1.1	12	8
719	09	21	27	09.9	35.763	178.51E	261	4.5	1.6	16	9
720	10	13	54	47.3	35.923	178.30E	229	3.8	1.5	11	7
721	10	17	52	22.4	36.303	178.30E	147	3.6	1.2	8	7
722	11	09	32	59.1	33.943	179.79W	33 R	4.0	2.0	10	7
723	11	09	40	08.5	37.373	178.98E	76	3.4	1.1	10	7
724	11	12	03	58.9	33.003	178.92W	295	5.0	1.5	16	12
725	11	16	56	36.8	44.923	166.68E	33 R	3.9	1.0	14	9
726	12	06	35	30.8	39.133	174.94E	12 R	3.9	1.4	21	8
727	13	09	34	51.5	33.733	178.29W	266	4.5	0.7	13	9
728	13	12	53	48.4	32.793	178.57W	295	5.2	1.7	15	11
729	13	15	53	10.1	31.983	179.31W	486	5.0	1.6	13	10
730	14	00	34	40.3	41.553	172.41E	12 R	3.9	1.5	24	10
731	14	11	09	13.2	45.133	167.47E	119	4.0	1.3	10	6
732	15	04	46	48.9	38.723	176.30E	33 R	4.2	1.3	22	10
733	15	06	57	57.7	38.403	175.93E	168	4.0	1.4	16	9
734	15	08	46	09.3	35.953	178.85E	260	4.4	1.5	16	9
735	15	09	38	22.6	38.303	176.09E	192	3.8	1.5	14	8
736*	15	12	11	46.9	38.813	175.82E	12 R	3.1	0.2	5	4
737	16	03	10	23.8	40.003	176.99E	33 R	3.8	1.1	14	9
738	16	07	07	03.8	38.303	176.80E	117	4.2	1.5	18	10
739	17	11	49	52.1	44.843	167.83E	95	4.0	1.4	14	8
740	17	12	12	34.6	38.993	175.40E	153	3.7	1.0	17	9
741	18	08	08	25.5	37.613	176.41E	315	4.2	0.7	16	10
742	19	13	33	47.2	38.613	176.65E	12 R	3.9	1.8	16	8
743	20	15	51	51.5	40.173	173.66E	143	3.8	1.3	14	8
744	21	01	27	16.4	33.373	178.36W	230	4.8	2.1	14	11
745	21	02	03	42.0	33.323	178.25W	279	4.6	2.3	14	11
746	21	10	27	39.4	38.483	176.05E	120	4.1	1.3	19	12
747	22	20	49	55.0	39.863	174.10E	76	3.6	1.6	11	6
748	23	05	04	41.0	39.013	175.57E	125	3.8	1.1	14	9
749	23	06	53	17.6	44.623	168.28E	85	3.8	1.6	15	9
750	23	07	03	22.5	40.213	176.36E	12 R	3.7	1.4	14	8

REF	NUM	ORIGIN TIME	LAT	LONG	DEPTH	MAG	S E	NUM	NUM
		H M S	DEG	DEG	KM		SEC	OBS	STN
75/	751	DEC 23 12 10 23.3	31.42S	178.94W	376	5.5	2.0	22	13
	752	24 17 22 28.3	38.16S	175.74E	12 R	3.7	1.4	15	9
	753	25 02 20 02.4	35.25S	179.28E	272	4.0	0.9	8	5
	754	25 19 50 22.1	39.15S	176.02E	12 R	3.9	1.6	17	7
	755	25 23 11 22.9	40.35S	173.95E	12 R	4.2	1.8	19	12
	756	26 06 40 20.3	42.70S	171.77E	12 R	4.2	1.1	33	15
	757	26 19 22 19.3	44.21S	168.12E	12 R	4.0	1.7	19	10
	758	27 04 04 19.3	38.03S	176.36E	162	3.9	1.5	12	8
	759	28 02 04 22.0	45.24S	167.21E	80	4.7	1.5	17	10
	760*	29 06 13 20.7	40.06S	176.65E	33 R	4.9	1.2	26	17
	761*	29 11 49 44.2	41.63S	173.69E	33 R	5.0	1.3	40	24
	762	29 21 21 07.6	39.69S	175.90E	12 R	3.9	1.7	16	8
	763*	29 23 35 17.0	38.70S	176.30E	12 R	2.5	R	0	3
	764	30 00 27 24.4	38.68S	176.38E	12 R	3.1	1.5	7	5
	765	30 00 35 02.0	38.70S	176.30E	12 R		R	0	3
	766*	30 01 49 21.2	38.74S	176.10E	12 R	3.2	0.8	7	5
	767*	30 01 51 22.3	38.72S	176.14E	12 R	2.8	0.5	5	3
	768*	30 01 55 47.0	38.70S	176.30E	12 R		R	0	1
	769*	30 01 56 22.0	38.70S	176.30E	12 R		R	0	1
	770*	30 01 58 04.8	38.68S	176.26E	12 R	2.5	0.3	4	3
	771*	30 02 12 22.0	38.70S	176.30E	12 R		R	0	2
	772*	30 02 22 24.0	38.70S	176.30E	12 R		R	0	2
	773	31 09 26 41.4	38.34S	177.59E	60	4.1	0.5	7	5

STATION READINGS FOR NEW ZEALAND EARTHQUAKES

This section contains origin times, epicentres, focal depths, magnitudes, and station readings of those earthquakes in the New Zealand region that could be located from instrumental data. In general, origins are calculated for all sufficiently well-recorded earthquakes within 10° of Wellington. The calculations are carried out by an Elliott 503 digital computer using a programme developed by R.M. Hamilton, similar to that described by B.A. Bolt (Geophysical Journal: Vol. 3, pp. 433-40, 1960). A provisional origin is repeatedly adjusted to obtain the best agreement between observed arrival-times for the various phases, and times computed from tables. More precisely, the origin is adjusted to minimise the sum of the squares of the residuals (observed minus computed arrival-times).

The earthquake origins are determined using the phases Pn, P* and Pg, and the corresponding S phases. In computing travel times, it is assumed that the New Zealand crust is 33 km thick, and is divided into two uniform layers by a discontinuity at a depth of 12 km. Above the discontinuity the velocities of P and S are 5.5 and 3.3 km/sec respectively (Pg and Sg) and below it they are 6.5 and 3.7 km/sec (P* and S*). Travel times for Pn and Sn waves, which travel in the mantle, are derived from the Jeffreys-Bullen "Seismological Tables" (British Assn. for the Advancement of Science, 1958), but modified by multiplying the times by 0.96. Several studies have shown that times in the table are too great to fit the New Zealand observations. The result of applying this correction is to raise the adopted Pn velocity from about 7.8 to 8.1 km/sec, and the Sn velocity from about 4.4 to 4.6 km/sec. These values are close to those reported.

In general all four parameters of the earthquake origin are calculated (origin time, latitude, longitude, and focal depth). In some cases however, the focal depth is not allowed to vary, but is restricted to a certain depth. This is most commonly done for crustal earthquakes, which are assigned nominal depths of either 12 or 33 km, according to the crustal phases present, and to the goodness of fit of the resultant solutions. Parameters that have been restricted are identified by the letter R appearing in the place where the standard error is usually printed.

Solutions are attempted whenever sufficient readings are available. The minimum requirement to determine an epicentre is a total of three readings at two stations, plus a felt report to resolve the ambiguity.

In using the results in this section, it is essential to keep in mind that the position of earthquakes whose epicentres lie outside the network of seismograph stations can be very uncertain, even though the readings may be consistent with the computed origin (i.e., the residuals are small). Because of the presence of systematic errors, the true origin could be very different from the one calculated. Great care should therefore be taken not to attach significance to an epicentre in an unusual place or a focus at an unusual depth if the recording stations used are not well distributed about the epicentre.

EXPLANATION OF DATA

The first line printed for each earthquake gives the reference number, used throughout the Report. The second line gives the parameters of its origin, the standard error of the residuals, and the average of the magnitude determinations.

The standard error is derived from the equation

$$SE = \sqrt{\frac{\sum_{i=1}^n r_i^2}{n - m}}$$

where r_i is the i th residual, n the number of readings, and m the number of parameters determined. Below each parameter of the origin, its standard error is printed, or if the parameter was restricted to a particular value, the letter R. When the number of readings and the number of parameters to be determined is the same, the standard error is not defined. This is indicated by printing ND.

The information listed for each station includes the arrival times of the various phases, the directions of ground motion, the residuals, the epicentral distance in degrees ($1^\circ = 111$ km), the azimuth of the station from the epicentre, in degrees east of north, and magnitudes computed as described below. The directions of ground motion are indicated by the following letters: U - up, D - down, N - north, S - south, E - east, W - west. When the instruments are not oriented towards cardinal points, the letters are X for a movement in the northeast and F in the southwest quadrant (as at KAI), Y for one in the northwest and J in the southwest quadrant.

Magnitudes are M_L as defined by C.F. Richter (Bull. Seismol. Soc. America: Vol. 25, pp. 1-32, 1935) obtained either from the maximum amplitude of the S-group as recorded on a Wood-Anderson seismograph adjusted to standard constants (W-A), or by using equivalent relationships for the maximum P and S amplitudes recorded on a vertical Willmore seismograph (WP or WS). These relationships were empirically derived by A.A. Thomson from a comparison between records of the same earthquakes on the two types of seismograph.

Residuals are listed for all readings used in calculating the origin, and in certain other cases. An asterisk following a residual indicates that the reading was not used in the solution. Residuals are automatically excluded when their absolute value exceeds twice the standard error (calculated without that residual). When an asterisk also appears against the station identification, its readings have purposely been excluded by the operator. These provisions guard against the inclusion of spurious or wrongly identified phases, and against the biasing of solutions by a predominance of stations at large distances or in particular azimuths.

Although the main readings from Raoul Island are contained in a later section, readings from this station have been used in the determination of the origins of some earthquakes. In these cases the Raoul Island readings will be found also in the following section. In a small number of cases readings from the station at Macquarie Island (MCQ), operated by the Australian Commonwealth Bureau of Mineral Resources, have also been used and are listed with the New Zealand readings.

LOCAL EARTHQUAKES

39

JAN 02		H	M	S	41.33S	173.39E	95 KM	SE	1.4	AVG MAG	75/ 001
		+	-	0.7	0.03	0.04	9				3.8
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
COB	P	11	09	07.9		0.7	0.54	296		4.0	
	S			18.0		-1.1					
WEL	P	11	09	13.9		1.7	1.05	88	3.3	3.6	3.9
	I			16.2							
	S			28.0		0.1					
MNG	EP	11	09	21.3		0.5	1.74	67		3.8	3.8
	I			25.5							
	S			42.5		-0.1					
TNZ	SP	11	09	29.9		2.0	2.27	20		4.0	3.7
	I			55		0.0					
	S			58.0		-1.0	2.43	193	3.9		
GPZ	S	11	09	34.8		1.1	2.69	39			
CNZ	P			40.8							
	E			44							
	E			10							
	S			10							
MJZ	S	11	10	23		-0.3	3.42	218			
KRP	EP	11	09	49		0.3	3.78	27		3.7	3.8
	S			10		-1.5					
	S			30.8							
GNZ	S	11	10	46.5		-2.5	4.46	55			3.7

JAN 03		H	M	S	33.11S	179.12W	309 KM	SE	1.8	AVG MAG	75/ 002
		+	-	1.6	0.09	0.13	21				5.0
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	P	12	53	11.0		3.0	4.96	202		5.0	5.1
	ES			54		3.0					
GBZ	EP	12	53	13		-0.5	5.42	234			
WTZ	P	12	53	16.9		-1.5	5.81	212		5.1	
	I			19.5							
GNZ	EP	12	53	18.0		-2.2	5.99	202		4.7	4.6
	I			21.9							
	S			54		-2.9					
TUA	P	12	53	25.2		-0.4	6.44	207			
	S			54		-1.5					
KRP	P	12	53	28		1.9	6.48	221			
	I			29.2							
CRZ	EP	12	53	31		-0.8	6.95	257			
TRZ	EP	12	53	35		-0.0	7.22	206			
	ES			54		-1.3					
CNZ	P	12	53	39.5		1.6	7.45	214			
	E			55							
MNG	EP	12	53	52		-0.5	8.65	208			
	ES			55		0.2					
WEL	EP	12	54	03		0.0	9.50	209	5.6		
	S			55		1.3					
COB	EP	12	54	12		-0.5	10.28	217			
	ES			56		1.1					

JAN 04		H	M	S	38.86S	175.23E	228 KM	SE	1.6	AVG MAG	75/ 003
		+	-	1.3	0.06	0.07	9				4.1
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
CNZ	P	08	20	01.2	D	1.7	0.42	145			
	S			24		1.1					
KRP	P	08	20	01.5		-0.3	0.96	15		3.9	3.3
	S			25.9		-1.4					
TRZ	S	08	20	33.5		0.7	1.42	120			4.2
TUA	E	08	20	27			1.50	89			
WTZ	P	08	20	06.1		-0.7	1.63	58		4.2	
MNG	P	08	20	10.1	U	2.0	1.77	174		4.2	4.3
	S			37.8		-0.3					
GNZ	P	08	20	12.5		0.4	2.19	85		4.2	4.0

		S	43	-2.2						
WEL	P	08 20	16.7	2.0	2.45	188	4.2	4.2	4.3	
COB	S		50	-0.1						
	P	08 20	20.4	0.3	2.94	220		4.1	4.0	
GPZ	ES		59	-0.7						
	ES	08 21	46	-2.7	5.21	201	4.8			
H M S		41.09S	175.07E	128 KM	SE	1.3	AVG MAG		75/ 004	
JAN 04	20 37 12.5	0.03	0.03	8				5.9		
	+ - 0.3									
		1 M S	DIR	RES	DIST	AZ	W-A	W P	W S	
WEL	P	20 37	29.1	D	-1.5	0.30	229			
	E		31.5							
	E		34							
MNG	P	20 37	30.6		-1.3	0.56	34			
CAZ	IP	20 37	37.0	D	2.6	0.89	78			
KKY	P	20 37	45.2		2.3	1.68	217			
COB	P	20 37	43.0		-0.9	1.77	269			
CNZ	P	20 37	45.8	U	0.0	1.92	11			
TNZ	P	20 37	46.7	U	6.3	1.97	344			
	E		51							
TRZ	P	20 37	47.6	D	0.4	2.04	42			
WNZ	P	20 37	53.8		-0.7	2.58	18	6.0	6.4	
	I		54.6							
	E		58							
TUA	P	20 37	56.3	U	-0.8	2.78	36	5.8		
CHR	P	20 38	02.3		1.9	3.04	216			
	I		10							
	I		12							
GPZ	P	20 38	03.5		1.5	3.16	214	5.9		
	S		38							
KRP	P	20 38	02.0	U	-0.3	3.18	7			
	I		08.0							
GNZ	P	20 38	03.3		-1.0	3.33	44			
WTZ	P	20 38	04.4	D	-1.3	3.44	26	5.4		
AUC	P	20 38	17		0.7	4.23	357			
ECZ	P	20 38	17.0		-0.6	4.33	40	6.3		
	ES		39 08		0.4					
HJZ	P	20 38	20.3		0.8	4.47	228			
	I		22.0							
	I		35.5							
GBZ	P	20 38	24.5		-0.4	4.88	4			
OMZ	P	20 38	28.2		1.5	5.01	216			
ONE	P	20 38	32.3		1.4	5.34	354	5.7		
	E		39 23							
CIZ	P	20 38	56.5		5.4*	6.81	118			
	S		40 07							
CRZ	EP	20 38	52.5		-0.6	6.91	343			
	E		39 04							
	S		40 04.5							
WPZ	EP	20 38	57		-5.6*	7.15	217			
	S		40 14							
MNW	EP	20 38	54		-2.0	7.17	227			
	I		57.0							
	S		40 16							
FELT CENTRAL NZ. MAXIMUM AT KAPITI (65) MM IV										
PREFERRED ALTERNATIVE SOLUTION IS —										
		20 37 17.6	40.77S	174.66E	72 KM	SE	1.2			
SEE DISCUSSION ON PAGE 17										

		H M S	41.02S	175.11E	92 KM	SE	1.4	AVG MAG		75/ 005
JAN 05	07 41 10.3	0.04	0.05	7					3.8	
	+ - 0.7									
		1 M S	DIR	RES	DIST	AZ	W-A	W P	W S	
WEL	P	07 41	25.9		1.3	0.37	224	3.8		
	S		34.5		-1.1					
MNG	IP	07 41	27.0		1.6	0.49	35			

LOCAL EARTHQUAKES

41

		S		36.3		-0.7							
	KKY	ES	07 42	02		0.2	1.75	217					
	COB	P	07 41	41.5		1.1	1.80	267		4.2	4.2		
		S		42 02.0		-0.7							
	CNZ	P	07 41	42.5		1.4	1.85	11					
		E		52									
		S		42 05		1.1							
	KRP	E	07 42	07			3.11	6		3.5	3.6		
		ES		33		-1.7							
		E		45									
	GPZ	ES	07 42	37		-0.8	3.24	214	4.0				
	GNZ	EP	07 41	59		-1.5	3.27	44		3.6	3.6		
		S		42 38.5		-0.1							
JAN 06		H M S										75/ 006	
		01 05	31.5		40.23S	174.39E	107 KM	SE	1.1	AVG MAG		3.9	
		+ -	0.7		0.02	0.03	8						
		H M S			DIR	RES	DIST	AZ		W-A	W P	W S	
	MNG	P	01 05	52.9		1.0	0.92	116			4.5		
		S		06 06.5		-1.0							
	TNZ	P	01 05	53.8		0.6	1.04	360			3.8	3.7	
		S		06 09.8		0.2							
	WEL	P	01 05	54.9		1.0	1.10	165					
		S		06 11.8		0.9							
	CNZ	P	01 05	57.2		0.1	1.36	41			3.6	4.2	
		E		06 16									
		EP		23									
	COB	EP	01 05	59.7		0.7	1.52	235			3.8		
		ES		06 18		-1.7							
	KKY	P	01 06	08.5		0.3	2.25	193					
		E		30.6									
		ES		35.3		-0.5							
	KRP	EP	01 06	10		-1.1	2.47	22			3.6	3.9	
		S		41.8		0.9							
	GNZ	S	01 06	58		-1.3	3.23	62				3.7	
	GPZ	S	01 07	06		-4.9*	3.70	200	4.4				
	ECZ	E	01 06	49.5			4.11	53					
JAN 06		H M S										75/ 007	
		11 50	21.3		40.61S	173.68E	131 KM	SE	0.7	AVG MAG		4.0	
		+ -	0.7		0.02	0.04	8						
		H M S			DIR	RES	DIST	AZ		W-A	W P	W S	
	COB	P	11 50	43.7		0.4	0.87	236					
		E		58									
	WEL	P	11 50	45.8		0.6	1.07	130			3.9		
		S		51 03.5		0.0							
	MNG	P	11 50	49.0		0.5	1.37	91					
	TNZ	EP	11 50	50		-0.1	1.52	21			3.7	4.1	
		ES		51 11.8		-0.2							
	KKY	P	11 50	54.0		0.6	1.81	180					
		E		51 10.4									
		S		17.0		-0.9							
	CNZ	P	11 50	54.8		-1.0	2.01	46			3.7	4.3	
		E		51 01									
		I		11									
		S		22.5		0.7							
	KAI						2.57	221		3.7			
	TRZ	E	11 51	33			2.63	67				4.2	
		ES		36		-0.5							
	KRP	S	11 51	43		-2.8*	3.04	29				3.6	
	GPZ*	S	11 51	44.8		-4.4*	3.18	194	4.8				
	GNZ*	S	11 52	02		-3.8*	3.88	61				3.9	
JAN 07		H M S										75/ 008	
		04 47	11.5		31.00S	177.24E	33 KM	SE	2.1				
		+ -	2.8		0.15	0.35	2						

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
ECZ	EP	04	48	48.5		1.5	6.76	171				
GNZ	P	04	48	50		-0.9	7.65	175				
	S		50	21		-0.9						
CNZ	EP	04	49	10		2.5	8.30	189				
	ES		50	38		0.7						
TRZ	S	04	50	44		0.9	8.54	182				
MNG	P	04	49	23		-3.2	9.70	188				
	ES		51	10		-0.9						
											75/ 009	
JAN 07		20	36	20.4		38.71S	175.77E	166 KM	SE	1.7	AVG MAG	3.7
			+ 2.1			0.07	0.03	13				
CNZ	P	20	36	45.8		2.0	0.52	199		3.4	3.4	
	S		37	03		1.1						
KRP	P	20	36	46.0		0.6	0.80	347		3.5	3.0	
	S		37	03.5		-1.2						
TRZ	E	20	37	15.0			1.18	136			3.9	
GNZ	S	20	37	19.0		-1.3	1.76	89			3.4	
MNG	IP	20	36	57.3	U	1.3	1.92	187		4.2	4.3	
	ES		37	22.5		-0.9						
WEL	S	20	37	40		0.4	2.69	196	4.0		3.9	
COB	ES	20	37	52		-2.0	3.33	224			3.6	
											75/ 010	
JAN 07		20	46	20.7		45.19S	167.14E	33 KM	SE	1.5	AVG MAG	4.2
			+ 2.1			0.04	0.17	13				
MNW	P	20	46	32.4		-0.9	0.68	150				
	S			40.5		-1.9						
WPZ	P	20	46	50.9		0.9	1.89	141		4.5	4.4	
	S		47	14		2.0						
MJZ	EP	20	47	01		0.4	2.67	64		3.6		
	E			05.5								
	E			36								
OMZ	P	20	47	00.0		-0.7	2.68	89		4.6		
COB	EP	20	47	44		0.9	5.80	47		3.9	4.0	
	ES			48 46		-0.7						
NEAR STATIONS MSZ AND ROX OUT OF ACTION												
											75/ 011	
JAN 08		12	59	43.4		32.56S	178.80W	424 KM	SE	1.5	AVG MAG	5.3
			+ 1.3			0.17	0.30	13				
ECZ	E	13	01	17.5			5.56	202		4.8	4.9	
	ES		02	22		-1.4						
WTZ	P	13	01	22		-0.1	6.41	211				
GNZ	EP	13	01	22		-2.1	6.60	202				
	I			27								
	ES		02	44		0.5						
TUA	EP	13	01	31		1.9	7.05	207				
	ES		02	52		-0.5						
KRP	P	13	01	31		1.6	7.08	219				
TRZ	EP	13	01	39		1.3	7.82	206				
	ES		03	10		2.0						
CNZ	P	13	01	39.5		-0.5	8.05	213				
	ES		03	14		1.4						
MNG	EP	13	01	53.0		-0.9	9.26	208				
	ES		03	36		-1.2						
WEL	P	13	02	04		0.4	10.11	209	5.7			
	ES		03	54		-0.8						
COB	P	13	02	11		-1.3	10.88	216				
	ES		04	09		-1.6						
GPZ	ES	13	04	55		1.5	12.99	209	5.6			

	WEL	ES	15 31 43		-1.4	3.40	198			3.9
	COB	ES	15 31 59		0.5	4.02	220			
JAN 10	H M S		32.99S	179.80E	33 KM	SE	3.2	AVG MAG	75/ 016	5.3
			0.11	0.21	?					
			-1.6							
	RAO	P	22 00 47.7	DIR	RES	DIST	AZ	W-A	W P	W S
			01 35.6		2.0	4.21	28			
	GBZ	IP	22 00 56.1	D	2.3	4.80	227		4.5	
	ECZ	EP	22 00 56.9		2.6	4.81	192		5.9	5.3
			01 00							
			58							
	ONE	P	22 01 02.5		2.2	5.29	237	4.5		
			02 08							
	WTZ	EP	22 01 03		-0.1	5.49	204		5.7	4.5
			05.5							
			48							
			02 03		-0.4					
	GNZ	P	22 01 06.0		-1.6	5.83	194		5.8	5.3
			02 16		4.5					
	KRP	P	22 01 11.7	D	1.4	6.03	214			
			02 24							
	CRZ	EP	22 01 10.5		-0.9	6.10	254			
			02 23							
	TUA	P	22 01 11.0		-1.6	6.19	200			
			13.5							
			02 24		3.7					
	TNZ	EP	22 01 31.5		0.2	7.58	214			
	MNG	EP	22 01 34		-7.7	8.36	203			
			36.5							
			03 07							
			10		-2.2					
	CAZ	EP	22 01 38		-4.2	8.40	199			
			03 13		-0.1					
	WEL*	P	22 01 45.8		-7.1*	9.20	204	6.2		
			03 27		-5.3*					
	CIZ	ES	22 02 29			11.31	166			
			04 33		11.1*					
JAN 11	H M S		32.66S	179.81W	274 KM	SE	2.5	AVG MAG	75/ 017	4.6
			0.16	0.17	63					
			-2.8							
	ECZ	EP	04 25 56	DIR	RES	DIST	AZ	W-A	W P	W S
			26 44		-1.4	5.20	195		5.3	
	GBZ	EP	04 26 03		4.8	5.26	226		3.9	
	ONE	EP	04 26 11			5.74	238	4.7		
	GNZ	EP	04 26 08		-1.9	6.22	196			
	KRP	P	04 26 16.0		2.8	6.48	215			
			27 26		-1.5					
	CRZ	EP	04 26 12		-1.6	6.52	252			
			27 28		-0.5					
	TUA	P	04 26 15.0		0.3	6.61	201			
	TRZ	EP	04 26 24		-0.5	7.40	201			
	MNG	EP	04 26 40		-2.0	8.79	204			
			28 21		1.5					
	CIZ	ES	04 27 26			11.56	168			
			29 22		0.3					
JAN 11	H M S		36.57S	178.25E	33 KM	SE	1.5	AVG MAG	75/ 018	3.6
			0.05	0.06	?					
			-1.1							
	ECZ	EPN	05 15 54	DIR	RES	DIST	AZ	W-A	W P	W S
			16 14		-0.3	1.15	168		3.9	3.7
	GNZ	EPN	05 16 07		1.9	2.08	185		3.5	3.5
					-0.1					

GBZ	ES		56		-4.3														
	EP	17 48	54		0.9	6.51	246												
TUA	E		56																
	EP	17 48	58.5		1.2	6.82	220												
	E		49 01																
	ES		50 11		-0.5														
ONE	EP	17 49	06		3.0	7.25	251										5.7		
WNZ	EP	17 49	05		1.3	7.30	226												
	ES		50 26		3.0														
TRZ	EP	17 49	06		-0.9	7.54	218												
	E		50 19																
CRZ	EP	17 49	19.5		0.6	8.44	262												
	E		50 42																
TNZ	EP	17 49	24		1.6	8.70	229												
	E		50 59		2.5														
CAZ	ES	17 49	31.5			8.87	214												
	E		50 57		-3.5														
MNG	EP	17 49	25		-1.6	9.02	218												
	E		50 49																
WEL	EP	17 49	39		1.0	9.88	218												7.0
	ES		51 20.5		-3.9														
CIZ	E	17 49	49			10.22	177												
	ES		51 34		1.6														
JAN 13	H	M	S																75/ 022
	02	11	11.3		33.92S	178.01W	362	KM	SE	2.5					AVG MAG				4.7
			+ 3.5																
					0.20														
					I	M	S	DIR	RES	DIST	AZ			W-A	W P			W S	
ECZ	ES	02 13	34.5						3.6	4.77	215								4.5
GNZ	EP	02 12	41						0.4	5.78	212			4.3	4.3				
	ES		13 47						-3.8										
TUA	EP	02 12	45						-1.8	6.33	217								
	ES		14 03						1.1										
KRP	ES	02 14	08						-0.6	6.65	230								
TRZ	ES	02 14	15						-2.4	7.07	214								
MNG	EP	02 13	14						1.2	8.54	215								
	ES		14 49						0.4										
WEL	ES	02 15	09						2.0	9.40	215			5.6					
CIZ	E	02 13	37							10.18	174								
	ES		15 24						0.0										
JAN 14	H	M	S																75/ 023
	03	54	22.4		45.65S	167.78E	12	KM	SE	1.4				AVG MAG					3.6
			+ 0.6																
					0.05														
					I	M	S	DIR	RES	DIST	AZ			W-A	W P			W S	
MNH	IP*	03 54	26.1						-0.3	0.17	222			3.3					
	IP*		29.8						0.6										
ROX										1.09	81			3.3	3.3				
WPZ	PN	03 54	43.3						-1.6	1.25	144			4.1	4.4				
	SN		55 01.9						0.3										
OHZ	PN	03 54	59.2						0.2	2.28	76			4.0	3.9				
	ESG		55 40						0.6										
HJZ	EPN	03 55	01						-1.5	2.53	50			3.2	3.2				
	ESN		35						2.3										
	ESG		47						-0.8										
JAN 14	H	M	S																75/ 024
	16	47	53.2		40.12S	175.05E	12	KM	SE	1.1				AVG MAG					3.6
			+ 0.3																
					0.02														
					I	M	S	DIR	RES	DIST	AZ			W-A	W P			W S	
MNG	IP*	15 48	04.8						0.3	0.60	147								
	ES*		14						1.2										
CNZ	IP*	15 48	10.3						-1.0	0.99	23			4.2	4.2				
	ES*		24						-0.7										
TNZ	IP*	15 48	11.8	U					-0.7	1.07	331			3.7	3.4				
	ES*		27						0.1										
WEL	IP*	15 48	13.7						-0.9	1.19	190			3.2	3.7	3.7			

LOCAL EARTHQUAKES

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		ES*		29		-1.5							
	COB	PN	15	48	26.7	U	0.5	2.01	241		3.8	3.6	
		ESN			52		1.1						
	KRP	EPN	15	48	29		-0.0	2.22	10		3.3	3.5	
		ESN			57.5		1.5						
JAN 14	H M S		38.18S		176.51E	165 KM		SE	1.4		AVG MAG	75/ 025	4.7
		+_-	0.03		0.03	7							
			H M S		DIR	RES		DIST	AZ		W-A	W P	W S
	WTZ	IP	17	32	04.2	U	-0.8	0.43	62				
		E			17								
	WNZ	P	17	32	05.9	U	0.3	0.55	215		4.8		
	TUA	IP	17	32	08.2	U	1.3	0.80	141		5.1	5.1	
		ES			27		0.9						
	KRP	P	17	32	06.1	DSE	-0.9	0.81	288		4.7	4.0	
		ES			24.5		-1.7						
	CNZ	IP	17	32	11.4	D	0.2	1.26	216		4.7	4.4	
		ES			33		0.2						
	GNZ	IP	17	32	12.0	U	1.1	1.28	112		4.6	4.9	
		ES			31		-2.0						
	TRZ	IP	17	32	13.7	U	1.7	1.39	170		5.4	5.2	
		ES			34		-0.9						
	ECZ	P	17	32	16.0		1.0	1.69	74		5.0	4.7	
		ES			41		0.7						
	TNZ	P	17	32	19.0		1.2	1.94	238		3.9	3.5	
		ES			48		2.7						
	MNG	IP.	17	32	25.3		0.1	2.56	198				
		E			52								
	CAZ	P	17	32	26.0		-1.3	2.72	184				
		ES			33		-0.9						
	ONE	EP	17	32	29		-1.1	2.95	324	3.8			
	WEL	IP	17	32	34.0	D	-1.4	3.37	203	5.2	5.1	5.0	
		ES			33		-1.0						
JAN 15	H M S		38.60S		175.80E	151 KM		SE	1.4		AVG MAG	75/ 026	3.9
		+_-	0.06		0.05	9							
			H M S		DIR	RES		DIST	AZ		W-A	W P	W S
	WNZ	EP	11	36	03		-1.3	0.24	97				
		ES			20		-0.1						
	CNZ	IP	11	36	06.9	D	0.9	0.63	199		4.0		
	KRP				3		0.71	343			4.0		
	TUA	P	11	36	10.9		1.2	1.07	101		3.9	4.1	
		ES			28		-1.1						
	WTZ	P	11	36	09.3		-0.5	1.12	57		3.2	3.2	
		E			25								
	TRZ	P	11	36	12.2		1.3	1.24	140		4.7	4.4	
		ES			34		2.2						
	TNZ	EP	11	36	13		1.9	1.25	242				
		E			38								
	GNZ	P	11	36	16.7		0.6	1.74	92		3.7	3.8	
		ES			39		-2.1						
	MNG	P	11	36	20.1	U	0.6	2.03	187			4.1	
	WEL	IP	11	36	28.8	U	-0.4	2.80	196	4.0	3.9	4.0	
		ES			37		-1.0						
	COB	EP	11	36	36.9		-0.8	3.43	223			4.0	
		ES			37		-1.4						
JAN 15	H M S		35.52S		178.70E	323 KM		SE	1.4		AVG MAG	75/ 027	4.5
		+_-	0.19		0.30	19							
			H M S		DIR	RES		DIST	AZ		W-A	W P	W S
	ECZ	EP	22	54	24		0.4	2.17	183		4.6	4.6	
		ES			55		0.5						
	WTZ	P	22	54	27.7		-1.6	2.82	209		4.9		
	GNZ	IP	22	54	31.9	D	-0.6	3.16	190		4.6	4.3	

		H	M	S			DIR	RES	DIST	AZ	75/ 028			
		+	-		32.53S	179.84W	33 KM	SE	2.3	AVG MAG	4.9	W-A	W P	W S
	E			55	13									
	ES				18			-0.9						
KRP								3.50	226			4.2		
TUA	P	22	54	35.8				-0.1	3.51	200		4.7	4.6	
	ES			55	26			1.0						
CNZ	EP	22	54	47.9				1.6	4.45	213		4.0	3.8	
	EP			55	49									
MNG	P	22	54	58.3				-1.7	5.69	206		4.5	4.2	
	ES			56	07			-1.2						
CAZ	P	22	55	02.0				1.6	5.72	199				
WEL	ES	22	56	27				0.9	6.53	207		5.1		
JAN 16	H M S	08	11	14.2	32.53S	179.84W	33 KM	SE	2.3	AVG MAG	4.9			
		+	-	2.3	0.11	0.12	3							
	H M S						DIR	RES	DIST	AZ	W-A	W P	W S	
ECZ	EP	08	12	32				1.8	5.31	194		5.3	4.8	
	EP			13	41									
ONE	EP	08	12	38				1.4	5.79	234		4.6		
WTZ	EP	08	12	42				2.3	6.02	205				
GNZ	EP	08	12	42				-2.0	6.34	195				
	ES			13	54			0.8						
CRZ	EP	08	12	45				-1.6	6.53	251				
	ES			13	55			-2.8						
KRP								6.57	214					
TUA	EP	08	12	49				-0.2	6.72	200				
	ES			14	04			1.6						
CNZ	EP	08	13	05				3.7	7.63	208				
MNG	EP	08	13	17				-1.3	8.90	204				
	ES			14	55			0.6						
WEL	ES	08	15	14				-0.4	9.74	205				
CIZ	ES	08	13	59				11.69	168					
	ES			15	56			-4.1						
JAN 16	H M S	09	07	02.8	41.41S	173.37E	106 KM	SE	1.6	AVG MAG	4.0			
		+	-	1.2	0.04	0.05	11							
	H M S						DIR	RES	DIST	AZ	W-A	W P	W S	
COB	P	09	07	21.1				1.1	0.58	304		3.8	3.9	
	ES			26										
	ES			32				-1.2						
KKY	P	09	07	26.2				1.8	1.04	167				
	ES			40				-0.7						
WEL	P	09	07	26.3			D	1.6	1.06	84		3.6	4.0	4.3
	ES			41.9				0.3						
MNG	IP	09	07	34.0			D	0.7	1.78	64		4.0	3.8	
	ES			56				-0.1						
KAI								1.84	232		3.8			
GPZ	S	09	08	07.8				-1.4	2.35	193		4.2		
CNZ	EP	09	07	47				0.5	2.77	38		4.2	4.4	
	EP			58										
	ES			08	20			0.5						
	ES			44										
KRP								3.86	26		3.8	4.0		
GNZ	EP	09	08	03				4.51	54		3.7	4.0		
	ES			55										
	ES			59				-3.0						
JAN 16	H M S	16	34	49.7	33.41S	179.45W	218 KM	SE	1.8	AVG MAG	4.5			
		+	-	1.7	0.08	0.13	26							
	H M S						DIR	RES	DIST	AZ	W-A	W P	W S	
ECZ	EP	15	36	01				1.3	4.56	200		4.8	4.7	
	ES			54				-0.0						
WTZ	EP	15	36	10				-0.1	5.39	211		4.5		
GNZ	EP	15	36	10				-2.8	5.60	200		4.2	4.5	
	ES			37	17.9			0.1						

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	ONE	EP	16 36 15		2.2	5.60	243	4.6				
	TUA	EP	16 36 17		-1.4	6.03	206					
		ES	37 28		0.6							
	KRP					6.06	221					
	CRZ	EP?	16 36 27		1.4	6.60	259					
	TRZ					6.81	205					
	CNZ	EP	16 36 31		-0.2	7.03	213					
		E	38 00.5									
	MNG	P	16 36 44.0		-2.8	8.24	208					
		ES	38 19		0.6							
	WEL	ES	16 38 37		-1.1	9.09	209					
	CIZ	ES	16 39 19		2.2	10.77	169					
JAN 16			H M S									75/ 031
			17 01 36.5	32.45S	179.82W	450 KM	SE	2.0	AVG MAG			5.0
			+ - 2.0	0.14	0.29	23						
			H M S		DIR	RES	DIST	AZ	W-A	W P	W S	
	ECZ	EP	17 03 07			1.4	5.40	194				
		ES	04 15			-0.8				5.0	5.1	
	ONE	EP	17 03 10			-0.2	5.85	234	4.8			
	WTZ	P	17 03 13			0.2	6.11	204				
		E	59									
	GNZ	EP	17 03 16			-0.1	6.42	195				
		E	04 25									
		ES	32			-2.8						
	KRP					6.65	214					
	TUA	ES	17 04 45			6.81	200					
	TRZ					7.59	200					
	CNZ	EP	17 03 29			-1.0	7.71	208				
		ES	05 01			1.2						
	MNG	EP	17 03 42			-2.0	8.98	204				
		E	05 17									
		ES	23			-2.0						
	CAZ	EP	17 03 46			1.7	9.01	199				
		E	05 23									
		ES	28			2.4						
	WEL	ES	17 05 41			-0.9	9.82	205				
JAN 17			H M S									75/ 032
			08 36 42.4	38.98S	178.02E	33 KM	SE	0.6	AVG MAG			4.6
			+ - 0.3	0.02	0.02	R						
			H M S		DIR	RES	DIST	AZ	W-A	W P	W S	
	GNZ	IPN.	08 36 50.0			-0.6	0.33	360				
	TUA	IPN	08 36 55.0		U	-0.2	0.70	284		5.2	5.4	
		ESN	37 04			-0.6						
	TRZ					1.09	238				5.1	
	WTZ	PN	08 37 03.8			0.6	1.28	320		4.1		
	ECZ	PN	08 37 04.8			0.7	1.35	18		5.0	4.7	
		ESN	17.8			-2.9						
	CNZ	EPN	08 37 13			0.8	1.94	263		5.0	4.8	
		EP	17			0.1						
		ES	43			0.4						
	KRP	EPN	08 37 16			-0.0	2.22	298				
	CAZ	ESN	08 37 45			-0.2	2.37	215		4.2		
	MNG	IPN	08 37 19.9		D	-0.7	2.55	229		4.0	4.2	
		E	38									
	WEL	E	08 37 36			3.40	226			4.0	4.2	
		ESN	38 10.5			0.2						
	GBZ	EPN	08 37 32			-0.5	3.42	323		4.2		
	FELT ORMOND (44), GISBORNE (45) AND WAIROA (53).											
JAN 17			H M S									75/ 033
			14 46 40.3	38.19S	176.20E	161 KM	SE	0.7	AVG MAG			3.9
			+ - 0.5	0.02	0.02	4						
			H M S		DIR	RES	DIST	AZ	W-A	W P	W S	
	KRP	P	14 47 04.1			0.6	0.59	296		3.5	3.0	
		ES	22			0.7						

	WTZ	P	14 47 03.1	-0.7	0.65	72		3.7	3.6
		ES	21	-1.0					
	TUA	P	14 47 06.9	0.9	0.97	130		3.9	3.9
		ES	26	0.2					
	GNZ	P	14 47 11.6	0.5	1.50	108		3.7	4.0
		ES	34	-0.6					
	ECZ	P	14 47 15.8	0.4	1.92	76		4.6	4.2
		ES	43	0.4					
	GBZ	P	14 47 16.0	-0.9	2.05	343			
	MNG	P	14 47 22.3	-0.1	2.49	193		4.1	4.0
		ES	54.5	-0.1					
	WEL	ES	14 48 12	-0.4	3.29	199			4.1
JAN 18	H M S		38.97S 175.25E	223 KM	SE	1.5		AVG MAG	75/ 034
	02 47 17.3		0.08 0.03	11					4.0
		+ - 1.4							
	CNZ	IP	02 47 47.7	D	1.0	0.33	136		
		ES	48 10		0.7				
	KRP	EP	02 47 50		0.0	1.06	12		3.2
						1.35	116		4.7 4.8
	TRZ					1.66	174		4.3 3.9
	MNG	IP	02 47 56.1	U	1.4				
		ES	48 24		0.5				
	GNZ	IP	02 48 00.0	U	0.3	2.19	82		3.8 3.8
		ES	30		-2.5				
	WEL	P	02 48 02.7		1.4	2.35	189		3.9 3.7
		ES	35.5		0.1				
	COB	EP	02 48 06		-1.1	2.87	222		3.9 3.9
		ES	44		-1.7				
JAN 18	H M S		39.41S 177.67E	12 KM	SE	1.6		AVG MAG	75/ 035
	03 19 24.2		0.04 0.03	2					3.7
		+ - 1.0							
	TRZ					0.67	257		4.0 4.1
	TUA	IP	03 19 36.7	U	-0.9	0.72	326		4.7 4.2
		ES	46.5		-1.1				
	GNZ	IP	03 19 39.3	DN	0.1	0.82	20		3.6 3.7
		ES	52		1.7				
	CNZ	PN	03 19 52.0		-0.3	1.66	277		3.9 3.7
		ES	20 17		1.4				
	MNG	EPN	03 19 55		-2.9	2.07	234		3.1 3.0
		EPG	20 07		1.0				
		ESN	24.5		1.4				
	KRP	EP	03 20 03		-0.4	2.23	311		3.3
JAN 18	H M S		39.10S 175.04E	193 KM	SE	1.4		AVG MAG	75/ 036
	10 19 00.5		0.02 0.04	7					5.2
		+ - 0.6							
	CNZ	IP	10 19 28.0	D	1.4	0.41	104		
	KRP	IP	10 19 31.5	UNE	0.1	1.24	18		4.7 4.3
		E	41						
		ES	54		-1.6				
	TRZ					1.45	109		5.5 5.8
	MNG	IP	10 19 35.2		0.9	1.55	168		
	TUA	P	10 19 35.3	D	-0.2	1.67	81		5.7 5.6
		E	35.8						
		E	41						
		ES	43.5						
		ES	20 02.5		0.0				
	WTZ	IP	10 19 37.4	D	-0.3	1.89	54		5.1 4.9
		E	46.0						
		E	59						
		E	20 03						
		ES	07		0.6				
	CAZ	P	10 19 41.1		2.1	2.02	154		

MNG	EPN	10 40 29.5	0.4	1.95	128	3.5	3.7
	ESN	52.5	-0.6				
WEL	EPN	10 40 32	0.9	2.10	152	3.6	3.7
	ESN	58	1.3				
KRP	EP*	10 40 38	1.9	2.23	48	3.3	3.3
	ESN	41 00	0.2				
	ESG	11	-1.0				
75/ 040							
JAN 18	H M S	40.17S 173.85E	12 KM	SE	0.7	AVG MAG	3.4
	+ -	0.02 0.02	R				
	H M S	DIR RES	DIST	AZ	W-A	W P	W S
COB	PN	13 33 49.1	-0.7	1.25	222	3.4	3.4
	ESN	34 07	0.4				
WEL	EPG	13 33 53.9	-0.5	1.32	148	3.1	3.3 3.7
	ESN	34 09	0.9				
MNG	PN	13 33 51.3	0.5	1.32	110	3.2	3.0
	ESN	34 07.5	-0.8				
CNZ	PN	13 33 54.4	-0.6	1.63	54	3.6	3.9
	ESN	34 16	0.4				
KRP	EP*	13 34 13	0.2	2.59	31	3.3	3.2
	ESN	36	-3.2*				
	ES*	47	0.1				
75/ 041							
JAN 18	H M S	40.30S 174.15E	12 KM	SE	1.3	AVG MAG	3.4
	+ -	0.03 0.03	R				
	H M S	DIR RES	DIST	AZ	W-A	W P	W S
MNG	P*	21 59 21.9	0.4	1.06	108	3.2	3.5
	ES*	35	-0.8				
WEL	P*	21 59 22.7	0.7	1.09	155	2.9	3.2 3.5
	S*	36.3	-0.3				
COB	IPN	21 59 25.9	U -0.0	1.34	233	3.9	
	ESN	44	0.5				
CNZ	PN	21 59 29.1	0.4	1.54	45	3.7	3.9
	ES*	52	1.9				
KRP	PN	21 59 42.9	-0.4	2.61	25	3.5	3.3
	ESN	22 00 12	-2.4				
75/ 042							
JAN 19	H M S	37.78S 176.84E	168 KM	SE	0.8	AVG MAG	4.1
	+ -	0.02 0.02	R				
	H M S	DIR RES	DIST	AZ	W-A	W P	W S
WTZ	IP	22 10 43.1	U 0.2	0.24	150		
KRP	IP	22 10 46.4	UW -0.8	1.04	261	3.8	3.3
	ES	11 08	0.0				
TUA	IP	22 10 48.7	U 1.4	1.06	167	4.5	4.2
	ES	11 09	0.7				
GNZ	IP	22 10 50.2	0.9	1.27	133	4.4	4.6
	ES	11 11	-0.7				
ECZ	P	22 10 50.3	0.2	1.36	87	4.2	4.3
	ES	11 12	-1.1				
CNZ	P	22 10 56.1	2.2*	1.74	215	4.1	3.3
	ES	11 20	-0.0				
GBZ	P	22 10 55.9	0.3	1.90	325	3.9	
MNG	IP	22 11 09.3	U 0.1	3.02	200	4.4	3.8
	ES	47	0.1				
WEL	P	22 11 19.1	-0.7	3.85	204	4.4	4.0 4.0
	ES	12 05	-0.6				
75/ 043							
JAN 20	H M S	45.32S 167.24E	12 KM	SE	1.3	AVG MAG	3.7
	+ -	0.04 0.05	R				
	H M S	DIR RES	DIST	AZ	W-A	W P	W S
MNW			0.53	150	3.1	3.9	4.0
ROX	EPN	14 31 12	0.5	1.47	97		
	ESN	29	-1.5				

LOCAL EARTHQUAKES

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	WPZ	EPN	14 31 15	-0.3	1.74	141		3.5	3.6				
		ESN	38	0.9									
	OMZ	IPN	14 31 27.0	U -0.1	2.61	86		3.8	3.7				
		ESG	32 15	1.1									
	MJZ				2.66	61		3.4	3.4				
	GPZ	ESN	14 32 35	-1.8	4.19	69	4.1						
	COB	EPN	14 32 10.5	-0.5	5.83	45			3.9				
		ESN	33 18	1.6									
JAN 21	H	H	S						75/ 044				
	19	56	42.5	39.70S	174.11E	138 KM	SE 1.3	AVG MAG	4.0				
			+ - 1.2	0.04	0.06	14							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	CNZ	IP	19 57 06.5	D				-2.0	1.22	66		4.5	4.3
		ES	27.5					-1.0					
	MNG	P	19 57 10.2					-0.2	1.40	132		3.9	4.3
		S	33.2					1.4					
	WEL	EP	19 57 13					-0.3	1.67	163	3.6		
		ES	37					0.0					
	COB	EP	19 57 15					0.8	1.74	217			4.3
		E	18										
		ES	38					-0.5					
	KRP	EP	19 57 19					0.6	2.09	33		3.6	3.9
		ES	47					1.1					
	KAI								3.49	215	4.0		
	GPZ*	ES	19 58 28					-5.5*	4.14	195			
		E	44										
JAN 22	H	H	S										75/ 045
	12	52	41.6	48.22S	165.93E	12 KM	SE 1.2	AVG MAG	4.5				
			+ - 1.0	0.14	0.14	2							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	WPZ	EPN	12 53 22					0.4	2.53	53		4.5	4.8
		ESN	52					0.3					
	MNH								2.70	26	4.2	5.0	4.8
	ROX	EPN	12 53 36					-0.3	3.60	42			
		ESN	54 20					2.0					
	OMZ	EPN	12 53 50					-0.8	4.66	49		4.4	4.5
		ESN	54 43.5					-0.2					
		E	57										
	MJZ	ESG	55 17.5					-1.2					
		EPN	12 53 55					-4.2*	5.28	38	4.0	3.9	
		EP*	54 12.5					-0.6					
		E	52										
	GPZ		12 54 22						6.51	48	4.8		
		E	55					1.8					
		EPG	55 37										
		E	56 07										
	COB	EPN	12 54 43					-1.0	8.62	37			
		ESN	56 18.5					-0.2					
JAN 22	H	H	S										75/ 046
	21	44	24.9	49.89S	164.72E	33 KM	SE 1.1	AVG MAG	4.3				
			+ - 1.8	0.26	0.33	3							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	WPZ	P	21 45 26.7					0.3	4.25	42		4.0	4.4
		ES	46 13.5					-0.1					
	MNH								4.55	26	4.5	4.5	4.1
	ROX	ES	21 46 41					-0.4	5.40	37			
	MJZ	ES	21 46 20						7.09	36			
		E	47 21					-1.0					
	COB	EP	21 46 49					-0.4	10.44	36			
		ES	48 43					1.4					

JAN 23		H	M	S							75/ 047			
		06	08	20.2	37.06S	177.44E	223	KM	SE	1.1	AVG MAG	4.0		
				+ - 1.1	0.04	0.05								
					H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
GNZ	IP	06	08	57.8			D		-0.2	1.65	164		4.6	4.1
	ES			09 26					-1.1					
KRP	P	06	08	58.0			D		-0.8	1.74	240		3.9	
	ES			09 28					-0.5					
TUA	EP	06	08	58.5					-0.4	1.76	187		4.2	4.1
	ES			09 29					0.2					
GBZ	P	06	08	55.0					-4.2	1.78	298		3.9	
TRZ	EP	06	09	07					0.4	2.53	191		4.1	4.4
	ES			45					2.4					
CNZ	EP	06	09	08.5					1.1	2.60	214		3.5	3.4
	E			49.5										
ONE	ES	06	09	48					0.3	2.79	296			
MNG	IP	06	09	21.4			U		-0.6	3.87	203		4.1	4.1
	ES			10 09					-0.9					
WEL	ES	06	10	28					-0.2	4.70	205			4.1
JAN 23		H	M	S							75/ 048			
		09	34	50.9	32.11S	179.24W	427	KM	SE	2.4	AVG MAG	5.5		
				+ - 2.0	0.12	0.25								
					H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
GBZ	EP	09	36	25					-0.1	5.99	225			
ONE	EP	09	36	31					0.9	6.45	234		5.0	
	EP			37 45										
GNZ	EP	09	36	34					-0.9	6.89	198			
	E			38										
	ES			37 55					-2.0					
CRZ	P	09	36	34.8					-3.0	7.15	249			
KRP	EP?	09	36	37					-1.4	7.21	215			
	E			41.9										
	ES			38 05					1.7					
TUA	EP	09	36	41					1.6	7.30	203			
	ES			38 06					0.8					
TRZ	EP	09	36	47					-1.2	8.09	202			
	E			50										
	ES			38 19					-1.8					
CNZ	EP	09	36	51					1.0	8.25	209			
	ES			38 28					3.9					
TNZ	EP	09	36	59					3.2	8.76	215			
	E			38 43										
MNG	P	09	37	01.7					-2.4	9.50	205			
	E			04										
	ES			38 38					-4.6					
CAZ	EP	09	37	06					1.8	9.50	201			
	ES			38 52					2.3					
WEL	EP	09	37	15					1.3	10.34	206		6.0	
	ES			39 06					-1.0					
CIZ	E	09	40	12						12.01	171			
JAN 23		H	M	S							75/ 049			
		18	55	58.0	37.53S	176.42E	220	KM	SE	1.2	AVG MAG	4.6		
				+ - 0.8	0.03	0.04								
					H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
WTZ	IP	18	56	27.0			U		-0.8	0.57	129		4.6	4.1
	E			37										
KRP	IP	18	56	29.2			USW		0.5	0.76	247		4.4	
	ES			53					0.5					
TUA	P	18	56	33.1					0.9	1.31	154		5.2	4.9
	ES			58.5					-0.3					
GBZ	P	18	56	32.9					-1.7	1.59	331		3.8	
GNZ	IP	18	56	35.2			W		0.4	1.62	129			
	ES			57 02					-1.3					

LOCAL EARTHQUAKES

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ECZ	P	18 56 35.0	-0.4	1.69	93		4.8	4.4
CNZ	E	56 56						
	IP	18 56 37.3	U	1.6	1.72	203	4.5	4.4
TRZ	E	57 13						
	P	18 56 38.7	D	0.8	1.95	171	5.2	5.1
TNZ	ES	57 10		1.4				
	EP	18 56 43		2.2	2.24	225	4.3	3.9
ONE	E	57 21						
	EP	18 56 45		1.7	2.48	317	3.8	
MNG	ES	57 17		-1.4				
	IP	18 56 49.8	D	-0.3	3.08	193	4.9	4.7
CAZ	E	57 22.5						
	ES	26		0.6				
WEL	EP	57 31		0.6	3.28	183		
	ES	57 33		-1.6				
COB	P	18 56 59.1		-0.5	3.87	199	4.9	4.7
	ES	57 46		-1.3				
GNZ	EP	18 57 06		-1.1	4.49	218		
	ES	58 00		-0.8				
JAN 23	H M S	39.84S 174.41E	121 KM	SE	1.0	AVG MAG	75/050	3.8
		+ - 0.7	0.02	0.03	7			
TNZ	P	21 53 53.7	DIR	RES	DIST	AZ	W-A	W P W S
	ES	54 08		-0.1	0.65	358	3.9	3.6
CNZ	IP	21 53 58.0	D	0.3	1.08	54		
	E	54 11						
MNG	ES	57 17		1.5				
	P	21 53 59.4		1.1	1.13	134	3.4	3.5
WEL	ES	54 16		-0.4				
	S	21 54 23.0		-0.1	1.47	169	3.6	4.1
COB	P	21 54 06		0.2	1.79	225	4.1	4.2
	ES	29		-0.5				
KRP	P	21 54 10.2		0.5	2.10	25	3.6	3.5
	ES	36		-0.4				
GNZ	ES	21 54 57		-1.6	3.05	68		3.8
JAN 24	H M S	41.13S 173.94E	12 KM	SE	1.4	AVG MAG	75/051	4.1
		+ - 0.3	0.02	0.02	9			
WEL	PG	13 30 33.2	DIR	RES	DIST	AZ	W-A	W P W S
	SG	43		1.2	0.65	104	4.3	
COB	IPG	13 30 37.4		2.2				
	SG	51		0.1	0.91	272		
MNG	IP	13 30 41.2	D	-0.5	1.28	67	4.6	
	PG	44		-0.7				
KKY	SG	31 01.5		-0.4				
	P	13 30 42.5		0.4	1.30	188		
CAZ	PG	44		-1.2				
	SG	31 03		0.2				
TNZ	PG	13 30 55		0.9	1.75	83		
	ES	31 15.5		2.6				
CNZ	SG	21		3.3				
	P	13 30 53		-0.5	1.97	10	3.9	4.3
KAI	S	31 19.5		-0.1				
	PN	13 30 55.2	U	-0.3	2.29	33	4.4	4.6
TRZ	S	31 28		-1.2				
	PN	13 30 57		0.7	2.35	233	3.9	
ESG	P	31 02		2.0				
	SN	24		-0.6				
ESG	EPN	13 31 03.5		2.2	2.71	55	4.2	4.1
	P	09		2.8				
	ES	43		1.2				
	ESG	53		2.9				

JAN 25		H	M	S								75/ 053
	01 00	40.6	36.63S	177.03E	12 KM	SE	1.2	AVG MAG	4.0			
		+ 0.5	0.03	0.03								
			H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
GBZ	EPN		01 01	04			0.1	1.31	288		4.2	3.8
	P			05			0.9					
	PG			09			1.8					
	ESG			26			1.0					
HTZ	EP		01 01	05			0.2	1.35	181			
ECZ	PN		01 01	08			-0.1	1.61	132		5.0	
	IP			09.2			-0.1					
KRP	P		01 01	13			1.3	1.76	222			
	SG			39			-0.9					
GNZ	IP		01 01	17.0			-1.6	2.16	159		4.8	
	ESG			53			-0.5					
TUA	P		01 01	21			2.1	2.18	177		4.1	
ONE	EP		01 01	20			-1.3	2.32	291	3.5		
	ESN			44			-1.7					
	S			51			-0.9					
	SG			58.5			-0.3					
CNZ*	P		01 01	31.5			1.6	2.82	204		4.7	
	I			33.5								
TRZ*	P		01 01	30			-1.7	2.92	183		4.2	
TNZ*	P		01 01	40			1.8	3.30	219		4.0	
MNG*	PN		01 01	45			2.0	4.16	196		3.7	
CRZ*	EPN		01 01	43			-0.1	4.17	300		3.6	3.4
	ESN			02 31			0.2					
WEL*	EL		01 03	50				4.97	200			
COB*	EPN		01 02	05			2.9	5.57	216		3.9	
	EP			22			5.0					

JAN 26		H	M	S								75/ 054
	03 04	16.0	39.47S	175.21E	122 KM	SE	0.8	AVG MAG	3.9			
		+ 0.8	0.03	0.03								
			H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
CNZ	IP		03 04	33.4		U	-0.4	0.37	45			
	S			48			0.6					
TNZ	P		03 04	36			0.2	0.70	293			3.3
	S			51			-0.1					
MNG	IP		03 04	41.2		U	0.9	1.17	170		4.3	3.8
	S			58			-0.8					
TRZ	EP		03 04	42			0.8	1.25	94		3.8	3.8
	S			05 00			-0.4					
KRP	P		03 04	44			-0.8	1.56	10			
	IS			05 03.5			-3.1					
TUA*	ES		03 05	07			-1.3	1.65	67			4.0
WEL*	P		03 04	48.5		D	0.4	1.85	190	3.4	3.7	3.9
	S			05 13			0.6					
GNZ*	P		03 04	53.8		U	-0.6	2.34	70		4.1	3.7
	S			05 20.5			-3.0					
COB*	P		03 04	56.0		U	-0.4	2.49	229		3.9	4.2
	S			05 26			-1.0					
GPZ*	S		03 06	13			-5.5	4.64	204	4.1		
MJZ*	P		03 05	37.5			-2.5	5.74	217			
	S			06 39			-6.2					
OMZ*	S		03 06	57			-5.2	6.44	208			
CIZ*	S		03 07	27			-3.7	7.61	129			

JAN 27		H	M	S								75/ 055
	14 38	25.0	39.40S	175.60E	107 KM	SE	1.3	AVG MAG	4.9			
		+ 0.7	0.03	0.03								
			H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
CNZ	IP		14 38	39.9		U	-0.4	0.20	349			
WNZ	P		14 38	45.3		U	0.5	0.86	27		4.7	5.5
	S			39 01			1.1					
TRZ	P		14 38	45.6			-0.2	0.96	100		5.3	5.2

	S	39 03		1.3					
TNZ					0.97	282		5.0	4.8
MNG	IP	14 38 49.5	U	0.6	1.22	184			
TUA	EP	14 38 49.8	D	-0.6	1.34	65		5.3	5.4
	I	50.7							
	S	39 08.5		-1.0					
KRP	IP	14 38 52.8	UNW	0.9	1.47	358			
	S	39 11.5		-0.6					
WTZ	P	14 38 56		0.4	1.78	38			
WEL	IPN	14 38 58.5	U	0.3	1.99	198	4.6	5.0	
	S	39 30		7.0*					
GNZ	P	14 38 56.7	DNW	-2.1	2.03	69		4.6	4.8
	S	39 21.5		-2.5					
COB	P	14 39 09		0.2	2.77	231		5.0	5.0
	S	40		-1.8					
ECZ	P	14 39 11.0	U	0.8	2.87	55		4.7	4.8
	S	46		1.7					
GBZ*	P	14 39 15.3	D	1.0*	3.17	358		4.2	
KKY	ES	14 39 57		1.3	3.35	205			
ONE*	EP	14 39 23		1.0*	3.75	344	4.0		
	S	40 06		0.6*					
KAI*	S	14 40 22.5		-0.2*	4.45	224	4.7		
GPZ*	EP	14 39 35		-1.8*	4.83	206	5.1		
	S	40 27		-5.0*					
CRZ*	EP	14 39 48		2.5*	5.48	334			
	S	40 49		1.2*					
HJZ*	P	14 39 52		-0.4*	5.98	218			
	S	40 55.5		-4.6*					
CIZ*	EP	14 40 11		-1.2*	7.43	130			
	S	41 26		-9.4*					
HSZ*	EP	14 40 17		0.1*	7.77	225			
	S	41 37.5		-8.4*					
MNW*	P	14 40 34		4.9*	8.68	220	4.9		
	S	42 01		-4.8*					
WPZ*	SN	14 42 04		-4.3*	8.78	212			

FELT MOAHANGO (50), WANGANUI (57) MM IV

	H	M	S							75/056
JAN 28	14	26	56.5	38.07S	179.12E	12 KM	SE	1.4	AVG MAG	4.2
			1.1	0.04	0.05	9				
				H	M	S	DIR	RES	DIST	AZ
ECZ	PG	14 27 09.5					0.9	0.59	310	W-A
	I	13								W P W S
	SG	21					4.3*			4.6 4.5
GNZ	PG	14 27 17.8	U				0.3	1.03	236	
	ESG	32.5					1.0			3.9 4.2
	I	36.5								
WTZ	P*	14 27 25.4	D				-1.0	1.68	272	4.2
TUA	P*	14 27 27					0.2	1.71	244	4.1 4.6
	PG	32					0.9			
	S*	51.5					2.0			
	SG	53					-1.2			
TRZ	P*	14 27 35					-2.3	2.32	230	4.2 4.6
	S*	28 07.5					-0.5			
KRP	PN	14 27 40					-0.7	2.83	272	
	PG	53					-0.8			
	SN	28 14					-0.1			
CNZ	PN	14 27 45					1.8	3.01	247	4.0 4.0
	EP*	50					0.9			
	EPG	28 00					2.5			
	S*	26.5					-2.2			
GBZ	PN	14 27 48.5	D				-0.6	3.45	301	4.2
MNG	PN	14 27 52.8					-1.1	3.79	227	4.1 4.2
TNZ*	EP*	14 28 07					3.1*	3.87	252	3.6 3.6
	ES*	53					-1.5*			
ONE*	PN	14 28 02					-0.8*	4.45	300	
WEL*	PN	14 28 03.5					-1.9*	4.64	225	4.5 3.9 4.4

	PG		39		-0.8						
	S*		39	12	1.2						
GPZ	EPN	02	38	31	1.1	3.29	172	4.0			
	P*		39		2.3						
	S*		39	16	-3.9*						
KRP*	PN	02	38	37	1.4*	3.71	49				
	P*		47		3.0*						
	SN		39	21.5	3.0*						
	SG		47		2.5*						
MJZ*	EPN	02	38	34.5	-1.4*	3.73	198	3.9	3.8		
	SN	39	16.5		-2.4*						
TRZ						3.79	78			4.1	
TUA*	EPG	02	39	03	-3.0*	4.28	69	4.1	4.1		
	ESG		40	00	-3.8*						
GNZ*	SN	02	39	51	1.9*	4.97	71			3.7	
MSZ*	EPN	02	38	55	-0.9*	5.20	214	4.0	4.0		
	ESN		39	53	-1.5*						
MNW*	ESN	02	40	21	1.6*	6.23	210				

		H	M	S						75/ 059		
JAN 30		05	10	22.5	38.67S	176.17E	109 KM	SE	1.0	AVG MAG	4.5	
				0.7	0.03	0.02	6					
					H	M	S	DIR	RES	DIST	AZ	W-A W P W S
	WNZ				05	10	36.9	U	-0.8	0.07	308	
	CNZ				05	10	39.7	D	-1.5	0.72	223	4.3 4.6
							55		-0.4			
	TUA				05	10	41.8	D	0.1	0.78	100	4.8 5.0
							52.5					
							56		-0.4			
	KRP				05	10	43.0	UN	0.1	0.90	326	
							57.5		-0.8			
	WTZ				05	10	43.8	D	0.5	0.94	43	4.4 4.3
							00		0.9			
	TRZ				05	10	44		-0.1	1.01	150	4.6 4.7
							01.5		1.1			
	GNZ				05	10	49.3	D	0.5	1.45	89	4.8 4.4
							09		-0.4			
	TNZ				05	10	50.3	D	0.6	1.49	249	4.4 3.8
							12		1.9			
	MNG				05	10	54.9	D	-1.2	2.01	195	4.4 4.5
							25		3.8*			
	ECZ*				05	10	59		1.6*	2.11	63	5.0
	WEL*				05	11	03.3		-3.9*	2.82	202	4.4 4.5 4.6
							47.5		6.7*			
	COB*				05	11	13.5		-3.8*	3.58	227	4.3 4.2
							59		0.1*			
	KAI*				05	12	41		0.4*	5.29	222	4.0
	GPZ*				05	12	39.5		-10.8*	5.68	207	4.4
	MJZ*				05	11	57.5		-4.1*	6.83	217	
							13 08		-10.3*			

		H	M	S						75/ 060		
FEB 01		12	05	58.9	41.72S	172.92E	33 KM	SE	1.2	AVG MAG	4.0	
				0.3	0.03	0.03	9					
					H	M	S	DIR	RES	DIST	AZ	W-A W P W S
	COB				12	06	14.6		2.8*	0.64	347	
	KAI				12	06	24.1		-0.0	1.39	234	3.9
							41.3		-1.3			
	WEL				12	06	23		0.9	1.45	73	4.1 4.0 4.6
							23.8		-1.4			
							41.5		1.9			
	GPZ				12	06	30		0.5	1.99	186	4.1
							53.2		0.7			
	MNG				12	06	32.3	D	-0.4	2.22	61	4.0 4.3
							36		-2.3			
							58.5		0.3			
	TNZ				12	06	41		0.9	2.76	24	3.7 3.9

LOCAL EARTHQUAKES

	EP*		46.5		-1.0								
	SN		07 10		-1.4								
MJZ	EPN	12 06	42.5		0.5	2.90	218		3.5	3.7			
	EP*		49		-0.9								
	SN		07 15		0.3								
CNZ*	EPN	12 06	47.5		1.2*	3.21	39		4.0	4.2			
	P*		54		-1.3*								
	SN		07 14.5		-7.9*								
OMZ*	EPN	12 06	53		0.6*	3.66	203		3.8	3.9			
	SN		07 34		0.8*								
TRZ*	SN	12 07	34		0.4*	3.67	55			3.8			
KRP*	PN	12 07	00		-1.0*	4.29	29						
	SN		47		-1.6*								
	ES*		08 07		-2.7*								
MSZ*	EPN	12 07	07.5		0.9*	4.70	229		3.6				
GNZ*	SN	12 08	02.5		-2.5*	4.97	54			3.9			
ONE*	ESN	12 08	30		-0.8*	6.04	11	4.1					
CIZ*	SN	12 09	17		-1.7*	8.04	110						
	H M S										75/ 061		
FEB 01	23 51	44.5	39.55S	175.65E	12 KM	SE	1.2		AVG MAG		3.8		
		+ 0.3	0.01	0.02	R								
	H M S				DIR	RES	DIST	AZ	W-A	W P	W S		
CNZ	IPG	23 51	52.0		U	-0.2	0.36	347					
	SG		59			1.7							
TRZ	P*	23 52	02			1.0	0.90	90	4.1	3.6			
	PG		05			2.1							
WNZ	PG	23 52	03			-1.6	0.99	21	4.3	4.4			
	SG		19			1.1							
TNZ	PG	23 52	05.8		D	-0.1	1.05	290	3.9	3.6			
	SG		22			1.9							
MNG	IPG	23 52	05.8		D	-0.4	1.07	187	4.2	3.5			
	SG		21			0.3							
TUA	PG	23 52	11			-1.5	1.38	58	3.8	3.8			
	SG		30			-1.2							
KRP	P*	23 52	13			-0.5	1.63	357					
	PG		16			-1.5							
	S*		34			-1.1							
WEL	P*	23 52	18.0		U	0.7	1.86	201	3.0	3.7	3.7		
	SG		47			-0.2							
GNZ	EPG	23 52	26.5			0.4	2.06	65	3.4				
	ESG		55			1.1							
COB	EPN	23 52	27			0.0	2.71	235	3.8	3.7			
	P*		30.5			-1.4							
	S*		53 07			-0.5							
	H M S										75/ 062		
FEB 02	10 24	57.6	39.19S	175.15E	12 KM	SE	1.7		AVG MAG		3.9		
		+ 0.5	0.03	0.03	R								
	H M S				DIR	RES	DIST	AZ	W-A	W P	W S		
CNZ	IPG	10 25	03.7		U	-0.5	0.31	92					
	ESG		09.5			0.9							
TNZ	IPG	10 25	09.9		D	-0.0	0.60	270	4.2	4.1			
	SG		20			1.9							
WNZ	EPG	10 25	15.5			-1.0	0.93	53	4.0	4.0			
KRP	PN	10 25	20.0			-0.8	1.30	14					
	P*		21.0			0.1							
	SN		38			0.0							
TRZ	P*	10 25	22			0.3	1.34	106	4.1	4.0			
	PG		28			3.1							
	SG		45			1.9							
MNG	IP*	10 25	21.5		U	-1.7	1.45	170					
	S*		41.5			-1.4							
TUA	PG	10 25	27.5			-2.6	1.60	77	3.8				
CAZ*	PG	10 25	34			-2.1*	1.90	155					
WEL*	P*	10 25	33.8			-1.1*	2.12	188	3.8	4.5	4.4		
	SN		59			1.2*							

LOCAL EARTHQUAKES

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TUA	P _e	07 17 42	-0.2	1.46	61	3.5	3.8
	S _e	18 01	-0.7				
KRP	P _e	07 17 44	-0.5	1.59	1		
	EPG	47.5	-1.0				
	S _e	18 05	-0.7				
WEL	P _e	07 17 49.3	0.4	1.85	198	3.0	3.7 3.7
	SG	18 19.5	0.9				
GNZ	EPG	07 18 00	0.5	2.14	67		
	ESG	31	2.6				
COB	P _e	07 18 02	-0.4	2.64	233	3.7	3.5
	S _e	38	0.9				

FELT OHAKUNE (49) MM III

FEB 05 04 01 43.4 33.25S 178.37W 12 KM SE 2.1 AVG MAG 75/ 065
 - 1.9 0.09 0.22 7 5.0

		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
GBZ	PN	04 03 09.5		0.8	5.86	238		4.3	
WTZ	EPN	04 03 12		0.8	6.05	217			
GNZ	PN	04 03 12		-0.3	6.12	207			
	P _e	33		3.8					
	SN	04 21		0.3					
	S _e	52		3.0					
	SG	05 09		-0.7					
TUA	EPN	04 03 17		-2.1	6.62	212			
	P _e	34		-3.8					
	SN	04 38		2.3					
	ES	05 01		-3.1					
KRP	PN	04 03 22		0.5	6.81	225			
WNZ	EPN	04 03 26		2.0	6.99	218			
TRZ	PN	04 03 28		-1.3	7.36	210			
	EP _e	51		0.2					
	SN	04 50		-0.9					
CRZ	PN	04 03 31.5		0.2	7.54	259			
CNZ	PN	04 03 34		0.5	7.70	218			
	I	45							
TNZ	PN	04 03 46		4.1	8.33	223			
	I	56.5							
MNG	PN	04 03 46		-2.7	8.84	212			
	EP _e	04 09		-6.8					
	ESN	05 20		-5.8					
	ES	55		-15.8					
WEL	EP _e	04 04 25		-5.5	9.70	212	5.5		
	SN	05 38		-8.1					
	S _e	06 22		-14.6					
COB	SN	04 05 59.5		-5.7	10.55	220			
CIZ	SN	04 06 16		4.6	10.78	173			
GPZ	SN	04 06 45		-8.2	12.57	211	5.3		
MSZ	PN	04 05 18		2.5	15.59	219			
	SN	07 56		-3.8					

FEB 06 15 39 44.8 33.37S 176.59W 33 KM SE 1.9 AVG MAG 75/ 066
 - 2.1 0.11 0.11 7 5.4

		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
GNZ	EPN	15 41 22.5		1.2	6.84	218			
	SN	42 38		2.3					
WTZ	PN	15 41 23		-0.0	6.96	227			
TUA	EPN	15 41 28		-1.1	7.42	221			
	SN	42 52		2.3					
KRP	EPN	15 41 34		-0.9	7.85	232			
	SN	43 01		0.9					
TRZ	SN	15 43 07		0.2	8.14	219			
WEL	SN	15 44 00		-2.2	10.47	219	5.6		
CIZ	SN	15 44 05		0.5	10.57	180			
COB	SN	15 44 27		1.4	11.47	225			
GPZ	SN	15 45 06		-2.0	13.30	216	5.3		

	MNG	PN	10 24 53.0		0.9	1.33	152		3.3	3.1		
		ESN	25 10		1.7							
	KRP	IPN	10 24 57	D	0.2	1.66	24					
		P*	25 02		1.4							
		SN	17		0.5							
	WEL	EP*	10 25 02.7		-0.9	1.84	178					
		ES*	27		-1.1							
	COB	EPN	10 25 05		0.7	2.21	221		3.5	3.8		
	H	M	S						75/	074		
FEB 10	00 04		30.6	37.75S	176.32E	215	KM	SE	1.2	AVG MAG	4.3	
			+ 1.2	0.05	0.05							
				4	M	S	DIR	RES	DIST	AZ	W-A	W P W S
	WTZ*	P?	00 04 59.0		-0.8*	0.58	114					
	KRP	P	00 05 00.0	U	-0.1	0.64	254					
		S	22.7		-0.2							
	TUA	EP	00 05 04		0.3	1.24	148			4.5	4.5	
		ES	30		0.5							
	CNZ	EP	00 05 07		0.6	1.57	202			3.9		
	GNZ	P	00 05 07.0		0.2	1.61	124			4.4	4.4	
		S	33.0		-1.9							
	TRZ	ES	00 05 40		1.4	1.84	168			4.5	4.6	
	MNG	IP	00 05 19.8		-1.0	2.94	193			4.5	4.3	
		E	56.8									
		S	58.8		-0.8							
	CAZ	S	00 06 06		2.0	3.15	181					
	WEL	ES	00 06 15		-1.3	3.73	198		4.3		4.2	
	COB	EP	00 05 38		0.4	4.34	219				3.9	
	H	M	S							75/	075	
FEB 10	08 31		53.4	45.08S	167.65E	126	KM	SE	0.4	AVG MAG	4.0	
			+ 0.7	0.02	0.03							
				4	M	S	DIR	RES	DIST	AZ	W-A	W P W S
	MSZ	P	08 32 12.2		0.3	0.45	24					
		S	26		-0.2							
	MNW					0.70	182			4.3	4.2	
	WPZ	P	08 32 24.7		-0.2	1.78	153			3.6	3.8	
		S	49		0.1							
	MJZ	S	08 33 00		0.0	2.29	62					
	H	M	S							75/	076	
FEB 10	11 23		15.0	44.28S	167.67E	12	KM	SE	1.1	AVG MAG	4.2	
			+ 0.8	0.05	0.05							
				4	M	S	DIR	RES	DIST	AZ	W-A	W P W S
	MSZ	IP*	11 23 22.2		-1.1	0.43	156					
	MNW					1.50	181			4.3	4.3	
	ROX					1.67	136			4.2	4.4	
	MJZ	PN	11 23 49.0		0.8	2.03	83					
		P*	51		0.2							
		PG	54.2		-1.9							
		SN	24 13.8		0.4							
		S*	19		1.3							
	OHZ	EPN?	11 23 54		0.2	2.44	110			4.6	4.4	
		E	55									
		P*	57.7		-0.2							
	WPZ	EPN	11 23 56		1.1	2.52	161			3.8	4.0	
		ESN	24 25		0.0							
	KAI	ES*	11 24 58		4.0*	3.24	59		4.1			
	COB	EPN	11 24 28		0.5	4.91	51			4.0	3.9	
		ESN	25 22		-1.1							
	MNG*	EPN	11 24 58		4.4*	6.84	60					
	H	M	S							75/	077	
FEB 11	02 14		57.1	49.00S	164.39E	33	KM	SE	2.0	AVG MAG	4.5	
			+ 1.9	0.05	0.14							

LOCAL EARTHQUAKES

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		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
WPZ	EPN	02	15	51		-1.5	3.80	54			
	ESN		16	33		-2.0				4.3	4.5
MNW							3.89	35		4.7	4.4
CBZ	EPN	02	16	03		-1.4	4.67	141		4.8	4.8
	ESN			57		1.0					
ROX							4.86	45		4.2	4.4
MSZ	PN	02	16	09.8		1.6	4.96	31		4.4	4.1
OMZ	EPN	02	16	22		0.5	5.94	51		4.4	4.6
	ESN		17	30		3.4					
HJZ	EPN	02	16	28		-1.5	6.53	42			
	EP*			50.8		0.6					
	ESN		17	38		-2.7					
COB	EPN	02	17	15		1.1	9.86	40			
	ESN		19	01		0.9					
MNG*	EPN?	02	17	36		0.8*	11.49	47			

		H	M	S				75/ 078			
FEB 11		06	06	02.1	38.06S	176.34E	168 KM	SE	1.1	AVG MAG	5.1
				+ 0.6	0.02	0.04	6				
WTZ	IP	08	06	24.1	U	-1.7	0.52	82		5.3	5.0
WNZ	P	08	06	26.9	U	0.7	0.60	198			
KRP	IP	08	06	27.0	DSE	0.6	0.65	281			
	S			45		-0.2					
TUA	IP	08	06	28.5	U	-0.1	0.98	140		5.5	5.5
	S			49		-0.1					
CNZ	P	08	06	33.5		2.1	1.30	208			
GNZ	IP	08	06	32.0		-0.8	1.45	114			
TRZ	IP	08	06	34.9	U	1.1	1.54	166		5.5	5.6
	ES			59		0.8					
AUC	P	08	06	37.0	U	1.3	1.73	313			
TNZ						1.91	233			4.3	4.1
GBZ	IP	08	06	37.8	D	-0.4	1.96	339		5.2	
MNG	IP	08	06	46.1	U	-0.4	2.64	194			
	E(S)			07 18		-2.5					
ONE	P	08	06	48.0		-0.1	2.77	325	4.5		
	E			53.0							
	S			07 23		-0.4					
CAZ	IP	08	06	49.5	U	0.5	2.84	182		5.9	5.9
	S			07 25.5		0.5					
WEL	P	08	06	56.9	U	0.4	3.45	200	5.2	4.8	5.2
	S			07 35		-3.3*					
COB	P	08	07	04.0		-1.1	4.11	222		4.5	4.8
	E			11							
	S			53		-0.6					
CRZ	P	08	07	12.9		0.5	4.67	320		4.2	
KKY*	P	08	07	13.6		-0.5*	4.81	204			
	E			08 00							
	ES			07		-2.7*					
KAI*	ES	08	08	30.5		-3.7*	5.84	219	5.0		
GPZ							6.29	205	5.7		
HJZ*	EP	08	07	49.0		0.6*	7.40	215			
	S			09 06.5		-4.8*					
CIZ*	EP	08	08	00		4.2*	7.96	140			
	ES			09 22		-2.6*					
OMZ*	EP	08	07	55.5		-2.1*	8.10	208			
	ES			09 23		-4.9*					
MSZ*	ES	08	09	46		-6.6*	9.15	221			

		H	M	S				75/ 079			
FEB 11		15	24	03.6	40.11S	174.84E	12 KM	SE	1.2	AVG MAG	4.2
				+ 0.3	0.02	0.02	2				
MNG	IP*	15	24	16.0	U	-0.7	0.71	136		4.3	3.9
	S*			25		-1.5					
TNZ	PG	15	24	22.8		-0.9	0.99	339		4.8	5.0

	SG		37.2		0.1				
CNZ	IP*	15 24	21.9	U	-1.3	1.06	31		
	S*		36		-1.1				
WEL	P*	15 24	24.7		-0.1	1.18	183	4.1	4.0 4.4
	S*		39.9		-0.9				
CAZ	EP*	15 24	29		1.7	1.32	127		4.7 4.6
	SG		48		-0.3				
TRZ	EP*	15 24	32.9		0.4	1.63	71		3.9 3.8
	S*		55		0.9				
COB	ESG		25 00.9		2.0				
	EPN	15 24	36		1.3	1.88	238		4.0 3.9
	EP*		37.8		1.0				
	EPG		43		1.4				
	ES*		25 00.8		-0.8				
TUA	EP*	15 24	42		-0.5	2.21	55		4.1
	ESG		25 17.8		-0.4				
KRP	EPN	15 24	38.9		-1.3	2.25	14		
	P*		42		-1.2				
	(SN)		25 09		2.0				

FELT MANGANUI (57) AND LOWER HUTT (68) MM IV

FEB 11		H	M	S	35.93S 174.75E		12 KM	SE	1.6	AVG MAG	75/ 080
		16	45	20.3	0.05 0.05						4.4
		+ 0.4									
ONE	P*	16 45	25.2		DIR	RES	DIST	AZ		W-A	W P W S
	EPG		28			0.1	0.36	296		4.4	
	ES*		31.3			-1.5					
GBZ	P*	16 45	30.8		U	-1.7	0.65	116			
	IPG		32.0			-1.6					
	S*		42.2			0.7					
AUC	PN	16 45	36.9			-1.9	0.93	179			
	E		42								
KRP	PN	16 45	52.7		D	-1.6	2.08	163		5.2	4.5
	I		55.9								
	S*		46 26			1.4					
CRZ	PN	16 45	56.8			0.0	2.27	311		4.5	4.2
	IP*		46 01.7			1.5					
	ESN		24.6			0.4					
	ES*		32			1.8					
WTZ	E	15 46	32				2.72	140			
	ESN		34			-1.1					
TNZ							3.26	185		4.4	4.1
CNZ	PN	15 46	12			0.9	3.32	169			
	E		44								
TUA	EPN	15 46	14			1.1	3.44	147		4.2	
GNZ	PN	15 46	19.0			1.9	3.75	137		3.9	
TRZ	EPN	15 46	22			2.0	3.97	156		4.2	
MNG*	EPN	15 46	32.8			2.6*	4.71	173		4.2	
	E		50								
	I		34.6								
WEL*	PN	16 46	44			5.2*	5.35	180		4.7	4.3 4.0
	E		47 03								
	EP*		46 54			1.1*					
	ES*		48 09			5.4*					
COB*	PN	15 46	40.0			0.7*	5.39	197		4.8	4.3
	E		48.8								
	SN		47 39.9			-0.5*					
	E		51.0								
MJZ*	EPN	15 47	27			3.3*	8.69	201			
	E		29.9								

FELT IN SOUTHERN PARTS OF NORTHLAND; MAX. INTENSITY MM IV

FEB 11		H	M	S	45.39S 167.54E		116 KM	SE	0.8	AVG MAG	75/ 081
		17	35	46.0	0.03 0.04						4.1
		+ 0.7									

LOCAL EARTHQUAKES

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		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MSZ	P	17	36	05.8		-0.0	0.76	20			
	S			21		0.0					
ROX							1.25	95		3.9	4.1
WPZ	P	17	36	15.0		0.5	1.56	145		4.0	4.3
	S			35		-1.0					
OMZ	P	17	36	26		0.9	2.40	84		3.9	4.4
	S			55		0.4					
MJZ	P	17	36	26.9		-0.2	2.51	57			
	IS			58.0		0.7					
KA1*	ES	17	37	33		0.2*	4.00	46	4.1		
GPZ							4.02	67	4.4		
COB	EP	17	37	10		0.1	5.73	43		3.9	4.0
	ES			38 14		-1.0					
MNG*	P	17	37	33		-1.4*	7.52	53			
	ES			38 55		-3.6*					
											75/ 082
FEB 12	H M S	04	22	39.8	35.31S	179.34E	299 KM	SE	0.6	AVG MAG	4.9
				+ 0.7	0.07	0.11					
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
WTZ*	P?	04	23	38.5		-0.2*	3.27	215			
GNZ*	P	04	23	41.3	D	0.3	3.49	197		5.0	5.0
	S			24 29		0.3					
TUA	EP	04	23	45		-0.4	3.90	206		4.8	4.8
	ES			24 36		-0.7					
KRP	P	04	23	46.9		-0.2	4.02	228			
TRZ	EP?	04	23	54		-0.2	4.68	205		4.8	5.0
	S			24 55		2.6*					
CNZ	EP	04	23	58		1.1	4.92	217		4.5	4.4
CAZ*	EP	04	24	12		1.1*	6.10	203			
MNG	P	04	24	10.7		-0.3	6.11	209			
	S			25 23		0.4					
WEL	P	04	24	21		-0.4	6.96	210	5.5		
	S			25 41		-0.1					
COB*	ES	04	25	59		0.3*	7.76	220			
MJZ*	ES	04	27	12.5		1.2*	11.03	216			
											75/ 083
FEB 12	H M S	11	21	42.2	37.90S	176.19E	200 KM	SE	1.0	AVG MAG	4.2
				+ 0.9	0.03	0.04					
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KRP	P	11	22	09.8		0.4	0.51	267			
	S			30		-0.4					
WTZ	P	11	22	09		-1.0	0.65	98		4.1	
TUA	P	11	22	13		-0.4	1.19	140		4.5	4.6
	ES			38		0.3					
CNZ	P	11	22	16		0.9	1.39	201		3.8	3.5
	ES			41		0.4					
GNZ	P	11	22	19.0		0.7	1.63	118		4.3	4.5
	S			44		-0.5					
TRZ	P	11	22	19		0.8	1.73	163		4.4	4.5
	E			42							
	S			47		0.9					
MNG	IP	11	22	29.2	U	-0.5	2.77	191		4.5	4.4
	E			58							
	S			23 04.8		-1.6					
CAZ	S	11	23	12		0.9	3.00	179			
WEL	EP	11	22	39		-0.0	3.55	197	4.4		4.2
	ES			23 21		-2.0					
COB	S	11	23	37.5		1.3	4.15	219			3.5
											75/ 084
FEB 12	H M S	20	00	17.2	35.26S	179.05E	33 KM	SE	2.6	AVG MAG	4.0
				+ 3.7	0.19	0.28					

		I	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
GNZ	EPH?	20	01	06		-2.2	3.48	194		4.0		4.0	
	ESN			50		2.8							
TUA	E(SN)	20	01	55		-1.4	3.86	203				4.0	
KRP	E(PN)	20	01	15		1.2	3.89	226					
MNG	EPN	20	01	46		2.9	6.05	207					
	EP*			59		-3.1							
	SN		02	49		-0.4							
COB	ESN	20	03	28		0.2	7.66	219					
													75/ 085
FEB 14	H	M	S										
	09	12	45.7	38.93S	176.13E	100 KM	SE	1.3	AVG MAG	4.0			
			+-. 0.8	0.03	0.03	7							
	I	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S	
WNZ	P	09	13	00		-0.2	0.20	353					
CNZ	P	09	13	03		0.6	0.59	231					
	S			15.3		0.1							
TUA	IP	09	13	04.0	D	-0.3	0.80	89		4.5		4.3	
	ES			18.2		-0.2							
TRZ	P	09	13	07.9		2.5	0.90	144		4.0		3.9	
	S			22		1.8							
KRP	IP	09	13	07.0	U	0.4	1.02	332					
	S			21.9		-0.5							
TNZ							1.41	255		4.0		3.5	
GNZ	P	09	13	12.2	D	-0.3	1.49	83		4.1		3.9	
	S			31		-1.5							
MNG	P	09	13	17		0.1	1.86	195		3.8		3.7	
	E			21									
	S			38		-2.1							
WEL	ES	09	13	58		-1.6	2.67	203	4.0			3.9	
COB	EP	09	13	39.5		0.9	3.45	228		4.1		3.6	
	ES			14 19		0.3							
													75/ 086
FEB 14	H	M	S										
	15	16	04.8	38.66S	176.09E	12 KM	SE	0.5	AVG MAG	3.2			
			+-. 0.2	0.01	0.01	3							
	I	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S	
WNZ	IPG	15	16	04.7	U	-2.4*	0.03	39					
CNZ	EPN	15	16	20		0.5	0.68	217		3.1		2.8	
	ES*			27		0.0							
KRP	EPG	15	16	21.2		-0.8	0.84	330					
	ESG			34		0.5							
TUA	E(PG)	15	16	22		-0.2	0.85	101		3.2			
TRZ	E(PG)	15	16	26.5		0.0	1.07	147		3.3		3.1	
GNZ	E(PG)	15	16	36		0.3	1.52	90		3.5		3.3	
MNG	EP*	15	16	40		-0.3	2.01	193		3.0			
FELT MAIRAKEI (41)													75/ 087
FEB 14	H	M	S										
	19	54	34.4	42.98S	171.47E	12 KM	SE	1.0	AVG MAG	3.8			
			+-. 0.2	0.01	0.02	3							
	I	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S	
KAI	E(P*)	19	54	43		-0.3	0.45	354	3.1				
	S*			49		-0.7							
CHR*	EP*	19	54	52		-0.8*	1.01	124					
GPZ	P*	19	54	53.8		-0.8	1.12	130	3.5				
	PG			57.0		-0.1							
	S*			55 09		-0.7							
MJZ	PN	19	54	56.1		-0.7	1.24	216					
	P*			57.3		0.5							
	PG			58.4		-1.3							
	SN			55 13		-0.5							
	SG			15.5		-1.0							
KKY	EPN	19	55	03.5		0.1	1.73	72					
	P*			06		0.9							
	S*			27.8		-0.3							
COB	P*	19	55	11.8		0.2	2.11	27		4.1		4.1	

	WEL	ES	02 04 16		-0.3	5.06	205	4.9	4.3
	COB	EP	02 03 27		1.5	5.77	219		3.9
		S	04 32.9		0.6				
	H M S								75/ 091
FEB 16	06 42 51.9		44.98S 157.73E	131 KM	SE	0.6		AVG MAG	4.6
	* - 0.5		0.03 0.03	3					
	H M S			DIR	RES	DIST	AZ	W-A	W P W S
	HSZ	IP	05 43 10.3	U	-0.2	0.33	23		
	ROX	P	05 43 18.3		0.7	1.23	114	4.4	4.7
		S	36.9		-0.3				
	WPZ	IP	06 43 23.9	D	-0.7	1.85	155	4.9	5.0
		E	40						
		S	46.5		-3.0*				
	HJZ	P	05 43 29.1		0.3	2.19	64		
		IS	57.2		0.3				
	OHZ	EP	05 43 31		1.3	2.26	93		
		S	58		-0.4				
	KAI	ES	06 44 30		-0.2	3.62	49	4.5	
	GPZ	E	06 44 27			3.75	72	4.6	
		ES	33		-0.3				
	COB	P	06 44 10.0		-0.5	5.34	45	4.5	4.4
		S	45 12		0.5				
	WEL	P	06 44 24		-0.0	6.33	57		
		S	45 35		-0.5				
	MNG*	EP	06 44 34		-1.4*	7.17	55		
		S	45 53		-2.8*				
	KRP*	EP?	06 45 02		-0.0*	9.16	42		
		ES	46 46		2.3*				
	H M S								75/ 092
FEB 17	06 11 47.0		32.96S 179.55E	33 KM	SE	2.3		AVG MAG	4.5
	* - 3.3		0.21 0.12	3					
	H M S			DIR	RES	DIST	AZ	W-A	W P W S
	ONE	EPN	05 13 00		-0.4	5.13	235	4.7	
		ESH	56.9		-0.1				
	GNZ	EPN	05 13 07.5		-2.1	5.81	192	4.5	4.2
		P*	24		-3.7				
	CRZ	PN	06 13 10.1		-0.9	5.91	254	4.4	4.5
		E	18.5						
		ESN	14 15		-0.8				
		E	21						
	KRP	PN	06 13 13.0		1.7	5.94	212		
		P*	29.2		-0.7				
	TUA*	EPN	05 13 18		3.7*	6.15	198		
	TRZ	E(PN)	06 13 24		-0.9	6.94	198		
	CNZ	PN	06 13 29.2		2.2	7.02	206		
		P*	56.7		3.3*				
	MNG	EPN	06 13 42		-1.2	8.31	202		
		EP*	14 14		3.5				
	COB	EPN	06 14 06		3.4	9.77	212		
	HJZ*	EPN	06 14 59		13.1*	13.10	210		
	H M S								75/ 093
FEB 17	21 13 55.7		39.49S 173.45E	33 KM	SE	0.8		AVG MAG	4.3
	* - 0.4		0.02 0.03	3					
	H M S			DIR	RES	DIST	AZ	W-A	W P W S
	CNZ	PN	21 14 20.7		-0.8	1.64	81		
		P*	26.5		1.2				
		SN	41		0.1				
	COB	PN	21 14 21.5		-0.7	1.70	199	4.2	4.3
		P*	26		-0.2				
		ESN	44		1.7				
	MNG	PN	21 14 24.9		-0.5	1.92	127	4.6	4.6
		SN	47		-0.7				
	WEL	PN	21 14 27.3		-0.0	2.06	151	4.0	4.4 4.4
		P*	32		-0.4				

		SN	51	-0.1					
KRP	PN	21 14	29.6	D	-0.2	2.25	47		
	P*		35		-0.6				
	SN		55.8		0.2				
TRZ	EP*	21 14	43		1.4	2.60	93		
	ES*		15 19		3.2*		4.3		
KKY*	EPN	21 14	43		3.5*	2.94	177		
KAI	ES*	21 15	40		-0.3	3.42	206		
ONE*	ESN	21 15	37		4.3*	3.77	11		
GPZ*	ESN	21 15	43		-1.6*	4.26	188		
	ES*		16 09		3.3*		4.5		
MJZ*	EPN	21 15	10		2.1*	5.03	205		
	SN		16 05		1.7*				
FEB 18		H M S	32.43S	178.10W	33 KM	SE	2.5	AVG MAG	75/ 094
		14 09 29.1	0.06	0.14					5.3
		+ - 1.2							
RAO	EPN	14 10	17	DIR	1.1	3.17	3	W-A	W P W S
	P*		23		-1.7			4.7	4.9
	ESN		50		-1.6				
GBZ	EPN?	14 11	03		1.7	6.52	233		
GNZ	EPN	14 11	10		2.7	6.96	206		
	SN		12 25		2.0				
ONE	EPN	14 11	12		3.0	7.09	240		
TUA	EPN	14 11	15		1.2	7.45	210		
	ESN		12 36		1.4				
KRP	EPN?	14 11	13		-2.3	7.56	222		
	E		18						
CRZ	PN	14 11	23.0		2.4	7.96	253		
	ESN		12 47		0.1				
TRZ	EPN	14 11	26		2.0	8.21	209		
	ESN		12 54		1.1				
MNG	EPN	14 11	41		-2.3	9.66	210		
	S		13 25		-2.5				
WEL	ESN	14 13	43		-4.6	10.52	211	5.9	
COB	ESN	14 14	03		-3.8	11.34	218		
CIZ*	ESN	14 14	20		7.8*	11.57	174		
GPZ*	ESN	14 14	49		-3.4*	13.39	210	5.8	
MJZ*	ESN	14 15	16		-6.1*	14.61	215		
FEB 19		H M S	33.31S	179.69E	475 KM	SE	0.9	AVG MAG	75/ 095
		06 39 22.5	0.10	0.19	11				5.1
		+ - 0.9							
GNZ	P?	06 40	53	DIR	-0.5	5.49	194	W-A	W P W S
	E		53.0					5.1	4.6
	S		42 05		-0.7				
KRP	P	06 40	56.5		0.7	5.71	215	4.5	
TUA	EP?	06 40	58		0.7	5.86	200	4.9	5.0
	E(S)		42 13		0.8				
TRZ	P	06 41	05.9		0.7	6.64	199		
	ES		42 27		0.4				
CNZ	P	06 41	06.9		0.5	6.76	208		
MNG	P	06 41	19		-0.9	8.03	204		
	E		42 11						
	E		44						
	ES		52		-1.0				
WEL	ES	06 43	09		-0.3	8.87	205	5.7	
COB	EP	06 41	35		-1.1	9.54	214		
	E		37						
	ES		43 22		-0.4				
GPZ	ES	06 44	07		1.2	11.74	206	5.9	
MJZ*	ES	06 44	31		3.6*	12.86	211		

FEB 19		H	M	S	45.64S	166.41E	12 KM	SE	1.0	AVG MAG	75/ 096			
		09	26	41.5	0.03	0.04	2				4.0			
		+ 0.8						DIR	RES	DIST	AZ	W-A	W P	W S
MNH	P*	09	26	58.0			D	0.7	0.86	100	3.6	4.4	4.3	
	S*			09.2				0.3						
MSZ	EPN	09	27	07.2				0.6	1.44	48	3.8	3.9		
	PG			10				-0.7						
	ESG			31				0.8						
WPZ	EPN	09	27	13.5				-0.6	1.98	122				
	P*			17				0.5						
	ESN			37				-1.4						
ROX	EP*	09	27	18				0.3	2.05	86	4.1	3.9		
	PG			24.8				1.5						
	ES*			44				-0.8						
	ESG			51.8				1.1						
OHZ	EP*	09	27	37				-0.8	3.22	81	3.8	3.9		
HJZ	EP*	09	27	39				-0.5	3.32	62				
	ESG			28 32				-1.6						

FEB 19		H	M	S	41.68S	174.35E	33 KM	SE	0.7	AVG MAG	75/ 097			
		11	05	17.6	0.02	0.02	2				4.0			
		+ 0.3						DIR	RES	DIST	AZ	W-A	W P	W S
WEL	IPN.	11	05	27.0			D	-0.7	0.50	39	3.9			
	SN			34.1				-0.9						
KKY	EP*	11	05	35.2				0.5	0.89	213				
COB	PN	11	05	40.0			D	0.6	1.35	295	4.3	4.2		
	SN			56				0.3						
MNG	IPN	11	05	39.8			D	0.3	1.36	39	4.2	4.0		
	ESN			57				1.1						
	S*			06 00.5				-0.1						
KAI	ES*	11	06	29				-1.1	2.35	248	3.4			
GPZ	ESN	11	06	21				0.3	2.38	211	3.7			
									2.49	1			3.9	
TNZ									2.64	21			4.2 4.3	
CNZ	S*	11	06	39				0.2	3.58	38	3.7	3.7		
TUA									3.86	14				
KRP*	ESN	11	06	56				-0.7*						
	ES*			07 12				-3.4*						
GNZ	ESN	11	07	03				-0.5	4.13	44				
FELT	YORK BAY (68) MM IV													

FEB 20		H	M	S	33.38S	178.69W	287 KM	SE	1.3	AVG MAG	75/ 098			
		18	37	28.8	0.07	0.13	23				5.0			
		+ 1.5						DIR	RES	DIST	AZ	W-A	W P	W S
GNZ	EP	18	38	58				1.1	5.89	206	4.4	4.3		
	ES			40 05				-1.0						
ONE	EP	18	39	01				0.1	6.21	245				
TUA	EP	18	39	04				1.1	6.37	211				
	ES			40 16				-0.7						
KRP	EP	18	39	05				0.2	6.53	224				
	ES			40 22				1.9						
TRZ	E(S)	18	40	41				7.4*	7.14	209				
CRZ	E(P)	18	39	12				-1.7	7.25	259				
	E			22										
CNZ	EP	18	39	16				-0.0	7.44	217				
MNG	EP	18	39	30				-0.3	8.59	211				
	ES			41 04				-1.2						
WEL	ES	18	41	25				-0.0	9.45	212	5.4			
COB	ES	18	41	45				1.2	10.29	219				
CIZ*	ES	18	41	57				4.3*	10.68	172				
GPZ*	ES	18	42	35				5.8*	12.32	211	5.7			

LOCAL EARTHQUAKES

75

FEB 20		H	M	S	33.91S	179.50W	292 KM	SE	4.6	AVG MAG	75/ 099			
		19	13	42.5	0.28	0.64	66				5.0			
		+ - 6.8												
		H	M	S	DIR	RES	DIST	AZ		W-A	W P	W S		
GNZ	P	19	14	58		-3.8	5.13	202			4.7	4.5		
	S			16		-1.8								
TUA	EP	19	15	05		-2.2	5.58	208		5.1	5.0			
	ES			16		2.5								
TRZ	EP	19	15	24		7.5	6.36	207						
CRZ	P	19	15	17.9		-0.4	6.50	263						
	E			16										
CNZ	EP	19	15	19		-0.7	6.61	216						
COB*	EP	19	16	00		3.3*	9.45	218						
	ES			17		3.2*								
GPZ	ES	19	18	24		-1.1	11.52	210		5.8				

FEB 21		H	M	S	39.51S	173.62E	12 KM	SE	1.3	AVG MAG	75/ 100		
		09	53	43.7	0.02	0.03	9				4.2		
		+ - 0.4											
		H	M	S	DIR	RES	DIST	AZ		W-A	W P	W S	
TNZ													
CNZ	IPN	09	54	08.8	U	-1.2	0.67	61			4.2	4.3	
	ESN			29		-0.6	1.53	79			4.8	4.8	
COB	PN	09	54	10.8		-1.8	1.71	203			4.3	4.5	
	ES*			36.5		-0.3							
MNG	PN	09	54	12.9		-1.0	1.81	128			4.5	4.6	
	E			13.3									
	ESN			35		-1.4							
WEL	IPN	09	54	16.0	D	-0.2	1.98	154		3.8	4.5	4.5	
	ESN			40		-0.5							
KRP	IPN	09	54	18.3	DSW	-0.7	2.18	44			4.2	4.1	
	ESN			44		-1.5							
TRZ	EPN	09	54	26		3.0	2.48	92			4.1	4.3	
	ESG			55		-0.3							
TUA	EPN	09	54	29.5		1.5	2.83	77			4.5	4.2	
	EPG			41		-0.1							
	ES*			55		1.5							
KAI	EPG	09	54	54		0.7	3.44	208		4.0			
	ES*			35		1.2							
GNZ	PN	09	54	38.8		1.3	3.54	77			3.8	3.6	
	ESN			55		4.5*							
GBZ	EPN	09	54	40		1.5	3.60	25			3.7	3.6	
	ESN			55		-0.2							
ONE	E7	09	54	56			3.78	9		4.1			
	ES*			55		-0.8							

FEB 21		H	M	S	37.11S	176.97E	3.2 KM	SE	1.4	AVG MAG	75/ 101		
		13	13	00.5	0.08	0.10	9				4.4		
		+ - 1.3											
		H	M	S	DIR	RES	DIST	AZ		W-A	W P	W S	
WTZ	P	13	13	40.1		-0.5	0.87	179			4.3		
KRP	P	13	13	43.1		-0.4	1.40	234			3.7		
	ES			14		0.1							
TUA	P	13	13	45.7		0.2	1.70	175			4.9	4.4	
	ES			14		0.0							
GNZ	IP	13	13	46.3	U	0.5	1.75	152			4.7	4.5	
	E			53.5									
	ES			14		-2.0							
CNZ	P	13	13	51.5		0.7	2.37	208			4.3	3.7	
	E			14									
TRZ	IP	13	13	52.1	U	0.7	2.44	183			4.7	4.5	
	ES			14		3.3							
MNG	IP	13	14	03.3	U	-0.6	3.69	198			3.8	4.3	
	E			12									
	ES			52		-1.4							

FEB 25		H	M	S							75/ 108		
	19 40	15.2			38.90S	175.00E	217 KM	SE	1.6	AVG MAG	4.6		
		+ 1.1			0.05	0.05	11						
			H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
KRP	IP		19 40	47.5	DS		0.2	1.06	24		4.3	3.5	
	S			41 12.1			-0.1						
TRZ	IP		19 40	51.6	U		0.5	1.56	115		4.7	5.3	
	E			41 06									
	ES			19.5			0.6						
TUA	P		19 40	51.7			-0.6	1.68	87		4.8	4.7	
	ES			41 19			-1.9						
MNG	IP		19 40	53.9	U		1.0	1.75	168		4.7	4.8	
	ES			41 22			-0.0						
WTZ	EP		19 40	52			-1.5	1.81	60		4.2		
CAZ	ES		19 41	33			3.0	2.21	155				
GNZ	IP		19 40	57.8	DNW		-1.4	2.38	85		4.9	4.6	
	ES			41 29			-4.2						
WEL	P		19 40	59.3	U		0.0	2.39	184	4.1	4.4	4.3	
	ES			41 33			-0.4						
GBZ	EP		19 41	06.5			3.6	2.71	8		4.3		
COB	IP		19 41	03.2	U		-0.6	2.79	218				
	ES			40			-1.5						
ECZ	IP		19 41	05.2	U		-1.4	3.04	68		5.6	4.6	
	ES			47			0.5						

FEB 25		H	M	S							75/ 109		
	20 17	18.7			40.55S	175.40E	12 KM	SE	1.6	AVG MAG	4.1		
		+ 0.6			0.03	0.05	3						
			H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
MNG	IP*		20 17	23.9			2.1	0.09	137				
CAZ	IP*		20 17	31.0	D		-1.1	0.72	120				
	ES*			42.9			0.4						
WEL	IP*		20 17	34.1	DNW		-0.7	0.88	213		4.3	4.4	
	ES*			48.9			-0.2						
TRZ	E		20 17	52				1.48	48		4.1		
								1.57	330		4.0	4.3	
TUA	EPG		20 18	01			-2.3	2.20	38		3.9	4.0	
	E			44									
KRP	EP*		20 18	05			0.4	2.62	2		3.8	4.0	
	ES*			40.5			1.4						

FEB 25		H	M	S							75/ 110		
	22 28	53.7			45.65S	166.85E	79 KM	SE	0.9	AVG MAG	4.0		
		+ 0.7			0.03	0.04	6						
			H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
MNN	IP		22 29	08.6	D		0.3	0.56	104	3.9	4.9	4.3	
	S			19.9			0.1						
MSZ	P		22 29	15.8	D		-0.5	1.24	38		4.1	4.1	
	ES			33			-0.2						
WPZ	P		22 29	22.3			-0.2	1.72	127		3.7	3.8	
	ES			43			-0.7						
ROX	E		22 29	25.7				1.75	85		4.0	4.2	
	ES			46			1.7						
	E			48.5									
OMZ	E		22 29	43				2.93	80		3.9	3.9	
	ES			30 13			-0.6						
MJZ	P		22 29	40.8			-0.3	3.07	58		3.6	3.8	
	ES			30 16			-0.8						
GPZ	ES		22 30	55			0.7	4.57	67	4.2			
COB	EP		22 30	26			0.7	6.26	45				
	ES			31 33			-3.1						

FEB 25		H	M	S							75/ 111		
	22 45	42.9			39.54S	173.67E	12 KM	SE	1.5	AVG MAG	4.4		
		+ 0.5			0.02	0.03	3						

LOCAL EARTHQUAKES

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		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
TNZ							0.66	58			4.2 4.6
COB	EPN	22	46	09		-2.6	1.70	204		4.5	4.6
	ESN			32		-1.1					
MNG	PN	22	46	12.1		-0.3	1.76	128		4.6	4.8
	ESN			34		-0.4					
WEL	EPN	22	46	15		0.2	1.94	155	4.3	4.6	5.0
	EP*			19		1.9					
	ESN			40		1.3					
KRP	EPN	22	46	17		-1.1	2.18	43		4.3	4.4
	EP*			22		0.7					
	EPG			26		-1.0					
	ESN			43		-1.6					
	ES*			49		-1.0					
CAZ	ES*	22	46	58		1.7	2.39	126			
TRZ	EP*	22	46	26		0.3	2.44	91		4.2	4.1
	ESG			47 03		-2.2					
TUA	PN	22	46	29.0		2.2	2.80	76		4.2	4.5
	E			43							
	E			51							
	ESN			59		-0.9					
KAI	EPG	22	46	52		-0.4	3.44	209	4.2		
	E			47 32							
GNZ	IPN	22	46	37.9	1	1.6	3.51	77		3.9	
ONE	E	22	46	44			3.80	9	4.0		
	ESN			47 27		2.9					
GPZ	EP*	22	46	56		-0.3	4.22	190	4.3		
	E			47 39							
CRZ	EPN	22	46	59		0.1	5.16	351		4.2	
H M S										75/ 112	
FEB 27	01 36	55.8	39.21S	175.31E		12 KM	SE	0.9	AVG MAG		3.8
	+ 0.3		0.02	0.03		R					
	I M S										
CNZ	IP*	01	37	00.3	DIR	RES	DIST	AZ	W-A	W P	W S
KRP	PG	01	37	22.7		0.2	0.19	87			
	ESG			39		0.6	1.30	8		3.8	3.5
MNG	IPG	01	37	23.6	U	-0.7					
	ESG			44		-0.8	1.41	175		4.2	3.7
	EPG			44		0.5					
WEL	EPG	01	37	38		-0.6	2.11	191		4.0	3.6
	ESG			38 07		-0.1					
COB	EP*	01	37	45		1.5	2.72	226		3.6	3.6
	ESG			58 27		-0.6					
H M S										75/ 113	
FEB 27	10 26	36.6	37.92S	177.73E		33 KM	SE	1.7	AVG MAG		4.9
	+ 0.5		0.03	0.03		R					
	I M S										
HTZ	IPN	10	26	48.2	D	0.2	0.59	263	W-A	4.9	4.8
	ESN			56		-0.3					
ECZ	IPN	10	26	48.3	U	-0.9	0.68	71		5.5	5.4
	ES*			27 01		1.2					
GNZ	IPN.	10	26	51.2		0.9	0.76	163			
TUA	IPN	10	26	54.5	D	1.0	1.00	207		5.5	5.3
	ES*			27 11.5		2.4					
KRP	IPN	10	27	03.0	DNE	-0.7	1.74	269		4.8	4.6
	ESN			25		0.9					
TRZ	IPN	10	27	04.2	D	-0.2	1.78	203		5.5	5.3
	ES*			31		-1.3					
CNZ	IPN	10	27	09.7	U	0.5	2.14	233		5.2	
GBZ	IPN	10	27	10.8	U	-3.0	2.47	313		4.5	4.0
	ESN			43		1.0					
AUC	EP*	10	27	22.5		0.4	2.58	293			
TNZ							2.92	243		5.0	4.3
CAZ	IPN	10	27	21.6	U	-2.3	3.21	201			
	ESN			28 02.5		2.6					
MNG	IPN	10	27	21.3	D	-2.7	3.22	212		4.8	4.7

		H	M	S							75/ 120		
	CNZ	EP	10	43	23	0.1	4.34	233		4.2	3.9		
		ES		44	14	0.2							
	MNG	EP	10	43	33	-0.4	5.30	220		3.8	4.9		
		E		44	44								
	WEL	ES	10	44	55	-1.5	6.16	220	5.0				
MAR 02		H M S	15	59	33.2	37.19S	176.93E	241 KM	SE 1.3	AVG MAG	4.2		
						0.05	0.06	8					
		H M S	16	00	06.0	DIR	RES	DIST	AZ	W-A	W P	W S	
	WTZ	P	16	00	06.0		-0.3	0.79	178		3.9		
	KRP	IP	16	00	10.0	U	0.2	1.34	236		3.7		
		ES			39		1.0						
	GBZ	IP	16	00	09.7	D	-1.5	1.53	309		4.0		
	TUA	EP	16	00	12.9		0.5	1.62	174		4.2	4.3	
		ES			40		-1.9						
	GNZ	IP	16	00	13.4	D	0.9	1.68	150		4.4	4.4	
		ES			41		-1.7						
	CNZ	P	16	00	19.3		1.3	2.29	208		4.0	3.7	
		ES			54		1.3						
	TRZ	EP	16	00	20		1.3	2.36	182		4.1	4.4	
		E			49.5								
		ES			56		2.0						
	MNG	P	16	00	32.8		0.3	3.61	198		5.0	4.4	
		E			33.2								
		ES			01 18		-0.5						
	WEL	ES	16	01	35		-0.9	4.42	202	4.6			
	COB	EP	16	00	50		-0.3	5.08	219			4.0	
		ES			01 49		-1.4						
MAR 02		H M S	16	42	53.7	39.19S	174.97E	12 KM	SE 1.5	AVG MAG	4.4		
						0.02	0.03	4					
		H M S	16	42	59.6	DIR	RES	DIST	AZ	W-A	W P	W S	
	CNZ	IP*	16	42	59.6	U	-2.8	0.45	91				
	TNZ							0.46	270				
	WNZ	EP*	16	43	12		-0.5	1.05	58		4.8		
	KRP	IPN	16	43	16.8	UNE	-0.5	1.34	20		5.0	4.9	
		ESN			34		-1.1						
	MNG	IPN	16	43	18.9	U	-0.4	1.48	165				
	TRZ	EPN	16	43	19		-0.3	1.48	105		4.8	4.7	
		EPG			25		1.3						
		ESG			44		0.3						
	TUA	EPN	16	43	24		1.1	1.74	78		4.3		
		P*			24.7		0.1						
	CAZ	EP*	16	43	29		0.6	1.96	151				
		ESG			58		-1.9						
	WTZ	EP*	16	43	29.5		0.7	1.99	53		4.1		
		PG			32.2		-1.7						
	WEL	EPN	16	43	29		1.2	2.10	184				
		P*			30.7		0.0						
		ESN			55		1.6						
	GNZ	P*	16	43	39.2		2.6	2.44	78		4.0	3.7	
		E			44 22								
	COB	EPN	16	43	35		0.9	2.55	221				
		E			35.5								
		ES*			44 10		-2.1						
	GBZ	EPN	16	43	41		0.8	3.00	8		4.3		
		PG			52.2		-2.1						
	ONE	EP*	16	43	56		2.3	3.44	352	4.1			
		E			44 57								
	CRZ*	EPN	16	44	12		3.3*	5.09	338		4.2	4.2	
		ESN			45 08		1.8*						
	CIZ*	E	16	46	09			7.93	130				

FELT TAUMARUNUI (39), LAKE TAUPO (40) AND OHAKUNE (57) MM IV

LOCAL EARTHQUAKES

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MAR 02		H	M	S	39.95S	174.97E	12 KM	SE	1.4	AVG MAG	75/ 122
		18	12	46.5	0.03	0.03	R				3.7
		+ -		0.5							
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MNG	IP*	18	13	00.1	U	-0.7	0.77	150		4.1	3.9
	ES*			10		-1.4					
CNZ	IP*	18	13	01.0	D	-1.4	0.87	31			
	ES*			12		-2.2					
TNZ							0.89	329		3.3	3.7
WEL	EPN	18	13	10.9		0.3	1.34	187		3.5	3.5
	ESN			28		0.0					
TRZ	EPN	18	13	12		-0.1	1.48	75		3.7	3.6
	ESG			39		2.6					
COB	EPN	18	13	21		1.0	2.05	236			
	ES*			50		0.2					
KRP	PN	18	13	21.3		1.1	2.07	12		3.8	3.8
	ESN			46		0.5					
MAR 03		H	M	S	38.60S	179.21E	12 KM	SE	1.5	AVG MAG	75/ 123
		06	11	44.8	0.05	0.05	R				4.1
		+ -		1.6							
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
GNZ	IP*	06	12	01.7	U	-0.1	0.94	267		4.2	4.3
	ES*			12		-2.5					
ECZ	EP*	06	12	03.0		-0.7	1.04	329		4.5	4.2
	ES*			18.9		0.7					
TUA	EPN	06	12	13		0.5	1.63	262		4.6	4.1
	ESN			34		0.9					
TRZ	EPG	06	12	29		1.9	2.09	242		4.0	3.8
	E			41							
	E			13 06							
CNZ	EPN	06	12	29		-1.3	2.92	257		3.9	3.6
	EP*			34		-1.9					
	ES*			13 16		1.7					
KRP	PN	06	12	31.8		0.9	2.97	282		3.6	
WEL	ESN	06	13	39		-0.3	4.35	230			3.9
MAR 03		H	M	S	39.47S	173.42E	12 KM	SE	1.7	AVG MAG	75/ 124
		13	47	48.9	0.04	0.05	R				4.2
		+ -		0.8							
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
TNZ							0.80	70			3.9
CNZ	IPN	13	48	15.9	U	-1.3	1.67	82		4.4	4.6
	PG			20.7		-2.1					
	E			34.5							
COB	PN	13	48	17.1		-0.5	1.70	198		4.4	4.5
	ESN			41		2.0					
MNG	PN	13	48	19.9		-1.3	1.96	127		4.3	4.5
	ESN			43		-2.2					
WEL	EPN	13	48	23		0.1	2.09	151	4.1	4.5	4.7
	P*			27.0		1.3					
	ESN			47		-1.4					
KRP	PN	13	48	24.9		-0.4	2.26	48		4.0	3.9
	EP*			30		1.3					
	EPG			34		-0.7					
	ESN			51		-1.7					
	E			49 10							
CAZ	ESN	13	49	00		-0.6	2.59	125			
TRZ	EPN	13	48	33		2.6	2.63	93		4.0	3.9
	ES*			49 11.5		1.8					
TUA	EPN	13	48	36.5		1.4	2.98	78		4.1	4.0
	ESN			49 12		1.9					

MAR 04		H	M	S								75/ 125	
		11	13	27.4	37.90S	176.55E	169 KM	SE	1.8			AVG MAG 4.0	
				+ - 1.5	0.06	0.05	11						
					H	M	S	DIR	RES	DIST	AZ	W-A	W P W S
WTZ	IP	11	13	49.1				U	-1.3	0.35	104		
KRP	IP	11	13	53.4				DSE	0.8	0.81	268	4.2	3.3
	ES			14 11					-1.1				
TUA	P	11	13	55.2					1.0	1.02	153	4.3	4.0
	ES			14 18					3.2				
GNZ	EP	11	13	57.5					0.1	1.37	123	4.5	4.1
	ES			14 18					-2.5				
CNZ	P	11	14	00.3					1.5	1.52	211	3.6	3.4
	E			27.5									
ECZ	IP	11	14	00.0				D	0.5	1.59	83	4.6	4.4
	ES			23					-1.3				
TRZ	EP	11	14	01.5					1.2	1.66	173	3.9	4.0
	ES			27					1.3				
MNG	P	11	14	14.2					0.0	2.84	197	3.7	3.8
	ES			48					-2.1				
WEL	ES	11	15	07					-1.3	3.65	202	4.4	4.1
MAR 05		H	M	S								75/ 126	
		12	24	33.2	45.51S	166.49E	12 KM	SE	1.9			AVG MAG 3.9	
				+ - 1.7	0.05	0.03	2						
					H	M	S	DIR	RES	DIST	AZ	W-A	W P W S
MNW	PN	12	24	54.9					-1.6	1.31	51	3.7	4.3
MSZ	PG			58.1					-1.7			3.9	4.0
	SN			25 14.5					0.7				
ROX	EP	12	25	07.5					-0.8	1.99	90	3.9	3.8
	EPG			13					-0.5				
	ESN			29.5					-0.8				
	ESG			39					-1.3				
WPZ	P	12	25	10.3					1.7	2.01	126	3.8	3.7
	EPG			15.5					1.7				
	ES			35					-0.1				
OMZ	EPG	12	25	35					-1.9	3.15	84		3.7
	ES			26 10					0.4				
HJZ	EPN	12	25	19.5					-3.1	3.21	63		
	EP			32					2.8				
	ESN			26 02.5					2.4				
COB	ESN	12	27	18					2.2	6.34	48		
MAR 05		H	M	S								75/ 127	
		16	06	12.9	38.33S	175.77E	189 KM	SE	1.1			AVG MAG 4.4	
				+ - 0.8	0.04	0.04	6						
					H	M	S	DIR	RES	DIST	AZ	W-A	W P W S
KRP	IP	15	06	39.0				DNE	0.3	0.44	335		
	ES			58					-0.5				
CNZ	IP	15	06	42.3				D	1.4	0.89	191	4.4	3.9
	E			07 08									
WTZ	P	15	06	41.0					-0.8	1.02	71	4.0	
TUA	P	15	06	43.4					0.3	1.18	114	4.7	4.6
	ES			07 07					0.5				
THZ	EP	15	06	46.5					0.9	1.38	231	4.3	3.5
TRZ	ES			07 13					2.1	1.47	147	4.7	4.8
GNZ	IP	15	06	48.9				U	0.1	1.79	101	4.3	4.3
	E			07 08									
	ES			15					-1.5				
ECZ	IP	15	06	53.8				D	-0.3	2.28	75	4.5	4.3
	E			59									
	ES			07 26					0.2				
MNG	P	15	06	54.9				U	0.6	2.30	186	4.4	4.6
	ES			07 24.5					-1.6				
CAZ	EP	15	06	58					0.2	2.59	172		

LOCAL EARTHQUAKES

85

		ES	07 31	-1.4						
WEL	P	16 07	03.0	-0.2	3.05	194	4.8	4.2	4.9	
	ES		42	0.0						
MAR 05	H M S	35.41S	179.45E	12 KM	SE	1.4	AVG MAG		75/ 128 4.6	
	20 50 26.8	0.03	0.05	R						
	+ - 0.9									
ECZ	E	20 51	19.2	DIR RES	DIST	AZ	W-A	W P	W S	
	ES		39		2.40	197		4.9	4.9	
	E		55							
WTZ	PN	20 51	17.0	0.2	3.25	217		5.1		
GNZ	PN	20 51	15.3	-3.9*	3.43	199		4.8	4.5	
	EP*		27							
TUA	ESN		52 00	1.0						
	EPN	20 51	28	2.9	3.86	208		5.0	5.0	
	EP*		34	-0.0						
KRP	PN	20 51	29.0	1.6	4.03	230		4.2	3.8	
	E		52 22							
ONE	EPN	20 51	28	-1.3	4.17	263		3.3		
	ESN		52 17	0.0						
TRZ	EP*	20 51	47	-0.3	4.64	206		4.9	5.0	
	ES*		52 47	-0.9						
	ESG		53 04	0.8						
CNZ	EPN	20 51	41	1.7	4.90	218		4.8	4.6	
	E		45							
	ES*		52 57	1.2						
TNZ					5.53	225				
CRZ	EPN	20 51	48	-1.4	5.65	278		4.7	4.1	
	E		52 47							
MNG	EPN	20 51	54	-1.1	6.08	210				
	E		52 04							
	ESN		53 05	2.0						
	ES*		30	-1.1						
WEL	EP*	20 52	25	-1.5	6.93	211	5.2			
	ESN		53 21	-2.4						
	ES*		57	0.3						
CIZ	ESN	20 54	14	-0.6	9.07	161				
MAR 08	H M S	40.68S	173.95E	12 KM	SE	0.8	AVG MAG		75/ 129 4.0	
	01 18 11.4	0.01*	0.01	R						
	+ - 0.2									
WEL	IP*	01 18	27.3	U	0.0	0.87	134	3.8	4.2	
	S*		39		-0.1					
	ESN		41		-0.2					
COB	IP*	01 18	29.0	D	-0.5	1.01	246	4.4	4.2	
	S*		43		-0.2					
MNG	IP*	01 18	32.6	D	0.1	1.17	87	4.0	4.0	
	IPG		34.2		-0.9					
	S*		49		0.8					
TNZ	PG	01 18	41.5		-0.9	1.53	13	3.6	4.0	
	SG		19 03		-0.0					
CAZ*	SN	01 18	59.5		-3.0*	1.74	98			
KKY	PN	01 18	41		0.3	1.75	186			
CNZ	PN	01 18	44.5	U	1.3	1.92	40	3.9	4.1	
	S*		19 10.5		-0.4					
KRP	PN	01 18	58		-0.2	3.02	25			
	SN		19 35		1.5					
GNZ	SN	01 19	50		-1.3	3.75	58		3.6	
MJZ	PN	01 19	15		0.8	4.19	217			
	ESN		58		-4.1*					

MAR 09		H	M	S				75/ 130		
	00 38	10.2	35.17S	179.53W	341 KM	SE	1.3	AVG MAG	4.2	
		+ 1.6	0.24	0.25	17					
			H	M	S	DIR	RES	DIST	AZ	H-A W P W S
ECZ	P		00 39	09.5			0.7	2.95	211	4.8 4.6
	S			54			-0.7			
GNZ	P		00 39	19.5			0.7	3.98	209	4.3 4.1
	S			40 13			0.3			
CNZ	P		00 39	36			-0.9	5.62	223	3.4 3.3
	ES			40 46			1.0			
MNG	P		00 39	49			-0.7	6.71	214	
	S			41 06			-1.8			
	E			10						
WEL	S		00 41	28			1.9	7.57	215	4.9
COB	S		00 41	45.5			-0.3	8.48	224	

MAR 09		H	M	S				75/ 131		
	05 53	29.2	39.47S	177.71E	12 KM	SE	1.3	AVG MAG	4.0	
		+ 0.8	0.04	0.04	9					
			H	M	S	DIR	RES	DIST	AZ	H-A W P W S
TRZ	P		05 53	43.2			1.2	0.69	263	4.5 5.0
	S			53			1.4			
TUA	IP		05 53	42.7	U		-1.1	0.79	327	4.5 4.6
	S			52.4			-2.2			
GNZ	P		05 53	45.5			0.5	0.86	17	4.1 3.9
	SN			54 00			1.1			
WNZ	EP		05 53	56			0.0	1.51	303	4.6 4.4
	PG			58.5			-1.2			
WTZ	PN		05 53	55			-1.3	1.59	339	
CNZ	PN		05 53	58.1	D		0.3	1.70	279	4.4 4.3
	PG			54 04			0.4			
	SN			21			1.8			
ECZ	P		05 54	03			0.4	1.89	21	
	ES			28			0.3			
MNG	PN		05 54	01			-1.8	2.06	235	3.2 3.6
	SN			26.5			-1.4			
KRP	P		05 54	11			1.5	2.30	312	
TNZ	PN		05 54	10			-0.1	2.60	275	
WEL	SN		05 54	45			-3.1	2.89	230	3.4 3.7 3.4
COB	EPN		05 54	30			-1.2	4.13	245	3.4
CIZ	SN		05 56	09			0.7	6.20	138	
MJZ	SN		05 56	24			-4.6	7.05	228	

MAR 09		H	M	S				75/ 132		
	14 09	41.6	31.29S	178.45W	33 KM	SE	2.2	AVG MAG	5.4	
		+ 2.8	0.12	0.25	9					
			H	M	S	DIR	RES	DIST	AZ	H-A W P W S
ECZ	ESN		14 12	32			-0.8	6.85	200	
ONE	EPN		14 11	28			1.4	7.48	231	
WTZ	PN		14 11	31			1.9	7.66	206	
GNZ	PN		14 11	32			-0.1	7.88	201	
	SN			12 57.5			-0.0			
CRZ	EPN		14 11	32.5			-2.3	8.09	245	
KRP	PN		14 11	38.5			1.4	8.26	215	
	EP			12 01			-3.2			
	SN			13 10			3.4			
TUA	EPN		14 11	38			0.1	8.32	204	
	SN			13 06			-1.9			
TRZ	PN		14 11	46.5			-1.8	9.10	204	
	SN			13 21			-5.5			
CNZ	PN		14 11	49			-1.8	9.29	210	
	SN			13 24			-7.0			
TNZ	PN		14 11	55			-2.7	9.81	215	
CAZ	SN		14 13	53			-5.9	10.51	203	
MNG	PN		14 11	59.3			-7.9	10.52	206	
	SN			13 46			-14.1			

WEL*	EPN	14 12 09.5		-8.6*	11.37	207	5.4				
	SN	14 03.5		-15.5*							
COB*	PN	14 12 16.9		-10.9*	12.08	214					
	SN	14 15.5		-21.1*							
CIZ*	SN	14 15 18		25.4*	12.73	174					
GPZ*	SN	14 15 03		-23.3*	14.24	207	5.5				
MJZ*	SN	14 15 27		-25.2*	15.39	211					
MAR 09	H M S	17 29 38.9	38.79S	175.94E	108 KM	SE	0.6	AVG MAG	75/ 133	4.1	
		+ 0.4	0.02	0.02	4						
	H M S	17 29 55			DIR RES	DIST	AZ	W-A	W P	W S	
WNZ	EP	17 29 55			0.7	0.20	38				
CNZ	IP	17 29 55.7			D -0.1	0.51	217	4.0	4.0		
	S	30 08			-0.8						
KRP	P	17 29 59.9			0.4	0.92	340				
	S	30 14.9			-0.4						
TUA	P	17 29 59.4			D -0.2	0.94	92	4.1	4.2		
	S	30 16			0.7						
TRZ	EP	17 30 00.5			0.0	1.02	138	4.6	4.5		
	S	17			0.2						
WTZ	P	17 30 01.5			D -0.5	1.15	46				
TNZ	P	17 30 04.9			1.2	1.28	251	4.3	3.3		
GNZ	IP	17 30 07.3			D -0.4	1.63	86	4.4	4.0		
	S	27			-2.3*						
MNG	IP	17 30 09.9			U -0.6	1.86	191	4.1	4.4		
CAZ	P	17 30 13.5			-0.4	2.12	174				
	S	40.5			0.4						
ECZ*	P	17 30 17			0.4*	2.32	63	4.3	4.0		
WEL*	ES	17 30 50			-3.0*	2.65	200	3.9	3.9	4.2	
COB*	P	17 30 29			-1.9*	3.37	226	4.0	3.8		
	S	31 12			-1.9*						
GPZ*	ES	17 31 54			-9.2*	5.50	206	4.0			
MJZ*	S	17 32 23			-6.5*	6.63	217				
CIZ*	S	17 32 46			-8.5*	7.64	135				
MAR 10	H M S	15 58 01.7	38.10S	175.89E	203 KM	SE	0.8	AVG MAG	75/ 134	5.1	
		+ 0.8	0.04	0.05	6						
	H M S	15 58 29.0			DIR RES	DIST	AZ	W-A	W P	W S	
KRP	IP	15 58 29.0			DSE -0.0	0.32	303				
	S	49.5			-0.5						
WNZ	P	15 58 29.5			-0.3	0.56	162	4.9			
WTZ	P	15 58 31.5			U 0.1	0.88	83	4.7	4.8		
CNZ	IP	15 58 32.5			D -0.6	1.13	193	5.0	4.8		
	S	58			0.6						
TUA	P	15 58 33.7			U -0.1	1.22	126	5.3	5.6		
	S	58			-0.7						
AUC	P	15 58 37.5			1.3	1.52	324				
TNZ	P	15 58 36.2			D -0.8	1.60	227	5.2	4.2		
TRZ	P	15 58 37.1			U -0.2	1.63	153	5.3	5.6		
	S	59 06			1.2						
GNZ*	IP	15 58 39.2			U 0.5*	1.77	109	4.8	4.9		
	S	59 07			-0.2*						
ECZ*	P	15 58 43.5			1.0*	2.15	80	5.4	5.3		
	S	59 17.5			3.5*						
MNG*	IP	15 58 44.6			U -2.2*	2.53	187	5.1	5.1		
	S	59 15			-5.5*						
CAZ*	P	15 58 48.5			-1.5*	2.81	175				
	S	59 23			-4.4*						
WEL*	P	15 58 52.0			U -3.7*	3.29	195	5.1	4.9	5.3	
	S	59 32.5			-4.9*						
COB*	P	15 58 58			-4.4*	3.85	218	4.6	4.9		
	S	59 43.5			-5.9*						
GPZ*						6.10	203	5.6			
MJZ*	P	15 59 40			-4.9*	7.16	213				
	S	15 00 55.5			-9.9*						

	OMZ*	P	15 59 50				-4.4*	7.89	207					
		ES	16 01 15				-7.4*							
	CIZ*	ES	16 01 28				-0.9*	8.17	138					
	MSZ*	P	16 00 00.3				-6.7*	8.88	220					
		S	01 38				-7.3*							
	MNW*	EP	16 00 14				-5.5*	9.83	216	4.8				
		ES	01 59				-8.4*							
MAR 12	H	M	S	39.96S	175.19E	12 KM		SE	0.8		AVG MAG	75/ 135		
	21	35	57.9	0.01	0.03						4.0			
		+	0.3											
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
	MNG	IP*	21 36 10.1	U				-0.7	0.69	161		4.1	3.8	
		ES*	21 36 21					0.6						
	CNZ	IP*	21 36 12.1	D				-0.7	0.81	20		4.2	4.4	
		ES*	21 36 23					-0.8						
	TNZ	IP*	21 36 15.7	U				-0.2	0.99	321		3.6	4.0	
		S*	21 36 29.3					-0.1						
	WEL	IPN	21 36 21.4	D				-0.5	1.36	193	3.4	4.1	4.1	
		ESN	21 36 40					0.2						
	KRP	PN	21 36 32.5					1.1	2.05	8		4.0	3.8	
		ESN	21 36 57.5					1.1						
MAR 13	H	M	S	37.88S	174.49E	12 KM		SE	1.1		AVG MAG	75/ 136		
	20	48	46.4	0.01	0.03						3.7			
		+	0.3											
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
	KRP	IP*	20 49 01.5	DNH				-0.7	0.86	94		4.2	3.5	
		ES*	20 49 14					0.0						
	AUC	EP*	20 49 05					-0.4	1.05	15				
		EPG	20 49 08					0.3						
		ES*	20 49 20					0.5						
	TNZ	PN	20 49 09.7					0.0	1.31	182		3.7	3.5	
		EPG	20 49 13					0.1						
		ESG	20 49 32					1.4						
	CNZ	PN	20 49 13.9					0.5	1.58	147		3.9	4.1	
		ESN	20 49 35					1.5						
	ONE	ESG	20 49 57					-0.1	2.10	358	3.4			
		E	20 49 50					0.5						
	MNG	EPN	20 49 28					-2.9*	2.85	164		3.8	3.4	
		ES*	20 49 50					-2.3						
	COB	EPN	20 49 11.5					-1.3	3.47	202		3.8	3.6	
		ESN	20 49 38					-1.3						
			20 49 20					0.4						
MAR 14	H	M	S	48.08S	165.33E	33 KM		SE	1.5		AVG MAG	75/ 137		
	08	33	32.4	0.12	0.11						4.0			
		+	2.2											
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
	WPZ	EP	08 34 15					1.3	2.77	60		3.9	3.8	
		ES	08 34 45					-0.1						
	MNW	EP	08 34 12					-1.8	2.78	35	4.0	4.2	4.1	
		ES	08 34 44.5					-0.7						
	ROX	E	08 34 34						3.77	48			4.0	
		ES	08 34 35					-0.5						
	MSZ	P	08 34 28.5					0.1	3.85	28		4.0	3.9	
		ES	08 34 35					1.7						
	MJZ	E	08 35 01						5.43	43				
		E	08 35 42											
MAR 15	H	M	S	38.96S	175.33E	221 KM		SE	1.8		AVG MAG	75/ 138		
	01	26	50.6	0.10	0.09						4.0			
		+	2.2											
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
	CNZ	IP	01 27 20.8	D				1.1	0.29	144				
		ES	01 27 43.5					1.4						
	TNZ	EP	01 27 21					-0.4	0.77	253				
	TRZ	ES	01 27 50					-1.3	1.30	117			4.0	

LOCAL EARTHQUAKES

TUA	ES	01 27 52			-1.1	1.43	84			4.1
MNG	IP	01 27 30.0	U		2.2	1.66	176		4.6	3.8
	S	58			1.5					
GNZ	ES	01 28 03			-1.4	2.13	82			3.7
WEL	EP	01 27 35			0.4	2.36	190	4.0	3.9	4.0
	ES	28 09			0.3					
COB	ES	01 28 17			-2.7	2.91	222			3.7
<p>H M S MAR 15 12 12 28.2 45.16S 167.24E 12 KM SE 1.8 AVG MAG 3.9 75/139 + 1.1 0.04 0.05</p>										
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S	
MNW	IP*	12 12 41.2	D	0.4	0.67	157	3.9	4.2	4.1	
	ES*	50.5		0.4						
MSZ	P*	12 12 39.1		-1.9	0.69	45		3.7	3.9	
	E	46.5								
ROX	PN	12 12 53.8	D	-0.3	1.50	103		4.4	4.1	
	ESN	13 12		-1.5						
WPZ	EPN	12 12 59		-0.3	1.87	144		3.7	4.0	
	P*	13 00.2		-1.1						
	ESN	23		0.5						
DMP	EPG	12 13 06		-2.4	1.99	69				
	ESN	26.5		1.3						
MJZ	EPN	12 13 11		2.0	2.59	64				
	ESN	43		3.1						
OMZ	EPN	12 13 08		-1.2	2.60	89		3.8	3.8	
	EP*	15		1.2						
	ES*	46		-2.1						
	ESG	58		2.0						

<p>H M S MAR 16 06 22 31.4 44.79S 167.77E 33 KM SE 1.2 AVG MAG 5.4 75/140 + 0.7 0.04 0.05</p>										
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S	
MSZ	IPN	06 22 40.1	U	2.1	0.16	40				
MNW	IPN	06 22 47.2	U	-1.2	0.99	186	5.0			
	ESN	23 00		-0.9						
ROX	I(PN)	06 22 53.7		1.3	1.29	123				
DMP	IPN	06 22 57.1	U	1.7	1.51	76				
MJZ	IPN	06 23 04.1	DSE	0.7	2.09	68				
OMZ	IPN	06 23 06.3	D	0.9	2.25	98		5.8	5.7	
	ESN	31		-0.3						
KAI	EPN	06 23 22		-0.4	3.48	51	5.2			
	E	52								
	ESN	24 00		-1.3						
GPZ					3.67	74	5.4			
KKY	EPN	06 23 41.6		-0.3	4.91	63				
	EP*	56		-0.7						
	E	24 09								
COB	EPN	06 23 45		-0.7	5.19	46		5.3		
	ESN	24 42		-0.9						
MNG*	EPN	06 24 09		-1.7*	7.04	56				
	E	11.0								
	E	16.0								
	ESN	25 27		-0.3*						
KRP*	PN	06 24 37.2		0.3*	9.00	43				
	ESN	26 11		-3.1*						
GNZ*	PN	06 24 49.8		2.2*	9.81	55				
	ESN	26 31		-2.4*						
CRZ*	EPN	06 25 05		1.5*	11.01	22				
	ESN	27 00		-1.5*						
CIZ*	E	06 25 18			11.24	91				
	ESN	27 03		-3.9*						

FELT WIDELY IN SOUTHLAND AND FJORDLAND

MAR 16		H	M	S			12 KM	SE	1.7	AVG MAG	75/ 141			
		15	34	43.5	37.72S	177.57E								
		+ 0.8			0.04	0.04								
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S			
WTZ	IP*	15	34	55.7	D	2.1	0.53	240		4.4	4.3			
	ES*			35 03		2.0								
ECZ	I(PG)	15	35	01.3	U	2.0	0.78	88		4.7	4.4			
	E			19										
GNZ	IP*	15	35	00.9		-0.5	0.99	159						
	ES*			14		-0.7								
TUA	EP*	15	35	02.5		-1.4	1.13	197		4.2	4.5			
	EPG			05		-1.4								
	S*			19.7		0.6								
	ESG			24		2.2								
	E			27.5										
KRP	IPN	15	35	10.6	DE	-0.5	1.62	262		3.6	3.7			
	EPG			16.9		0.2								
	ESN			29		-2.7								
TRZ	P*	15	35	17.8		0.4	1.92	198		4.2	4.2			
	ESN			38.5		-0.3								
	ESG			49		0.8								
CNZ	EPN	15	35	19		0.5	2.17	227		4.0	4.2			
	ES*			51		0.8								
TNZ	EPN	15	35	31		2.4	2.90	239		3.9	3.6			
	E			36 17										
MNG	EPN	15	35	30		-4.3*	3.31	209		3.8	3.8			
	ESN			36 10		-2.9								
WEL	EPN	15	35	43.0		-2.9	4.17	210	4.4	4.0	4.2			
	E			53										
	E			36 27										
	ES*			49.5		-0.8								

MAR 16		H	M	S			12 KM	SE	1.4	AVG MAG	75/ 142		
		18	24	24.2	39.40S	173.43E							
		+ 0.8			0.04	0.05							
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S		
TNZ	P*	18	24	38.5		0.4	0.75	74		3.5	3.6		
	ES*			50		1.6							
CNZ	IPN	18	24	52.0	U	0.0	1.64	84		4.3	4.3		
	ESN			25 13.5		0.8							
COB	PN	18	24	53.0		-0.9	1.77	198			4.1		
	ESN			25 16		-0.0							
	ESG			24		-0.0							
MNG	IPN	18	24	56.0	D	-0.7	1.98	129		4.0	4.2		
	P*			56.8		-2.3							
	ESN			25 19.5		-1.4							
WEL	PN	18	24	59.3		0.5	2.13	152	3.7	3.9	4.0		
	P*			25 04.3		2.5							
	ESN			25		0.2							
KRP	PN	18	25	00.6		0.9	2.20	49		3.4	3.4		
	ESN			27		0.6							
	ESG			36		-2.3							

MAR 17		H	M	S			12 KM	SE	1.6	AVG MAG	75/ 143		
		01	42	55.7	37.25S	178.15E							
		+ 1.4			0.07	0.04							
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S		
ECZ	P*	01	43	05.7		-0.4	0.55	145		4.2	3.9		
	ESG			16.6		2.2							
WTZ	EPN?	01	43	17		-0.2	1.18	231		3.1			
GNZ	PN	01	43	20.7		0.5	1.40	184		3.8	3.7		
	E			28									
	ESN			36		-2.4							
TUA	EPN	01	43	23.5		-1.5	1.75	207		4.0	4.0		
	ESN			47		0.1							
KRP	EPN	01	43	31		0.1	2.18	251		3.4			

		ESG			49.5		1.5								
		E			07 00.5										
	KRP	PN			22 06 19.0		-2.0	2.23	316		3.5	3.2			
		ESN			48		-0.0								
	TNZ	EPN			22 06 23		-0.8	2.43	278		4.0	3.5			
		ESN			53.5		0.5								
	WEL	ESG			22 07 14		-2.0	2.70	229			3.8			
MAR 18		H M S			39.62S 174.93E		12 KM	SE	1.1		AVG MAG	75/ 150			
					0.02		R					3.8			
		H M S			H M S	DIR	RES	DIST	AZ		W-A	W P	W S		
	TNZ	P*			03 26 34.4	U	0.1	0.60	315			3.8	4.0		
		ES*			44		1.3								
	CNZ	IP*			03 26 35.3	U	0.4	0.64	49			4.0	4.2		
		ES*			44		0.3								
	MNG	IP*			03 26 43.0	U	0.9*	1.08	157			3.6	3.5		
		ES*			57.5		0.4								
	WEL	PN			03 26 51.2		0.1	1.67	184		3.3	3.8	3.9		
		EPG			56		-0.7								
		ESN			27 13		0.8								
		E			26										
	KRP	EPN			03 26 50		-2.4	1.76	16			3.9			
		ESN			27 11		-3.4*								
	COB	EPN			03 26 59		0.3	2.23	228				3.7		
		ESN			27 24.5		-1.2								
MAR 18		H M S			40.35S 174.40E		12 KM	SE	1.2		AVG MAG	75/ 151			
					0.02		R					3.7			
		H M S			H M S	DIR	RES	DIST	AZ		W-A	W P	W S		
	MNG	IP*			06 11 28.5	D	-0.1	0.87	108			3.7	3.9		
		ES*			39.5		-0.9								
	WEL	P*			06 11 30.0		-0.4	0.98	163		3.0	3.8	3.7		
		S*			43.0		-0.7								
	TNZ	EP*			06 11 32		-1.5	1.16	359			3.4	3.5		
		ES*			49		-0.1								
	CNZ	IPN			06 11 36.1	U	-1.7	1.45	38			3.8	4.0		
		EPG			43		1.0								
		E			52.5										
	COB	ES*			57		-0.8								
		EPN			06 11 38		-0.1	1.46	239			3.8	3.9		
		ESN			58		1.0								
	CAZ	ESG			06 12 05		1.7	1.50	112						
	KRP	EPN			06 11 52		-1.3	2.58	20			3.6	3.4		
		EP*			59		1.2								
		ESN			12 27		2.9*								
MAR 18		H M S			42.60S 173.32E		33 KM	SE	1.5		AVG MAG	75/ 152			
					0.03		R					4.2			
		H M S			H M S	DIR	RES	DIST	AZ		W-A	W P	W S		
	KKY	IPN			17 36 59.8		-0.3	0.33	56						
	GPZ							1.20	204			4.2			
	KAI	EP*			17 37 16		-1.6	1.42	273			4.2			
		ES*			34		-2.6								
	COB	IPN			17 37 18.0		1.2	1.58	344						
		ES*			42.5		1.1								
	WEL	PN			17 37 18.3		-0.2	1.70	40		4.1	4.2	4.5		
		ESN			37		-1.6								
	HJZ	PN			17 37 30.8		1.3	2.50	235						
		ESN			59		1.0								
	MNG	PN			17 37 29.2		-1.1	2.56	40			4.2	4.2		
		E			39.5										
		ESN			57		-2.5								
	CAZ	ESN			17 38 03.9		-0.8	2.76	53						
	OMZ	PN			17 37 37.0		0.4	3.02	214			4.5	4.5		

WTZ	P*	19 01 32.2	-1.8	1.58	325					
	E	49								
ECZ	P*	19 01 34.5	-0.3	1.62	12					
	SN	49.4	-1.0							
WNZ	EP*	19 01 36.5	0.2	1.71	292	4.8	4.9			
	E	44.3								
	E	50								
CNZ	PN	19 01 38.6	U 2.2	2.01	272	4.7	4.9			
	E	49								
CAZ	PN	19 01 40.2	1.4	2.18	221					
	SN	02 05.5	1.7							
MNG	IPN	19 01 43.1	0.9	2.43	236					
	SN	02 10.5	0.5							
KRP	EPN	19 01 43.2	0.8	2.44	303					
	E	48								
	E	02 03.5								
TNZ	PN	19 01 51.0	2.1	2.91	271	4.3	4.0			
	ESN	02 23	1.2							
WEL	PN	19 01 53.2	-0.4	3.26	231	4.7	4.5	4.6		
	EP*	59.7	-3.0							
	SN	02 30	-0.1							
COB	PN	19 02 10.3	-0.4	4.51	245	4.4	4.6			
	SN	59	-1.5							
GPZ				6.03	221					
KAI	ESN	19 03 35	-2.3	6.03	235	4.7				
MJZ	EPN	19 02 49	-0.9	7.42	228					
	SN	43 09								
	H	M	S							
MAR 22	22	36	45.5	49.33S	163.72E	33 KM	SE	2.5	AVG MAG	75/ 159
			+ - 2.4	0.14	0.16	R			5.1	
				4	5	DIR	RES	DIST	AZ	W-A
WPZ	P	22 37 46	-2.5	4.35	54	5.0				
	E	38 31								
	E	34	-2.7							
ROX	EP	22 38 01.5	-1.2	5.41	47	5.0	5.2			
	ES	39 01	-1.2							
MSZ	P	22 38 04.7	1.2	5.47	33	5.1	5.0			
	ES	39 08	4.3							
OHZ	EP	22 38 13.5	-1.8	6.49	52					
	E	23								
MJZ	EP	22 38 22.5	-2.7	7.07	44					
	E	35								
	E	39 42	-0.1							
COB	EP	22 39 09	-0.4	10.40	41					
	ES	41 01	-0.2							
MNG	EP	22 39 33	2.3	12.03	48					
CNZ	EP	22 39 49.5		13.18	44					
CIZ	EP	22 40 06	3.3	14.55	76					
	E	32								
	S	42 39	1.7							
	H	M	S							
MAR 23	18	32	39.9	37.21S	176.93E	216 KM	SE	0.2	AVG MAG	75/ 160
			+ - 0.4	0.02	0.02	4			3.6	
				4	5	DIR	RES	DIST	AZ	W-A
KRP	EP	18 33 14	-0.0	1.35	238	3.2				
GNZ	P	18 33 16.8	0.1	1.66	150	3.9	3.9			
	S	45	-0.1							
MNG	EP	18 33 37.8	-0.1	3.60	198	3.6	3.3			
	ES	34 23	0.1							
	H	M	S							
MAR 24	14	20	12.6	33.81S	179.03W	271 KM	SE	1.3	AVG MAG	75/ 161
			+ - 1.4	0.07	0.14	18			5.1	

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		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	P	14	21	20.8		-1.1	4.35	206		5.4	5.2
	I			22.5							
GNZ	EP	14	21	32.0		1.1				4.9	4.7
	I			34							
ONE	EP	14	21	39		-1.0					
	I			22 37							
TUA	EP	14	21	40		0.0	5.78	248			
	I			22 49						5.1	4.9
KRP	P	14	21	43.0		-0.0	5.86	211			
	I			22 49							
TRZ	EP	14	21	51		0.4					
	E			22 00.5							
CRZ	P	14	21	52		1.0	6.03	225			
	I			22 00.5							
CNZ	EP	14	21	55.0		1.9	6.93	217			
	E			22 04							
MNG	EP	14	22	08.0		-0.9	6.90	263			
	I			22 04							
WEL	ES	14	23	38		0.3	8.08	211			
	E			22 04							
WEL	ES	14	23	56.5		-0.1					
	E			22 04							
MAR 26	H M S	03	28	27.9							
	±			1.1							
		32.65S	179.71E	493 KM		SE	1.4		AVG MAG	75/ 162	5.9
		0.07	0.14	13							
GBZ	P	03	29	55.2		0.1	4.98	223		4.6	
	I			59.5							
ECZ	EP	03	29	56.5		0.2	5.12	190		6.2	6.0
	I			59.5							
ONE	EP	03	29	58.5		1.7					
	I			31 08							
AUC	EP	03	30	05		-0.6	5.41	233			
	I			31 08							
CRZ	EP	03	30	05		1.8	5.84	223			
	I			31 08							
GNZ	P	03	30	05.5		-1.1	6.13	251			
	I			31 23							
KRP	P	03	30	08.5		-0.6	6.14	192			
	I			31 23							
TUA	EP	03	30	10.0		-0.9					
	I			11.0							
MNG	EP	03	30	11.0		1.1	6.27	212			
	I			11.0							
TRZ	P	03	30	13.2		0.4	6.49	198			
	I			13.2							
TRZ	P	03	30	16.2		-1.2					
	I			19.0							
CNZ	P	03	30	18.0		-0.2	6.65	205			
	I			13.2							
TNZ	EP	03	30	25		-1.4	7.27	198			
	I			19.0							
MNG	EP	03	30	30.3		1.6	7.82	212			
	I			27.4							
CAZ	EP	03	30	30.3		-1.3	8.65	202			
	I			33.1							
WEL	EP	03	30	34.2		32 03					
	I			08							
COB	EP	03	30	47.5		-2.7	8.70	198			
	I			32 12							
COB	EP	03	30	40.0		0.3	9.48	203	6.7		
	I			41.7							
MAR 26	H M S	12	38	07.7							
	±			0.9							
		35.05S	178.45E	320 KM		SE	1.1		AVG MAG	75/ 163	5.0
		0.04	0.05	9							
ECZ	P	12	39	02.5		2.7					
	I			32 29.5							
WTZ	P	12	39	07.2		0.0	10.10	212			
	E			32 39							
WTZ	P	12	39	02.5		0.5	2.64	179		4.8	5.1
	E			45							
WTZ	P	12	39	07.2		0.6					
	E			35							

		H	M	S	40.14S	174.93E	12 KM	SE	1.3	AVG MAG	75/ 164		
		15	05	40.3	0.02	0.03	9				4.0		
				0.3			DIR	RES	DIST	AZ	W-A	W P	W S
ONE	E EP	12	39	43 49									
GNZ	P	12	39	09.5				0.1	3.43	257			
	P	12	39	10.9				-0.5	3.60	185	4.8	5.1	
KRP	P	12	39	59.7				-1.4					
	P	12	39	14.2				1.8	3.71	219	4.6		
TUA	E P	12	39	40 09									
	P	12	39	14				-0.3	3.90	195	4.8	5.2	
TRZ	E S			40 07									
	EP	12	39	22.8				-0.1	4.68	196	4.9	5.5	
	S			40 23									
CNZ	P	12	39	24.0				1.1					
	P	12	39	24.0				0.3	4.75	208	4.4	4.7	
	ES			40 21.5									
	EP			29				-1.8					
CRZ	EP	12	39	23				-1.2	4.80	276	4.2		
TNZ	P	12	39	32.5				3.0	5.26	217	4.7		
MNG	P	12	39	38.0				-0.5	6.04	202			
	S			40 44									
	S			49.5				-0.5					
WEL	P	12	39	47.9				-0.8	6.87	204	6.0		
	S			41 07									
	S			41 07				-0.8					
COB	P	12	39	57				0.5	7.53	215			
	S			41 24				1.9					
GPZ									9.73	206	6.0		
MAR 26	H	H	S										
	15	05	40.3										
			0.3										
MNG	P	15	05	52.5				0.2	0.64	139			
	S			06 00.8				-0.3					
TNZ	P	15	05	59.3				0.2	1.04	336	3.9	4.1	
	ES			06 14				0.9					
CNZ	P	15	05	58.0				-1.3	1.05	27		3.6	
	S			06 12.5				-1.0					
WEL	P	15	06	00.7				-0.4	1.16	186	3.9	4.0	4.5
	S			16.0				-0.6					
CAZ	P	15	06	05.6				2.9	1.25	128			
	S			24				4.5					
TRZ	EP	15	06	09.0				0.8	1.57	69	4.1	4.2	
	E			38.0									
COB	EPN	15	06	12.0				-0.0	1.92	240	4.4		
	IP			14.2				-0.0					
	E			34									
	E			40									
TUA	EPN	15	06	14				-1.4	2.17	53	4.1		
	EP			18				-0.5					
KRP	EPN	15	06	15.0				-1.6	2.26	12	3.6	3.9	
	EP			20				0.0					
	SN			46				2.1					
MAR 27	H	H	S										
	03	23	18.4										
			0.9										
MSZ	PG	03	23	28.3				0.9	0.46	229			
	SG			34.3				0.1					
DMP	PG	03	23	42.2				3.0	1.02	93			
	SG			55.0				1.9					
POX	EPG	03	23	45.0				0.5	1.28	150	4.1	4.3	
	I			46.6									
	ESG			24 01				-0.8					
MNW	PG	03	23	48.0				-1.1	1.51	201	4.1	3.6	
	ESG			24 08				-1.5					
HJZ	EPG	03	23	50.5				1.0	1.54	76			
	SG			24 10.0				-0.2					

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	OHZ	EPG	03 23 56		-1.4	1.92	112		3.6	3.7
		ESG	24 22		-1.3					
	WPZ	EP*	03 24 00.0		1.8	2.31	172		3.6	
	KAI	ESG	03 24 52		-2.9	2.86	51	4.3		
MAR 27	H M S		39.51S 173.51E	33 KM		SE	1.2	AVG MAG	75/ 166	4.3
			0.03 0.05	?						
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	CNZ	P	04 55 06.7		-0.7	1.61	79			
		S	27.5		1.0					
	COB	P	04 55 07.3		-1.1	1.68	200		4.4	4.3
		E	11.5		1.8					
		S	30		-1.0					
	MNG	P	04 55 10.0		-1.0	1.87	127		4.6	4.5
		S	32.2		-0.6					
	HEL	P	04 55 12.9		-0.5	2.01	152	4.0	4.3	4.5
		S	37		0.7					
	KRP	P	04 55 15.5		-0.6	2.24	46		3.8	
		E	19.4		1.4					
		S	43.2		3.4*	2.50	125			
	CAZ	EP	04 55 23							
		I	52.5		-0.4	2.56	92		4.1	
	TRZ	EP	04 55 20							
		E	23.8							
MAR 27	H M S		33.12S 179.65W	336 KM		SE	1.7	AVG MAG	75/ 167	5.2
			0.09 0.19	17						
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	ECZ	P	09 57 41.9		2.2	4.80	197		5.3	5.4
		S	58 43		3.0					
	GBZ	EP	09 57 41		-1.3	5.07	231			
	WTZ	EP	09 57 47		-1.1	5.58	208		5.3	4.9
		I	51.2							
		E	58 48							
		E	55							
	ONE	EP	09 57 48		-0.6	5.62	240			
	GNZ	EP	09 57 49.2		-1.9	5.83	198	4.8	5.1	
		I	53.0							
		S	68 58.5		-2.5					
	KRP	EP	09 57 57		1.6	6.20	218			
	TUA	EP	09 57 57		1.1	6.25	204			
		ES	59 08		-1.6					
	TRZ	EP	09 58 06		0.8	7.03	203			
		ES	59 26		-0.2					
		I	30.0							
	MNG	EP	09 58 20.0		-2.1	8.44	206			
		I	24.0							
		E	59 50							
		ES	57		0.3					
	HEL	P	09 58 32.9		0.2	9.29	207	5.8		
		S	10 00 14		-1.1					
	COB	EP	09 58 42		1.0	10.01	215			
		S	10 00 33		2.1					
	MJZ	ES	10 01 43		0.0	13.32	213			
MAR 26	H M S		38.33S 178.59E	65 KM		SE	1.2	AVG MAG	75/ 168	3.7
			0.05 0.11	11						
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	GNZ	P	00 47 03.7		-0.9	0.54	235		3.5	3.7
		S	14.5		-0.1					
	ECZ	EP	00 47 06.5		0.7	0.64	357			
		E	09.5							
	TUA	EP	00 47 14		0.9	1.22	247		4.0	4.0
		ES	30		0.7					

	WTZ	P	00 47 13.0		-1.3	1.31	285		3.7			
	CNZ*	EP	00 47 37		5.8*	2.53	249		3.7			
	MNG	EP	00 47 42		-0.1	3.31	226		3.1			
	H	M	S									75/ 169
MAR 28	03 00		35.5	35.41S	179.67E	21.7	KM	SE	0.6	AVG MAG		4.4
			+ 0.8	0.03	0.05	10						
	ECZ	EP	03 01 21.5			DIR	RES	DIST	AZ	W-A	W P	W S
		E	24				0.4	2.52	205		4.4	
	WTZ	EP	03 01 31.0				-0.9	3.46	221		3.9	
	GNZ	EP	03 01 32.5				-0.5	3.55	204		3.9	
		ES	02 18				0.4					
	GBZ	P	03 01 33.9				-0.5	3.66	256			
	TUA	EP	03 01 39.3				0.5	4.03	212		4.6	
	KRP	EP	03 01 42.0				-0.1	4.29	233		4.1	
	ONE	EP	03 01 45				0.3	4.51	264			
	CRZ	P	03 02 04.0				0.4	5.99	277		4.7	
	MNG	EP	03 02 07				0.1	6.25	212			
		E	17									
		E	24.5									
	WEL	ES	03 03 39				0.1	7.10	213		5.0	
	H	M	S									75/ 170
MAR 29	09 56		19.5	39.42S	174.17E	33	KM	SE	2.4	AVG MAG		3.8
			+ 1.7	0.08	0.07	3						
	CNZ	P*	09 56 42.5			DIR	RES	DIST	AZ	W-A	W P	W S
		E	57 07				2.9	1.09	79		3.6	3.5
		E	10.5									
	MNG	PN	09 56 46.0				1.7	1.57	141		4.2	3.7
		S*	57 11.0				2.3					
	WEL	ES*	09 57 18				-1.3	1.92	167	3.4		3.6
	COB	PN	09 56 50.2				-0.1	2.00	213		3.9	4.0
		S*	57 20.5				-1.2					
	TRZ	S*	09 57 21				-2.2	2.05	95			3.9
	GNZ	SN	09 57 38				-2.1	3.09	77			3.6
	GPZ							4.43	195		4.3	
	H	M	S									75/ 171
MAR 29	18 25		52.4	39.95S	175.13E	12	KM	SE	1.9	AVG MAG		4.1
			+ 0.5	0.02	0.03	3						
	MNG	IPG	18 26 07.1			DIR	RES	DIST	AZ	W-A	W P	W S
		SG	16.0				0.0	0.72	158			
		SG	16.0				-0.9					
	CNZ	PG	18 26 08.2			D	-0.8	0.82	24			
		ESG	19				-1.1					
	TNZ	PG	18 26 12.5				0.7	0.96	323		4.1	4.1
		SG	26				1.2					
	CAZ	PG	18 26 19				0.9	1.27	139			
		ESG	38				2.7					
	WEL	PG	18 26 17.9				-2.1	1.36	191	3.9	4.5	4.7
		SG	36.0				-2.4					
	TRZ	EPN	18 26 12.3				-3.6	1.37	74		4.0	3.9
		EPG	20				-0.0					
		ESG	41				2.5					
	KRP	EPN	18 26 29.5				0.7	2.05	9		4.3	4.0
		IP*	29.0				0.5					
		S*	54				-1.6					
	COB	EPN	18 26 29.2				2.0	2.15	237		4.1	4.2
		ES*	27 00				1.4					
	GPZ							4.18	206		4.1	
	H	M	S									75/ 172
MAR 29	20 05		45.3	38.12S	176.05E	19.9	KM	SE	1.2	AVG MAG		4.7
			+ 0.9	0.04	0.04	3						

CNZ	P	03 29 41.3	-0.0	2.17	203	4.8						
TRZ	P	03 29 43.0	0.4	2.34	177	4.7	4.9					
	ES	30 28	1.0									
TNZ	EP	03 29 46	1.0	2.66	221	4.2						
MNG	P	03 29 52.2	-0.2	3.52	195	4.8	4.8					
	ES	30 45	0.2									
WEL	P	03 30 00.3	0.0	4.32	199	5.1	4.6	4.8				
	ES	59	0.3									
COB	EP	03 30 05	-1.5	4.92	217	4.8	4.7					
	S	31 08	-1.8									
MJZ	ES	03 32 18	0.8	8.24	213							
											75/ 175	
MAR 30	H M S	15 10 10.3	37.95S	176.53E	175 KM	SE	1.2	AVG MAG	3.9			
		+ - 1.0	0.04	0.04	9							
			DIR	RES	DIST	AZ	W-A	W P	W S			
WTZ	P	15 10 33.2	-1.0	0.36	95							
KRP	P	15 10 36.8	0.6	0.79	272		3.4					
	S	56	-0.2									
TUA	P	15 10 38.0	0.5	0.98	151		4.1	4.2				
	S	58.5	-0.1									
GNZ	P	15 10 41.0	0.2	1.36	121		3.8	4.3				
	S	11 02.5	-1.8									
CNZ	EP	15 10 43.0	1.2	1.47	212		3.2					
	E	11 02										
	E	08										
TRZ	ES	15 11 11	2.3	1.61	172			4.2				
ECZ	EP	15 10 44	0.7	1.62	81		4.1	4.1				
	ES	11 09	0.3									
GBZ	EP	15 10 46	-0.5	1.93	334							
MNG	P	15 10 56.0	-0.7	2.78	197		3.6	3.4				
	ES	11 31	-1.5									
											75/ 176	
MAR 31	H M S	05 15 22.4	39.50S	173.52E	33 KM	SE	1.1	AVG MAG	4.0			
		+ - 0.6	0.03	0.04	9							
			DIR	RES	DIST	AZ	W-A	W P	W S			
TNZ	EP	05 15 35	-0.8	0.74	65		3.5	3.7				
	ES	45	-0.6									
CNZ	P	05 15 47.0	-0.6	1.60	80		4.2	4.4				
	ES	16 08	1.4									
COB	P	05 15 47	-1.9	1.69	200		4.2	4.1				
	S	16 10	1.2									
MNG	P	05 15 50.2	-1.2	1.88	127		4.2	4.0				
	S	16 12.5	-0.7									
WEL	P	05 15 53.7	0.3	2.02	152	3.8	3.9	4.2				
	S	16 17.5	0.7									
KRP	EP	05 15 57	0.5	2.23	46		3.4					
	ES	16 22.5	0.7									
	E	31										
MJZ	ES	05 17 30.5	0.6	5.03	206							
	E	33										
	E	39										
											75/ 177	
MAR 31	H M S	22 26 25.8	39.61S	173.60E	12 KM	SE	0.8	AVG MAG	3.7			
		+ - 0.4	0.02	0.02	9							
			DIR	RES	DIST	AZ	W-A	W P	W S			
TNZ	EP*	22 26 39.3	0.3	0.74	56		3.5	3.6				
	ES*	50	0.4									
CNZ	P*	22 26 53.0	-0.6	1.56	76		4.3	4.3				
	S*	27 14.4	-0.0									
COB	EP*	22 26 54	-0.6	1.62	204		3.6	3.6				
	ES*	27 15	-0.1									
MNG	P*	22 26 57.0	-0.0	1.76	126		3.8	3.8				
	S*	27 20.2	-0.2									
WEL	EP*	22 27 02	2.6*	1.90	152	3.6	3.8	4.1				

LOCAL EARTHQUAKES

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	KRP	ES*	22 27	25 04 05.5 29 31 34.5	0 5 1.8 -0.5 -0.9	2.26	43			3.2	3.4
APR 01	H M S		45.60S	167.16E	83 KM	SE	1.9			AVG MAG	75/ 178 4.2
			+ - 2.3	0.09	0.13	14					
	MNW	IP	21 50	58.0	DIR RES	DIST	AZ			W-A	W P W S
		S		51 08		0.37	119				
	ROX	P	21 51	14		2.9	1.52	86		4.2	
		E		25							
	WPZ	P	21 51	11.5	D	-0.3	1.58	133		4.5	4.5
		S		32.0		0.0					
	GSP	P	21 51	26.1		1.7	2.50	55			
		E		58.5							
	OMZ	EP	21 51	24		-3.1	2.70	80		4.0	3.9
		ES		59		0.0					
	HJZ	EP	21 51	29		-0.3	2.85	57			
		S		52 02		-0.8					
	GPZ						4.35	66		4.3	
APR 02	H M S		40.58S	175.03E	81 KM	SE	0.5			AVG MAG	75/ 179 4.4
			+ - 0.3	0.01	0.02	5					
	MNG	P	06 10	48.7	DIR	RES	DIST	AZ		W-A	W P W S
		S		11 03.7		0.4	0.34	97			
	WEL	P	06 10	52.0	U	0.2	0.74	196		4.2	4.3 4.7
		S		11 00.5		-0.6					
	CAZ	EP	06 10	58.5		4.2*	0.96	110			
		I		19.5							
		E		22.5							
	CNZ	P	06 11	01.0		0.6	1.43	16			
		S		00.8		-0.2	1.48	340		4.7	5.1
	TNZ	EP	06 11	20.5		0.4					
		ES		04.0		0.1	1.71	54			
	TRZ	EP	06 11	07.5							
		E		10.2							
		E		31							
	COB	P	06 11	05.0		-0.3	1.82	253		4.4	4.7
		S		27.2		-0.3					
	KKY	EP	06 11	10		0.9	2.10	208			
		S		13		-0.4	2.40	43		4.4	
	TUA	EP	06 11	20.5							
		E		17.5		0.2	2.68	9		4.1	4.4
	KRP	P	06 11	48.5		-0.4					
		S		21		-0.8	3.01	51		3.7	4.1
	GNZ	EP	06 11	57		0.2					
		S									
	FELT FEILDING (62) MM III										
APR 02	H M S		44.90S	167.50E	144 KM	SE	2.8			AVG MAG	75/ 180 3.8
			+ - 3.7	0.15	0.17	29					
	MNH	P	10 10	07.0	DIR	RES	DIST	AZ		W-A	W P W S
		S		21.8		1.7	0.89	175		3.9	4.5
	GSP	S	10 10	45		-1.5					
		S		19.3		2.1	1.95	68			
	WPZ	P	10 10	43		2.4	2.00	152		4.5	3.6
		S		17		-0.9					
	HJZ	EP	10 10	51		-3.8	2.31	68		3.1	3.3
		S		53		0.4					
	OMZ	ES	10 10	53		-0.3	2.43	95			3.6

APR 02		H	M	S	39.13S	175.13E	12 KM	SE	1.9	AVG MAG	75/ 181			
		+	-	0.5	0.03	0.03	7							
		H	M	S	DIR	RES	DIST	AZ	W-A W P W S					
CNZ	PG	14	18	57.0	U	0.2	0.33	103						
TNZ	PG	14	19	03.1		1.3	0.59	264	3.9	4.0				
WNZ	SG			12.5		2.6								
	EPG	14	19	10		1.8	0.91	57	4.3					
	E			18.2										
KRP	PG	14	19	13.7		-1.3	1.24	15	4.2 4.3					
	SG			30.5		-1.3								
TRZ	EPG	14	19	19		1.3	1.38	108	4.1 3.9					
	E			21.2										
	ESG			38.5		2.2								
MNG	PN	14	19	15.5	U	-0.3	1.51	170	4.6 4.2					
	ESN			34		-1.3								
TUA	EPG	14	19	20		-2.3	1.61	79	3.9					
WEL	PN	14	19	26.0		1.1	2.17	187	3.7	4.4 4.3				
	E			27.0										
	E			45										
	SN			52.3		1.0								
GNZ*	EPG	14	19	34		-2.4*	2.31	79	3.3					
COB	PN	14	19	32.2		0.2	2.69	222	4.0 4.1					
	SN			20 02		-1.9								
GPZ	ESN	14	20	55		-3.4	4.93	201	4.3					
APR 02		H	M	S	45.36S	167.81E	63 KM	SE	0.1	AVG MAG	75/ 182			
		+	-	0.2	0.01	0.01	2							
		H	M	S	DIR	RES	DIST	AZ	W-A W P W S					
MNW	P	14	45	14.9		0.1	0.44	197						
	S			24.0		-0.0								
WPZ	P	14	45	27.8		-0.1	1.49	151	3.9 3.5					
	S			46.8		0.0								
OHZ	ES	14	46	04		0.0	2.22	84	3.4					
APR 02		H	M	S	38.26S	175.84E	197 KM	SE	1.1	AVG MAG	75/ 183			
		+	-	0.7	0.03	0.03	6							
		H	M	S	DIR	RES	DIST	AZ	W-A W P W S					
KRP	P	14	51	12.5		-0.2	0.42	324						
	S			32.5		-0.7								
WTZ	P	14	51	15		-0.3	0.95	73	3.7					
CNZ	P	14	51	16.2		0.8	0.96	194	4.5 4.1					
	S			39.7		1.6								
TUA	P	14	51	17.8		0.7	1.16	118	4.3 4.2					
	E			37										
	S			40.0		-0.7								
TNZ	P	14	51	21.0		1.6	1.47	231	4.3					
TRZ	P	14	51	21.0		1.3	1.50	150	4.3 4.8					
	S			47		1.3								
GNZ	P	14	51	22.3		0.1	1.75	103	4.1 4.6					
	S			48.5		-1.5								
GBZ	P	14	51	24		-1.3	2.06	352						
ECZ	P	14	51	26.8		-0.1	2.21	76	4.8 4.3					
	S			59		0.5								
MNG	P	14	51	29.0		0.4	2.37	187	4.6 4.7					
	S			59.7		-1.8								
WEL	P	14	51	37.2		-0.4	3.13	195	4.5	4.2 4.6				
	S			52 16.3		-1.1								
COB	P	14	51	45.3		0.9	3.70	219	4.3 4.7					
	S			52 29		-0.9								
GPZ	ES	14	53	16		-5.0*	5.94	203	5.1					

LOCAL EARTHQUAKES

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APR 02		H	M	S			45.11S	168.05E	33 KM	SE	1.1	AVG MAG	75/ 184
		+ - 1.5					0.09	0.05	?				
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S		
MNW	P	17	42	02.7		0.3	0.74	204		3.9	4.2		
WPZ	EP	17	42	11.2		-1.0							
	S			16.0		1.1	1.65	161		3.6	3.6		
OHZ	ES	17	42	34.5		0.1							
	S			43		-0.6	2.03	90				3.3	
APR 03		H	M	S			38.24S	177.69E	12 KM	SE	0.8	AVG MAG	75/ 185
		+ - 1.1					0.06	0.03	?				
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S		
GNZ	P	04	42	39.2		-0.5	0.49	147					
	ES			47		0.4							
TUA	EP	04	42	42.8		-0.5	0.70	216		3.7	3.9		
	I			44.8									
	S			53		-0.1							
CNZ	P	04	43	05		0.7	1.92	239		3.6			
MNG	E	04	43	20			2.92	215		3.2			
APR 03		H	M	S			41.63S	171.85E	12 KM	SE	1.1	AVG MAG	75/ 186
		+ - 0.4					0.03	0.03	?				
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S		
COB	P	06	17	40.0		-0.4	0.85	51					
KAI	P	06	17	43		0.8	0.96	200					
KKY	P	06	17	51.4		-1.4	1.58	121					
	I			51.8									
GPZ	EPN	06	17	58		-1.3	2.15	165		4.3			
	EP			18 03		0.5							
	SN			24		-1.7							
WEL	PN	06	18	00.3		-0.2	2.22	82		4.2	5.0	4.8	
	IP			03.0		-0.7							
	ISN			30.0		2.7							
MJZ	PN	06	18	04.9		-0.8	2.57	203					
	I			06.8									
	SN			36		0.0							
GSP	PN	06	18	10.1		1.0	2.85	208					
	ISN			43		0.3							
MNG	EPN	06	18	09.3		-0.8	2.92	71		5.0	4.5		
	IP			16.0		0.3							
	ES			56		1.9							
TNZ	EP	06	18	18		-1.0	3.11	39		4.1	4.0		
	E			26									
	E			29.5									
	ES			59		-0.8							
CNZ	EPN	06	18	22.5		1.5	3.72	51		4.7	5.1		
	IP			29		-0.4							
	I			34.5									
	ES			19 23		4.9							
TRZ	EP	06	18	46		5.4	4.31	63		4.4			
KRP	EPN	06	18	33.5		-0.4	4.66	39		4.0			
	E			36.5									
MNW	EPN	06	18	41		0.3	5.16	215		4.1	4.2		
	SN			19 40.0		1.0							
GNZ	SN	06	19	49		-0.2	5.59	60					
FELT MURCHISON (80) MM IV													
APR 03		H	M	S			41.72S	172.03E	12 KM	SE	0.9	AVG MAG	75/ 187
		+ - 0.3					0.02	0.03	?				
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S		
COB	P	07	05	33.2		-0.4	0.82	40					
KAI	P	07	05	36		0.6	0.93	210					

KKY	S*	48.5	0.5							
	P*	07 05 44.7	0.9	1.42	120					
GPZ	I	45.1								
	EP*	07 05 52	-2.2	2.03	167	3.8				
	E	59								
	ESN	06 16	-0.4							
WEL	PN	07 05 54.2	1.6	2.10	79	3.9	4.7	4.8		
	IP*	56.1	0.7							
	ES*	06 22.5	-0.7							
	E	25.0								
HJZ	EPN	07 05 58.0	-0.7	2.54	206		3.7			
	I	06 00.2								
	SN	29.0	-0.0							
MNG	EPN	07 06 02.8	0.2	2.83	68		4.9			
	IP*	09.0	1.1							
GSP	PN	07 06 03.8	1.2	2.83	211					
	E	37								
TNZ	EPN	07 06 10	3.7*	3.10	36		4.2	4.0		
	E	21								
	ES*	52	-1.2							
CNZ	PN	07 06 15	0.8	3.68	48		4.8			
	EP*	22	-0.4							
	E	30								
KRP	EPN	07 06 28	0.5	4.65	37		4.0			
	E	34								
	ESN	07 20	-0.3							
MNH	EPN	07 06 34	-0.5	5.17	217		3.9	3.9		
	ESN	07 32	-0.8							
GNZ	SN	07 07 41	-0.3	5.52	58					
FELT	MURCHISON (80) MM IV									

APR 03		H	M	S			182 KM	SE	1.1	75/ 188	
		07 19	29.1		38.09S	176.23E	10			AVG	MAG
		+ - 0.9			0.05	0.05					4.1
KRP	P	07 19	54.8				DIR	RES	DIST	AZ	W-A
	E	21	14.0					0.2	0.57	287	W P
	ES	07 20	18					-1.1	1.02	135	3.7
TUA	P	07 20	00.0					0.9	1.23	205	4.3
CNZ	P	07 20	02.0					0.3	1.52	112	3.7
GNZ	S	07 20	25.7					-1.1			4.0
	EP	07 20	03					1.2	1.53	162	4.1
TRZ	ES	07 20	29					1.9			4.0
	EP	07 20	05					0.3	1.81	232	3.7
TNZ	P	07 20	05.0					-0.4	1.88	78	4.6
ECZ	P	07 20	14.0				U	0.4	2.59	193	4.4
MNG	S	07 20	47					-0.8			4.0
	P	07 20	22.5					-0.7	3.38	199	4.4
WEL	S	07 20	21					0.1			4.0
	ES	07 21	18					-1.4	4.03	221	4.0

APR 04		H	M	S			229 KM	SE	1.2	75/ 189	
		09 44	04.0		39.06S	175.03E	6			AVG	MAG
		+ - 0.9			0.04	0.05					4.4
CNZ	IP	09 44	34.9				DIR	RES	DIST	AZ	W-A
	ES	45	00				D	0.5	0.43	110	W P
	P	09 44	35.2					0.6	0.52	255	4.2
TNZ	IP	09 44	38.0				UW	-0.3	1.20	20	3.8
KRP	ES	45	04					-0.9			3.3
	P	09 44	42.0				D	1.6	1.48	110	4.1
TRZ	ES	45	09					0.5			5.0
	IP	09 44	42.1				U	0.7	1.60	168	5.1
MNG	ES	45	09					-1.3			4.4
	EP	09 44	42					-0.0	1.67	82	4.3
TUA	E	52									4.6
	ES	45	11					-0.4			

LOCAL EARTHQUAKES

		H	M	S			DIR	RES	DIST	AZ	75/ 190		
WTZ	IP	09	44	42.9	D	-0.9	1.87	56			4.1	4.0	
	ES		45	13		-1.6							
WEL	P	09	44	47.0		-0.4	2.24	185			4.4	4.2	4.5
	ES		45	20		-0.9							
GNZ	IP	09	44	49.3	U	0.5	2.37	81			4.7	4.5	
	ES		45	22.3		-0.9							
ECZ	EP	09	44	56		-0.5	3.08	65			5.3	4.4	
	ES		45	39		1.7							
KAI*	ES	09	46	00		-3.9*	4.42	217			4.5		
APR 05	H M S	21	45	06.5	39.73S	174.24E	187 KM	SE	1.6		AVG MAG	4.2	
				+ 1.2	0.05	0.05	9						
	I M S	4					DIR	RES	DIST	AZ	W-A	W P	W S
TNZ	IP	21	45	33.6	U	1.1	0.55	12				4.2	3.7
	ES			54		1.5							
MNG	IP	21	45	39.7	U	2.1	1.30	133				4.5	4.2
	E			56									
	ES			46		01.9							
WEL	EP	21	45	41.5		1.1	1.61	166			4.1	3.9	4.5
	ES			46		06							
COB	IP	21	45	42.0	D	-0.1	1.78	220				4.5	4.6
	E			46		01							
	ES			07		-2.5							
TRZ	ES	21	46	15		1.3	2.00	86					4.4
KRP	EP?	21	45	45		-0.2	2.07	30					3.3
	E			46		14							
	ES			21		-1.0							
TUA	ES	21	46	21		-1.4	2.44	69					4.3
GNZ	IP	21	45	59.0	D	1.3	3.13	71				4.4	4.2
	E			46		35							
ECZ	P	21	46	07.3		-0.4	3.94	60				4.8	
APR 06	H M S	21	22	57.8	37.43S	177.19E	135 KM	SE	1.5		AVG MAG	3.9	
				+ 1.4	0.07	0.05	10						
	I M S	4					DIR	RES	DIST	AZ	W-A	W P	W S
WTZ	IP	21	23	17.9	D	-0.1	0.57	196				4.0	3.7
	ES			33		-0.6							
ECZ	EP	21	23	21		-1.5	1.11	104				4.5	4.1
	E			49									
TUA	EP	21	23	28			2.7	1.37	181			4.3	4.1
	E			51									
GNZ	EP	21	23	25.5		0.2	1.38	152				3.8	3.9
	ES			46		-0.3							
KRP	IP	21	23	25.8	DE	0.3	1.40	249				3.7	3.1
	E			47		0.3							
GNZ	IP	21	23	36.4	D	1.7	2.18	216				3.9	3.7
	E			24		13							
MNG	EP	21	23	50		-1.2	3.45	202				3.8	3.6
	E			57.5									
	ES			24		31							
CAZ	ES	21	24	36		1.5	3.54	192					
COB	ES	21	25	08		-1.7	5.02	222				4.0	
APR 07	H M S	03	28	15.2	40.24S	174.01E	110 KM	SE	1.1		AVG MAG	4.4	
				+ 0.6	0.03	0.03	8						
	I M S	4					DIR	RES	DIST	AZ	W-A	W P	W S
TNZ	IP	03	28	38.9	D	1.2	1.09	15					
	ES			54.5		-0.2							
MNG	IP	03	28	39.6		0.8	1.18	109					
	E			53		-3.7*							
WEL	IP	03	28	39.9	DSE	0.9	1.20	152				4.7	4.8
	ES			56		-0.9							
COB	IP	03	28	41.8		1.7	1.29	228				4.4	4.1
	E			52.5									
	ES			59		0.1							

	CNZ	P	03 28	43.7		0.3	1.57	49		4.3	4.6		
		ES	29 05			0.4							
	CAZ	P	03 28	46.5		0.2	1.81	112		4.8	5.2		
		ES	29 09			-0.6							
	KRP	P	03 28	55.9		-0.9	2.60	28		4.1	4.0		
		E	29 19										
		ES	27			-1.0							
	KAI	ES	03 29	36.5		-1.4	3.01	220	4.1				
	WTZ	ES	03 29	41.5		-1.6	3.23	47			3.8		
	GNZ	ES	03 29	51		1.6	3.49	64			4.3		
	ECZ	EP	03 29	20		-0.4	4.35	56		4.7			
APR 09	H	M	S							75/	193		
	05	51	18.1	41.55S	173.14E	115	KM	SE	1.8	AVG	MAG	4.4	
			+ 0.6	0.05	0.05	11							
				I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	COB	IP	05 51	35.2		-0.9	0.55	327					
	KKY	IP	05 51	41.4	U	1.8	0.96	155					
	WEL	IP	05 51	43.8	D	0.9	1.25	78	3.9	4.7	4.7		
		E	47										
		ES	52 01			-0.7							
	KAI	P	05 51	49.2		2.1	1.62	232	4.3				
		ES	52 07.5			-1.4							
	MNG	IP	05 51	53.0	D	1.2	2.00	63		4.9	4.3		
		ES	52 20			2.9							
	GPZ	EP	05 51	55		0.9	2.18	189	4.3				
		ES	52 19.5			-1.7							
	CAZ	P	05 51	58.0		0.6	2.42	76					
		ES	52 25			-1.9							
	TNZ	P	05 52	01.2		2.0	2.54	22		4.3	4.5		
		ES	30			-0.1							
	CNZ	EP	05 52	06		0.9	2.98	39		4.8	4.8		
		E	49										
	MJZ	P	05 52	07.8		0.8	3.13	218		4.1	4.0		
		E	09.0										
		ES	12			-2.0							
	TRZ	ES	05 52	23			3.44	56		4.2	4.2		
		EP	53			1.5							
	OMZ	ES	05 52	17.5		0.5	3.87	204		4.3	4.6		
		ES	53 01			-0.9							
	KRP	P	05 52	21.1		1.5	4.07	28		4.4	4.6		
		ES	53 04			-2.6							
	WTZ	ES	05 53	19		-1.4	4.63	41			4.0		
	GNZ	EP	05 52	27		-1.7	4.74	54		4.0	4.1		
		ES	53 20			-2.9							
	HSZ	IP	05 52	32.1	U	0.8	4.93	229		4.6	4.7		
		ES	53 24			-3.6							
	MNW*	ES	05 53	48		-1.3*	5.82	222	4.7				
	ONE*	E	05 52	48			5.84	10	4.6				
		ES	53 46			-3.9*							
	CIZ*	ES	05 54	35		-6.2*	7.95	111					
APR 09	H	M	S							75/	194		
	09	39	04.8	35.38S	178.77W	231	KM	SE	1.8	AVG	MAG	4.3	
			+ 1.4	0.07	0.10	19							
				I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	ECZ	P	09 39	56.5		-1.9	3.16	222		4.5	4.2		
		ES	40 43			3.0							
	GNZ	EP	09 40	09		-1.1	4.15	217		4.0	4.3		
		ES	58			-2.8							
	WTZ	EP	09 40	10		-1.3	4.29	231		4.3	4.0		
		E	58.5										
	TUA	E	09 40	28			4.72	222		4.5	4.6		
		ES	41 15			1.5							
	KRP	P	09 40	23		-0.5	5.23	239		3.9			
	TRZ	ES	09 41	29		-0.6	5.44	219			4.6		

LOCAL EARTHQUAKES

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		H	M	S								
ONE	EP	09	40	29	0.7	5.61	264	4.6				
CNZ	EP	09	40	33	0.8	5.92	228		4.1	4.0		
	ES		41	42	1.7							
MNG	EP	09	40	46	1.0	6.92	219					
	ES		42	02	-1.2							
CRZ	EP	09	40	48	0.9	7.09	275					
WEL	ES	09	42	22	-0.9	7.78	219	5.3				
CIZ	E	09	41	16		8.73	169					
	ES		42	46	1.3							
APR 09		15	26	20.5	33.21S	178.47W	421 KM	SE 2.0	AVG MAG	75/ 195	4.8	
				3.0	0.29	0.53	27					
ECZ	E	15	27	54								
WTZ	EP	15	27	53								
	ES		29	08	-1.8	6.04	217					
GNZ	ES	15	28	24								
	ES		29	13	2.0	6.13	207					
ONE	ES	15	28	37								
TUA	ES	15	29	20	-0.8	6.62	211					
KRP	EP	15	28	06	3.0	6.78	224					
TRZ	E	15	29	41								
CNZ	E	15	28	22.5								
	ES		29	42	-0.2							
MNG	EP	15	28	25	-1.2	8.84	211					
	ES		30	05	-0.6							
WEL	ES	15	30	24	0.7	9.70	212					
APR 09		19	02	33.5	39.55S	174.71E	149 KM	SE 1.5	AVG MAG	75/ 196	4.7	
				3.0	0.03	0.04	8					
TNZ	IP	19	02	55.2								
	S		03	10.8	U	0.5	0.45	325				
CNZ	IP	19	02	57.8	U	1.5	0.74	62				
MNG	IP	19	03	02.0	U	1.6	1.22	151				
TRZ	IP	19	03	06.1	D	1.4	1.63	91	5.0	5.1		
	E			08.3								
	ES			31	2.3							
WEL	IP	19	03	06.7	USE	0.9	1.73	179	4.6	4.9	5.0	
	ES			29	-1.6							
KRP	P	19	03	05.0	D	-1.0	1.75	22	4.3	3.8		
	E			05.9								
	ES			30	-1.0							
CAZ	P	19	03	08.3								
	ES			29	2.0	1.78	140					
TUA	EP	19	03	10	D	0.7	2.04	69	5.1	4.7		
	ES			37.5	0.6							
COB	IP	19	03	11.1	U	0.4	2.15	224				
	E			33								
WTZ	P	19	03	12.2								
	E			15	-1.3	2.37	49	4.3	4.2			
	E			25.5								
	E			34.5								
	ES			43	-1.1							
GNZ	P	19	03	17.8	D	-0.4	2.73	72	5.0	4.6		
	ES			50	-2.3							
KKY	IP	19	03	20.8								
	E			50.6	-0.4	2.96	195					
	ES			57.0	-0.6							
ECZ	P	19	03	27.1								
	ES			04 12	-1.4	3.53	59	5.7	4.9			
KAI	ES	19	03	35	1.4	3.88	219	5.0				
	ES			04 13	-5.7*							
MSZ*	EP	19	04	13	-4.0*	7.18	222					
	ES			05 28	-9.6*							

CIZ* ES 19 05 52 -1.9* 7.86 127
 FELT KAPITI I. (65) MM IV AND WELLINGTON (68) MM III

		H	M	S					75/ 197			
APR 10	09 12 25.3	39.53S	173.50E	12 KM	SE	1.1	AVG MAG	3.8				
	+ 0.6	0.02	0.04									
		H	M	S	DIR	RES	DIST	AZ	W-A	W P W S		
TNZ	P*	09 12 39.0				-0.4	0.76	64		3.6 3.7		
	PG	41.2				0.4						
	ES*	51				1.2						
CNZ	PN	09 12 52.3				-0.5	1.62	79		4.2 4.3		
	ESN	13 14				0.6						
COB	EPN	09 12 53				-0.5	1.67	200		3.9		
	E	13 09										
	ES*	16				-1.0						
	ESG	23				1.4						
MNG	PN	09 12 56.0				-0.3	1.87	126		4.1 4.1		
	PG	13 01.0				-2.2						
	ESN	19				-0.5						
WEL	EPG?	09 13 06				0.1	2.01	152		3.8 3.6		
	ESN	24				1.2						
KRP	EPN	09 13 03				1.4	2.26	46		3.4 3.6		
	ESN	28				-0.9						
	ES*	34				-0.7						
TRZ	EPG	09 13 18				0.8	2.57	92		3.8		
	ES*	48				3.9*						

		H	M	S					75/ 198			
APR 10	18 40 14.0	39.56S	173.34E	12 KM	SE	1.7	AVG MAG	4.2				
	+ 0.7	0.03	0.04									
		H	M	S	DIR	RES	DIST	AZ	W-A	W P W S		
TNZ	IP*	18 40 29.0				-1.4	0.89	65		4.2 4.3		
	ES*	41				-1.5						
COB	EPN	18 40 43				1.8	1.59	197				
CNZ	IPN	18 40 42.1			U	-1.3	1.75	79		4.6 4.5		
	ESG	41 13.9				0.3						
MNG	IPN	18 40 46.2			U	-0.0	1.95	123		4.7 4.8		
	ESN	41 09				-1.3						
WEL	EPN	18 40 49.2				1.8	2.04	148		4.5 4.3		
	ESN	41 14				1.7						
KRP	PN	18 40 51.0				-1.0	2.37	47		4.1 4.2		
	E	41 17										
CAZ	EP*	18 41 00				0.6	2.59	122				
	ES*	33				-0.4						
TRZ	P*	18 41 00.0				-1.2	2.69	91		4.2 4.4		
	ES*	38				1.3						
WTZ	EP*	18 41 08				-2.9	3.26	62		3.5		
KAI	E	18 41 26					3.30	206	4.0			
	ESN	41				-2.1						
GBZ	EPN	18 41 10				-0.8	3.75	28				
GNZ	EPN	18 41 11.5				0.6	3.76	77		4.0 3.7		
	ESN	57				2.7						
ONE	ESN	18 42 00				3.0	3.87	12	4.0			

		H	M	S					75/ 199			
APR 11	04 07 29.9	39.43S	174.41E	232 KM	SE	1.5	AVG MAG	4.0				
	+ 1.4	0.05	0.03									
		H	M	S	DIR	RES	DIST	AZ	W-A	W P W S		
TNZ	IP	04 08 00.4				0.2	0.24	354				
	ES	25				1.3						
CHZ	IP	04 08 03.3			D	0.7	0.91	76		4.3 4.0		
	ES	29				0.9						
MNG	IP	04 08 07.2			U	0.9	1.44	146		4.2 4.2		
	E	26.5										
	ES	33				-1.5						
KRP	ES	04 08 38				-0.9	1.74	31		3.2		
WEL	ES	04 08 41				0.0	1.87	172	4.0	4.3		

APR 13		H	M	S			43.19S	171.49E	12 KM	SE	1.5	AVG MAG	75/ 202
		+	-	0.3	0.02	0.02							3.7
		H	M	S	DIR	RES	DIST	AZ	H-A	W P	W S		
KAI	EP	04	38	02.5		1.6	0.67	355	3.2				
	ES			10		-0.2							
GPZ	EP	04	38	06.5		0.3	0.98	121	3.4				
	ES			19		-0.5							
MJZ	IP	04	38	10.1	U	2.0	1.09	223		3.8	3.4		
	PG			11.9		1.3							
	ESG			28		2.8							
KKY	IPN	04	38	18.4	U	0.0	1.79	65					
	PG			24.0		-0.7							
	S			43.0		-1.0							
OHZ	PG	04	38	25.9		-1.4	1.92	192		4.1	3.9		
	ESG			55		1.8							
COB	EPN	04	38	26		0.7	2.30	24		4.2	3.9		
	EP			29.5		0.7							
	ES			39 00		0.9							
MSZ	PG	04	38	47.2		-1.3	2.97	239		3.7	3.7		
	ESG			39 25		-3.7							
WEL	EP?	04	38	41		-1.4	3.09	53		3.8	3.7		
	E			39 15									
MNH	EPG	04	39	03		-2.0	3.79	226					

APR 13		H	M	S			43.22S	171.43E	12 KM	SE	0.7	AVG MAG	75/ 203
		+	-	0.2	0.01	0.01							4.0
		H	M	S	DIR	RES	DIST	AZ	H-A	W P	W S		
KAI	EP	05	16	47		0.9	0.70	359	3.3				
	ES			55		-0.7							
GPZ	EP	05	16	51		-0.4	1.01	119	3.5				
	ES			17 05		0.0							
MJZ	PG	05	16	55.5		1.3	1.04	222					
	E			57.0									
	E			17 12.5									
KKY	IPN	05	17	03.4	U	-0.4	1.85	65					
	P			06.4		0.6							
	SN			26.8		0.0							
OHZ	IPG	05	17	11.0	D	-0.3	1.88	191		4.4	4.2		
	ESG			37		0.3							
COB	EPN	05	17	11.5		0.9	2.34	25		4.4	4.2		
	EP			14.5		0.2							
	ES			45		-0.2							
MSZ	EPG	05	17	32.5		0.3	2.92	239		4.0	3.9		
	ESG			18 11		-0.6							
WEL	EP	05	17	27		-1.0	3.14	53		4.2	3.9		
	E			33									
	E			54.5									
MNH	EPG	05	17	47.5		-1.2	3.74	225					
	E			18 18.5									

APR 13		H	M	S			41.22S	174.21E	33 KM	SE	1.8	AVG MAG	75/ 204
		+	-	0.4	0.04	0.05							5.0
		H	M	S	DIR	RES	DIST	AZ	H-A	W P	W S		
WEL	IPN	07	25	30.1	DSE	0.5	0.43	100	4.8				
COB	IPN	07	25	40.9	U	2.0	1.12	276					
MNG	IPN	07	25	38.0	D	-1.1	1.14	59					
KKY	IPN	07	25	42.8		1.9	1.26	198					
CAZ	EPN	07	25	45		0.1	1.56	79					
	E			53									
THZ	IPN	07	25	53.7	U	2.3	2.03	4		5.4	5.3		
	ES			26 21		-2.3							
KAI	EPN	07	26	00		2.6	2.47	237	4.8				
	EP			03		-0.8							

TRZ	ES*	07 25	34	-2.4				
	EPN		58	-1.2	2.60	51		
	EP*		26 08	1.9				
	E		22					
	E		52					
GPZ	EPN	07 26	01	-0.1	2.74	204	4.8	
	ESN		30.5	-1.6				
TUA	EP*	07 26	15	-2.1	3.30	44		5.2 5.3
	E		27 12					
KRP	PN	07 26	12.0	1.2	3.44	18		5.2 5.2
	E		13.5					
	E		50	0.6				
WTZ	EPN	07 26	15	-1.7	3.88	35		4.7 4.7
	ESN		57	-2.9				
GNZ	EPN	07 26	15	-2.0	3.90	50		4.8 4.9
	EP*		30	1.7				
	E		38.5					
	E		27 01	0.5				
MJZ	EPN	07 26	18.5	1.3	3.91	224		
	ESN		59	-1.8				
AUC	PN	07 26	26.0	2.5	4.37	6		
	E		27 19					
ECZ	EPN	07 26	31	0.8	4.86	45		5.1 4.8
	E		27 53					
GBZ*	EPN	07 26	35	1.8*	5.09	12		
	ESN		27 33	3.7*				
ONE*	EPN	07 26	41	3.2*	5.43	1		5.1
	ESN		27 41	3.4*				
MSZ*	PN	07 26	43.8	1.5*	5.76	231		4.8 5.1
	E		46					
	E		27 53	7.5*				
CRZ*	IPN	07 27	01.0	3.6*	6.88	349		
	E		07					
	EP*		18	-1.3*				
	ESN		28 14	1.8*				
CIZ*	EPN	07 27	02	-1.5*	7.34	115		
	ESN		28 15	-8.2*				

FELT BOTH SIDES OF COOK STRAIT, MM IV OR V

APR 13		H	M	S							75/ 205	
		10 53	27.3	38.64S	177.93E	12 KM	SE	1.9	AVG MAG			3.8
			+ 0.7	0.05	0.04							
				4 M S	DIR	RES	DIST	AZ	W-A	W P	W S	
	GNZ	IP*		10 53	30.6	1.3	0.06	96				
	TUA	IP*		10 53	40.1	0.7	0.65	254		4.2	4.1	
		ESG			51	1.7						
	WTZ	P*		10 53	44.3	-1.1	1.00	311		4.3	4.0	
		ES*			58	-0.9						
	ECZ	EP*		10 53	46	-0.4	1.05	27		4.1		
		EPG			49	0.3						
	TRZ	EPG		10 53	55	2.1	1.27	223		3.6	3.6	
		E			54 21							
	CNZ	EP*		10 54	03	1.2	1.95	253		3.7	3.4	
		ES*			28	0.4						
	KRP	EP*		10 54	05	2.0	2.02	290		3.3		
		ESN			24	-1.2						
	MNG	PN		10 54	06.8	-3.5	2.74	223			3.2	
		E			25							
		E			40	-2.8						

FELT GISBORNE (45)

APR 13		H	M	S							75/ 206	
		19 16	09.9	37.83S	177.23E	147 KM	SE	1.2	AVG MAG			4.3
			+ 1.0	0.04	0.04							
				4 M S	DIR	RES	DIST	AZ	W-A	W P	W S	
	WTZ	IP		19 16	28.4	D	-1.7	0.25	230			
		E			39							

TUA	P	19 16	34.9	0.5	0.98	183	4.7	4.5												
	ES		53	-0.2																
GNZ	IP?	19 16	34.7	-0.1	1.03	143														
	E		47																	
	ES		54	0.1																
ECZ	P	19 16	34.4	-0.6	1.06	83	4.6	4.8												
	E		37																	
	E		47																	
KRP	IP	19 16	38.2	USW 0.3	1.34	265	4.3	3.5												
	ES		59	-0.3																
TRZ	P	19 16	43.1	0.8	1.75	190	4.3	4.8												
	ES		17 09	1.8																
CNZ	P	19 16	45.2	1.2	1.90	223	4.0	4.1												
	E		17 16																	
TNZ	P	19 16	54.7	1.7	2.61	238														
MNG	EP	19 16	58	-1.2	3.10	205	3.8	4.3												
	E		17 28																	
	ES		36	-0.8																
WEL	ES	19 17	55	-1.5	3.94	208														4.5
	H	M	S																	75/ 207
APR 13	22 06	21.8	41.39S	174.31E	33 KM	SE	1.4	AVG MAG	4.4											
	+ -	0.3	0.03	0.03	R															
	H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S										
WEL	IPN	22 06	30.6	USE	0.4	0.36	73													
	ESN		37		0.7															
KKY	P	22 06	44.2		1.6	1.13	204													
	SN		52.0		-2.4															
	E		07 07.4																	
MNG	IPN	22 06	39.9		-1.2	1.17	49													
	ESN		56		0.4															
COB	IPN	22 06	41.5	U	-0.4	1.23	284	4.7	4.8											
	ESN		56.5		-0.4															
TNZ	EPN	22 06	54.6	D	-0.6	2.20	1	4.4	4.5											
	E		07 08.4																	
	ESN		21		0.4															
CNZ	PH	22 06	56.2		-1.5	2.38	24	4.7	4.8											
	EP*		59		-4.9*															
	ESN		07 26.5		1.5															
GPZ	ESN	22 07	31		0.5	2.61	208	3.8												
TUA	EP*	22 07	18		-2.8	3.38	41	4.4	4.3											
	ES*		08 06		0.9															
KRP	EPN	22 07	14		-0.2	3.59	16	4.2	4.1											
	ESN		55		0.6															
HJZ	EPN	22 07	20		2.3	3.84	226													
	ESN		08 01		0.4															
GNZ*	ESN	22 08	01		-2.3*	3.95	47													3.9
FELT	WELLINGTON (58) MM III																			
	H	M	S																	75/ 208
APR 14	08 47	45.2	38.59S	175.93E	12 KM	SE	0.9	AVG MAG	3.4											
	+ -	0.3	0.02	0.02	R															
	H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S										
WNZ	IP*	08 47	46.8	U	-1.1	0.10	116													
	ES*		49		-0.7															
CNZ	P*	08 47	56.8	U	-1.5	0.70	209	3.6	3.3											
	E		48 16																	
KRP	IP*	08 47	59.0	DN	-0.1	0.75	332	3.7	3.2											
	ES*		48 09		-0.4															
TUA	EP*	08 48	03		0.8	0.93	104	3.8												
WTZ	EP*	08 48	04		0.9	0.99	53	3.1	2.8											
	E		50																	
TRZ	EP*	08 48	07		0.9	1.16	146	3.8	3.5											
	E		38.5																	
TNZ	EPN	08 48	10		0.4	1.39	244	3.5	3.2											
	ESG		32.5		0.3															
MNG	EPN	08 48	19.5		0.5	2.07	191	3.4												
FELT	TAUPO (41) MM IV																			

LOCAL EARTHQUAKES

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APR 14		H	M	S							75/ 209		
		23	45	31.9	38.16S	176.27E	159 KM	SE	1.0	AVG MAG	4.4		
		+ 0.5			0.02	0.03	5						
					4	M	S	DIR	RES	DIST	AZ	W-A	W P W S
HNZ	EP	23	45	55					0.7	0.49	196		
WTZ	IP	23	45	54.5			U	-0.3	0.59	73		4.8	3.9
KRP	ES	23	45	11				-1.5					
	IP	23	45	55.7			UNW	0.7	0.63	292		4.6	3.9
	ES	23	45	13				0.1					
TUA	P	23	45	57.8				0.7	0.94	133		4.4	4.6
	ES	23	45	17				0.4					
CNZ	P	23	45	59.7				0.4	1.18	209		4.4	
TRZ	P	23	46	02.7				0.8	1.45	163		4.5	4.7
	ES	23	46	26				1.0					
GNZ	EP	23	46	01.5				-0.5	1.46	110		4.1	4.4
	ES	23	46	24				-1.0					
TNZ	EP	23	46	06.5				0.9	1.80	235		3.9	
ECZ	EP	23	46	06.5				0.3	1.86	76		4.7	4.4
	ES	23	46	34				1.3					
GBZ	IP	23	46	08.0			D	-0.3	2.04	342			
MNG	IP	23	46	12.9				-1.4	2.53	194		4.3	4.4
	E	23	46	37									
	ES	23	46	45				-1.9					
CAZ	ES	23	46	51				-0.5	2.74	181			
ONE	EP	23	46	18				-0.1	2.83	327	3.9		
	ES	23	46	53.5				-0.1					
WEL*	P	23	46	22.4				-2.1*	3.33	200	4.7	4.6	4.6
	ES	23	46	02				-2.9*					
COB*	EP	23	46	30				-3.2*	4.00	222			4.2
	ES	23	46	17				-3.4*					

APR 15		H	M	S							75/ 210		
		07	44	19.2	41.21S	174.19E	12 KM	SE	1.5	AVG MAG	3.8		
		+ 0.4			0.02	0.03	4						
					4	M	S	DIR	RES	DIST	AZ	W-A	W P W S
WEL	IP*	07	44	29.1			U	1.1	0.45	100	3.7		
	ES*	07	44	36				1.5					
COB	IP*	07	44	39.8			U	0.8	1.10	276		4.1	4.3
	ES*	07	44	55				1.2					
MNG	IP*	07	44	37.9			U	-2.1	1.15	59		4.1	4.0
	ES*	07	44	53.5				-2.0					
KKY	P*	07	44	40.8				-1.1	1.26	197			
	PG	07	44	44.4				-0.4					
	SG	07	44	03.6				1.8					
TNZ	EP*	07	44	54				-1.0	2.03	4		3.9	3.7
	ES*	07	44	49				0.2					
	E	07	44	49									
KAI	EPG	07	45	07.5				-1.3	2.45	237	3.8		
	ES*	07	45	33				-1.5					
GPZ	E	07	45	29.5					2.73	204	3.5		
KRP	EP*	07	45	20				0.7	3.45	18		3.6	3.6
	E	07	45	33									
	ESN	07	45	54				2.1					
WTZ	E	07	45	24					3.89	35		3.6	
MJZ*	EP*	07	45	24				-3.0*	3.90	223			
	ESN	07	45	46				4.1*					
	E	07	45	14									

FELT PUKERJA BAY (68) MM III AND FIGHTING BAY (78) MM IV

APR 15		H	M	S							75/ 211		
		17	43	53.0	37.90S	176.00E	284 KM	SE	1.4	AVG MAG	4.5		
		+ 0.9			0.04	0.05	7						
					4	M	S	DIR	RES	DIST	AZ	W-A	W P W S
KRP	IP	17	44	29.9			D	0.3	0.37	266			
	ES	17	44	59				0.8					
WTZ	P	17	44	30.1				-0.7	0.78	97		4.0	3.9

TUA	ES			17	44	58		U	-2.5						
	IP			17	44	34.0			0.4	1.28	136	4.9	4.8		
	ES					45	03		-1.8						
GBZ	IP			17	44	35.2		D	-1.3	1.73	346	4.1			
	IP			17	44	37.0		U	0.3	1.75	116	4.6	4.7		
	E					45	06								
	E					09			-1.5						
TRZ	IP			17	44	38.0		U	1.2	1.77	159	4.7	4.9		
	ES					45	12		1.2						
TNZ	EP			17	44	38			0.9	1.81	224	4.0	3.7		
	ES					45	13		1.6						
ECZ	EP			17	44	39			0.2	2.02	85	4.7	4.5		
	E					44									
	ES					45	17		2.6						
ONE	EP			17	44	44			1.0	2.49	328	3.9			
MNG	IP			17	44	45.1		U	-0.5	2.75	188	4.9	4.7		
	E					45	18								
	ES					25			-1.5						
CAZ	ES			17	45	33			2.0	3.01	177				
WEL	EP			17	44	53			-0.5	3.52	195	4.9	4.4	4.7	
	E					45	09								
	E					41			0.3						
COB	P			17	44	58.1			-1.6	4.07	217	4.6	4.3		
	ES					45	51		-0.7						
APR 15	H	M	S			39.16S	175.38E	33 KM	SE	1.3	AVG MAG	75/ 212			
		19	54	10.2		0.03	0.05	2				3.8			
				+ 0.5											
						4	H	S	DIR	RES	DIST	AZ	W-A	W P	W S
TNZ	IPN			19	54	23.1		D	-1.1	0.78	268		4.1	3.5	
	ESN					35			0.5						
KRP	PN			19	54	30.8			0.3	1.24	6		4.3	3.8	
	EP*					31.8			-1.5						
	ESN					47			1.3						
MNG	PN			19	54	33.3			-0.2	1.46	177		4.1	3.6	
	P*					34.7			-1.9						
	ESN					52			1.1						
WEL	EP			19	54	40			1.7	2.17	192		3.9	3.8	
	EPN					45									
	E					55	14								
COB	EPN			19	54	52			0.1	2.80	226		3.7	3.6	
	EP*					59			-0.4						
	E					55	31								
APR 16	H	M	S			36.46S	177.88E	209 KM	SE	1.4	AVG MAG	75/ 213			
		12	37	15.2		0.08	0.10	13				3.9			
				+ 1.4											
						4	H	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	EP			12	37	50			1.4	1.34	157		4.4	4.4	
	E					38	11								
	E					21									
WTZ	EP			12	37	51			-0.6	1.68	205		4.1	3.8	
	ES					38	20		0.4						
GBZ	IP			12	37	52.6		U	-1.7	1.95	276		3.8		
	EP			12	37	56			-0.6	2.18	177		4.2	4.1	
	ES					38	27.5		-1.0						
KRP	EEP?			12	38	01			2.4	2.38	231				
	E					21									
	E					21									
	E					37			4.9*						
TUA	EP?			12	38	04				2.41	194				
	E					30									
TRZ	EP			12	38	08			-0.1	3.20	195			4.2	
	E					54									
CHZ	EP			12	38	10			0.6	3.30	213		3.7	3.5	
	E					39	05								
MNG	EP			12	38	24			-0.9	4.56	204		3.7	3.7	

LOCAL EARTHQUAKES

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		ES	39 19	0.1						
WEL*		ES	12 39 39	1.0*	5.40	206	3.9			
		H M S					75/ 214			
APR 16	13 06	59.2	39.10S	174.93E	225 KM	SE 1.3	AVG MAG	3.9		
		+ - 1.1	0.05	0.05	8					
		H M S	DIR	RES	DIST	AZ	W-A W P W S			
TNZ	EP	13 07 28		-1.2	0.43	258				
CNZ	IP	13 07 30.4	D	1.0	0.49	192				
		ES		1.3						
KRP	E?	13 07 42			1.27	22	3.2			
		ES		-0.3						
TRZ	EP	13 07 37		1.2	1.54	108	4.2			
		ES		1.9						
MNG	IP	13 07 36.2		0.1	1.58	164	4.3 4.0			
		ES		-1.7						
TUA	EP	13 07 38		0.3	1.76	81				
		ES		-0.5						
WTZ	P	13 07 38.8		-0.9	1.96	56	3.7			
WEL	P	13 07 43		1.1	2.19	183	3.7 3.8			
		ES		-0.8						
GNZ	P	13 07 45.0		0.3	2.46	80	4.0 3.7			
		ES		-1.8						
		H M S					75/ 215			
APR 16	18 31	15.7	33.09S	178.95W	452 KM	SE 1.1	AVG MAG	5.1		
		+ - 1.1	0.15	0.25	14					
		H M S	DIR	RES	DIST	AZ	W-A W P W S			
ECZ	EP	18 32 42		0.8	5.03	203	5.2 4.7			
		ES		1.3						
WTZ	E?	18 32 46			5.90	213	5.1 4.6			
		EP		-2.0						
		E								
GNZ	EP	18 32 50		-1.7	6.06	203				
		E								
		ES		-4.4*						
TUA	ES	18 34 16		-0.1	6.53	208				
KRP	EP	18 32 57		-0.2	6.60	221				
TRZ	EP	18 33 05		0.2	7.30	207				
		ES		-0.1						
CNZ	EP	18 33 08		0.5	7.55	215				
		ES		0.0						
TNZ	EP	18 53 15		1.1	8.13	220				
MNG	P	18 33 20.6		0.0	8.74	209				
		ES		-1.5						
WEL	EP	18 33 31		1.1	9.59	210	5.6			
		ES		0.5						
		H M S					75/ 216			
APR 16	16 29	02.6	39.19S	177.37E	33 KM	SE 1.4	AVG MAG	3.8		
		+ - 0.6	0.04	0.04	3					
		H M S	DIR	RES	DIST	AZ	W-A W P W S			
TUA	IP*	15 29 10.8	U	-1.1	0.42	336				
		S*		0.5						
TRZ	IP*	16 29 13.6	D	-0.4	0.56	229	4.4 4.4			
		S*		2.7						
GNZ	EP*	15 29 17		-0.2	0.75	43	3.7 3.7			
		S*		2.3						
WNZ	PN	15 29 21		-0.4	1.13	299	4.5 4.5			
WTZ	IPN	15 29 22.3	U	-0.6	1.24	346	4.1			
CNZ	PN	15 29 24.9	D	-0.3	1.41	269	4.4 4.3			
		IP*		-1.7						
		S*		1.7						
KRP	PN	15 29 31		-1.1	1.91	311				
		P*		0.3						
MNG	PN	15 29 31.6	D	-2.2	2.03	225	3.5 3.5			
TNZ	EPN	16 29 38		0.3	2.32	269	3.4 3.3			

	SN	30	04.5	0.2										
WEL*	EPN	15	29 43	-2.5*	2.89	223	3.6	3.6	3.7					
	SN	30	16	-2.1*										
COB*	PN	15	29 58.5	-2.5*	4.03	240			3.4	3.2				
	SN	30	43	-2.9*										
GPZ*	SN	15	31 20.5	-5.5*	5.73	217	4.1							
CIZ*	SN	16	31 48	0.6*	6.58	138								
HJZ*	SN	16	31 53	-3.5*	7.05	225								
MSZ*	SN	16	32 37	-5.3*	8.92	229								

H M S		40.295			173.47E		229 KM		SE 1.4		AVG MAG		75/ 217		
APR 19 20 10 39.3		0.05			0.10		14						4.2		
		H	M	S	DIR	RES	DIST	AZ	H-A	W	P	W	S		
TNZ	EP	20	11	15		2.6	1.30	33							
	ES			38		-0.0									
WEL	P	20	11	13.1	U	-0.1	1.40	136	4.1	4.2	4.8				
	S			39		-0.4									
MNG	IP	20	11	14.3	D	-0.4	1.57	103		4.2	4.6				
	S			41.5		-0.5									
CNZ	IP	20	11	16.8	U	-1.4	1.93	56		4.3	4.3				
	S			47		-1.1									
KKY	IP	20	11	19.5	U	-0.7	2.14	176							
	ES			52		0.2									
CAZ	S	20	11	54.5		1.9	2.18	107							
TRZ*	EP	20	11	25		-0.3*	2.68	75		4.3	4.4				
	S			12 02		-0.6*									
TUA*	ES	20	12	11		-2.4*	3.20	64					4.2		
GPZ*	S	20	12	14		-4.8*	3.46	190	4.4						
WTZ*	EP	20	11	36		-0.8*	3.57	51							
	ES			12 18		-3.2*									
GNZ*	P	20	11	38		-2.6*	3.88	66		4.2	4.0				
	S			12 25		-3.0*									
HJZ*	S	20	12	34		-3.7*	4.32	210							
MSZ*	P	20	12	03		-4.5*	6.00	221							
	S			13 11		-5.1*									

H M S		39.14S			174.65E		229 KM		SE 1.3		AVG MAG		75/ 218		
APR 20 01 09 00.0		0.04			0.05		9						4.3		
		H	M	S	DIR	RES	DIST	AZ	H-A	W	P	W	S		
TNZ	P	01	09	30.6		0.8	0.21	258							
	S			54		1.1									
CNZ	IP	01	09	32.2	U	0.9	0.70	95		4.2	4.0				
KRP	EP	01	09	34		-1.7	1.40	30							
	ES			10 03		-0.4									
MNG	IP	01	09	38.4	D	1.0	1.61	157		4.1	4.3				
	ES			10 06		-0.3									
TRZ*	P	01	09	39		0.5*	1.73	104		4.6	4.3				
	S			10 11.5		3.2*									
TUA*	EP	01	09	41		0.2*	1.98	81		4.1	4.3				
	S			10 11		-1.3*									
CAZ	P	01	09	43.7		1.4	2.14	146							
	S			10 15.5		0.5									
WEL	S	01	10	13		-2.2	2.14	178	4.3	4.0	4.6				
WTZ	P	01	09	41.8	D	-0.8	2.17	58							
	S			10 11.5		-4.1*									
COB	IP	01	09	45.4	U	0.0	2.44	216		4.6	4.2				
	S			10 20.2		-0.3									
GNZ*	IP	01	09	47.7	D	-0.3*	2.68	80		4.3	4.2				
	S			10 23		-2.3*									
KAI*	ES	01	10	54		-2.5*	4.18	215	4.3						
GPZ*	S	01	11	06		-4.0*	4.79	198	4.7						
MJZ*	S	01	11	29		-3.0*	5.77	212							
MSZ*	P	01	10	45		-2.0*	7.46	220							

LOCAL EARTHQUAKES

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APR 20		H	M	S	37.20S	176.82E	228 KM	SE	0.7	AVG MAG	75/ 219					
		+	-	0.7	0.06	0.04	7						5.2			
		H	M	S	DIR	RES	DIST	AZ				W-A	W P	W S		
WTZ	IP	18	10	00.4	U	-0.3	0.80	170								
	ES			25		-0.4										
KRP	IP	18	10	03.7	USW	0.1	1.25	234								
	S			31.5		1.1										
GBZ	IP	18	10	04.3	D	-0.9	1.45	312								
ECZ	IP	18	10	06.4	U	1.2	1.46	110								
WNZ	P	18	10	05.8	U	-0.0	1.54	201				5.2				
TUA	IP	18	10	05.4	U	-0.2	1.63	171				5.5	6.0			
	S			35		-0.6										
AUC	IP	18	10	06.8	U	-0.1	1.67	281								
GNZ	IP	18	10	07.7	UNE	0.2	1.73	147				5.6	5.5			
	S			37		-0.2										
CNZ*	IP	18	10	11.9	D	-0.4*	2.24	206				5.1	4.9			
TRZ*	IP	18	10	13.3	U	-0.2*	2.35	180				5.8	5.7			
	S			46.5		-1.4*										
ONE*	P	18	10	13.5	E	-0.9*	2.44	305	4.1							
	S			48		-1.5*										
TNZ*	P	18	10	18.5		0.5*	2.76	223				4.8	4.4			
	ES			11 00		4.0*										
MNG*	IP	18	10	24.8	U	-2.5*	3.57	197								
	ES			11 10		-2.4*										
CAZ*	P	18	10	27.9	U	-1.2*	3.73	187								
	S			11 16.5		0.7*										
CRZ*	P	18	10	35		-1.7*	4.35	308				4.2				
WEL*	P	18	10	34.0	U	-3.0*	4.38	201	5.6	4.9	5.3					
	S			11 27		-2.9*										
COB*	P	18	10	41		-3.9*	5.02	218				4.7	5.2			
	S			11 41		-3.0*										
KAI*	S	18	12	17		-5.3*	6.75	216	5.2							
GPZ*	P	18	11	08.5		-4.6*	7.23	205	5.9							
	S			12 28		-6.4*										
HJZ*	P	18	11	24		-3.2*	8.32	213								
	S			12 52		-7.7*										
CIZ*	P	18	11	29		0.7*	8.42	145								
	E			13 06												
	S			11		9.2*										
OMZ*	EP	18	11	32.5		-3.5*	9.04	208								
	ES			13 12		-4.0*										
MSZ*	EP	18	11	44		-5.2*	10.05	219								
	S			13 34		-5.2*										
MNW*	ES	18	13	54		-7.1*	11.00	216	4.9							

APR 21		H	M	S	38.57S	175.80E	158 KM	SE	0.3	AVG MAG	75/ 220					
		+	-	0.3	0.01	0.01	2						4.0			
		H	M	S	DIR	RES	DIST	AZ				W-A	W P	W S		
CNZ	IP	18	04	01.0	U	-0.1	0.66	198				3.3	3.7			
	S			19		-0.0										
KRP	IP	18	04	01.6	D	0.4	0.68	342								
	S			19		-0.2										
TUA	S	18	04	24.5		0.0	1.08	103								
WTZ	P	18	04	04		-0.4	1.10	58				3.8	3.9			
	S			25		0.2										
TRZ	P	18	04	06		0.1	1.26	141				3.4	4.1			
	ES			27.5		0.0										
GNZ*	IP	18	04	10.8	U	-0.0*	1.74	93				4.0	3.8			
	S			34.5		-1.8*										
MNG*	IP	18	04	12.7	D	-1.8*	2.06	187				4.4	4.3			
	S			39.5		-3.2*										
ECZ*	EP?	18	04	19		1.2*	2.33	69				4.5				
	I			21.0												
CAZ*	IP	18	04	16.5	U	-1.6*	2.35	172								

LOCAL EARTHQUAKES

TNZ	P	03 26 21.5		-0.4	3.18	223			5.3	4.0
MNG*	IP	03 26 27.7	U	-3.0*	3.96	199				
	S	27 16.5		-4.1*						
CAZ*	P	03 26 30.7		-1.5*	4.09	190				
	S	27 22		-1.3*						
WEL*	P	03 26 37.1	D	-3.3*	4.78	202		5.3	5.4	5.2
	S	27 34		-4.1*						
COB*	P	03 26 43.3	U	-5.1*	5.44	218			5.0	5.0
	S	27 45		-7.5*						
KAI*	EP	03 27 08		-2.1*	7.17	216		5.1		
	S	28 22		-9.3*						
GPZ*	EP	03 27 10		-5.9*	7.63	205		5.6		
	S	28 32.5		-9.2*						
CIZ*	S	03 29 13		10.9*	8.53	148				
	E	19								
HJZ*	P	03 27 24.5		-5.4*	8.74	214				
	S	28 57.5		-9.3*						
OHZ*	P	03 27 35		-3.8*	9.45	208				
MSZ*	P	03 27 46		-5.7*	10.47	219				
	S	29 38.5		-7.5*						

APR 22 04 49 46.0 40.24S 179.34E 33 KM SE 2.7 AVG MAG 75/ 225 3.9
+ - 6.5 0.14 0.23

		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
GNZ	S*	04 50 46.5				1.5	1.90	327			3.4
TRZ	S*	04 50 51				1.2	2.06	289			3.9
TUA	ESN	04 50 42				-3.2	2.22	310			4.0
MNG	IPN	04 50 31.0	U			1.0	2.97	262		4.5	3.7
	SN	51 03				-0.5					
CNZ*	EP*	04 50 42				1.6*	3.11	288		3.7	
WEL*	SN	04 51 20.5				1.0*	3.63	252	3.8		3.8
KRP*	P*	04 50 53				1.4*	3.76	307			
ONE*	EP?	04 51 11				0.6*	5.94	317			
GPZ*	SN	04 52 22				3.5*	6.07	233	4.1		

APR 22 09 46 24.0 39.64S 173.59E 12 KM SE 2.8 AVG MAG 75/ 226 3.8
+ - 1.6 0.05 0.09

		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
THZ	EP*	09 46 41				2.8	0.77	54		3.4	3.6
	PG	42.5				2.8					
	S*	52				3.3					
	ESG	54				3.9					
CNZ	PG	09 46 55.2				-0.9	1.58	74		4.2	4.1
	SG	47 16.5				-1.0					
COB	PG	09 46 55.5				-0.6	1.58	204		3.9	3.7
MNG	PG	09 46 58.4				-1.1	1.75	124		3.9	3.9
	SG	47 22				-1.1					
WEL	PG	09 47 02				0.0	1.87	152	3.5	3.9	4.1
	SG	28				0.7					
KRP	EP*	09 47 04				-0.4	2.30	42			
	S*	30.5				-4.2					
	SG	37				-4.5					
GPZ*							4.11	190	3.6		

APR 22 13 12 22.5 35.13S 178.71E 274 KM SE 0.8 AVG MAG 75/ 227 4.2
+ - 1.1 0.10 0.11

		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	P	13 13 13				0.4	2.56	183		4.0	
WTZ	P	13 13 18				-0.7	3.17	205		3.9	3.8
	S	14 02				-0.5					
GNZ	P	13 13 22.5				-0.4	3.55	189		4.1	4.0
	S	14 10				0.1					
KRP	EP	13 13 26				0.5	3.78	222			
TUA	S	13 14 17				0.6	3.88	198			4.3

		H	M	S			40.20S	179.21E	12 KM	SE	0.9	AVG MAG	75/ 228
TRZ*	S	13	14	35					2.2*	4.66	198		4.3
MNG*	P	13	13	51.3					-0.8*	6.04	204		
	S		15	01.3					-1.1*				
WEL*	S	13	15	20.3					-0.8*	6.88	206	4.7	
COB*	S	13	15	37					0.1*	7.59	217		
GPZ*	S	13	16	23					-2.6*	9.75	207	4.8	
APR 22		18	55	31.1			0.01	0.02					3.8
				0.3									
MNG	IPG	19	55	41.3					0.6	0.47	154		
	ESG			48.5					1.3				
CNZ	PG	19	55	50.9					-1.2	1.03	15	4.0	4.0
	SG			56	06				-0.0				
CAZ	PG	18	55	51					-1.3	1.05	133		
	S*			56	03.5				-0.6				
	SG				06				-0.5				
WEL	P*	18	55	52					0.5	1.13	197	3.5	3.9
	PG				54				-0.1				
	S*				56	07			0.2				
	SG				09				-0.5				
TNZ	PG	18	55	55.9					0.5	1.20	327	3.8	4.0
	SG			56	15				3.4*				
TRZ	P*	18	55	56					-0.1	1.40	63	3.7	3.9
	S*			56	16				1.3				
WNZ										1.71	24	4.0	4.0
TUA										2.05	48		3.8
COB*	EP*	18	56	06.5					-1.3*	2.08	244	3.5	3.6
	ESG			39					-2.3*				
KRP*	P*	18	56	09					-2.3*	2.29	7		
	PG				15				-2.3*				
	S*				40				-1.4*				
	SG				48				-0.2*				
WTZ*	EPN	18	56	12					-0.2*	2.61	33	3.4	3.2
	EPG			21					-2.9*				
	ES*			47					-4.1*				
GNZ*	ESG	18	56	58					-3.3*	2.68	55	3.9	3.8
GPZ*	SN	18	57	14					-2.8*	3.98	208	3.6	
HJZ*	SN	18	57	45					-0.6*	5.17	221		
FELT PALMERSTON NORTH (62)													
APR 22		23	31	26.8			34.12S	179.29E	243 KM	SE	1.8	AVG MAG	75/ 229
				1.9			0.20	0.25	47				4.7
ECZ	P	23	32	29					2.7	3.62	189	5.2	4.9
WTZ	P	23	32	33.2					-1.0	4.28	205	5.0	4.2
	ES			33	26				-0.6				
GNZ	IP	23	32	36.4					-2.0	4.63	192	5.2	4.8
	S			33	33				-1.1				
KRP	P	23	32	42					0.8	4.86	218		
TUA*	EP	23	32	43					0.3*	4.99	200	4.6	4.4
	ES			33	44				2.1*				
TRZ	P	23	32	52					-0.5	5.77	199	4.8	4.8
	S			34	01.5				2.0				
CNZ	P	23	32	54					-0.1	5.89	210	4.4	4.0
	ES			34	02				-0.2				
MNG*	P	23	33	05					-5.1*	7.16	204		
	S			34	26				-4.9*				
CAZ*	P	23	33	09					-1.5*	7.20	199		
	ES			34	31				-0.8*				
WEL*	P	23	33	17					-3.8*	8.00	205	5.2	
	S			34	43.5				-6.6*				
COB*	EP	23	33	25					-4.5*	8.68	215		
	S			35	00.5				-3.2*				
GPZ*	S	23	35	46					-9.6*	10.87	206	5.2	

LOCAL EARTHQUAKES

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MJZ*		S	23 36 12.3	-8.8*	12.00	212					
H	M	S			DIR	RES	DIST	AZ	W-A	W P	W S
APR 24	17 52	21.5	41.80S	172.20E	12 KM	SE	2.2		AVG MAQ	75/ 230	3.3
		+ 1.9	0.04	0.09							
	COB	PQ	17 52	38.9	D	0.7	0.82	30		3.6	3.8
		SG		50.5		1.2					
	KKY	PG	17 52	48		0.7	1.27	120			
		SG		53 07		2.5					
	GPZ	SG	17 53	25.9		-0.9	1.92	170	2.9		
	WEL	PG	17 52	59.9		-2.4	2.00	76	2.9	3.4	3.4
		SG		53 27		-1.9					
	MJZ*	EPG	17 53	16.9		-3.8*	2.53	210			
		ES		36		-3.1*					
	MNG*	P*	17 53	08.9		-1.0*	2.74	66		3.6	3.2
		PG		13.9		-3.5*					
		SG		51		-3.0*					
FELT MURCHISON (80) MM IV											

APR 25		H	M	S	30.98S	178.94W	33 KM	SE	2.2	AVG MAQ	75/ 231	5.8	
					0.11	0.17							
							DIR	RES	DIST	AZ	W-A	W P	W S
	GBZ	PN	04 42	36.4			U	1.9	7.00	220			
	ECZ	EPN	04 42	38				3.3	7.01	197			
		ESN		43 54				3.0					
	ONE	PN	04 42	40				0.6	7.37	228	5.3*		
		SN		44 01				1.6					
	WTZ	PN	04 42	42				-2.5	7.76	205			
		SN		44 07				-1.7					
	AUC	PN	04 42	46.9				0.6	7.85	220			
	CRZ	PN	04 42	45.0			US	-0.9	7.86	242			
	GNZ	PN	04 42	47.9				-0.9	8.05	197			
		SN		44 14.9				-1.1					
	KRP	PN	04 42	49.9				-2.3	8.29	212			
		SN		44 20				-1.6					
	TUA*	PN	04 42	50				-3.8*	8.45	201			
		SN		44 22				-3.2*					
	TRZ*	PN	04 42	57				-7.2*	9.23	201			
		SN		44 36				-7.9*					
	CNZ*	PN	04 42	59.9				-6.5*	9.36	207			
		ESN		44 42				-5.1*					
	TNZ*	PN	04 43	06.9				-5.9*	9.85	212			
		P*		24				-21.6*					
		SN		44 52				-6.5*					
	MNG*	PN	04 43	11				-11.7*	10.63	204			
		SN		45 02				-14.9*					
	WEL*	PN	04 43	22				-11.7*	11.47	205	6.2		
		SN		45 18				-18.6*					
	COB*	PN	04 43	28				-14.2*	12.12	211			
		SN		45 31.5				-20.3*					
	KAI*	SN	04 46	12				-20.0*	13.87	211	5.6		
	GPZ*	SN	04 46	14				-23.7*	14.34	205	6.1		
	MJZ*	ESN	04 46	45				-22.8*	15.45	210			
	MSZ*	PN	04 44	27				-17.7*	17.13	213			

APR 26		H	M	S	38.10S	177.77E	75 KM	SE	0.9	AVG MAQ	75/ 232	3.9	
					0.03	0.03							
							DIR	RES	DIST	AZ	W-A	W P	W S
	GNZ	IP	06 31	44.2			UN	-0.5	0.58	160		4.3	4.0
		S		55				-0.6					
	WTZ	IP	06 31	45.2			D	-0.1	0.63	281		4.7	4.2
		S		56				-0.5					
	ECZ	P	06 31	46.0			U	-0.5	0.74	57		4.1	4.1
		S		59.9				0.9					

		H	M	S			SE	75/ 233		
APR 26		17	41	38.8	39.08S	177.34E	33 KM	0.9	AVG MAG	4.9
		+ 0.3			0.02	0.02	9			
		H	M	S	DIR	RES	DIST	AZ	W-A	W P W S
TUA	P	17	41	45.6		-0.8	0.31	332		
TRZ	EP	17	41	51.3	D	0.1	0.62	220		
GNZ	IP	17	41	52.3	DN	-0.1	0.69	51		
	SN			42 02.5		1.8				
HNZ	PN	17	41	56.4		-0.2	1.06	294	5.4	5.7
	EP			59		0.5				
	S			42 14		1.0				
MTZ	IPN	17	41	57.2	U	-0.3	1.13	346	5.2	5.1
	ES			42 14		-0.9				
CNZ	PN	17	42	01.5		0.4	1.40	264		
	P			03		-1.1				
ECZ	PN	17	42	05.5		0.5	1.68	35	5.3	4.9
	S			31		-0.3				
KRP	IPN	17	42	06.0	UNW	-1.0	1.82	309		
	P			10.5		-0.8				
	ESN			28.5		0.2				
MNG	IPN	17	42	09.3	D	-1.5	2.10	222		
TNZ	PN	17	42	14		0.4	2.30	266	4.6	4.7
	P			20.5		1.0				
	S			51		1.1				
WEL	PN	17	42	19.9	D	-2.7	2.95	221	4.7	5.0 4.8
	SN			54		-1.9				
AJC	EPN	17	42	24		0.8	3.00	317		
GBZ	PN	17	42	25.5		-0.6	3.21	332		
ONE	EPN	17	42	38.5		0.9	4.06	323		
COB	PN	17	42	35.5		-2.2	4.06	239	4.9	4.6
	P			49		-0.5				
	SN			43 23.5		0.6				
	ES			38.5		-4.2				
KAI	SN	17	43	59		-2.6	5.66	231	4.7	
	S			44 28		-2.8				
GPZ	SN	17	43	59.5		-5.5	5.81	216	5.1	
CRZ	EPN	17	43	01		-2.3	5.96	320		4.3
CIZ	PN	17	43	14		0.8	6.68	139		
	SN			44 25		-1.0				
MJZ	EPN	17	43	15.5		-3.4	7.11	224		
	P			38		-3.8				
	SN			44 32		-4.3				
OHZ	PN	17	43	23		-3.2	7.66	217		
	SN			44 46		-3.3				
MSZ	(PN)	17	43	45		1.2	8.97	228		
	P			44 08		-5.6				
	SN			45 15		-5.8				

FELT CENTRAL AND NORTHERN HAWKES BAY, MM IV

LOCAL EARTHQUAKES

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APR 27	H 06	M 46	S 36.8	43.77S	169.59E	12 KM	SE 0.6	AVG MAG	75/ 234			
									0.01	0.01	R	W-A
			+ 0.2									
MJZ	IP*			05 46	49.9	DIR	RES	DIST	AZ			
	S*				58	DSW	-0.0	0.68	109			
MSZ	PN			06 47	02.5		-0.2	1.50	232		4.5	4.6
	EP*				04		0.5					
	SG				26.9		-0.9					
OMZ	P*			06 47	06		0.4	1.62	144		4.3	4.5
	S*				27		-0.1					
ROX	P*			06 47	07.9		0.2	1.72	186		4.4	4.4
	SG				32.9		-2.4*					
KAI	EPN			06 47	07.5		0.2	1.83	48	4.0		
	SN				29		-1.0					
GPZ	EPN			06 47	13		0.3	2.23	89	3.7		
	P*				16.9		0.5					
	PG				22.9		0.6					
	SG				49		-2.9*					
MNW	EPN			06 47	16		0.2	2.45	214	3.5		
	SG				59.9		0.1					
WPZ*	P*			06 47	29		0.8*	2.94	190		4.3	3.9
	ESG				48 13		-2.9*					
COB*	PN			06 47	31		0.1*	3.55	42		4.3	4.1
	ES*				48 24		-1.3*					
MNG*	EPN			06 47	53.5		-2.5*	5.40	56		3.8	3.3
	SN				48 57		0.3*					
FELT MAHITAH I (104) MM IV												

APR 27	H 08	M 06	S 30.6	43.68S	169.56E	12 KM	SE 1.5	AVG MAG	75/ 235			
									0.05	0.03	R	W-A
			+ 0.7									
MJZ	P*			08 06	43.6	DIR	RES	DIST	AZ			
	S*				53	D	-0.4	0.72	115			
MSZ	P*			08 06	59		0.9	1.54	230		3.4	3.5
	PG				07 01		-0.9					
	SG				21.5		-1.2					
OMZ	EP*			08 07	02		1.3	1.69	145		3.1	3.2
	ES*				25		1.9					
KAI	SN			08 07	24		1.3	1.78	50	3.1		
GPZ	PG			08 07	16		0.1	2.24	91	2.8		
	SG				44		-2.1					
FELT MAHITAH I (104) MM IV												

APR 27	H 08	M 21	S 26.2	34.47S	179.06W	33 KM	SE 1.1	AVG MAG	75/ 236			
									0.04	0.09	R	W-A
			+ 1.0									
ECZ	PN			08 22	22		1.0	3.76	210		5.4	4.9
	SN				23 06		3.1					
	S*				20		-1.0					
WTZ	PN			08 22	33.9	D	-0.6	4.74	221		5.2	4.4
	SN				23 27		0.1					
GNZ	PN			08 22	34		-1.0	4.78	209		4.8	4.5
	P*				43.5		-3.9*					
	SN				23 28.5		0.7					
GBZ	PN			08 22	35		-0.1	4.79	247			
TUA	EPN			08 22	41		-0.9	5.29	214		5.2	4.9
	SN				23 39		-1.1					
ONE	PN			08 22	46		0.7	5.55	255			
KRP	PN			08 22	46		0.5	5.57	230			
	ESN				23 46		-0.7					
TRZ	PN			08 22	52		-0.1	6.05	212			
	SN				23 58		-0.3					
CRZ	PN			08 23	03		0.4	6.83	268			

TNZ	EPN	08 23 05	-0.7	7.06	226		
MNG*	PN	08 23 08.5	-3.3*	7.51	214		
	P*	31	-3.1*				
	SN	24 27	-6.3*				
	S*	25 04	-9.8*				
WEL*	EPN	08 23 20	-3.2*	8.37	214	5.2	
	SN	24 47	-5.3*				
COB*	PN	08 23 31.5	-3.6*	9.26	222		
	SN	25 07	-8.1*				
CIZ*	EPN	08 23 45	4.6*	9.66	169		
	SN	25 30	5.3*				
KAI*	ESN	08 25 47	-8.3*	10.97	220	5.2	
GPZ*	SN	08 25 53	-8.5*	11.24	212	4.9	
HJZ*	SN	08 26 22.5	-9.2*	12.49	217		

		H	M	S			12 KM	SE	1.8	AVG MAG	75/ 237
APR 27		12 33	55.8	39.10S	173.69E						4.0
			+ 0.9	0.04	0.04	DIR	RES	DIST	AZ	W-A	W P W S
				1	M	S	D				
TNZ	IPG	12 34	08.2				1.3	0.54	99		4.5 4.2
	SG		16.5				2.1				
CNZ	P*	12 34	23.0				1.4	1.45	95		
	ES*		40				-0.9				
KRP	P*	12 34	30				1.3	1.86	52		
	PG		33				-0.5				
	SG		55.5				-3.2				
WNZ*	EPG	12 34	36				1.0*	1.94	77		4.1
MNG	P*	12 34	31.3				-0.6	2.05	138		4.2 4.3
	S*		57				-2.0				
COB	P*	12 34	33.3				0.2	2.12	200		4.2 4.3
	PG		37				-1.6				
	S*		35 03				2.0				
WEL	P*	12 34	36.5				-0.3	2.33	160	3.7	4.2 4.2
	S*		35 05.5				-2.1				
TRZ	EP*	12 34	41				1.9	2.47	102		3.8 3.9
	ESG		35 20				1.0				
TUA*								2.71	85		3.6
WTZ*								2.81	68		3.3
ONE*	SN	12 35	28				1.7*	3.36	9	3.4	
GNZ*	EP*	12 34	56				0.8*	3.41	84		3.6
	PG		35 04				-0.8*				
	ESN		33				3.5*				
KAI*	SN	12 35	39				1.1*	3.84	206		4.0
	ESG		36 07				1.9*				
GPZ*	SN	12 35	57.5				-0.3*	4.66	189		3.8
HJZ*	PN	12 35	15				2.4*	5.45	205		
	SN		36 21				4.1*				
HSZ*	ESN	12 36	59				4.0*	7.04	216		
FELT	WAREA (46)	MM	IV								

		H	M	S			12 KM	SE	1.1	AVG MAG	75/ 238
APR 28		04 07	42.7	42.64S	171.87E						4.7
			+ 0.3	0.02	0.02	DIR	RES	DIST	AZ	W-A	W P W S
				1	M	S					
KAI	IPG	04 07	49.8				-0.5	0.36	289		4.1
	SG		54.5				-0.9				
GPZ	P*	04 08	03.8				-0.5	1.20	152		4.4
	S*		20.5				0.2				
	SG		21.5				-1.7				
KKY	P*	04 08	07.5				0.3	1.36	81		
	SG		28				-0.9				
COB	PN	04 08	11				-0.2	1.68	23		5.3
	ES*		36				1.1				
HJZ	PN	04 08	11.5				0.2	1.69	217		
	ES*		35				-0.2				
	SG		40				0.2				
OMZ	PN	04 08	21.7				-1.0	2.52	196		5.8 4.9

	IPG		29.6		-4.2*							
	S*	09	03		2.8							
WEL	PN	04	08	23.7	0.6	2.55	59	4.3	4.9	4.8		
	PG			33	-1.4							
	ESN			53.5	-0.0							
	S*	09	02		0.9							
	SG			09.5	0.7							
ROX*	EP*	04	08	44	2.4*	3.38	212		4.8	4.4		
	SN			09 15	1.3*							
	ESG			34	-2.5*							
MNG*	PN	04	08	33.9	-0.5*	3.38	54		5.1	4.6		
	P*			40.5	-1.1*							
	I			43.5								
	ES*	09	29		3.1*							
MSZ*	PN	04	08	35.6	-0.7*	3.51	233		4.7	4.8		
	PG			51	-2.8*							
	SN	09	20		3.0*							
	S*			33	3.1*							
CAZ*	P*	04	08	46	-1.0*	3.69	63					
	PG			56	-1.4*							
TNZ*	EPG	04	09	00	-2.4*	3.94	30		4.7	4.7		
	ES*			40	-2.8*							
MNW*	PN	04	08	46	-2.1*	4.38	223		4.6			
	EP*			09 02	3.2*							
	SN			38	-0.0*							
WPZ*	PN	04	08	49	-1.5*	4.56	207		4.7	4.1		
	P*			09 04	2.2*							
KRP*	PN	04	09	02.5	-0.5*	5.48	32					
	SN			10 07	2.3*							
	TUA*					5.55	48			4.5		
WTZ*	ESN	04	10	20	1.0*	6.08	42					
GNZ*	PG	04	09	45	-2.1*	6.15	52					
	SN			10 20	-0.8*							
ONE*	SN	04	10	45	1.0*	7.12	17		4.7			
CRZ*	PN	04	09	42	2.2*	8.22	5					
	SN			11 11	0.7*							
CIZ*	SN	04	11	16	-1.9*	8.54	103					
FELT	UPPER GREY RIVER (87) MM IV											

												75/ 239			
APR 29	H	M	S									AVG MAG	W-A	W P	W S
	12	00	26.4	41.385	175.11E	33	KM	SE	1.3			3.7			
			+ 0.4	0.03	0.03	R									
WEL	IP*	12	00	33.5		DIR	RES	DIST	AZ				4.3		
	S*			37.5		DSE	-0.2	0.27	291						
MNG	IP*	12	00	41.3		U	-0.9	0.81	21						
	S*			51.5			-2.1								
CAZ	ES*	12	00	59			0.8	0.97	61						
KKY	EP*	12	00	54			0.8	1.48	225						
	S*			01 12			-1.0								
COB	PN	12	00	55			0.4	1.81	279				4.0	4.2	
	SN			01 17.5			1.8								
TRZ								2.25	36				3.8	3.7	
TNZ	EPN	12	01	02			1.3	2.26	346				3.8	3.8	
	S*			36			-0.4								
GPZ	SN	12	01	43.5			0.3	2.94	217				3.2		
KAI*								2.98	246				3.5		
KRP	EPN	12	01	16			-1.3	3.47	6						
	P*			26			-1.1								
	S*			02 15			2.4								
GNZ	SN	12	01	58.5			0.8	3.54	40					3.4	
WTZ*	PN	12	01	20.5			0.2*	3.69	24				3.4	2.9	
	P*			35			4.1*								
	ESN			57			-4.5*								
MJZ	SN	12	02	16			-0.3	4.30	231						
MSZ*	ESN	12	03	02			-0.3*	6.21	236						
FELT	WELLINGTON (68) MM IV														

APR 29		H	M	S	38.97S	175.80E	133 KM	SE	0.8	AVG MAG	75/ 240
		15	20	14.7	0.02	0.02	5			5.7	5.7
		+ 0.4									
		I	M	S	DIR	RES	DIST	AZ		W-A	W P W S
CNZ	IP	15	20	33.5	D	-0.1	0.30	221			
WNZ	IP	15	20	33.6	D	-0.5	0.41	35			
TRZ	IP	15	20	39.3	D	1.2	0.98	127			
KRP	IP	15	20	38.5	SE	-0.4	1.06	349			
TUA	IP	15	20	39.2	D	0.3	1.07	82		6.0	5.9
	S			57		-0.5					
TNZ	IP	15	20	40.4	U	0.9	1.13	258		6.1	5.8
	ES			59		0.5					
WTZ	IP	15	20	40.9	D	-1.1	1.36	44			
MNG	IP	15	20	45.9	USH	0.5	1.66	188			
	ES			21 06		-2.8*					
GNZ	IP	15	20	46.6	DW	0.1	1.77	80			
	S			21 08		-2.8*					
CAZ	IP	15	20	49.9	U	1.1	1.96	171			
AUC	IP	15	20	52.9	D	0.3	2.26	339			
WEL	IP	15	20	54.5	US	-0.5	2.44	199	5.7		
	S			21 24.5		-1.2					
ECZ	IP	15	20	56.2	D	0.2	2.51	60		6.2	6.3
GBZ	IP	15	20	59.2	U	-0.1	2.76	355		5.0	
COB	IP	15	21	03.5	U	-0.9	3.16	227			
ONE*	P	15	21	08.9		1.1*	3.39	340		4.9	
	E			42.5							
	S			47		-0.6*					
KKY*	IP	15	21	11.5	U	-1.3*	3.80	204			
	ES			52.5		-4.9*					
KAI*	P	15	21	25		-2.1*	4.87	222	6.1		
	S			22 19		-4.0*					
CRZ*	P	15	21	32.3	DE	1.1*	5.18	330		4.5	4.3
GPZ*	P	15	21	29		-3.6*	5.29	206	6.6		
	S			22 27		-5.9*					
MJZ*	P	15	21	44		-3.9*	6.41	217			
	S			22 54		-6.2*					
OMZ*	P	15	21	54		-3.1*	7.10	209			
	S			23 15		-1.7*					
CIZ*	P	15	22	04		0.2*	7.59	133			
	S			23 22.5		-6.2*					
	E			27							
ROX*	P	15	22	06.5		-3.8*	8.08	214			
	S			23 32.5		-9.0*					
MSZ*	P	15	22	07.5		-4.3*	8.19	223			
	S			23 36		-7.0*					
MNW*	P	15	22	23		-0.9*	9.10	219	6.1		
	S			23 57.5		-7.5*					
WPZ*	P	15	22	22.5		-3.0*	9.22	211			
	S			24 04		-3.8*					
FELT EASTERN PARTS OF THE NORTH ISLAND, MM IV											
MAY 01		H	M	S	39.44S	177.32E	12 KM	SE	1.4	AVG MAG	75/ 241
		23	09	41.9	0.03	0.03	2			4.5	4.5
		+ 0.6									
		I	M	S	DIR	RES	DIST	AZ		W-A	W P W S
TRZ	IPG	23	09	50.6		0.3	0.40	254			
	ESG			56		0.1					
TUA	IPG	23	09	55.0	U	-0.2	0.65	348		4.8	5.2
	SG			10 05.5		1.5					
GNZ	P*	23	10	00.5		1.0	0.97	35		4.7	4.7
WNZ	P*	23	10	04.5		0.2	1.25	310		4.9	5.1
	PG			07		-0.2					
CNZ	IP*	23	10	06.3	D	-0.6	1.40	279		5.0	
	SG			29		-0.1					
WTZ	IP*	23	10	06.5	U	-1.8	1.48	350		4.4	4.4
	EPG			14		2.1					

LOCAL EARTHQUAKES

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CAZ	SN		22		-4.7*								
	PG	23 10	18		-2.0	1.68	210						
HNG	IPN	23 10	10.1	U	-2.4	1.84	230			4.2	4.1		
	EPG		19		-0.1								
ECZ	EPN	23 10	14		-0.6	1.99	29			4.6	4.3		
KRP	PN	23 10	14.5	D	-1.0	2.06	317						
	PG		21		-2.6								
TNZ	PN	23 10	19		0.3	2.30	275			4.5	4.0		
	P*		24		1.7								
	SG		11 00		0.7								
WEL*	EPN	23 10	23.5		-0.6*	2.68	226	3.8		4.2	4.2		
	EPG		33		-3.2*								
	SN		52		-3.9*								
COB*	EPN	23 10	37		-3.4*	3.88	243			4.1	4.1		
	P*		47		-2.3*								
	ES*		11 41.5		1.5*								
KAI*	ESN	23 11	58		-4.6*	5.43	234	4.3					
GPZ*	SN	23 11	57.5		-7.0*	5.51	218	4.5					
CIZ*	PN	23 11	15		0.1*	6.42	137						
	SN		12 22		-4.4*								
	E		26										
HJZ*	EPN	23 11	18		-2.6*	6.85	226						
	SN		12 31		-5.6*								
MSZ*	SN	23 13	16		-5.5*	8.73	230						
FELT	PATOKA (52)	MM III											

MAY 02 H M S 37.05S 177.14E 279 KM SE 0.7 AVG MAG 75/ 242
 14 02 32.0 0.05 0.05 7 4.2
 +_ 0.7

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
HTZ	P	14 03	09.0		-1.1	0.94	187			4.3	
ECZ	P	14 03	12		-0.2	1.29	120			4.6	
KRP	P	14 03	13.7		-0.2	1.54	235			3.6	
GNZ	P	14 03	16.1		0.9	1.74	156			5.0	4.4
	S		48.7		0.0						
TUA	P	14 03	15.7		0.4	1.75	180			4.4	4.2
	ES		49		0.1						
CNZ	EP	14 03	22.0		0.4	2.48	210			3.9	3.4
	E		04 10								
TRZ	S	14 04	03		2.2*	2.51	186				4.5
TNZ	EP	14 03	28		0.8	3.04	225			3.9	
HNG	P	14 03	35.1		-0.2	3.79	199			4.3	4.0
	S		04 24		-0.6						
WEL	EP	14 03	44		-0.7	4.61	203	4.5		4.1	4.1
	ES		04 42		0.5						

MAY 02 H M S 38.69S 176.10E 12 KM SE 1.6 AVG MAG 75/ 243
 14 34 06.9 0.03 0.03 2 3.0
 +_ 0.6

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
HNZ	PG	14 34	07.1		-2.1	0.05	7				
CNZ	EPG	14 34	20		-0.7	0.68	219			2.9	2.7
	E		23								
TUA	ESG		31		1.1						
	EPG	14 34	23		-0.9	0.84	99			3.2	
	E		26								
KRP	PG	14 34	23.0		-1.5	0.87	329			3.1	
	ESG		38		1.5						
HTZ	PG	14 34	28.0		1.1	0.98	46			3.1	
TNZ	EPG	14 34	36		0.1	1.43	249			3.4	
GNZ	EPG	14 34	39		1.5	1.51	89			2.9	
FELT	WAIRAKEI, TAUPO (41)	MM IV									

MAY 02 H M S 38.58S 176.10E 12 KM SE ND AVG MAG 75/ 244
 14 36 56.2 0.2 0.2 2 2.9

		I	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S			
WNZ	PG	14	36	56.4		-2.2*	0.05	3								
TUA	EPG	14	37	16		2.8*	0.83	99			3.2					
KRP	PG	14	37	11.5		-2.5*	0.87	329			2.7					
FELT WAIRAKEI, TAUPO (41)																
MAY 02		H	M	S									75/ 245			
		19	09	29.2	40.02S	176.81E	119 KM	SE	1.1		AVG MAG		4.4			
				+ 0.7	0.03	0.04										
					I	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
TRZ	P	19	09	43.3				U	-3.8*	0.46	1					
CAZ	P	19	09	53					1.6	0.99	207					
	IS	10	08	9					0.2							
MNG	P	19	09	53.3					-0.2	1.18	239					
TUA	P	19	09	52.9					-1.2	1.24	12			4.7		
	I	10	09	0												
CNZ	P	19	09	53.8				D	-0.7	1.27	309					
GNZ	P	19	09	59.2					0.2	1.66	35			4.4	4.4	
	E	10	08	0												
	S	21							-0.5							
MEL	P	19	10	04.0					0.9	2.01	230	4.0	4.7	4.5		
	E	12	8													
	S	28							-0.8							
TNZ	EP	19	10	04.8					1.0	2.05	293			4.2	4.2	
	I	09	8													
	I	11	5													
	ES	30							0.1							
COB	P	19	10	20.9					0.7	3.29	250			4.3		
	E	31	2													
KKY	P	19	10	22.0					0.8	3.36	223					
	I	57	6													
	ES	11	00	6					-0.2							
GPZ	S	19	11	34.0					-2.0	4.82	219	5.0				
FELT PATOKA (92), WAIPANA (60) MM IV																
MAY 03		H	M	S									75/ 246			
		02	17	41.0	37.90S	178.67E	106 KM	SE	2.6		AVG MAG		3.6			
				+ 5.4	0.24	0.47										
					I	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
ECZ	P	02	17	54.0					-2.3	0.23	334					
GNZ	P	02	18	03.0					1.8	0.90	214			3.8	4.0	
	S	17	0						0.5							
WTZ	P	02	18	07.0					0.8	1.34	266			3.9		
KRP	EP	02	18	22					1.2	2.48	268				3.0	
MNG	ES	02	19	18					-1.7	3.68	221				3.1	
FELT PATOKA (92), WAIPANA (60) MM IV																
MAY 03		H	M	S									75/ 247			
		09	03	34.0	39.51S	177.00E	12 KM	SE	0.8		AVG MAG		3.5			
				+ 0.5	0.03	0.03										
					I	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
TRZ	PG	09	03	37.0					-0.6	0.14	253					
	SG	40	5						0.5							
TUA	EPG	09	03	48					-0.6	0.71	10			3.5	3.8	
	SG	58							-0.3							
GNZ	PG	09	03	59					1.1	1.18	43			3.5		
WTZ	PN	09	04	00					-0.2	1.53	360			3.4		
MNG	EPN	09	04	00.0					-1.3	1.60	226			3.1		
	EPG	07	0						0.5							
TNZ	EPN	09	04	08					0.5	2.06	278			3.6		
	EPG	16							0.4							
FELT NAPIER (92) MM IV																
MAY 03		H	M	S									75/ 248			
		09	32	46.5	35.31S	179.03W	222 KM	SE	1.4		AVG MAG		4.4			
				+ 1.5	0.11	0.13			20							

LOCAL EARTHQUAKES

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		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	P	09	33	38.8		0.1	3.08	219		4.8	
GNZ	P	09	33	51.2		0.6	4.08	215		4.2	4.2
	S			34 40.8		0.4					
WTZ	P	09	33	51.6		-0.1	4.17	229		4.3	4.3
	S			34 40		-2.4					
KRP	ES	09	34	04		0.9	5.09	238		3.8	
	EP			35 04		1.1					
TRZ	ES	09	34	05		-1.8	5.37	217		4.3	4.5
	EP			35 11		1.8					
MNG	ES	09	34	26		0.4	6.85	218			
	EP			35 43		-0.0					
WEL	ES	09	36	02		-0.9	7.70	217	5.2		
<p>H M S 34.95S 177.64E 350 KM SE 1.8 AVG MAG 75/ 249 MAY 04 02 47 35.7 0.24 0.22 29 4.8 + 2.8</p>											
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
GBZ	P	02	48	28.8		0.3	2.17	234			
ECZ	EP	02	48	35		1.0	2.84	165		5.5	
	E			40							
WTZ	EP	02	48	35		-1.1	3.08	190			
KRP	IP	02	48	40.0		0.6	3.42	209		5.3	
	S			49 29.5		0.2					
GNZ	P	02	48	41.0		-1.1	3.70	175		4.9	
	E			47.5							
	E			56							
TUA	EP	02	48	46		2.2	3.87	186		4.8	
	E			51							
CNZ	EP	02	48	49		-2.0	4.56	201		4.7	
	E			59							
	I			49 04							
TRZ	EP	02	48	50		-1.9	4.64	188		4.6	
TNZ*	E	02	49	02			4.97	211		4.7	
	E			11							
MNG	EP	02	49	08		1.9	5.91	196		4.1	
	E			20							
	E			30							
COB*	EP	02	49	28		6.3*	7.25	211			
	E			37							
<p>H M S 39.02S 175.61E 129 KM SE 1.4 AVG MAG 75/ 250 MAY 04 16 54 27.0 0.04 0.04 9 4.1 + 0.9</p>											
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
CNZ	P	16	54	46.0		1.0	0.19	195			
TNZ	P	16	54	52.0		2.2	0.97	260		4.1	
TRZ	P	16	54	52.5		1.5	1.08	120		4.4	4.5
	S			55 11		1.8					
KRP	S	16	55	09.2		-0.3	1.09	357			2.9
TUA	P	16	54	53.0		0.5	1.22	81		4.1	4.1
	ES			55 11		-0.8					
WTZ	P	16	54	55.7		0.2	1.50	47		3.7	3.8
	S			55 15.3		-1.8					
MNG	P	16	54	57.9		1.2	1.60	183			
	S			55 17		-2.2					
GNZ	P	16	55	01.0		0.5	1.92	80		4.1	4.3
	E			21.5							
	S			24.5		-1.3					
WEL	P	16	55	06.0		0.1	2.35	196	3.9	3.9	4.2
	S			35.1		-0.4					
ECZ	EP	16	55	08.5		-1.6	2.66	61		4.4	4.2
	ES			44		1.2					
COB	P	16	55	14.0		-0.7	3.02	226		4.3	4.0
	S			50		-1.0					
GPZ	ES	16	56	37		-3.6*	5.18	205	4.6		

MAY 05	H	M	S	39.65S	176.05E	33 KM	SE	2.0	AVG MAG	75/ 251		
	11	22	53.4	0.07	0.05	R				3.6		
			+ 0.8									
				H	S	DIR	RES	DIST	AZ	W-A	W P	W S
CNZ				11	23		-0.8	0.60	319		3.6	3.8
							0.9					
TRZ				11	23		-0.2	0.61	81		3.8	4.1
							2.9					
MNG				11	23		-2.0	1.06	204			
TUA				11	23			1.20	46		3.8	
KRP				11	23		1.0	1.77	347			
WTZ				11	23		-1.6	1.82	24		3.3	
GNZ				11	23			1.84	57		3.2	
WEL*				11	23		-1.8					
							-2.2*	1.90	210	3.3	3.9	3.7
COB				11	23		1.4	2.91	239		3.7	

MAY 05	H	M	S	39.05S	175.32E	12 KM	SE	1.4	AVG MAG	75/ 252		
	17	14	03.4	0.02	0.03	R				3.6		
			+ 0.5									
				H	S	DIR	RES	DIST	AZ	W-A	W P	W S
CNZ				17	14		0.4	0.23	130			
							0.1					
KRP				17	14		-0.4	1.14	9		4.1	3.5
TRZ				17	14		-2.0	1.27	114		3.4	3.4
							1.7					
MNG				17	14		-1.7	1.57	176			
WTZ				17	14		-0.6	1.69	51		3.2	
GNZ				17	14		-0.9	2.15	80			
WEL				17	14		1.0	2.27	191	3.5	4.0	3.9
							1.6					
COB				17	14		-0.8	2.84	223		3.7	

MAY 05	H	M	S	37.41S	176.42E	231 KM	SE	0.9	AVG MAG	75/ 253		
	23	44	29.0	0.04	0.05	R				4.2		
			+ 1.0									
				H	S	DIR	RES	DIST	AZ	W-A	W P	W S
WTZ				23	45		-0.7	0.73	142		4.7	3.8
							-0.4					
KRP				23	45		1.5	0.87	234		3.8	
GBZ				23	45		-1.1	1.41	328			
TUA				23	45		0.5	1.51	158		4.5	4.3
ECZ							0.7	1.71	100		4.6	4.2
GNZ				23	45		-0.1	1.77	135		4.7	4.2
							-0.3					
CNZ				23	45		1.1	1.91	201		3.6	3.5
MNG				23	45		-0.2	3.28	193		4.3	4.1
							-0.7					
WEL				23	46		-0.4	4.07	198	4.5		
COB				23	46		-0.1	4.65	217			3.8

MAY 06	H	M	S	41.27S	174.81E	33 KM	SE	1.8	AVG MAG	75/ 254
	02	11	56.2	0.05	0.05	R				3.9
			+ 0.8							

LOCAL EARTHQUAKES

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		H	M	S	DIR	RES	DIST	AZ	H-A	W P	W S
WEL	P*	02	12	01.8		0.2	0.04	249	3.7		
	S*			06.2		0.8					
	P*	02	12	09.4		-2.9	0.83	38			
MNG	P*	02	12	24.0		-0.7	1.58	276		3.8	4.0
	E			28.0							
CNZ	S*			45.2		-0.6					
	PN	02	12	29		0.0	2.15	15		4.3	4.1
GPZ	S*			13.05		2.3					
	ESN	02	13	13		0.9	2.90	213	3.4		
MAY 06		H	M	S							75/ 255
		03	28	17.6	37.29S	176.69E	175 KM	SE	0.7	AVG MAG	4.3
				+ 1.0	0.03	0.05	10				
		H	M	S	DIR <th>RES</th> <th>DIST</th> <th>AZ</th> <th>H-A</th> <th>W P</th> <th>W S</th>	RES	DIST	AZ	H-A	W P	W S
WTZ	EP	03	28	43.3		0.2	0.73	161			
GBZ	IP	03	28	49.0		0.1	1.45	318			
TUA	E	03	29	07			1.55	167		4.2	
	ES			14		-0.9					
GNZ	P	03	28	51.8		0.3	1.71	142		4.1	4.4
	S			29.18.0		0.3					
TRZ*	E	03	29	07			2.26	177		4.6	
MNG	P	03	29	11.2		-1.0	3.45	195		4.1	4.1
	S			55		0.7					
WEL	ES	03	30	13		0.3	4.26	200	4.4		
COB	ES	03	30	27		-0.1	4.88	218	4.5		
MAY 07		H	M	S							75/ 256
		11	21	04.5	38.27S	176.33E	165 KM	SE	1.4	AVG MAG	3.7
				+ 1.4	0.05	0.05	10				
		H	M	S	DIR	RES	DIST	AZ	H-A	W P	W S
WTZ	P	11	21	27.9		-0.7	0.59	62		3.4	3.6
KRP	E			41.9							
	P	11	21	29.9		0.6	0.71	298		3.1	3.0
TUA	S			47.9		-0.1					
	ES	11	21	48		-1.2	0.84	130			4.1
CNZ	P	11	21	33.0		1.1	1.11	213		3.6	
TRZ	P	11	21	35.9		1.9	1.34	163		3.9	3.8
	S			58.8		2.1					
GNZ	S	11	21	56		-1.4	1.38	106			3.7
TNZ	E	11	21	40.9			1.78	238			3.3
MNG	P	11	21	46.9		0.4	2.44	195		4.1	3.9
	S			22.18		-0.1					
WEL	P	11	21	53.8		-0.9	3.25	201	4.2	4.2	4.0
	S			22.35		-1.0					
COB	ES	11	22	51		-1.2	3.95	223			3.7
MAY 08		H	M	S							75/ 257
		14	30	38.3	39.05S	174.92E	211 KM	SE	1.9	AVG MAG	4.3
				+ 1.2	0.06	0.07	11				
		H	M	S	DIR	RES	DIST	AZ	H-A	W P	W S
TNZ	P	14	31	08.7		2.1	0.44	252			
CNZ	P	14	31	09.0		2.1	0.51	107		4.3	4.3
	ES			29		0.1					
KRP	P	14	31	11.8		0.8	1.22	23		3.6	3.2
	S			35		-1.3					
TRZ	P	14	31	16.0		2.3	1.56	109		4.3	4.7
	S			42.5		1.3					
MNG	P	14	31	16.9		2.1	1.62	165			
	S			43		0.8					
TUA	P	14	31	16.9		0.9	1.76	83		4.7	4.3
	S			42		-2.4					
WTZ	P	14	31	17.0		-0.4	1.94	57		4.3	3.8
	S			45		-2.5					
WEL	P	14	31	22.3		1.9	2.24	183	4.3	4.4	4.4
	E			52.0							
	S			53.5		0.6					

GNZ	P	14 31	23.5	D	0.7	2.46	81		4.7	4.5
	S		54.3		-2.8					
COB	P	14 31	25.8		0.9	2.64	219		4.5	4.5
	S		32.00		-0.9					
KAI	ES	14 32	36		-2.1	4.38	216	4.3		
GPZ	S	14 32	48.8		-2.1	4.95	200	5.1		
HJZ	S	14 33	12		-2.1	5.96	213			
MAY 09	H M S	05 59 40.8	39.11S	175.12E	12 KM	SE	1.7	AVG MAG	75/ 258	3.8
		+ 0.4	0.03	0.03	2					
					DIR	RES	DIST	AZ	W-A	W P W S
CHZ	PG	05 59	48.0		-0.1	0.34	105			
TNZ	PG	05 59	53.1		0.3	0.58	262		3.6	3.6
	SG	06 00	03.5		2.7					
KRP	PN	06 00	04.0		1.0	1.23	15		4.1	3.8
	IPG		04.8		-1.0					
	SG		21.0		-1.4					
TRZ	EPN	06 00	04		-1.2	1.39	109		3.9	3.7
	EPG		11.8		2.8					
	ESG		29		1.2					
MNG	PN	06 00	05.1		-2.1	1.53	170			
WTZ	EPG	06 00	18		-0.2	1.85	53		3.0	
WEL	PN	06 00	17.1		0.9	2.19	187	3.6	4.4	3.9
	ESN		43		0.2					
AUC	ESG	06 00	58		0.8	2.26	353			
	E		01 12							
GNZ	E	06 00	37			2.31	79		3.3	
COB	EPN	06 00	22.5		-0.6	2.69	222		3.8	3.9
	E		25.0							
	ESN		52.0		-3.1					
	E		59							
MAY 09	H M S	13 07 37.3	41.34S	174.60E	74 KM	SE	1.2	AVG MAG	75/ 259	3.8
		+ 0.6	0.03	0.03	7					
					DIR	RES	DIST	AZ	W-A	W P W S
WEL	P	13 07	49.9		1.4	0.14	66		3.7	
	S		56.8		-0.0					
MNG	P	13 07	56.9		0.6	0.99	43			
	ES		08 09.7		-0.9					
CAZ	ES	13 08	17		-0.8	1.31	71			
	E		29							
COB	P	13 08	02.0		-0.2	1.43	280		4.0	
	S		19.0		-1.7					
TNZ	EP	13 08	13		1.1	2.16	356		3.6	3.8
	E		35.5							
	ES		39		1.5					
CNZ	P	13 08	13		-0.3	2.26	19		4.3	4.2
	E		45							
KAI	E	13 08	56			2.66	243		3.3	
	E		09 04							
GPZ	ES	13 08	53		0.0	2.76	211		3.4	
KRP	EP	13 08	29		-1.5	3.49	12		3.4	
	E		40							
GNZ	ES	13 09	12		-5.8	3.77	45			
HJZ	ES	13 09	25		0.6	4.03	228			
MAY 09	H M S	18 35 08.3	33.19S	178.79W	33 KM	SE	2.5	AVG MAG	75/ 260	6.6
		+ 1.8	0.10	0.12	2					
					DIR	RES	DIST	AZ	W-A	W P W S
GBZ	P	18 36	30.2		2.0	5.61	236			
WTZ	P	18 36	31.3		-3.8	5.90	215			
	E		34							
GNZ	EP	18 36	33.0		-0.9	6.03	205			
	I		37.0							

		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S			
TNZ	P	03	38	24.0		-0.4	0.76	66		3.6	4.1			
	ES			35.5		0.4								
CNZ	P	03	38	37.0		0.3	1.63	80		4.4	4.2			
	S			57.0		0.3								
COB	EP	03	38	35.5		-1.0	1.68	200		4.1	4.1			
	I			38.0										
	S			59		0.9								
MNG	P	03	38	39.6		-0.9	1.90	127		3.9	4.3			
	S			39 02.3		-1.1								
WEL	P	03	38	43.0		0.5	2.04	152	3.8	4.1	4.4			
	S			39 07.8		0.9								
KRP	EP	03	38	45		-0.5	2.25	46		3.3	3.4			
	E			50										
	S			39 13		0.6								
	E			19										
MAY 11		H	M	S						75/ 264				
		12	40	30.1	39.15S	174.92E	33 KM	SE	1.0	AVG MAG	3.7			
				+ 0.3	0.02	0.02								
					I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
TNZ	P	12	40	38.8					-0.5	0.42	265			
	S			46.0					0.0					
CNZ	P	12	40	40.0					-0.5	0.49	96			
	S			48.5					0.5					
KRP	P	12	40	54.0					-0.1	1.32	22		3.4	3.8
	S			41 12					0.1					
MNG	PN	12	40	54.3					0.0	1.55	164		3.8	3.8
	SN			41 11					-1.5					
TRZ	EP	12	40	58					0.3	1.53	106		3.5	3.5
	E			41 23										
WEL	EPN	12	41	04.0					1.4	2.13	183	3.5	3.9	4.0
	IP			07.2					-0.7					
	ESN			28					0.8					
	ES			32					-4.2*					
COB	EPN	12	41	07					-1.4	2.56	220		3.6	3.5
	ESN			39					1.5					
MAY 11		H	M	S						75/ 265				
		17	37	38.2	41.39S	173.64E	33 KM	SE	1.1	AVG MAG	4.1			
				+ 0.3	0.02	0.02								
					I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
COB	P	17	37	51.2					-0.5	0.75	294		4.4	
	ES			38 02.5					0.9					
WEL	P	17	37	53.0					-0.2	0.86	83	3.7	4.4	
	S			38 05					0.7					
KKY	P	17	37	55.0					-0.6	1.03	178			
	S			38 09.6					1.1					
MNG	P	17	38	01.8					-1.5	1.59	62			
KAI	EP	17	38	09					-0.1	2.01	235	3.9		
	S			33					0.6					
TNZ	EP	17	38	12.5					-0.1	2.27	15		4.0	4.3
	S			40					1.3					
GPZ	EP	17	38	16					1.4	2.42	197	3.9		
	S			37.8					-4.5*					
CNZ	P	17	38	17					-0.5	2.63	34		3.9	4.5
	I			21.2										
	E			31										
	E			40										
TRZ	E	17	38	31						3.04	54		4.2	4.1
	E			51										
	E			39 01										
MJZ	EP	17	38	29.2					-0.2	3.49	221			
	E			34										
	S			39 10					1.5					
KRP	P	17	38	32.2					-0.8	3.76	24		4.2	4.1
	S			39 15.6					0.7					

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	HTZ	EP	17 38 44		4.0*	4.27	38		3.8	3.9
		E	39 07							
		E	27							
	MSZ	EP	17 38 52.9		-1.7	5.32	230			
		S	39 51		-1.8					
	FELT MARSHLANDS (77) MM IV									
	H	M	S						75/	266
MAY 12	07 59		38.8	32.03S	177.80W	271 KM	SE	1.8	AVG MAG	5.9
		+	- 1.6	0.08	0.12	21				
				H	M	S	DIR	RES	DIST	AZ
	GBZ	P	08 01 23.0					3.0	6.97	231
	HTZ	EP	08 01 22.0					-2.4	7.32	214
		S	02 46					-1.3		
	GNZ	EP	08 01 25					-0.8	7.43	206
		S	02 49					-0.7		
		I	54							
	ONE	EP	08 01 29					2.2	7.51	238
	TUA	EP	08 01 32					0.1	7.92	210
		ES	03 01					0.3		
	KRP	EP	08 01 35					1.7	8.03	221
	CRZ	P	08 01 37.0					-0.1	8.33	251
		ES	03 08					-1.9		
	TRZ	EP	08 01 41					-0.5	8.69	209
		S	03 21					3.1		
	CNZ	EP	08 01 45					-0.1	8.97	215
	MNG	EP	08 01 57					-2.7	10.14	210
		ES	03 43					-7.7*		
	WEL	S	08 04 09					-1.0	11.00	211
	COB	S	08 04 29					0.7	11.81	217
	GPZ	ES	08 05 14					0.1	13.87	210
	MJZ	S	08 05 41					0.3	15.09	214
										6.0
										5.7
	H	M	S						75/	267
MAY 12	08 07		52.2	39.45S	173.43E	33 KM	SE	1.5	AVG MAG	3.8
		+	- 0.9	0.05	0.06	R				
				H	M	S	DIR	RES	DIST	AZ
	TNZ	EP	08 08 04					-2.2	0.78	70
		S	16.8					0.3		
	CNZ	P	08 08 18.0					-0.3	1.66	82
		S	40.0					2.1		
	COB	EP	08 08 19.4					0.4	1.72	198
		E	23.0							
		ES	41.5					2.3		
	MNG	P	08 08 20.8					-1.6	1.96	127
		S	44					-1.1		
	WEL	EP	08 08 24					-0.3	2.10	151
		S	49					0.6		
		E	57.5							
	KRP	E	08 08 38						2.25	48
		S	53					0.9		
	MJZ	ES	08 09 59					-1.1	5.04	205
										3.3
	H	M	S						75/	268
MAY 12	13 33		48.7	41.57S	171.99E	12 KM	SE	1.2	AVG MAG	3.7
		+	- 0.4	0.03	0.03	R				
				H	M	S	DIR	RES	DIST	AZ
	COB	P*	13 34 02.0				D	-1.6	0.81	44
	KAI	EP*	13 34 06					-0.1	0.96	207
		S*	18.8					-0.3		
	KKY	EP*	13 34 14.4					-0.6	1.47	121
		I	19.4							
		S*	35.6					1.0		
	GPZ	EP*	13 34 27					1.6	2.08	167
		E	49							
		ES*	52					-0.9		
	WEL	P*	13 34 25.0					-1.1	2.12	81
									3.5	4.0 4.0

	KAI	IS EP ES	08 27 09 52	38.8 -3.1	-1.2	3.95	221	4.7				
	GPZ	P S	08 27 14.0 28 02.5	-0.3 -3.5	4.45	201			4.0			
	HJZ	EP S	08 27 29 28 28.5	0.7 -2.7	5.51	215						
	HSZ	S	08 29 08.5	-4.8*	7.27	223						
MAY 14	H H S 11 17 00.3 + - 1.2		37.93S 176.27E 0.07 0.07	235 KM 9	SE 1.4			AVG MAG 4.1	75/ 274			
	WTZ	P S	11 17 31.0 55	-0.8 -1.2	0.57	96			4.2	3.5		
	KRP	P	11 17 31.5	-0.3	0.58	271			3.5			
	TUA	ES	11 18 00	-1.2	1.11	142				4.1		
	CNZ	P	11 17 37	0.4	1.39	204			3.5	3.3		
	GNZ	EP I E I S	11 17 38.8 18 06 58 19 02 05.5	0.9 1.3 1.3 -1.4	1.55	118			4.9	4.4		
	TRZ	EP S	11 17 40 18 11	1.1 2.3	1.67	165			4.0	4.3		
	ECZ	P	11 17 40.8	0.7	1.81	83			4.7			
	MNG	P S	11 17 50.2 18 27	0.6 -0.9	2.75	193			4.3			
	WEL	S	11 18 45	1.2	3.55	199			4.2	3.9		
	COB	ES	11 18 57	-0.2	4.18	220				3.6		
	GPZ	ES	11 19 44	-2.5	6.38	204			4.8			
MAY 14	H H S 13 38 10.5 + - 0.3		44.63S 167.49E 0.01 0.02	12 KM 9	SE 0.3			AVG MAG 4.1	75/ 275			
	HSZ	P*	13 38 16.8	-0.2	0.32	97						
	ROX	P*	13 38 38.3	0.1	1.56	123			4.5	4.4		
	HJZ	S* EPN EP*	13 38 47 50 39 19	0.1 0.1 -0.5	2.24	74						
	WPZ	S* EPN EP*	13 38 46.5 49.5	-0.2 -0.5	2.25	155			3.9	3.6		
	OHZ	S* EPN EP*	13 38 50.2 39 14 49.5	0.1 0.3 -0.5	2.48	101			4.3	3.8		
	KAI	S* EPN E*	13 39 20 39 59	0.3 0.3	3.55	55			4.1			
	GPZ*	ES*	13 40 13	5.6*	3.83	78			3.8			
MAY 14	H H S 13 42 47.6 + - 0.5		39.10S 175.26E 0.03 0.03	33 KM 7	SE 1.5			AVG MAG 3.6	75/ 276			
	CNZ	P* S*	13 42 54.0 59.5	-0.5 0.0	0.24	115						
	TNZ	P* S*	13 43 00.0 10.2	-1.3 -1.0	0.69	262			3.7	3.2		
	KRP	EP* I S*	13 43 10.2 11.2 27.5	0.8 2.0	1.19	10			3.6	3.4		
	TRZ	E	13 43 18.5		1.29	111						
	MNG	PN	13 43 11.2	-0.6	1.53	174			3.9			
	WTZ	SN	13 43 30.4	0.3								
	WEL	ESN PN	13 43 33 24.0	-2.3 2.7	1.75 2.22	51 190			3.3 3.4	4.0		

LOCAL EARTHQUAKES

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		COB	ESN	13 44 19	47	0.2	2.78	223	3.4	
		ECZ	ESN	13 44 04		-0.2	2.93	63	4.1	
MAY 15	H M S 04 42 47.3 + 0.7			37.61S	176.62E	195 KM	SE	1.2	AVG MAG 5.2	75/ 277
		WTZ	P	04 43 12.8	30	DIR U	RES -1.1	DIST 0.48	AZ 142	W-A W P W S
		KRP	IP	04 43 16.5	38.3		RES 0.4	DIST 0.91	AZ 249	5.0
		WNZ	P	04 43 18.2			RES 0.7	DIST 1.10	AZ 201	4.9
		TUA	P	04 43 19.6			RES 0.7	DIST 1.27	AZ 161	5.4 5.5
			I	21.1						
			E	51.2						
		GNZ	P	04 43 21.0			RES -0.0	DIST 1.52	AZ 134	
			S	45			RES -2.1			
		ECZ	P	04 43 21.0			RES -0.2	DIST 1.53	AZ 94	5.1
		AUC	P	04 43 22.5			RES 0.3	DIST 1.65	AZ 296	
			S	49			RES -0.2			
		GBZ	P	04 43 21.9		D	RES -0.4	DIST 1.66	AZ 326	
		CNZ	P	04 43 25.7			RES 1.9	DIST 1.80	AZ 207	
		TRZ	P	04 43 26.8			RES 1.5	DIST 1.95	AZ 175	5.1 5.5
			S	56			RES 1.4			
		TNZ	P	04 43 32.0			RES 2.2	DIST 2.36	AZ 227	4.9
		MNG	P	04 43 38.3			RES -0.6	DIST 3.14	AZ 196	
		CAZ	P	04 43 42.0			RES 1.0	DIST 3.31	AZ 185	5.9 6.0
			E	44 16.0						
			S	22.0			RES -0.4			
		HEL	P	04 43 48.6			RES -0.3	DIST 3.94	AZ 201	5.4 5.3 5.4
			S	44 35			RES -1.5			
		CRZ	P	04 43 55			RES -0.8	DIST 4.50	AZ 314	4.3
		COB	EP	04 43 56			RES -1.2	DIST 4.60	AZ 220	4.6 5.0
			S	44 50			RES -1.3			
		KAI*	ES	04 45 26.5			RES -4.9*	DIST 6.33	AZ 217	5.2
		GPZ*	EP	04 44 23.5			RES -2.1*	DIST 6.79	AZ 205	5.6
			S	45 36			RES -6.2*			
		MJZ*	EP	04 44 38			RES -2.0*	DIST 7.90	AZ 214	
			S	46 02.0			RES -6.1*			
MAY 15	H M S 13 09 18.8 + 1.1			36.98S	177.34E	12 KM	SE	1.5	AVG MAG 3.5	75/ 278
		WTZ	P*	13 09 36.0	48.2	DIR	RES -1.8	DIST 1.05	AZ 196	W-A W P W S
			E	52.3						
		ECZ	P*	13 09 40			RES -0.2	DIST 1.19	AZ 127	4.2
		GBZ	P*	13 09 48			RES -0.8	DIST 1.69	AZ 296	
			E	56						
		KRP	EPN	13 09 48	10 11.7		RES 0.1	DIST 1.73	AZ 236	3.0
		GNZ	PN	13 09 47.9			RES -0.2	DIST 1.74	AZ 163	3.8 3.6
			E	55						
		CNZ	SN	13 10 03	10 10		RES 0.0	DIST 2.64	AZ 212	3.4 3.4
			EPN	39			RES 2.7	DIST 2.64	AZ 212	
		MNG	EPN	13 10 18			RES 0.1	DIST 3.92	AZ 201	3.2
			E	22						
MAY 15	H M S 18 27 37.1 + 1.8			37.30S	177.20E	155 KM	SE	1.8	AVG MAG 3.9	75/ 279
		WTZ	P	18 28 00.1	17.0	DIR D	RES -0.2	DIST 0.71	AZ 193	W-A W P W S
			S	17.0			RES -1.2			4.3 3.4

	KRP	P	13 28 08.0		1.1	1.46	244		3.6				
	GNZ	P	18 28 07.0		-0.3	1.50	154		3.8	3.9			
		S	30.0		-0.5								
	GBZ	EP	18 28 09.5		-0.5	1.75	307						
	TRZ	S	13 28 49.5		3.3	2.27	187		4.4				
	CNZ	P	13 28 19.0		2.5	2.30	214		3.8	3.4			
		E	51										
	MNG	P	13 28 31.8		-1.0	3.58	201		4.1	3.9			
		ES	29 14		-1.6								
	WEL	ES	13 29 33.5		-1.4	4.41	205	4.5			4.1		
	COB	ES	13 29 52		-0.1	5.13	221				3.8		
		H M S									75/ 280		
MAY 15			23 55 51.1	45.35S 167.22E	73 KM	SE	1.1		AVG MAG		4.1		
			+ - 1.2	0.05 0.07	11								
				H M S	DIR	RES	DIST	AZ	H-A	W P	W S		
	MNW	P	23 56 05.0			0.4	0.51	147					
		S	14.3			-0.5							
	ROX	P	23 56 18.0			1.4	1.48	95		4.6	4.0		
		S	36.6			1.0							
	WPZ	P	23 56 20.2			0.4	1.73	140		4.2	4.1		
		S	40			-1.0							
	OMZ	P	23 56 33.0			0.5	2.63	85		4.1	4.0		
		ES	57 03			-0.4							
	MJZ	EP	23 56 32			-1.2	2.69	61					
		E	58										
		ES	57 04.5			-0.5							
	KAI*	ES	23 57 45			4.2*	4.14	48	3.9				
	GPZ*	ES	23 57 36			-6.8*	4.22	69	4.0				
	COB*	ES	23 58 21			-2.9*	5.86	45				3.7	
		H M S									75/ 281		
MAY 17			09 11 35.0	45.45S 167.49E	129 KM	SE	1.2		AVG MAG		3.9		
			+ - 1.1	0.05 0.09	15								
				H M S	DIR	RES	DIST	AZ	H-A	W P	W S		
	MNW						0.35	163	3.6				
	POX	P	09 12 02.0			0.7	1.30	92		3.9	4.0		
		S	21.9			0.7							
	WPZ	EP	09 12 03.5			-0.5	1.55	142		3.7	4.1		
		ES	25			-1.1							
	OMZ	EP	09 12 16.5			1.2	2.46	82		3.8	4.1		
		ES	47			1.2							
	MJZ	EP	09 12 17			-0.1	2.58	57					
		ES	48			-1.0							
	GPZ	ES	09 13 23			-1.4	4.09	66	4.1				
	COB	EP	09 13 01			1.1	5.81	43		4.1	4.0		
		ES	14 05			-0.8							
		H M S									75/ 282		
MAY 17			12 41 57.2	45.81S 167.49E	164 KM	SE	1.5		AVG MAG		4.2		
			+ - 1.5	0.10 0.13	13								
				H M S	DIR	RES	DIST	AZ	H-A	W P	W S		
	MNW						0.09	69	4.1				
	WPZ	P	12 42 25.3			-0.5	1.27	132		4.3	4.1		
		S	45.9			-2.0							
	ROX	P	12 42 26.9			0.5	1.33	76		4.2	4.5		
		S	49.0			0.1							
	OMZ	EP	12 42 42			2.2	2.52	74			4.1		
		ES	43 13			0.5							
	MJZ	P	12 42 42.7			-0.5	2.79	50					
		ES	43 17			-1.5							
	GPZ	ES	12 43 50			-1.4	4.24	62	4.2				
	COB	EP	12 43 25			-0.9	6.07	41					
		ES	44 34			-0.5							

LOCAL EARTHQUAKES

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MAY 17		H	M	S	38.79S	177.97E	33 KM	SE	1.2	AVG MAG	75/ 283			
		12	52	18.9	0.03	0.03	?				4.1			
		+ 0.4			4	4	S	DIR	RES	DIST	AZ	W-A	W P	W S
GNZ	IP*	12	52	24.6			UNE	-0.3	0.15	15				
	E(S*)			30				0.8						
TUA	IPN	12	52	31.1			D	0.1	0.64	268		4.3	4.5	
	P*			32.2				0.4						
	E			33.7										
	SN			41.0				1.2						
WTZ	IPN	12	52	36.9			U	-0.7	1.12	316		4.3	4.2	
	PN			37.3				-0.2						
	SN			49.1				-2.2						
	S*			50.8				-3.9*						
TRZ	EP*	12	52	39				-1.6	1.18	229		3.8	3.8	
	E			48										
	E			59										
KRP	EPN?	12	52	51				-0.0	2.10	293				
	EP*			57.5				1.3						
	ESN			53				1.8						
MNG	PN	12	52	57.2				-1.4	2.65	226		3.7	3.7	
	ESN			53				0.3						
WEL	ESN	12	53	49				-0.5	3.50	224				4.0
CIZ	ESN	12	55	05				0.9	6.59	143				

MAY 17		H	M	S	41.54S	174.25E	33 KM	SE	1.7	AVG MAG	75/ 284			
		13	12	12.6	0.03	0.03	?				4.2			
		+ 0.5			4	4	S	DIR	RES	DIST	AZ	W-A	W P	W S
WEL	IPN	13	12	22.3			UNE	0.1	0.46	56		4.8		
	ESN			30				0.9						
KKY	EPN	13	12	31.7				2.5	0.98	206				
COB	IPN.	13	12	32.2				-0.6	1.24	291				
	ESN			46.5				-1.4						
MNG	IPN.	13	12	33.3				-0.4	1.30	45				
CAZ	PN	13	12	38.0				0.1	1.61	67				
	E			46.0										
	ESN			59				2.0						
KAI	E?	13	12	59					2.34	244		3.9		
	E			13										
	PN			20										
TNZ	PN	13	12	49.1				1.0	2.35	2		4.4	4.4	
	ESN			13				2.0						
GPZ	ESN	13	13	17				-0.7	2.46	208		3.8		
CNZ	EPN	13	12	50.5				-0.1	2.54	23				4.8
	EP*			59.5				2.2						
	ES*			13				1.3						
TRZ	EP*	13	13	03				1.5	2.78	45		4.3		
	E			12										
	E			45										
TUA	EP*	13	13	13				-1.0	3.51	40		4.2	4.3	
	E			30										
	ES*			14				-0.0						
KRP	EPN	13	13	06				-1.1	3.74	16		4.2	4.2	
	ESN			51				2.1						
	ES*			14				-1.9						
GNZ	E	13	13	27					4.09	46		3.9	3.9	
	ESN			55				-2.3						
WTZ	EPN	13	13	11				-1.4	4.13	31		3.9	3.8	
	E			20										
	E			43										
	ESN			55				-3.3						
CIZ	ESN	13	15	10				-1.4	7.17	113				
FELT	BOTH SIDES OF COOK STRAIT													

		H	M	S				75/ 285								
MAY 17		13	25	51.7	41.03S	173.55E	97 KM	SE	2.0	AVG MAG	3.8					
				+ - 1.3	0.06	0.05	12									
					H	M	S	DIR	RES	DIST	AZ	H-A	W	P	W	S
COB	IP				13	26	08.2		-0.2	0.63	264					
	ES						19		-2.1							
WEL	P				13	26	11.0		-0.5	0.95	106	3.8	3.6	4.3		
	E						21.7									
	S						25.7		-0.8							
KKY	IP				13	26	19.0		2.0	1.39	176					
MNG	P				13	26	18.4	D	-0.1	1.51	75		3.7	3.9		
	ES						39		0.5							
TNZ	EP				13	26	26		2.2	1.94	19			3.8		
	ES						50.5		2.9							
CAZ	ES				13	26	51.5		2.1	2.02	87					
CNZ	EP				13	26	31.5		1.7	2.38	40		3.8	3.8		
	ES						56		-2.1							
KRP	EP				13	26	45		0.4	3.46	27		3.4	3.6		
	ES						27		0.4							
WTZ	ES				13	27	38		-0.8	4.03	42					
GNZ	EP				13	26	51		-3.5	4.18	57			3.6		
	ES						27		-2.0							

		H	M	S				75/ 286								
MAY 18		03	00	34.7	45.32S	167.53E	119 KM	SE	1.8	AVG MAG	4.3					
				+ - 1.6	0.12	0.15	25									
					H	M	S	DIR	RES	DIST	AZ	H-A	W	P	W	S
MNW	IP				03	01	01.7	U	1.7	0.47	172	4.1	4.4	4.8		
	ES						20		0.9	1.27	98					
WPZ	IP				03	01	04.0	D	-0.1	1.63	146		4.3	4.3		
	ES						23.9		-2.7							
OMZ	IP				03	01	16.1	D	2.2	2.40	85		4.0	4.7		
	ES						45		1.3							
MJZ	IP				03	01	15.2	UNE	0.3	2.48	59					
	ES						44		-1.3							
GPZ	EP				03	01	36		0.7	4.00	68		4.4			
	ES						02		-1.7							
COB	EP				03	01	57		-1.0	5.68	44		4.2	4.3		
	ES						03		-0.6							

		H	M	S				75/ 287								
MAY 18		19	28	34.2	32.96S	178.79W	223 KM	SE	1.6	AVG MAG	5.2					
				+ - 1.6	0.07	0.13	34									
					H	M	S	DIR	RES	DIST	AZ	H-A	W	P	W	S
ECZ	EP				19	29	59		-0.2	5.20	204					
GBZ	EP				19	30	02		-1.5	6.08	213					
WTZ	ES						31		0.7							
GNZ	EP				19	30	04		-1.6	6.24	204					
	ES						31		-1.8							
ONE	EP				19	30	08		1.4	6.32	242		4.9			
TUA	EP				19	30	13		1.5	6.70	208					
	ES						31		1.5							
KRP	EP				19	30	12		-0.5	6.78	221					
	E						31		37.5							
CRZ	EP				19	30	19		0.3	7.26	256					
TRZ	ES				19	31	46		0.7	7.47	207					
CAZ	ES				19	32	19		1.4	8.88	205					
MNG	E				19	30	45			8.92	209					
	E						32		11							
WEL	ES				19	32	33.5		-2.6	9.77	210		5.8			
CIZ	E				19	31	18			11.12	172					
	ES						33		10							

MAY 18		H	M	S	40.93S	172.43E	12 KM	SE	1.5	AVG MAG	75/ 288	4.2
		22	59	36.7	0.04	0.04	?					
		+-		0.6			DIR	RES	DIST	AZ	W-A	W P W S
COB	IP*	22	59	40.0				-2.6	0.28	124		
KKY	PN	23	00	06.6				0.3	1.76	148		
	SN			30.6				2.3				
KAI	EP*	23	00	08.5				0.5	1.77	205	3.9	
	S*			29.8				-1.7				
WEL	IPN	23	00	07.8			U	1.0	1.80	102	4.3	4.5 4.9
	ESN			31				1.7				
TNZ	EPN	23	00	14				0.4	2.30	41		4.2 4.3
	ESG			54				-0.2				
	E			01 09								
MNG	PN	23	00	15.7				1.5	2.34	83		
	ES*			47.9				-1.2				
GPZ	EP*	23	00	26				0.8	2.77	177	3.9	
	E			57								
CAZ	E	23	00	31					2.88	91		
	ESG			01 12				-1.8				
MJZ	EPN	23	00	27				-1.5	3.38	205		
	ESN			01 08				0.2				
KRP	PN	23	00	35.0				0.2	3.85	40		4.1 4.1
	E			01 40								

FELT IN NORTHWEST NELSON

MAY 18		H	M	S	41.03S	172.49E	12 KM	SE	1.5	AVG MAG	75/ 289	4.9
		23	04	44.6	0.03	0.04	?					
		+-		0.5			DIR	RES	DIST	AZ	W-A	W P W S
COB	IP*	23	04	47.2				-1.8	0.20	106		
KKY	IPN	23	05	13.9				1.3	1.66	147		
KAI	EPN	23	05	15				1.9	1.69	208	4.5	
	ESN			36				1.5				
WEL	IPN	23	05	14.8			U	0.9	1.75	99	5.2	
MNG	IPN	23	05	22.1			U	0.4	2.32	81		
TNZ	PN	23	05	21.7				-0.5	2.35	39		5.0 5.3
	EPG			30				-2.2				
	ES*			58				1.1				
GPZ	EPN	23	05	27				0.5	2.66	177	4.7	
	EP*			33				1.8				
	ESN			56.5				-1.6				
CAZ	IPN	23	05	29.4			U	0.5	2.84	89		
	E			38								
	ESG			06 19.5				-0.8				
MJZ	PN	23	05	34.8				-0.5	3.31	206		
	ESN			06 14				0.2				
TRZ	EPN	23	05	39				-0.8	3.63	67		4.7 4.9
	E			06 55								
KRP	IPN	23	05	42.4			UN	-1.0	3.90	38		4.9 4.9
	E			55								
	ES*			06 42				-1.5				
OMZ	EPN	23	05	46				-1.4	4.19	195		4.9 4.9
	E			06 03.5								
	ES*			50				-2.3				
WTZ	EPN	23	05	53				-0.3	4.63	50		4.5
GNZ	EPN	23	05	57				0.1	4.89	63		4.8 4.8
	EP*			06 11				1.7				
	ESN			55				2.8				
ONE*	PN	23	06	05				0.5*	5.45	16	5.2	
	ESH			07 03				-2.9*				
CRZ*	EPN	23	06	19.5				-0.4*	6.59	1		
	ESN			07 30				-3.2*				
CIZ*	EPN	23	06	50				3.2*	8.60	113		
	ESN			08 20				-1.2*				

FELT BOTH SIDES OF COOK STRAIT

MAY 19		H	M	S	40.96S	172.35E	12 KM	SE	1.8	AVG MAG	75/ 290	
		00	28	49.5	0.04	0.05				3.7		
				+ 0.9								
							DIR	RES	DIST	AZ	W-A W P W S	
		COB	IP*		00	28	53.1		-2.9	0.32	114	
		KAI	ES*		00	29	42		-0.7	1.71	204	3.2
		KKY	EPN		00	29	19.5		0.4	1.77	146	
			ESN				43		1.7			
		WEL	PN		00	29	21.1		0.8	1.85	101	3.6 4.1 4.1
			ESN				45.5		2.2			
		TNZ	EPN?		00	29	28		0.8	2.36	42	3.6
			EPG				36		-1.3			
			ESG				30 09		-0.1			
		MNG	PN		00	29	30.0		2.2	2.40	83	3.9 4.0
			ES*				30 02		-1.3			
		GPZ	ESN		00	30	02		-2.9	2.74	176	3.5
		MJZ	ESN		00	30	20.5		1.2	3.33	204	
		KRP	EPG		00	30	10		1.4	3.91	40	3.5 3.5
			ES*				47		-1.6			

FELT IN NORTHWEST NELSON

MAY 19		H	M	S	39.43S	174.43E	214 KM	SE	1.6	AVG MAG	75/ 291	
		19	18	08.8	0.05	0.05				4.2		
				+ 1.1								
							DIR	RES	DIST	AZ	W-A W P W S	
		TNZ	P		19	18	38.3		1.3	0.25	347	
			ES				59.5		0.8			
		MNG	IP		19	18	45.1		1.9	1.43	147	
			ES				19 09.5		-0.5			
		KRP	P		19	18	46.3		0.8	1.73	30	3.6
			ES				19 14		-0.8			
		TRZ	ES		19	19	17		0.4	1.84	95	4.2
		WEL	ES		19	19	16		-1.2	1.87	173	3.9 4.2
		CAZ	P		19	18	50.7		2.0	2.00	138	
			ES				19 22		2.5			
		COB	IP		19	18	50.3	U	0.5	2.11	218	4.2 4.6
			ES				19 20		-1.5			
		TUA	EP		19	18	51.5		0.9	2.19	74	4.3 4.3
			ES				19 22		-0.9			
		WTZ	IP		19	18	53.1	D	-0.3	2.45	55	4.0 3.6
			ES				19 24		-3.9*			
		GNZ	EP		19	18	58		-0.4	2.89	75	4.3 4.2
			ES				19 34		-2.8			
		KAI	ES		19	19	55		-2.2	3.86	216	4.3
		GPZ*	ES		19	20	06.5		-4.4*	4.47	197	5.1

MAY 20		H	M	S	38.43S	174.67E	12 KM	SE	0.8	AVG MAG	75/ 292	
		02	46	15.0	0.01	0.02				3.6		
				+ 0.3								
							DIR	RES	DIST	AZ	W-A W P W S	
		TNZ	P*		02	46	29.2		-0.5	0.79	197	3.4 3.3
			ES*				41		0.5			
		KRP	IP*		02	46	29.9	UNE	-0.6	0.84	54	4.0 3.8
			ES*				41		-1.0			
		CHZ	P*		02	46	33.7		-0.0	1.03	139	3.6 4.1
			S*				47.7		0.0			
		MNG	PN		02	46	54.0		2.4*	2.28	164	3.4 3.4
			ES*				47 26		0.9			
		GBZ	EPN?		02	46	52		0.2	2.30	17	3.4 3.2
			EP*				57		1.5			
			ESN				47 20		0.4			
		WEL	ES*		02	47	43		0.4	2.86	179	4.2
		COB	EPN		02	47	02		-0.2	3.05	209	3.5
			EP*				07		-1.3			
			ES*				48		-0.3			

		H	M	S					75/ 293			
MAY 21		08	04	56.5	33.65S	178.72W	262 KM	SE	0.7	AVG MAG	4.5	
				+ 0.9	0.04	0.03	17					
					4	M	S	DIR	RES	DIST	AZ	W-A W P W S
GBZ	EP				08	06	19		0.9	5.41	240	
WTZ	EP				08	06	16		-3.9*	5.56	218	4.6 4.2
	E						19					
	E						33.5					
	ES						07 25		-0.2			
GNZ	EP				08	06	20		-0.9	5.64	207	4.6 4.2
	ES						07 27		-0.0			
ONE	EP				08	06	27		0.5	6.08	248	4.7
TUA	EP				08	06	27		-0.1	6.13	212	
	ES						07 38		-0.0			
KRP	EP				08	06	30		0.6	6.32	226	
TRZ	EP				08	06	37		0.4	6.90	210	
	E						08 00					
CRZ	EP				08	06	39		-1.2	7.18	261	
MNG	EP				08	06	55		0.0	8.35	212	
	E						07 16					
	ES						08 28		0.0			

		H	M	S					75/ 294			
MAY 24		18	48	29.5	38.49S	178.03E	156 KM	SE	1.4	AVG MAG	5.2	
				+ 0.8	0.03	0.04	9					
					4	M	S	DIR	RES	DIST	AZ	W-A W P W S
WNZ	IP				18	48	51.7	U	1.1	0.15	157	
KRP	IP				18	48	53.2	DS	0.5	0.69	326	5.0 5.0
	ES						49 09		-1.5			
CNZ	IP				18	48	55.4		2.0	0.80	208	
WTZ	IP				18	48	53.2	U	-1.1	0.91	56	5.2 5.2
	E						54.0					
	ES						49 09		-4.3*			
TUA	IP				18	48	56.7	U	2.3	0.93	110	6.0 5.8
	ES						49 14		0.4			
TRZ	IP				18	48	58.7	U	1.6	1.22	150	5.9 5.7
	E						49 21.5					
TNZ	IP				18	49	01.8	U	2.4	1.46	241	5.0 4.7
	E						26					
GNZ	IP				18	49	00.5	UE	-0.1	1.57	96	5.4 5.4
	ES						22		-2.4			
AUC	IP				18	49	03.9	U	-0.3	1.91	328	
ECZ										2.14	69	5.4 5.5
MNG	IP				18	49	07.9		0.6	2.16	191	
GBZ	IP				18	49	08.1	D	-1.0	2.31	349	
CAZ	IP				18	49	11.5	U	1.2	2.41	176	
	E						21					
	ES						40		-1.6			
	E						43					
WEL	IP				18	49	16.8	USE	-0.4	2.95	199	5.6 5.3 5.4
	ES						53		-0.7			
ONE	EP				18	49	18		-0.1	3.02	333	3.7 3.6
	ES						56		0.8			
COB	EP				18	49	24.5		-1.3	3.63	223	4.9 5.2
	E						40					
	ES						50 08		-1.1			
CRZ	EP				18	49	41		-1.1	4.87	325	4.6
KAI*	E				18	49	53			5.35	220	5.3
	ES						50 46		-3.6*			
GPZ*	EP				18	49	51		-3.3*	5.79	205	6.0
	ES						50 56		-4.2*			
CIZ*	E				18	50	28			7.80	137	
	ES						51 44		-4.3*			
MSZ*	EP				18	50	31		-1.5*	8.66	222	
	ES						32 04		-4.7*			

FELT YORK BAY (68) MM III

MAY 25	H	M	S	49.88S	164.75E	33 KM	SE	1.4	AVG MAG	75/ 295 4.4									
	00	39	09.1																
		+	2.1																
		0.14	0.14																
		4	M								S	DIR	RES	DIST	AZ	W-A	W P	W S	
	WPZ	IP	00								40	08.2	D	-2.1	4.23	42		4.2	4.5
		ES										57		-0.2					
	MNW	P	00								40	16		1.5	4.53	26	4.4		
		ES										41		0.3					
	MSZ	EP	00								40	30		0.6	5.64	24		4.0	4.1
		ES										41		-1.3					
	HJZ	E	00								41	00			7.07	36			
	ES			42		0.3													
GPZ	ES	00	42	34		0.9	8.22	44	5.0										
MAY 25	H	M	S	36.56S	177.29E	258 KM	SE	1.2	AVG MAG	75/ 296 4.1									
	08	23	12.2																
		+	1.4																
		0.05	0.09																
		4	M								S	DIR	RES	DIST	AZ	W-A	W P	W S	
	WTZ	P	08								23	50.3		-0.2	1.35	190		4.3	3.6
		ES										24		-1.1					
	GBZ	P	08								23	52.0		0.2	1.52	286			
	KRP	EP	08								23	56.5		1.9	1.88	227		3.3	
	GHZ	P	08								23	56.2		0.0	2.07	164		4.4	3.9
		ES										24		-0.3					
	TRZ	P	08								24	05.2		0.5	2.91	187		4.6	4.3
	ES			47.9		1.9													
MNG	EP	08	24	18		-1.2	4.20	199											
	ES			25		-1.4													
HEL	E	08	24	28.6			5.02	202		4.4	4.2								
	ES			25		0.0													
COB	ES	08	25	43		-0.3	5.67	217											
MAY 26	H	M	S	41.51S	173.47E	12 KM	SE	1.9	AVG MAG	75/ 297 4.0									
	18	17	58.7																
		+	0.7																
		0.04	0.05																
		4	M								S	DIR	RES	DIST	AZ	W-A	W P	W S	
	COB	KKY	IP								18	18	17.9		1.9	0.93	170		
			E										22.4						
			ES										27		-1.2				
	WEL	IP	18								18	18.2	U	1.3	1.00	78	3.8	3.6	4.5
		E										24							
		ES										31		0.5					
	MNG	KAI	E								18	18	35			1.76	60		
		ESN			52		-0.2	1.84	236	3.6									
GPZ	EPN	18	18	35		-0.2	2.27	195	4.0										
	ESN			57		-3.6													
TNZ	EP	18	18	39		-2.2	2.42	17		4.0	4.0								
	P			40.3		-0.9													
	E			45.3															
CNZ	EPN	18	18	43.8	U	1.3	2.80	35		4.2	4.1								
	ESN			19		2.7													
	E			19		1.3													
	ES			10															
TRZ	EPN	18	19	26		0.3	3.22	54			3.9								
KRP	GNZ						3.92	25											
GNZ	ESN	18	19	54		-3.3	4.51	52			4.0								
FELT YORK BAY (69)																			
MAY 29	H	M	S	35.27S	179.61E	202 KM	SE	1.5	AVG MAG	75/ 298 4.4									
	03	04	44.6																
		+	1.4																
		0.09	0.11																
	4	M	S	DIR	RES	DIST	AZ	W-A	W P	W S									
ECZ	EP	03	05	29.5		-0.3	2.56	199		4.6	4.5								
	ES			06		0.8													

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WTZ	P	03 05 39.2	-0.8	3.43	217	4.6	4.4												
	ES	06 20	-2.8																
GBZ	P	03 05 39.8	-0.9	3.49	253														
GNZ	P	03 05 42.0	-0.0	3.60	200	4.3	4.2												
	ES	06 27	0.6																
TUA	EP	03 05 48.5	1.0	4.04	208	4.9	4.4												
	E	06 49																	
KRP	EP	03 05 51	1.3	4.21	230	4.1	3.8												
	ES	06 42	1.9																
MNG	EP	03 06 15	-0.9	6.25	210														
	ES	07 27	0.0																
										75/ 299									
MAY 29	H M S	07 11 09.2	38.41S	175.84E	191 KM	SE	1.3	AVG MAG	3.8										
		+ - 1.3	0.04	0.03	10														
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S									
KRP	P	07 11 36.0			0.5	0.54	334		3.2	3.2									
	ES	56			0.2														
WTZ	IP	07 11 37.0		D	-1.1	1.00	65		3.9										
TRZ	P	07 11 43.0			1.9	1.37	146			4.4									
	ES	12 07			1.1														
GNZ	EP	07 11 45			0.5	1.73	98		4.0	3.6									
	ES	12 11			-0.9														
MNG	IP	07 11 48.9		U	-0.8	2.22	187		4.2	3.8									
	S	12 18.8			-2.2														
WEL	P	07 11 59.1			0.3	2.99	196		4.1	3.9									
	S	12 38			0.9														
COB	ES	07 12 50			-0.1	3.59	221			3.8									
										75/ 300									
MAY 29	H M S	22 41 19.0	40.70S	174.32E	12 KM	SE	1.0	AVG MAG	3.6										
		+ - 0.3	0.02	0.02	3														
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S									
WEL	P	22 41 31.3			-0.4	0.68	150		3.2	4.0									
	S	41.8			0.7														
MNG	EP	22 41 34.5			-0.8	0.89	85		3.5	3.5									
	ES	47			-0.4														
COB	PN	22 41 40.8		U	-0.8	1.26	251		3.6	3.9									
	SN	57.8			-0.6														
TNZ	EPN	22 41 45			0.0	1.51	2		3.6	3.5									
	ESN	42 06			1.6														
CNZ	EPN	22 41 48			-0.6	1.77	33												
	ESN	42 11			0.3														
KKY	EPN	22 41 50.5			1.7	1.79	195												
KRP	EPN	22 42 03.5			-1.0	2.92	19		3.6										
	ESN	39			0.1														
										75/ 301									
MAY 30	H M S	10 51 50.1	38.74S	175.43E	211 KM	SE	0.7	AVG MAG	3.7										
		+ - 0.9	0.03	0.04	7														
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S									
CNZ	P	10 52 19.5			0.9	0.47	169												
KRP	P	10 52 19.5			-0.6	0.82	6												
	S	44			0.5														
TNZ	P	10 52 20.5			-0.3	0.93	241		3.3										
TUA	ES	10 52 52			2.1	1.35	94			3.7									
WTZ	P	10 52 24			-0.5	1.44	59		3.4	3.3									
	ES	50.5			-0.7														
MNG	IP	10 52 28.5		U	-0.1	1.88	179		4.3	4.1									
	S	58			-0.3														
GNZ	P	10 52 31.0		D	0.9	2.03	88		3.6	3.7									
	S	53 01			0.1														
CAZ	S	10 53 07			2.0	2.25	164												
WEL	P	10 52 35.0		D	-1.2	2.60	191	3.8	3.9	4.1									
	S	53 09.5			-2.4														
COB	P	10 52 38.9			-3.5	3.13	221		3.8	3.6									
	S	53 17.9			-5.4														

	MJZ*	S	10 54 30		-7.0*	6.44	214					
	MSZ*	S	10 55 08		-9.1*	8.17	221					
MAY 30	H M S		37.11S 176.79E	191 KM	SE	0.6		AVG MAG	75/ 302			
			0.09 0.07	7								
	WTZ	P	15 12 30	DIR	RES	DIST	AZ	W-A	W P	W S		
			4 M S		0.4	0.88	170		3.5	3.2		
	KRP	EP	15 12 33		-0.4							
	TUA	EP	15 12 36		0.3	1.29	231					
		S	13 04		-0.7	1.72	171		3.5	3.4		
	GNZ	P	15 12 37.5		0.1							
		S	13 06		-0.2	1.81	148		4.0	4.0		
	MNG*	P	15 12 53.5	U	0.4							
		S	13 37		-5.6*	3.65	196		4.2	3.9		
	WEL*	S	15 13 54		-5.7*							
	COB*	S	15 14 08		-7.9*	4.45	200			3.8		
	MJZ*	S	15 15 19		-8.1*	5.07	217			3.6		
		S			-14.7*	8.39	213					
MAY 30	H M S		38.71S 176.05E	12 KM	SE	1.1		AVG MAG	75/ 303			
			0.03 0.03	2								
	WNZ	PG	16 15 01	DIR	RES	DIST	AZ	W-A	W P	W S		
			4 M S		-0.8	0.09	26					
	TUA	PG	16 15 16		-0.5	0.86	97		3.2			
	KRP	PG	16 15 17		0.1	0.88	333					
	WTZ	PG	16 15 19.5		-0.4	1.03	46		2.9			
	TNZ	EPG	16 15 28		0.9	1.39	249		3.1			
	GNZ	EPG	16 15 32		1.8	1.54	88		3.2			
	MNG	EP*	16 15 33		-0.5	1.95	193		3.4	2.7		
		EPG	38		-0.5							
	FELT TAUPD (41) MM V											
MAY 30	H M S		38.80S 178.69E	33 KM	SE	1.2		AVG MAG	75/ 304			
			0.04 0.05	2								
	GNZ	IP*	19 35 09.0	D	0.3	0.53	287		3.9	3.7		
		S*	18		1.3							
	ECZ	IP*	19 35 16.9	D	-1.2	1.11	355		4.4	3.8		
		S*	33.5		0.2							
	TUA	S*	19 35 33.5		-2.2	1.19	269		3.6	4.3		
	WTZ	PN	19 35 23		0.8	1.56	301		3.6	3.6		
		SN	41		0.3							
	MNG	IPN	19 35 42.7	U	-0.2	3.06	233		3.6	3.6		
		SN	36 18		0.7							
	WEL*	SN	19 36 37.5		-0.1*	3.89	229		3.9	3.9		
	COB*	SN	19 37 08		1.0*	5.11	242			3.3		
	CIZ*	EPN	19 36 31		4.5*	6.27	147					
		SN	37 38		3.0*							
	MJZ*	SN	19 38 16		-1.7*	8.06	227					
	MSZ*	SN	19 39 01		-1.7*	9.95	230					
JUN 01	H M S		33.99S 179.69W	33 KM	SE	1.1		AVG MAG	75/ 305			
			0.09 0.19	2								
	WTZ	PN	05 29 44	DIR	RES	DIST	AZ	W-A	W P	W S		
			4 M S		0.2	4.81	213		4.6	4.1		
	GNZ	EPN	05 29 47		0.2							
		ESN	30 42.5		0.7	5.00	201		4.4	4.2		
	KRP	PN	05 29 54		1.1							
	TRZ	PN	06 30 01.5		0.8	5.51	223					
		SN	31 09.5		-1.2	6.22	206					
	CNZ	PN	05 30 05.5		-1.2							
		SN	05 30 18		-0.5	6.46	215					
	MNG*	PN			-4.0*	7.65	209					

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		SN	31 35			-10.0*				
WEL*		PN	06 30 28.2			-5.2*	8.50	209	4.9	
		SN	31 55			-10.4*				
COB*		ESN	06 32 10			-14.2*	9.29	218		
MJZ*		ESN	06 33 23			-17.9*	12.57	215		

JUN 01		H M S	11 45 55.4	37.41S	177.52E	106 KM	SE	0.8	AVG MAG	75/ 306 4.2
		+ -	0.7	0.05	0.03	7				
		H M S	11 46 13.5	DIR	RES <th>DIST</th> <th>AZ</th> <th>W-A</th> <th>W P</th> <th>W S</th>	DIST	AZ	W-A	W P	W S
WTZ		IP	11 46 27	U	-0.2	0.71	216		4.6	4.5
		S	11 46 15.9	U	0.8	0.86	110		4.6	
ECZ		P	11 46 19.3	D	-0.7	1.29	162		4.1	4.7
GNZ		P	11 46 38.5		-0.1					
		S	11 46 21.0	D	-0.7	1.43	192		4.4	4.5
		P	11 46 42.5		1.1					
WNZ		P	11 46 24.5		0.1	1.66	222		4.4	
KRP		IP	11 46 24.4	DE	-0.0	1.66	251			
		S	11 46 46.5		0.4					
TRZ*		P	11 46 29.5		-2.0*	2.21	194		4.4	4.2
		S	11 46 59		0.5*					
TNZ*		P	11 46 42.8	U	-0.0*	3.04	233		3.8	
MNG*		P	11 46 45.2	D	-4.9*	3.58	206		3.9	3.8
		ES	11 46 47 27		-4.7*					
WEL*		P	11 46 56		-5.6*	4.42	208	4.0	4.3	4.1
		S	11 47 47 46		-6.3*					
COB*		EP	11 47 06.5		-6.0*	5.23	224		4.3	3.8
		ES	11 47 48 07		-5.0*					
CIZ*		E	11 49 11.5			7.93	147			
		S	11 47 14.5		-3.6*					
MJZ*		EP	11 47 50		-6.8*	8.48	217			
		S	11 49 49 19.5		-12.0*					

JUN 01		H M S	16 12 31.6	42.22S	172.75E	12 KM	SE	1.8	AVG MAG	75/ 307 4.2
		+ -	0.4	0.03	0.03	2				
		H M S	16 12 42.8	DIR	RES <th>DIST</th> <th>AZ</th> <th>W-A</th> <th>W P</th> <th>W S</th>	DIST	AZ	W-A	W P	W S
KKY		IP*	16 12 57		-2.3	0.73	106			
		SG	16 12 50.5		0.6					
KAI		EP*	16 12 52.5		0.1	1.04	252	3.8		
		PG	16 13 13 07		-0.2					
COB		IP*	16 12 51.2	U	-0.8	1.13	359			
		S*	16 13 13 08		0.7					
WEL		IPN	16 13 00.6	D	-0.8	1.78	59	4.1	4.8	4.8
		P*	16 13 05		1.9					
		SN	16 13 24.5		0.9					
		S*	16 13 30		3.3					
MJZ		PN	16 13 10		-0.3	2.43	223			
		P*	16 13 15		0.7					
		PG	16 13 19		-1.9					
		SN	16 13 42.5		3.0					
MNG		IPN	16 13 11.5	D	-1.2	2.61	53	4.7	4.4	
		P*	16 13 15		-2.3					
		S*	16 13 54.5		2.9					
CAZ*		SG	16 14 13		2.8*	2.92	64			
OHZ		PN	16 13 18.5		-1.6	3.14	204	4.3	4.4	
		SG	16 13 14 18		0.4					
TNZ		PN	16 13 24		2.1	3.27	23	4.5	4.4	
		S*	16 13 14 10		-1.7					
CNZ*		P*	16 13 35		-0.9*	3.69	36			
TRZ*		P*	16 13 43		0.5*	4.08	51	4.5	4.3	
		SN	16 14 14 22		2.4*					
ROX*		SN	16 14 22		2.1*	4.09	216	3.5	3.8	
MSZ*		PN	16 13 34		-1.7*	4.29	234	3.9	4.0	
		PG	16 13 35		-3.3*					

LOCAL EARTHQUAKES

153

	S	53	13		0.2					
GNZ	IP	19	52	44.4	D	0.3	2.50	80	4.6	4.4
	S	53	18.9		-0.6					
COB	IP	19	52	44.2	U	-0.7	2.57	219	4.5	4.7
	S	53	18		-2.5					
ECZ	P	19	52	52		-0.2	3.21	65	4.5	5.4
KAI*	S	19	53	53		-4.4*	4.31	216		
MJZ*	EP	19	53	23.5		-2.2*	5.89	213		
	S	54	27		-5.2*					
MSZ*	EP	19	53	44		-3.8*	7.60	221		
	S	55	08		-4.9*					

JUN 03	H	M	S	40.24S	176.63E	33 KM	SE	1.8	AVG MAG	75/ 310
	09	35	06.2	0.03	0.04	2				4.1
			0.6							
	H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
TRZ	P*	09	35	18.4		-1.6	0.70	12	4.4	4.6
	S*			33		3.0				
CAZ	P*	09	35	20		-0.6	0.73	205		
	S*			32.5		1.6				
MNG	IPN	09	35	22.0	D	-0.6	0.95	246	4.2	4.2
	S*			36		-1.5				
GNZ	IPN	09	35	27.5	U	-0.2	1.33	321	4.5	4.6
	S*			46		-2.4				
TUA	P*	09	35	31		-2.0	1.48	16	3.7	4.0
	S*			52		-1.0				
WNZ	P*	09	35	38		2.1	1.66	346	4.5	4.6
WEL	PN	09	35	32		-1.6	1.76	233	3.3	3.8
	EP*			38.5		0.8				
	SN			55		0.8				
GNZ	PN	09	35	34		-1.9	1.92	35	3.5	3.5
	SN			36 00		1.8				
TNZ	PN	09	35	39		1.7	2.03	300	4.2	3.9
	ES*			36 11		1.9				
WTZ	PN	09	35	38.5		-2.1	2.27	7	3.8	
	EP*			48		1.6				
KRP	EPN	09	35	42		-1.2	2.46	339		
	P*			52		2.3				
	S*			36 21		-1.1				
COB*	EP*	09	35	59		-1.2*	3.08	253	3.7	3.9
	ES*			36 39		-1.7*				
MJZ*	SN	09	37	34		-1.1*	5.92	229		
CIZ*	EPN	09	36	38		2.8*	6.28	128		
	SN			37 45		1.2*				
FELT WAIPAWA (60) MM V										

JUN 03	H	M	S	41.78S	171.81E	12 KM	SE	0.9	AVG MAG	75/ 311
	11	55	59.0	0.02	0.02	2				3.4
			0.4							
	H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KAI	EP*	11	56	14		0.2	0.80	202	3.4	
	IS*			24		-0.9				
COB	P*	11	56	16		-0.8	0.98	45		
	S*			30		-0.1				
KKY	P*	11	56	26.0	D	-0.4	1.54	115		
	ES*			48		1.2				
	SG			49.5		-1.4				
WEL	EP*	11	56	39		0.0	2.27	78	3.1	3.3
	S*			57 10		1.0				
MJZ	PN	11	56	37.5		0.0	2.42	204		
	SN			57 07.5		1.0				
MNG*	EP*	11	56	52.5		1.1*	3.00	68	3.5	3.3
	S*			57 33		2.1*				
TNZ*	EPG	11	57	06		1.3*	3.25	38		3.2
	ES*			34.5		-3.7*				
	SG			50		1.5*				
OMZ*							3.35	191	3.5	3.3

	CNZ*	EP*	11 57 09		3 2*	3.84	49		3.6	3.8
		PG	17		0.3*					
		ES*	56		-0.1*					
		ESG	58 07		-1.5*					
	MSZ*	EPN	11 56 59		-0.9*	4.06	223		3.2	3.4
		SN	57 45.5		-0.9*					
	KRP*	EP*	11 57 20		-2.2*	4.80	38			
		EPG	31.5		-4.6*					
		SN	58 05.5		1.0*					
	H M S								75/ 312	
JUN 03	13 33 19.9		33.94S 179.90W		33 KM	SE	0.8		AVG MAG	4.8
	+ 1.1		0.04		0.10					
			4 M S		DIR	RES	DIST	AZ	W-A	W P W S
	ECZ	PN	13 34 22.5			5.1*	3.95	198		5.0 4.9
		SN	35 02			0.6				
		E	08.5							
	WTZ	PN	13 34 29			0.6	4.76	211		4.8 4.6
		SN	35 21			0.1				
	GNZ	PN	13 34 31			-0.4	4.98	199		4.5 4.6
		SN	35 26.5			0.1				
	ONE	PN	13 34 32			-0.5	5.06	247		
	TUA*	SN	13 35 38			1.4*	5.41	205		4.3 4.8
	KRP	PN	13 34 38.5			1.1	5.43	222		
	TRZ	PN	13 34 47			-0.7	6.19	204		
		SN	35 54.5			-0.9				
	CNZ*	EPN	13 34 52			1.5*	6.40	214		
	MNG*	EPN	13 35 01.5			-5.3*	7.61	208		
		SN	36 21			-8.4*				
	WEL*	PN	13 35 14.5			-3.7*	8.46	208		5.1
		SN	36 42.5			-7.3*				
	COB*	EPN	13 35 26			-2.3*	9.22	217		
		ESN	37 02			-5.9*				
	CIZ*	PN	13 35 53			10.1*	10.33	166		
		SN	37 37			3.0*				
		E	42							
	KAI*						10.96	216		4.9
	GPZ*	SN	13 37 47.5			-10.1*	11.34	209		5.2
	HJZ*	ESN	13 38 17			-7.9*	12.51	214		
	MSZ*	EPN	13 36 29			-4.4*	14.26	218		
	H M S								75/ 313	
JUN 03	20 50 16.0		39.81S 177.19E		12 KM	SE	1.6		AVG MAG	4.2
	+ 0.8		0.03		0.05					
			4 M S		DIR	RES	DIST	AZ	W-A	W P W S
	TRZ	IPG	20 50 25.2		U	1.0	0.39	312		
		S*	29.5			0.2				
	TUA	PG	20 50 35			-1.5	1.01	358		4.5 4.7
		I	43							
		SG	48			-2.1				
	CAZ	IP*	20 50 38.7		U	-0.9	1.32	214		
	GNZ	PG	20 50 49			5.9*	1.33	29		4.1 4.0
		SN	59.5			2.3				
	CNZ	PN	20 50 40.5			-0.3	1.41	295		4.7 4.7
		PG	45			0.3				
		SN	51 00			0.8				
	WNZ*	PG	20 50 48			2.5*	1.45	324		4.6
	MNG	IPN	20 50 41.0		D	-1.5	1.54	238		4.2 4.0
		EPG	48			0.8				
		ES*	51 04			0.1				
	WTZ	PN	20 50 45.8			-0.8	1.83	355		4.0 3.8
		PG	56.5			3.3				
		SN	51 07.5			-1.9				
	TNZ*	PG	20 51 04			2.1*	2.27	285		4.1 3.7
		SG	30			-2.4*				
	KRP*	P*	20 50 58			1.8*	2.29	325		
		EPG	51 05			2.7*				

LOCAL EARTHQUAKES

159

		SG		34.9		1.3*							
		HEL*	PG	20 51 04		0.2*	2.36	231	3.6	4.2	4.1		
			SN	19.9		-2.7*							
		ECZ*	PN	20 50 55		1.2*	2.37	27		4.3	4.1		
			ESN	51 25		2.7*							
		COB*	PN	20 51 09		-2.2*	3.63	248					
			EPG	28		-1.5*							
			SN	50		-3.2*							
			ESG	52 19		0.5*							
		GPZ*	SN	20 52 24		-6.2*	5.16	220		4.2			
		CIZ*	EPN	20 51 49		2.5*	6.23	134					
			SN	52 55.9		-0.4*							
		MJZ*	PN	20 51 48.9		-1.9*	6.52	228					
			SN	52 59		-4.0*							
JUN 04	H M S											75/ 314	
	08 27 50.7			38.16S	176.29E	153 KM	SE	0.6	AVG MAG			4.3	
	+ 0.4			0.02	0.01	4							
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S				
		WTZ	IP	08 28 12.2	U	-0.7	0.58	72					
		KRP	IP	08 28 13.2	DSE	-0.1	0.64	291					
			S	30.9		-0.2							
		TUA	IP	08 28 15.3	U	-0.0	0.93	134		4.8	4.8		
			S	34		-0.2							
		CNZ	P	08 28 17		-0.7	1.19	209		4.2	4.2		
			S	38		-0.3							
		GNZ	P	08 28 19.8	U	-0.4	1.44	110		4.6	4.7		
			S	42		-0.8							
		TRZ	P	08 28 20.0	U	-0.3	1.45	164		5.0	4.9		
			S	43.9		0.6							
		AUC	P	08 28 24.1	D	0.4	1.77	317					
		TNZ	P	08 28 24.9		0.3	1.81	239		3.3	3.3		
			S	51		1.1							
		ECZ	IP	08 28 24.8	U	0.3	1.84	76		5.0	4.9		
			S	52		1.5*							
		GBZ	P	08 28 26.4		-0.5	2.05	341					
		MNG*	IP	08 28 30.6		-2.4*	2.53	194					
			ES	29 01		-4.3*							
		CAZ*	IP	08 28 34.1	U	-1.5*	2.74	181					
			ES	29 07		-2.9*							
		ONE*	P	08 28 37		0.1*	2.84	326		3.6			
			S	29 12		-0.2*							
		HEL*	P	08 28 39.8		-3.4*	3.33	200		4.4	4.4	4.5	
			S	29 19		-4.4*							
		COB*	P	08 28 51.5		-0.5*	4.01	222		3.4	4.3		
			S	29 34		-5.2*							
		KAI*	ES	08 30 14		-6.1*	5.74	219		4.1			
		GPZ*	S	08 30 21.9		-9.2*	6.18	205		4.2			
		MJZ*	S	08 30 48		-9.4*	7.29	215					
		CIZ*	EP	08 29 43		-0.9*	7.91	139					
			S	31 10		-2.1*							
		MSZ*	ES	08 31 28		-11.2*	9.04	221					
JUN 04	H M S											75/ 315	
	18 02 35.0			43.20S	176.27E	33 KM	SE	1.5	AVG MAG			4.6	
	+ 0.5			0.03	0.03	R							
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S				
		KKY	PN	18 03 06		-0.4	2.05	292					
			I	21									
			SN	29		-1.1							
		HEL	PN	18 03 08.6	U	-0.1	2.22	329		4.0	4.4	4.6	
			SN	32.9		-1.7							
		CAZ	PN	18 03 11.0	D	1.2	2.30	359					
			ESN	35.5		-0.7							
		MNG	EPN	18 03 14.8	U	0.2	2.65	347					
		GPZ	SN	18 03 45		-0.6	2.68	258					
		COB	PN	18 03 24		-0.6	3.37	308		4.1	4.8		

LOCAL EARTHQUAKES

197

	SN	49 09		6.4*				
	SG	50 16		1.9*				
ONE*	PN	04 47 55		6.6*	9.80	29	4.8	
	SN	49 39		3.6*				
CRZ*	PN	04 48 03.5		4.9*	10.58	19		
	ESN	49 57		3.3*				
CIZ*	ESN	04 50 05.3		10.2*	10.65	92		

FELT CENTRAL OTAGO, INTENSITIES UP TO MM V

H M S							75/ 317		
JUN 05	05 10 03.5	44.53S	168.62E	12 KM	SE	1.4	AVG MAG	3.9	
+ - 0.9		0.04 0.04							
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
ROX	PG	05 10 25		-0.3	1.07	153		4.2	4.3
	SG	40		0.2					
GSP	IPG	05 10 26.5	U	1.1	1.08	69			
	SG	42		2.0					
MJZ	PG	05 10 32		-0.6	1.43	69			
	SG	51.5		-0.4					
MNW	PG	05 10 31		-1.7	1.44	209	3.6		
	SG	52		-0.2					
OMZ	PG	05 10 36.6		-1.8	1.72	109		4.2	4.2
	SG	11 00		-1.7					
WPZ	P*	05 10 41.5		0.3	2.14	176		4.1	4.0
	SN	11 06		1.7					
	S*	11		1.5					
KAI*	EPG	05 11 00		-1.2*	2.85	46	3.6		
	SG	38		-1.6*					
GPZ*	PG	05 11 04		-0.5*	3.01	75	3.8		
	ESG	45		-0.2*					
COB*	PN	05 11 15		3.4*	4.58	43		3.7	3.7
	SN	12 08		4.3*					
	SG	41		3.1*					

H M S							75/ 318		
JUN 05	07 43 46.7	35.95S	177.79E	284 KM	SE	1.0	AVG MAG	4.3	
+ - 1.1		0.06 0.06							
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	P	07 44 31		-0.0	1.85	161		4.7	4.7
	S	45 06.5		1.0					
GBZ	P	07 44 30.5		-0.8	1.88	261			
WTZ	IP	07 44 33.4	D	0.1	2.12	197		4.3	4.1
	S	45 09		-0.5					
KRP	P	07 44 40		1.5	2.66	222			
GNZ	P	07 44 38.3	D	-0.4	2.69	176		4.4	4.6
	S	45 18		-1.2					
ONE	P	07 44 39		-0.5	2.78	273	3.8		
	S	45 21		0.4					
TUA	S	07 45 23		0.3	2.89	190			4.7
TRZ*	EP	07 44 49		0.1*	3.67	192		3.8	4.8
	S	45 39		1.6*					
CNZ*					3.69	208		3.9	3.8
CRZ*	P	07 44 58		0.5*	4.44	288		4.0	
MNG*	P	07 45 03.2	U	-0.3*	5.00	200		4.1	4.1
	S	46 03		-1.6*					
CAZ*	S	07 46 11		4.4*	5.09	193			
WEL*	EP	07 45 15		1.1*	5.82	203	4.7	4.3	4.3
	S	46 21		-1.4*					
COB*	EP	07 45 23		1.1*	6.47	216			
	S	46 36		-0.6*					
GPZ*	S	07 47 27		1.3*	8.68	205	5.0		
CIZ*	S	07 47 48		13.0*	9.09	153			
HJZ*	S	07 47 53		2.5*	9.79	213			

JUN 07		H	M	S	32.73S	178.32W	33 KM	SE	1.9	AVG MAG	75/ 319
		+	-	2.0	0.09	0.13	2			4.9	
		H	M	S	DIR	RES	DIST	AZ	W-A W P W S		
ECZ	PN	08	22	02		1.7	5.57	206	4.9 4.7		
	SN		23	03.5		1.9					
WTZ	PN	08	22	11.8	D	-0.9	6.49	215			
GNZ	PN	08	22	14		-0.3	6.60	206			
	P*			35		-0.2					
	SN		23	22		-4.3					
	ES*		24	03		1.8					
ONE	EPN	08	22	18		1.4	6.77	241			
TUA	EPN	08	22	21		0.2	7.09	210			
	P*			42		-1.5					
	S*		24	07		-9.8*					
KRP	EPN	08	22	22		-0.4	7.21	222			
TRZ*	PN	08	22	29		-2.0*	7.86	209			
	SN		23	55		-1.2*					
CNZ*	PN	08	22	33		-1.9*	8.14	216			
	S*		24	34		-13.4*					
MNG*	EPN	08	22	49		-1.4*	9.31	211	5.1		
	SN		24	23		-7.9*					
WEL*	SN	08	24	41		-10.1*	10.16	211			
COB*	ESN	08	25	06		-4.3*	10.98	218			
CIZ	SN	08	25	18		0.6	11.29	173			
HJZ*	SN	08	26	23		-2.8*	14.25	215			

JUN 07		H	M	S	34.79S	178.63W	33 KM	SE	2.0	AVG MAG	75/ 320
		+	-	2.0	0.11	0.17	3			4.6	
		H	M	S	DIR	RES	DIST	AZ	W-A W P W S		
ECZ	P*	13	11	08		-3.1	3.68	217	4.9 4.8		
	S*			57		-2.3					
GNZ	PN	13	11	16		1.7	4.68	214	4.5 4.3		
	SN		12	06		-0.0					
WTZ	PN	13	11	15		-0.2	4.75	227	4.6 4.4		
	ESN		12	09		1.4					
TUA*	EPN	13	11	24.5		2.7*	5.24	219	4.7 4.6		
	ESN		12	20		0.6*					
KRP	PN	13	11	27.5		0.3	5.64	235			
	EP*			42		-2.7					
	SN		12	31		1.9					
ONE	PN	13	11	29		-0.4	5.80	258			
TRZ	PN	13	11	33		1.3	5.97	216	4.5 4.3		
	P*			50		-0.4					
	SN		12	39.5		2.4					
CNZ*	EPN	13	11	37.5		0.1*	6.40	225			
TNZ*	PN	13	11	56		9.1*	7.10	230			
MNG*	EPN	13	11	47		-4.5*	7.45	217			
	P*			12		-9.6*					
	ESN		13	09		-7.4*					
WEL*	SN	13	13	24		-9.9*	8.30	217	5.1		
COB*	ESN	13	13	47		-9.7*	9.26	225			
CIZ*	SN	13	14	06		9.6*	9.29	171			
	E			12							

JUN 07		H	M	S	35.11S	179.12E	193 KM	SE	1.3	AVG MAG	75/ 321
		+	-	1.6	0.09	0.12	25			4.5	
		H	M	S	DIR	RES	DIST	AZ	W-A W P W S		
ECZ	P	18	51	14		1.7	2.62	190	4.8 4.5		
	S			47		-0.3					
WTZ	IP	18	51	20.1	D	-0.9	3.34	210	4.6 4.4		
	S		52	02.5		-0.1					
GNZ	P	18	51	23.6	D	-1.0	3.63	194	4.7 4.7		
	IS		52	08		-1.0					

LOCAL EARTHQUAKES

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ONE	EP	18 51 28	-0.4	3.94	259				
TUA	S	18 52 19	1.6	4.01	203		4.3	4.7	
KRP	P	18 51 30	0.5	4.02	225				
TRZ*	EP	18 51 40	0.7*	4.79	202		3.9	4.9	
	S	32 36	0.7*						
CNZ*	P	18 51 41	-0.6*	4.98	214		3.9	3.9	
	ES	52 39	-0.5*						
MNG*	P	18 51 53	-4.5*	6.20	207				
	S	53 02	-5.0*						
WEL*	EP	18 52 04	-4.6*	7.05	208		4.7		
	S	53 21	-6.9*						
COB*	S	18 53 39.3	-6.1*	7.80	218				
CIZ*	S	18 54 26	2.3*	9.44	161				
HJZ*	S	18 54 52	-10.2*	11.09	214				
<p>H M S 75/ 322</p> <p>JUN 08 23 50 34.2 40.16S 173.85E 12 KM SE 2.1 AVG MAG 4.1</p> <p>+ - 0.6 0.03 0.04</p>									
		H M S DIR RES DIST AZ W-A W P W S							
TNZ	PG	23 50 55.3	-0.1	1.05	23				
	ESG	51 11	1.2						
COB	PG	23 50 59.3	U -0.5	1.26	222		4.1	4.0	
	SG	51 18	1.1						
WEL	PG	23 51 01.9	U 0.8	1.32	149	3.5	4.1	4.3	
	SG	19	0.0						
MNG	PG	23 51 00.9	-0.5	1.33	111		3.9	4.1	
	SG	18	-1.0						
CNZ	PG	23 51 04	-3.0	1.62	54		4.7	4.4	
	SG	25	-3.9						
CAZ	SG	23 51 43.5	3.3	1.96	113				
KRP	PN	23 51 16	1.0	2.59	31				
	PG	27	0.4						
	SN	49	3.1						
	SG	52 02	0.6						
KAI	SG	23 52 13	-2.3	3.00	217	3.7			
GPZ*	ESN	23 52 12	0.2*	3.65	194	3.8			
HJZ*	ESN	23 52 36	1.5*	4.58	212				
<p>H M S 75/ 323</p> <p>JUN 09 11 07 31.2 40.11S 176.85E 12 KM SE 1.4 AVG MAG 4.4</p> <p>+ - 0.4 0.02 0.03</p>									
		H M S DIR RES DIST AZ W-A W P W S							
TRZ	IPG	11 07 44.3	U 1.7	0.55	357				
	SG	52	1.8						
CAZ	PG	11 07 51	0.8	0.93	211				
	I	58							
	ESG	08 05	2.1						
MNG	IP*	11 07 52.3	U 0.2	1.17	244				
TUA	P*	11 07 54	-0.8	1.32	10				
CNZ	P*	11 07 55.3	D -0.3	1.36	311		4.4	4.4	
	ES*	08 14	0.2						
WNZ	PN	11 07 58	-0.3	1.59	338		5.0	5.0	
	ESG	08 23	-1.8						
GNZ	PN	11 07 59.6	-0.5	1.71	32		4.1	4.2	
	SN	08 22	0.4						
WEL	PN	11 08 03.3	-0.3	1.98	233	3.7	4.5	4.3	
	PG	12	0.7						
	SN	27	-1.1						
	SG	35.3	-2.5						
WTZ	PN	11 08 04.5	-1.2	2.12	3		4.4	4.2	
	SN	29	-2.5						
TNZ	PN	11 08 05.5	-0.2	2.13	295		4.7	4.3	
	P*	09.3	0.8						
	PG	13.5	-0.7						
KRP	PN	11 08 08	-1.6	2.41	334				
	P*	15	1.5						
	SG	54	1.5						

		H	M	S				SE	1.3	75/ 324		
JUN 10		10	11	20.5	40.32S	176.09E	33 KM		AVG MAG	5.9		
		+ 0.4			0.04	0.05	q			W-A	W P	W S
		I	M	S	DIR	RES	DIST	AZ				
ECZ	EPN	11	08	14		-0.2	2.74	29	4.5	4.3		
	ESN			48		1.3						
COB	PN	11	08	21		-0.8	3.29	251	4.2	4.2		
	P*			29		0.4						
	PG			34.3		-3.3*						
	ESG		09	24		1.7						
KKY	PG	11	08	40		1.5	3.33	225				
	SN			59		-1.9						
KAI*	ESN	11	09	34		-1.9*	4.77	238	4.1			
GPZ*	ESN	11	09	32		-4.0*	4.77	220	4.1			
HJZ*	EPN	11	09	01		0.6*	6.14	229				
	SN			10 06		-3.0*						
CIZ*	EPN	11	09	05		3.5*	6.22	130				
	SN			10 11		0.1*						
MSZ*	SN	11	10	51		-3.3*	8.04	233				
FELT CENTRAL HAWKES BAY (96.60) MM IV												
MNG IP* 10 11 32.3 DNE 0.7 0.55 237												
CAZ IP* 10 11 34.6 U 2.1 0.59 170												
TRZ IP* 10 11 38.0 U -0.6 0.95 37												
GNZ IPN 10 11 41.2 D 1.1 1.19 339												
WEL IPN 10 11 42.3 USE -0.3 1.39 226 5.4												
SN 12 00 0.4												
WNZ* IPN 10 11 47.8 U 1.0* 1.68 0												
TUA* PN 10 11 47 -0.3* 1.72 29 6.1 6.0												
TNZ IPN 10 11 48.9 U 1.4 1.73 310 6.1 5.9												
GNZ PN 10 11 54.2 U -0.3 2.24 42												
KRP* IPN 10 11 57.1 UNH 0.1* 2.43 350												
WTZ PN 10 11 56.0 U -1.1 2.43 17												
COB IPN 10 11 59.6 U -0.7 2.66 252												
KKY PN 10 12 00 -1.7 2.77 220												
SN 32 -1.0												
ECZ* PN 10 12 08 U -0.3* 3.25 37 5.8 6.0												
SN 42 -2.7*												
AUC* PN 10 12 14.0 D 0.9* 3.60 343												
KAI* EPN 10 12 20 -0.6* 4.15 236 5.9												
EP* 34 1.2*												
SN 13 06 -0.8*												
GPZ* EPN 10 12 20 -1.8* 4.24 216 6.6												
EP* 35 0.7*												
SN 13 05 -3.9*												
ONE* PN 10 12 30.0 E 1.4* 4.73 343 5.6												
HJZ* EPN 10 12 37.3 -2.2* 5.56 227												
EP* 50 -6.9*												
SN 13 38 -2.8*												
OMZ* EPN 10 12 44 -2.8* 6.09 217												
SN 13 50 -3.5*												
CRZ* PN 10 12 52.7 D 0.7* 6.47 334												
P* 13 08 -4.5*												
SN 14 03 0.4*												
CIZ* PN 10 12 54.1 U 0.9* 6.56 126												
SN 14 03 -1.7*												
MSZ* EPN 10 13 05 -0.0* 7.44 232												
P* 19 -10.1*												
SN 14 23 -2.8*												
WPZ* EPN 10 13 15 -0.6* 8.24 217												
SN 14 44 -0.8*												
MNH* SN 10 14 40 -5.4* 8.26 226 6.1												
FELT CENTRAL AND SOUTHERN PARTS OF THE NORTH ISLAND, AND NORTHERN PARTS OF THE SOUTH ISLAND. MAXIMUM INTENSITY AT DANNEVIRKE (63) MM VI												

JUN 11		H	M	S	41.89S	174.17E	12 KM	SE	1.1	AVG MA3	75/ 325
		23	10	06.7	0.03	0.03	?				3.9
		- 0.3									
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KKY	IPG	23	10	20.5	D	0.7	0.64	214			
	ESG			30		1.4					
MEL	IPG	23	10	22.3	D	0.4	0.75	37	3.8	4.3	4.2
	ISG			34		1.7					
COB	IPN	23	10	30.8	U	0.3	1.34	306		4.1	4.0
	ESN			48		-0.2					
MNG	IPN	23	10	33.6	D	-0.5	1.61	38		4.4	3.8
	I			43							
	ESN			53		-1.6					
GPZ	EPN	23	10	40		-1.3	2.13	211	3.9		
	P*			44		-0.2					
	ESN			11 06.5		-0.7					
KAI	EPG	23	10	51		0.8	2.15	252	3.3		
	SN			07		-0.7					
TNZ*	EP*	23	10	53.5		-0.6*	2.70	3		3.7	3.8
	ESG			11 38		0.1*					
MJZ*	PN	23	11	00		0.8*	3.43	231			
	EPG			15		-1.2*					
	SN			38		-1.1*					
GSP*	PN	23	11	03		-1.0*	3.78	232			
	I			17.5							
	SN			47		-0.6*					
OMZ*	EPN	23	11	06		-0.5*	3.97	216		3.9	
KRP*	EP*	23	11	18		0.1*	4.10	15			
	PG			31		1.4*					
	SG			12 26		1.2*					
CIZ*	SN	23	13	04		-3.6*	7.11	110			

JUN 12		H	M	S	34.92S	179.59W	12 KM	SE	2.0	AVG MA3	75/ 326
		00	11	55.7	0.08	0.15	?				4.8
		- 2.0									
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	P*	00	12	51		0.3	3.15	208		4.8	4.7
	PG			56		-3.5					
	ES*			13 30.5		-1.6					
	SG			43		1.0					
WTZ	PN	00	12	58		0.5	4.12	221		4.6	4.5
	ESN			13 44		-0.7					
GNZ	PN	00	13	00		1.6	4.19	207		4.5	4.5
	PG			17.5		-2.8					
	SN			49		2.7					
TUA	SN	00	14	00		1.7	4.68	213		4.7	4.8
KRP	PN	00	13	10		1.3	4.95	231			
	ESN			14 05		0.3					
AUC	PN	00	13	10		1.0	4.97	245			
ONE	PN	00	13	08		-1.7	5.02	258			
TRZ*	EPN	00	13	18.5		3.1*	5.44	211		4.7	4.8
	P*			31		1.1*					
	SN			14 19.5		-2.8*					
CRZ*	PN	00	13	25		-3.2*	6.39	272			
TNZ*	PN	00	13	30		1.2*	6.44	227			
MNG*	PN	00	13	33		-2.1*	6.90	213			
	P*			47		-7.9*					
	SN			14 47		-4.6*					
HEL*	SN	00	15	08		-4.1*	7.76	213	5.1		
COB*	EPN	00	13	55		-3.3*	8.64	222			
	P*			14 18		-5.5*					
	SN			15 26.5		-6.7*					
CIZ*	EPN	00	14	15		7.5*	9.32	166			
	E			15 55							
	SN			58		8.6*					
KAI*	ESN	00	16	09		-4.7*	10.35	220	5.1		

GPZ*		SN	00 16 15	-3.2*	10.63	212	5.5				
MJZ*		ESN	00 16 40	-9.3*	11.87	217					
JUN 16	H M S		38.93S	175.79E	12 KM	SE	1.8	AVG MAG	75/ 327		
	06 44	06.9	0.03	0.04	7			4.4			
		± 0.5									
	CNZ	P*	06 44	11.0	DIR	RES	DIST	AZ	W-A	W P	W S
		I		13.0		-2.5	0.32	214			
		I		14.2							
	TRZ	EP*	06 44	24.2		-1.2	1.02	128		4.8	
		I		26.2							
		E		45							
	KRP	PN	06 44	23.3		-2.9	1.02	349		4.5	4.7
		IP*		25.3		-0.1					
		S*		40		0.8					
	TUA	EPN	06 44	25.2		-1.8	1.08	84		4.7	
		IP*		27.0		0.6					
	TNZ	EPN	06 44	26.8		-0.8	1.12	256		4.6	
		IP*		28.8		1.7					
	WTZ	E	06 44	28			1.34	46		3.9	
		IP*		31		0.2					
	MNG	EPN	06 44	35.0		-0.6	1.70	188			
		I		36.8							
	GNZ	P*	06 44	41.0		2.7	1.78	81		4.5	
		I		47							
		E		45 13							
	AUC	E	06 44	49			2.21	339			
		I		52.0							
	WEL	EPN	06 44	48.0		1.8	2.48	198	4.1	4.7	4.3
		IP*		50.2		-0.1					
		I		54.2							
		ES*		45 24		1.0					
	COB	EPN	06 44	58.9		2.9	3.18	226		4.4	4.2
		I		45 01.5							
		E		49							
	GPZ	ESN	06 46	23		-1.8	5.31	205		4.4	
	FELT	OMORI (40)	MM	IV							
JUN 16	H M S		38.86S	175.39E	147 KM	SE	1.6	AVG MAG	75/ 328		
	11 38	19.2	0.05	0.04	10			4.1			
		± 1.1									
	CNZ	IP	11 38	39.7	DIR	RES	DIST	AZ	W-A	W P	W S
		EP		44		0.0	0.36	160			
	TNZ	ES	11 38	44		1.4	0.85	247		3.4	3.3
		P		39 01.8		1.2					
	KRP	S	11 38	43.0	U	-0.3	0.94	7		4.1	3.7
		S		39 00.0		-1.8					
	TRZ	P	11 38	48.1		1.3	1.31	122		4.4	4.6
		S		39 09.9		1.5					
	TUA	EP	11 38	47		-0.5	1.37	88		4.2	4.4
		ES		39 12		2.8					
	WTZ	EP	11 38	48.0		-1.1	1.53	56		3.6	
	MNG	P	11 38	52.2	U	0.6	1.76	178		4.4	4.2
		E		39 08							
		ES		14		-2.5					
	GNZ	P	11 38	55.5		0.3	2.07	85		4.1	4.4
		S		39 20.7		-2.2					
	WEL	EP	11 39	01		0.7	2.47	191	4.1	3.6	4.3
		S		30		-1.7					
	COB	P	11 39	07.8		0.4	3.02	222		4.0	4.2
		S		44		-0.2					
	GPZ	S	11 40	31		-5.9*	5.25	202		4.8	

LOCAL EARTHQUAKES

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JUN 16		H M S							75/ 329		
	14 40	11.0	39.21S	175.23E	12 KM	SE	1.1	AVG MAG	3.9		
		+ 0.3	0.02	0.02	7						
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S	
CNZ	P		14 40 17.4		1.0	0.25	87				
TNZ	P		14 40 24.0		0.6	0.66	272	3.6	3.6		
	S		33.4		0.9						
TRZ	EP		14 40 33		-1.0	1.28	106	3.4	3.5		
	E		59								
KRP	PN		14 40 34.2		-0.1	1.31	11	4.3	4.2		
	IP		35.2		0.7						
	S		51.5		-0.5						
MNG	PN		14 40 35.3		-0.3	1.42	172	4.2	4.1		
	ESN		54.5		0.2						
WEL	PN		14 40 46.0		0.8	2.10	189	4.5	3.9		
	IP		47.7		-0.4						
	SN		41 13		2.1						
COB	EPN		14 40 52.5		-0.6	2.68	225	3.9	3.8		
	EP		56		-1.9						
	SN		41 23.5		-1.4						

JUN 16		H M S							75/ 330		
	17 40	20.9	35.62S	179.66E	244 KM	SE	1.7	AVG MAG	4.2		
		+ 2.3	0.18	0.31	27						
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S	
WTZ	P		17 41 14.3		-1.3	3.19	221	4.8			
	I		15.6								
GNZ	P		17 41 16.5		-0.3	3.29	203	4.4	4.1		
	S		59.0		-1.1						
KRP	P		17 41 26.0		0.6	4.03	234	3.9			
TRZ	EP		17 41 32.9		1.5	4.53	209	4.4	4.2		
	ES		42 29		2.8						
CNZ	P		17 41 35.5		0.3	4.85	221	4.1			
MNG	EP		17 41 48.5		-0.5	5.98	212	3.8	3.8		
	ES		42 56.5		-1.9						
COB	EP		17 42 11		-0.2	7.71	223				

JUN 17		H M S							75/ 331		
	00 21	45.1	38.10S	176.60E	154 KM	SE	1.2	AVG MAG	4.2		
		+ 0.8	0.03	0.04	7						
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S	
WTZ	P		00 22 05.0	U	-1.3	0.33	69				
TUA	P		00 22 09.5		0.5	0.82	149	4.2	4.2		
	S		28.0		0.6						
KRP	P		00 22 09.2		-0.0	0.86	282	4.0	4.2		
	S		26.5		-1.4						
GNZ	P		00 22 13.0		0.4	1.24	116	4.3	4.4		
	S		32.5		-1.2						
CNZ	P		00 22 15.5		1.6	1.37	217	4.0	3.8		
	ES		37		1.0						
TRZ	ES		00 22 20.2			1.46	173	4.0	4.4		
	S		39.0		1.4						
TNZ	EP		00 22 23		1.7	2.05	237	3.7			
MNG	P		00 22 28.9		-0.0	2.66	199	4.2	4.2		
	ES		23 02		-0.5						
ONE	EP		00 22 33		0.5	2.94	322				
WEL	S		00 23 19.5		-1.7	3.48	203	4.1		4.3	
COB	P		00 22 48.0		-1.1	4.22	224	4.5	4.2		
	S		23 38		-0.4						
GPZ	ES		00 24 23		-3.8	6.34	207	4.9			

JUN 18		H M S							75/ 332		
	03 28	05.2	45.12S	167.52E	89 KM	SE	0.8	AVG MAG	4.3		
		+ 0.9	0.04	0.04	9						

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MNX	P	03	28	22.0		0.3	0.67	174			
	S			33.9		-0.4					
	P	03	28	30.8		1.4	1.32	106		4.2	4.4
	S			48.0		0.6					
	S	03	28	35		-0.4	1.80	149		4.2	4.1
WPZ	EP			57		-0.6					
	ES										
MJZ	P	03	28	43.0		-0.4	2.39	63			
	S			29		-0.8					
OMZ	P	03	28	44.0		0.4	2.41	90		4.6	4.1
	S			29		-0.2					
JUN 18		H	M	S					75/ 333		
		03	53	46.9	41.69S	171.26E	12 KM	SE	1.4	AVG MAG	4.0
				+ 1.0	0.04	0.05	R				
KAI	EP	03	54	02		-0.3	0.84	173		3.6	
	S			04.7		1.0					
COB	P	03	54	08.2		-1.3	1.26	62			
	S			14.8							
KKY	PN	03	54	18.2		-0.8	1.95	113			
	S			20.9							
GPZ	IP			23.9		2.5					
	EP	03	54	27.9		-1.6	2.25	153		3.7	
MJZ	ES			41.4		1.1					
	P	03	54	28.8		-0.1	2.37	194			
WEL	IP			34.8		0.3					
	EP	03	54	33.9		-1.7	2.67	82		3.8	4.1
MNG	ESN			58		-0.1					
	S	03	54	33.9		-0.5					
MNG	EPN			04							
	EP	03	54	40.2		1.8	3.36	73		4.3	
CNZ	EP			06		-0.3					
	P	03	54	53		4.4	4.11	54		4.2	4.2
KRP	EPN			24.9							
	S	03	54	55.9		5.7					
KRP	EPN			55							
	ESN			04		6.3	5.00	43		3.8	
KRP	ES			06		6.8					
	S			23		4.2					
JUN 18		H	M	S					75/ 334		
		13	13	50.0	39.15S	176.45E	103 KM	SE	1.2	AVG MAG	5.0
				+ 0.8	0.03	0.03	R				
TRZ	IP	13	14	07.2		1.0	0.49	145			
	P	13	14	07.0		-0.0	0.59	332		5.6	
TUA	EP			09.4							
	S	13	14	08.3	D	0.8	0.64	58		5.4	5.7
CNZ	IP			15.9		-1.3					
	S	13	14	09.0		1.0	0.71	266			
GNZ	IP	13	14	13.6	D	-0.3	1.24	20			
	S	13	14	15.8		0.9	1.33	68		4.8	
KRP	ES			33		-0.6					
	P	13	14	16.3		0.2	1.42	329		4.9	4.6
TNZ	S			34		-1.6					
	P	13	14	20.0	D	1.7	1.61	268		4.5	4.5
MNG	ES			41		1.5					
	P	13	14	19.2		0.5	1.64	207			
WEL	P	13	14	29.3		-0.3	2.49	211		4.8	4.8
	S			59.0		-0.7					

LOCAL EARTHQUAKES

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COB	P	13 14 41.5	-1.4	3.44	235				
	S	15 21.5	-1.4						
KAI*	E	13 15 12		5.10	227	4.7			
	E	57							
	ES	16 00	-3.5*						
GPZ*	EP	13 15 07	-2.0*	5.37	211	5.1			
	S	16 03.5	-6.6*						
MJZ*	EP	13 15 23.5	-2.4*	6.59	221				
	S	16 33.0	-7.1*						
OMZ*	EP	13 15 32.5	-1.8*	7.20	213				
	ES	16 48	-7.1*						
FELT WAITAHANUI (41) MM IV									
JUN 19	H M S	09 42 12.2	38.86S	175.02E	12 KM	SE	1.6	AVG MAG	75/ 335 3.7
		+ 0.4	0.03	0.02					
			4 M S	DIR	RES	DIST	AZ	W-A	W P W S
CNZ	PG	09 42 21.0			0.4	0.40	212		
KRP	PG	09 42 31.0			-0.7	0.96	347	3.5	3.9
	SG	47.2			2.5				
TUA	PG	09 42 32.0			-1.4	1.04	88	3.8	3.8
	ESG	48			0.5				
TRZ	PG	09 42 32.2			-1.2	1.04	132	3.9	3.8
	ESG	49			1.5				
	E	54							
TNZ	EPG	09 42 33.8			-2.1	1.17	253	3.7	3.4
	ESG	50.5			-1.2				
WTZ	EPG	09 42 37			-0.9	1.27	47	3.4	
	E	44.5							
GNZ	EPG	09 42 46			-1.4	1.74	84	3.6	
	E	53							
MNG	PN	09 42 43.0			1.1	1.78	188		4.1
WEL	EPG	09 43 05			1.1	2.55	198	3.5	
	E	30							
COB	EPN	09 43 04			1.8	3.25	226		3.6
JUN 19	H M S	14 51 59.9	37.98S	174.39E	12 KM	SE	1.5	AVG MAG	75/ 336 4.0
		+ 0.6	0.03	0.04					
			4 M S	DIR	RES	DIST	AZ	W-A	W P W S
KRP	P*	14 52 15.5			-0.8	0.90	87	4.2	4.1
	S*	28.0			-0.7				
AUC	EP*	14 52 19.5			-1.2	1.16	15		
	S*	37			0.7				
TNZ	P*	14 52 21.0			-0.6	1.21	181	3.9	3.6
	E	25.8							
	E	45							
CNZ	P*	14 52 25.5			-1.4	1.52	144	4.5	4.2
	S*	47			-0.1				
TRZ	EPN	14 52 41			2.0	2.46	130	3.8	
MNG	PN	14 52 45.0			1.8	2.77	163	3.8	3.5
	IP*	51.0			2.7				
	ES*	53 24			-0.7				
COB	PN	14 52 51.0			-0.3	3.36	202	4.2	3.8
	ESN	53 29.0			-1.4				
JUN 20	H M S	07 07 25.0	40.24S	175.94E	75 KM	SE	1.9	AVG MAG	75/ 337 3.9
		+ 2.0	0.09	0.12					
			4 M S	DIR	RES	DIST	AZ	W-A	W P W S
MNG	P	07 07 38.8			-0.1	0.52	223		
CAZ	P	07 07 40.3			-0.3	0.70	162		
	S	51.8			-0.9				
TRZ	EP	07 07 46.3			2.5	0.96	45	4.2	
	E	50.0							
CNZ	P	07 07 47.2			1.9	1.08	344	4.7	
WEL	P	07 07 49.0			-0.2	1.37	220	3.6	3.9 4.2

LOCAL EARTHQUAKES

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GPZ		ES	19 44 30	-3.5	5.70	216	4.5								
H	M	S			DIR	RES	DIST	AZ	W-A	W	P	W	S		
JUN 23	04	51	05.0	37.30S	177.49E	141 KM	SE	1.5	AVG MAG	75/	347	4.5			
			+ 1.3	0.08	0.05	10									
				H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
WTZ	P			04	51	27.4	D	-0.0	0.79	210		4.7	4.6		
						42.9		-2.1							
ECZ	P			04	51	28.0		-0.5	0.93	115					
GNZ	P			04	51	34.2	D	0.9	1.41	163		4.9			
						56		1.1							
TUA	P			04	51	34.9		-0.1	1.53	190		4.4	4.6		
						58		0.8							
KRP	ES	P		04	51	37.0		0.9	1.67	247		4.1	3.5		
						52		1.1							
TRZ	S	P		04	51	44.9		1.1	2.31	193		4.7	5.2		
						52		-0.5							
						13									
						18									
CNZ									2.43	218		4.1	4.1		
MNG	P			04	51	59.0		-2.5	3.66	205					
						52									
WEL*	S			04	53	02.2		-2.4*	4.50	207		4.9			
COB*	S			04	53	21.0		-2.3*	5.28	223				4.2	
GPZ*	S			04	54	06		-7.7*	7.37	208		5.1			

HUN		ES	19 44 30	-3.5	5.70	216	4.5								
H	M	S			DIR	RES	DIST	AZ	W-A	W	P	W	S		
JUN 24	01	11	10.6	44.97S	167.75E	111 KM	SE	1.4	AVG MAG	75/	348	4.2			
			+ 1.1	0.09	0.07	16									
				H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
MNW	P			01	11	39.1		0.7	0.82	187					
						53.0		-0.5							
ROX									1.21	115		3.8	4.0		
WPZ	P			01	11	50		-0.2	1.85	156		4.4	4.5		
						12		-1.0							
OHZ	EP			01	11	57		1.7	2.24	94		3.9	4.7		
						12		1.0							
GPZ	EP			01	12	17		1.6	3.73	72		4.1			
						57		-1.7							
COB	EP			01	12	36.3		-0.5	5.32	45		4.3			
MNG	EP			01	13	01		-1.0	7.15	59					

NOTE: LACK OF READINGS FROM MSZ AND ROX ALLOWS A 33 KM DEPTH RESTRICTION TO YIELD ALMOST AS GOOD A SOLUTION

HUN		ES	19 44 30	-3.5	5.70	216	4.5								
H	M	S			DIR	RES	DIST	AZ	W-A	W	P	W	S		
JUN 24	05	25	28.8	37.27S	177.59E	154 KM	SE	1.7	AVG MAG	75/	349	4.3			
			+ 1.3	0.07	0.07	9									
				H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
WTZ	P			05	25	52.2	D	-0.7	0.86	213		4.8	4.4		
						26		-2.2							
GNZ	P			05	25	58.2	D	0.1	1.42	166		4.4	4.4		
						26		-1.6							
TUA	P			05	26	00.0		0.3	1.58	192					
						03.0									
						25		1.5							
KRP	ES	P		05	26	03.0		1.4	1.75	247		3.8			
						27		0.1							
TRZ	EP			05	26	09.9		1.0	2.36	194		4.8	4.6		
						42.3		2.9							
CNZ	P			05	26	13.0		2.2	2.51	219		4.4			
THZ	E			05	26	23			3.17	232		4.2			
MNG	P			05	26	25.6		-0.9	3.73	205				4.1	
						27		0.4							
WEL	EP			05	26	35		-2.4	4.57	208		4.6	4.3	4.1	
						27		-1.3							
COB	EP			05	26	47		-0.9	5.36	223		4.0	3.8		
						27		-0.1							

JUN 26		H	M	S	37.89S	176.53E	203 KM	SE	1.2	AVG MAG	75/ 350			
		+	-	1.2	0.05	0.05	8				4.2			
					1	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
WTZ	P	05	44	33.9	05	44	33.9	U	-1.2	0.37	106			
KRP	P	05	44	37.0	05	44	37.0		0.2	0.79	267		3.8	
TUA	P	05	44	39.0	05	44	39.0		-0.2					
	S			59.0			59.0		0.6	1.04	152		4.3	4.1
GNZ	P	05	44	41.5	05	44	41.5		0.5					
	S			06.5			06.5		0.4	1.40	123		4.5	4.3
CNZ	P	05	44	43.0	05	44	43.0		-0.9					
	S			43.0			43.0		0.7	1.52	210		3.4	
TRZ	P	05	44	45.1	05	44	45.1		1.3	1.68	172		4.3	4.7
	S			10.0			10.0		-1.5					
	E			14.8			14.8							
HNG	P	05	44	57.1	05	44	57.1		0.6	2.85	196		4.4	4.1
	S			35.5			35.5		1.4					
WEL	S	05	45	52.0	05	45	52.0		0.9	3.66	201		4.4	4.1
COB	S	05	46	06.0	05	46	06.0		-0.5	4.34	221			3.6
GPZ	S	05	46	54.0	05	46	54.0		-2.3	6.51	206		4.8	
JUN 26		H	M	S	42.31S	172.89E	12 KM	SE	0.8	AVG MAG	75/ 351			
		+	-	0.2	0.02	0.02	2				3.8			
					1	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KKY	P	16	29	33.0	16	29	33.0		1.0	0.61	100			
	E			34.5			34.5							
	E			47.8			47.8							
KAI	P	16	29	41.5	16	29	41.5		1.0	1.11	258		3.2	
	E			45.0			45.0							
	S			55.8			55.8		0.4					
	E			58.0			58.0							
COB	P	16	29	41.2	16	29	41.2		-1.4	1.23	355			
GPZ	P	16	29	44.5	16	29	44.5		-0.9	1.39	187		3.5	
	I			48.0			48.0							
	S			30.3.5			30.3.5		-0.5					
WEL	PN	16	29	50.0	16	29	50.0		0.2	1.75	55		3.5	4.1 3.9
	IP			52.0			52.0		0.6					
	ES			14.5			14.5		-0.1					
	E			20.5			20.5							
HNG	EPN	16	30	01.2	16	30	01.2		-0.1	2.59	50			3.9
	IP			05.5			05.5		-0.3					
	E			09.0			09.0							
	ES			40.0			40.0		0.1					
TNZ	EPN	16	30	14.0	16	30	14.0		2.6	3.33	21		4.0	
	EP			19.5			19.5		1.1					
	E			26.0			26.0							
TRZ	E	16	31	00.0	16	31	00.0			4.06	49			4.3
KRP	EPN	16	30	35.0	16	30	35.0		3.0	4.83	26			4.0
	ESN			31.30			31.30		3.2					
JUN 26		H	M	S	42.30S	172.82E	12 KM	SE	1.3	AVG MAG	75/ 352			
		+	-	0.4	0.02	0.02	2				3.6			
					1	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KKY	P	17	13	09.7	17	13	09.7		-0.3	0.66	101			
	S			19.5			19.5		0.9					
KAI	P	17	13	18.0	17	13	18.0		1.0	1.07	257		3.0	
	E			21.0			21.0							
	S			32.2			32.2		0.9					
	I			34.5			34.5							
COB	P	17	13	17.9	17	13	17.9		-1.5	1.21	357		3.9	
	S			34.0			34.0		-1.5					
GPZ	EP	17	13	22.0	17	13	22.0		-0.9	1.41	185		3.1	
	E			24.7			24.7							
	S			40.5			40.5		-1.0					

LOCAL EARTHQUAKES

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	WEL	PN	17 13 27.7	0.3	1.77	56	3.4	4.0	3.7
		EP*	29.3	0.2					
		E	31.8						
		ES*	52	-0.6					
		E	56.5						
	MNG	EPN	17 13 37.8	-1.0	2.61	51		4.0	3.7
		E	40.5						
		EP*	43.5	0.1					
		S*	14 22	4.2*					
	TNZ	E	17 14 03		3.32	21		3.8	
	KRP	EPN	17 14 12	2.7	4.84	26		3.6	
		ESN	15 09	0.9					
		H M S	39.21S	174.71E	232 KM	SE	1.2	AVG MAG	75/ 353
JUN 27		07 13 56.1	0.04	0.05	6			4.0	
		+ - 0.9							
		H M S	4	M S	DIR	RES	DIST	AZ	H-A W P W S
	TNZ	ES	07 14 50			0.1	0.25	276	
	CNZ	IP	07 14 28.7	U	1.1	0.65	89		4.2 3.7
		E	42						
		ES	54			2.0			
	KRP	IP	07 14 32.4	D	-0.1	1.44	27		3.7
		ES	59			-1.7			
	MNG	IP	07 14 34.2	U	1.0	1.52	157		3.9 4.0
		E	37.0						
		ES	53			-1.8			
	TRZ	P	07 14 35.3		0.9	1.67	102		4.2 4.2
		E	15 00						
		ES	05			1.0			
	TUA	EP	07 14 36.3		-0.4	1.95	79		4.4 4.2
		E	15 13						
	WEL	EP	07 14 38		-0.0	2.07	179	4.0	4.2
		ES	15 09			-1.3			
	WTZ	IP	07 14 37.9	D	-1.1	2.17	56		4.1 3.5
		ES	15 12			-0.2			
	COB	P	07 14 42.3		0.9	2.41	218		4.4 3.6
		ES	15 16.5			-0.0			
	GNZ	IP	07 14 43.8	DNE	-0.3	2.65	79		4.4 3.8
		ES	15 17			-4.3*			
		H M S	37.83S	177.11E	132 KM	SE	0.9	AVG MAG	75/ 354
JUN 27		09 41 19.1	0.05	0.03	6			3.7	
		+ - 1.0							
		H M S	4	M S	DIR	RES	DIST	AZ	H-A W P W S
	WTZ	IP	09 41 36.7	U	-0.6	0.18	212		
		ES	51			-0.2			
	GNZ	P	09 41 43.3		-0.0	1.09	139		4.0 4.0
		ES	42 02			0.2			
	KRP	P	09 41 45		-0.0	1.25	265		3.2 2.9
		ES	42 05			0.2			
	TRZ	EP	09 41 51.5		1.1	1.74	187		4.1
		E	42 20						
	CNZ	P	09 41 52.8		1.2	1.84	221		3.6
	MNG	IP	09 42 05.9	U	-1.5	3.06	204		4.1 3.5
		ES	44			-0.2			
	WEL	ES	09 43 04		-0.1	3.90	207		3.7
		H M S	40.08S	174.31E	111 KM	SE	1.2	AVG MAG	75/ 355
JUN 27		15 52 04.7	0.03	0.04	5			4.4	
		+ - 0.8							
		H M S	4	M S	DIR	RES	DIST	AZ	H-A W P W S
	TNZ	IP	15 52 25.3	U	0.1	0.89	4		4.4 4.5
		ES	40.1			-0.7			
	MNG	IP	15 52 27.3	D	0.5	1.05	121		
	WEL	IP	15 52 29.6	D	0.3	1.26	164		4.4 4.3 5.0
		E	32.7						

LOCAL EARTHQUAKES

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		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
GNZ	IP	08	57	57.1	U	2.6	0.46	353			
	ES		58	00.5		-0.5					
TUA	IP	08	57	59.8	U	-0.4	0.79	291	4.0	4.3	
	ES		58	10		-1.0					
TRZ	EP	08	58	04.3		-0.8	1.09	245	3.9	3.7	
	ESG			12.3		1.5					
WTZ	PN	08	58	09.3		-1.0	1.41	322	3.7	3.1	
GNZ	ESN			28		-0.7					
	IPN	08	58	19.9	U	1.7	1.98	266	4.0	3.5	
KRP	PG			26.0		0.2					
	ESN			44		1.4					
MNG	EPG	08	58	31		-1.6	2.32	299	3.2		
	EPG	08	58	37		0.4	2.52	232	3.3	2.9	
	ESN			54		-1.7					
	E			59 21							
JUN 29		H	M	S							75/ 359
		13	13	03.7	39.10S	177.98E	12 KM	SE 1.3	AVG MAG		3.8
				+ 1.1	0.04	0.05					
GNZ	IP	13	13	14.2	U	1.5	0.46	4			
	ES			24		4.8					
TUA	EP	13	13	17		0.0	0.71	294	4.5	4.1	
	ES			28		1.3					
TRZ	EP	13	13	21		-1.0	1.00	243	3.6	3.6	
	ESG			38		0.2					
WTZ	PN	13	13	26.3		-1.4	1.36	325	3.6	3.4	
GNZ	SN			44.8		-0.8					
	EPN	13	13	36.3		1.4	1.89	266	3.7		
KRP	EPG			42		-0.1					
	EPG	13	13	48		-1.2	2.25	301			
JUN 30		H	M	S							75/ 360
		10	54	34.0	38.85S	175.71E	144 KM	SE 1.6	AVG MAG		4.1
				+ 0.9	0.04	0.04					
GNZ	IP	10	54	55.3	D	1.0	0.37	199			
	S			58		0.0					
KRP	IP	10	54	58.7	DSE	0.9	0.93	352	4.3	3.3	
	ES			14		-0.1					
TNZ	P	10	55	01.8	U	2.6	1.09	252	4.0		
TRZ	EP	10	55	01		1.3	1.12	129	3.9	4.2	
	ES			21		1.9					
TUA	P	10	55	00.9		1.3	1.13	88	4.2	4.4	
	E			02.7							
WTZ	IP	10	55	01.3	D	-0.3					
	ES			19		-0.4	1.33	50	4.1	3.9	
MNG	IP	10	55	07.2		-2.8					
	ES			20		0.7	1.77	186	4.1	3.9	
GNZ	IP	10	55	07.9		-1.9					
	P			29.3		0.9	1.82	84	4.3	4.0	
WEL	E			08.4							
	ES			31		-1.4					
COB	EP	10	55	15		-1.0	2.54	196	3.9	4.3	4.1
	ES			48		-0.0					
COB	EP	10	55	23		-1.4	3.19	225	4.1	3.9	
	ES			56 01.3		-1.5					
JUL 02		H	M	S							75/ 361
		03	01	35.9	37.85S	177.51E	72 KM	SE 1.4	AVG MAG		3.9
				+ 1.2	0.06	0.05	18				

		H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
WTZ	IP	03	01	47.9	D	-1.0	0.43	252					
	E			52									
ECZ	IP	03	01	51.9	D	-1.2	0.84	79		4.9		4.2	
	ES			02 07		1.2							
GNZ	IP	03	01	53.3	U	-0.3	0.89	153		3.8		3.7	
	ES			02 07		0.2							
TUA	E	03	01	57			0.99	196		4.1		4.1	
	ES			02 09		-0.1							
KRP	IP	03	02	02.7	D	0.3	1.56	267		3.7			
CNZ	EP	03	02	11		2.2	2.04	228		3.7		3.6	
	E			41.3									
MNG	EP	03	02	23.3		-1.3	3.18	209		3.5		3.6	
	E			03 16									
JUL 02		H	M	S				75/ 362					
		03	33	07.8	37.87S	176.02E	264 KM	SE	0.9	AVG MAG			4.2
				+ 1.0	0.05	0.05	5						
		H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
KRP	IP	03	33	43.4	U	1.3	0.39	262					
WTZ	EP	03	33	42.9		-0.5	0.77	99		3.9		3.9	
	ES			34 10		-1.2							
TUA	EP	03	33	46		-0.4	1.29	137		4.7		4.4	
	ES			34 17		0.9							
GNZ	EP	03	33	49.5		-0.2	1.75	117		4.2		4.1	
	ES			34 22		-0.1							
ECZ	ES	03	34	26.3		0.6	2.01	86				4.3	
MNG	P	03	33	58.8		-0.5	2.78	189				4.1	
	ES			34 39		-0.4							
WEL	ES	03	34	59		0.9	3.55	195	4.4			4.4	
COB	ES	03	35	05		-0.4	4.10	217				4.0	
JUL 02		H	M	S				75/ 363					
		13	45	50.4	33.51S	178.95W	272 KM	SE	1.7	AVG MAG			4.8
				+ 1.7	0.09	0.17	25						
		H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
ECZ	EP	13	47	04.3		1.2	4.65	205		5.5		5.0	
	ES			48 01		0.8							
WTZ	EP	13	47	12		-2.2	5.56	215		5.0		4.4	
	ES			48 18		-1.7							
GNZ	EP	13	47	14.5		-1.2	5.68	205		4.9		4.6	
	ES			48 21		-1.5							
ONE	EP	13	47	20		0.9	5.96	246		3.5			
TUA	EP	13	47	21.5		-0.1	6.16	210					
	ES			48 33		0.0							
KRP	EP	13	47	24		0.8	6.29	224					
TRZ	EP	13	47	33		1.9	6.93	208					
	ES			48 53		2.9							
CRZ	EP	13	47	32		-0.2	7.01	260					
MNG	EP	13	47	48		-1.3	8.38	210					
	ES			49 24		1.5							
WEL	ES	13	49	40		-1.8	9.23	211	5.5				
JUL 03		H	M	S				75/ 364					
		16	17	58.8	44.84S	167.55E	99 KM	SE	1.3	AVG MAG			4.5
				+ 1.0	0.05	0.05	13						
		H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
MNW	IP	16	18	19.2	U	0.4	0.94	178	4.6				
	S			32.4		-1.5							
ROX	IP	16	18	25.2	D	0.8	1.39	118		5.0		4.6	
	ES			44		0.5							
DMP	IP	16	18	29.3		1.5	1.67	76					
	ES			50.5		1.3							
WPZ	P	16	18	32.1		-0.1	2.03	154		4.4		4.3	
	ES			56		-1.0							
OMZ	IP	16	18	37.8	U	0.5	2.39	97		5.0		4.7	
	ES			19 05.3		-0.3							

LOCAL EARTHQUAKES

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KAI	ES	16 19 35	-1.1	3.63	52	4.2			
GPZ	ES	16 19 36	-5.0*	3.83	74	4.4			
COB	P	16 19 18.3	0.9	5.34	47		4.0	4.2	
	ES	20 16	-2.2						
JUL 03	H M S	16 34 42.1	38.48S	175.95E	178 KM	SE 1.5	AVG MAG	75/ 365	5.4
		+ - 0.7	0.03	0.04	6				
	H M S		DIR	RES	DIST	AZ	W-A	W P	W S
WNZ	IP	16 35 07.2	U	-1.3	0.20	142			
	E	29							
KRP	IP	16 35 08.0	DSE	0.6	0.64	329		5.1	4.7
	E	29							
CNZ	IP	16 35 09.8	D	1.5	0.79	203		5.1	
	ES	28		-0.5					
WTZ	IP	16 35 09.7	D	0.3	0.95	59			
	ES	28		-2.5					
TUA	IP	16 35 11.8	U	2.1	1.00	110		5.7	6.0
	I	22.0							
	E	30		-1.0					
	E	34							
TRZ	IP	16 35 14.2	U	2.2	1.27	148		5.7	
TNZ	IP	16 35 14.1	U	0.8	1.42	239		5.3	4.8
	E	25							
	ES	39		1.5					
GNZ	IP	16 35 16.8	DSW	1.3	1.63	97			
MNG	IP.	16 35 21.0		-0.3	2.17	189			
ECZ	IP	16 35 21.7	D	0.2	2.19	70		6.0	6.0
	E	55.5							
GBZ	IP	16 35 20.2	U	-2.4	2.28	350			
CAZ	IP	16 35 25.1	U	0.8	2.43	175			
	ES	55		-1.8					
WEL	IP	16 35 29.1	USE	-1.5	2.95	198		5.8	
	ES	36 07		-1.1					
ONE	EP	16 35 30		-1.1	2.98	334		5.0	
	E	36 07							
CRZ	EE	16 36 00			4.82	326		4.3	
CIZ	EP?	16 36 34		-0.4	7.86	137			
	E	38 02		-0.0					
	E	12							
MNH*	EP	16 36 52		-4.7*	9.56	218		5.8	
	ES	38 33		-9.1*					
FELT BOTH SIDES OF COOK STRAIT									
JUL 03	H M S	18 25 27.0	41.80S	174.27E	12 KM	SE 1.4	AVG MAG	75/ 366	4.5
		+ - 0.3	0.02	0.02	3				
	H M S		DIR	RES	DIST	AZ	W-A	W P	W S
WEL	IP*	18 25 38.0	UNE	-1.0	0.64	36		4.3	
	ES*	47		-0.8					
KKY	IPN	18 25 43.8		1.1	0.75	215			
COB	IPN.	18 25 50.0		-1.0	1.36	301			
MNG	IPN.	18 25 51.6		-1.3	1.49	38			
CAZ	PN	18 25 55.8		-0.2	1.72	59			
	EPG	26 03		1.0					
	E	31							
GPZ	EPN	18 26 03		-0.1	2.24	212		4.0	
	ESN	30		-0.2					
KAI	EPG	18 26 09.3		-3.0*	2.25	250		4.1	
	ES*	35		-1.2					
	ESG	45		2.2					
TNZ	EPN	18 26 10		1.8	2.61	2		4.7	4.7
	ES*	48		0.8					
CNZ	EPN	18 26 11.3		1.0	2.78	21		5.1	5.2
	ES*	50		-2.1					
TRZ	EPN	18 26 13.3		0.4	2.97	42		4.8	4.7
	EPG	26		-1.1					

	E	27	20.5										
WNZ	EP*	18 26	30	2.6	3.46	25		5.1					
TUA	EP*	18 26	33	1.3	3.71	37		4.7	4.6				
	E		36										
	E		27 27										
KRP	EPN	18 26	27	-0.1	3.99	15		4.7					
	EP*		38	1.6									
DHP	EP*	18 26	40.0	0.5	4.17	230							
	E		43.5										
	E		47										
	E		27 01										
GNZ	PN	18 26	30.0	-0.8	4.27	44		4.3	4.1				
	EPG		56	2.7									
	ESN		27 20	0.4									
WTZ	EPN	18 26	30	-2.0	4.35	30		4.2	4.0				
	EP*		43	0.5									
	ESN		27 20	-1.6									
ONE	ESN	18 28	01	-0.8	6.02	1							
CIZ	ESN	18 28	26	-1.0	7.07	111							
FELT BOTH SIDES OF COOK STRAIT													
JUL 05	H M S											75/ 367	
	09 30	33.4	31.76S	179.83E	552 KM	SE	1.6	AVG MAG	6.0				
	+ 1.2		0.09	0.15	20								
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S			
GBZ	P	09 32	10.2		-0.3	5.74	218						
ECZ	EP	09 32	13		-0.0	6.01	190						
	E		33 28										
ONE	EP	09 32	14		0.4	6.07	227	6.0					
	E		33 33		-0.1								
CRZ	EP	09 32	17.8		-0.8	6.58	244						
WTZ	P	09 32	17.8		-1.3	6.64	200						
	I		19.1										
	E		33 27.0										
	E		40.3										
	S		45.0		2.4								
GNZ	P	09 32	22.1		-0.4	7.03	192						
	E		24										
	E		33 45		-1.3								
	E		48		1.0	7.10	209						
KRP	P	09 32	24.2		1.0	7.10	209						
	E		43		4.5*								
	E		33 55		0.2	7.37	197						
TUA	EP	09 32	26		-1.3								
	ES		33 54										
	E		34 00										
TRZ	EP	09 32	33		-0.5	8.15	197						
	E		33 59.5										
	E		34 12		2.7								
CNZ	EP	09 32	36		1.9	8.21	204						
	ES		34 09		-1.2								
MNG	EP	09 32	46		-1.2	9.51	201						
	E		47.9										
	E		34 25		-3.1								
	E		31		1.0	10.34	202	6.0					
WEL	EP	09 32	56.5		1.6								
	ES		34 51										
CIZ	P	09 33	51			12.49	168						
	E		36 09										
JUL 06	H M S											75/ 368	
	04 47	27.6	36.75S	177.50E	274 KM	SE	1.2	AVG MAG	4.5				
	+ 1.1		0.07	0.07	8								
			H M S	DIR	RES	DIST	AZ	W-A	W P	W S			
ECZ	EP	04 48	07		0.1	1.25	139	5.1	4.4				
	ES		36		-1.3								
WTZ	P	04 48	06.3		-0.9	1.29	198	4.8	4.1				

LOCAL EARTHQUAKES

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	ES		33		-4.7*								
GNZ	IP	04 48	12.3	U	0.6	1.93	168		4.6	4.5			
	S		45		-1.0								
	E		50										
KRP	P	04 48	12.9		1.0	1.95	233		3.7				
	ES		46		-0.3								
TUA	EP	04 48	13.5		0.6	2.07	188		4.5	4.2			
	ES		50		1.9								
TRZ	EP	04 48	21.5		1.1	2.84	191		4.6	4.8			
	ES		49 03		1.5								
MNG	IP	04 48	34.8	U	-0.1	4.17	202		4.4	4.1			
	S		49 26.9		-0.5								
WEL	EP	04 48	44		-0.6	5.00	204	4.8	4.4	4.4			
	ES		49 43		-1.9								
JUL 06	H M S	22 45 34.1	32.17S	178.83E	354 KM	SE	2.4		AVG MAG	75/ 369			
	+ -	4.3	0.39	0.81	94					4.6			
	H M S		4 M S		DIR	RES	DIST	AZ	W-A	W P	W S		
ECZ	ES	22 48 06				-1.9	5.52	182			4.8		
WTZ	P	22 47 07				1.4	6.00	194		4.8	4.2		
	ES		48 17			-0.5							
GNZ	ES	22 48 30				2.1	6.50	186					
MNG	EP	22 47 38				-1.2	8.85	197					
	ES		49 18			0.0							
JUL 07	H M S	02 31 22.9	38.65S	176.63E	12 KM	SE	0.4		AVG MAG	75/ 370			
	+ -	0.9	0.02	0.05	9					3.0			
	H M S		4 M S		DIR	RES	DIST	AZ	W-A	W P	W S		
WNZ	IP*	02 31 30.9		U		-0.5	0.43	272					
	EPG		32			0.1							
KRP	EPG	02 31 46				0.0	1.13	309		3.0			
	ESG		32 01.9			0.2							
MNG	EPG	02 32 07				0.2	2.17	204		3.0			
	FELT	WAIRAKEI (41)	MM	IV									
JUL 07	H M S	05 04 08.3	34.77S	179.12E	307 KM	SE	1.7		AVG MAG	75/ 371			
	+ -	3.0	0.19	0.39	27					4.1			
	H M S		4 M S		DIR	RES	DIST	AZ	W-A	W P	W S		
WTZ	P	05 05 10.3				-1.2	3.64	208		4.2	3.9		
	ES		06 00			-0.8							
GNZ	ES	05 06 08				0.9	3.96	193			4.3		
KRP	EP	05 05 20				1.6	4.27	222		3.9			
MNG	P	05 05 44				-0.5	6.51	205					
	ES		07 00			-0.0							
JUL 07	H M S	12 27 51.2	37.74S	176.63E	254 KM	SE	1.0		AVG MAG	75/ 372			
	+ -	0.9	0.05	0.05	6					4.3			
	H M S		4 M S		DIR	RES	DIST	AZ	W-A	W P	W S		
WTZ	IP	12 28 23.2		U		-1.1	0.36	133					
	ES		45			-3.0*							
KRP	P	12 28 26.1		U		-0.1	0.90	258		4.0	3.1		
	ES		53			-0.6							
TUA	P	12 28 28.2				0.5	1.14	160		4.8	4.5		
	ES		56			0.1							
GNZ	IP	12 28 29.8		UNE		0.2	1.41	130		4.5	4.4		
	ES		59			-0.1							
ECZ	IP	12 28 30.3		U		0.0	1.50	89		5.4			
CNZ	ES	12 29 05				2.0	1.70	210			3.7		
TRZ	EP	12 28 34				1.3	1.82	176		4.4	5.1		
	ES		29 04			-0.8							
MNG	EP	12 28 44				-0.4	3.02	197		4.1	4.0		
	ES		29 25			-0.9							
WEL	ES	12 29 42				-0.3	3.83	202			4.1		

		H	M	S			SE			75/ 373					
JUL 07		20	42	04.4	38.04S	176.67E	160 KM	SE	1.6	AVG MAG	4.3				
				+ - 1.1	0.04	0.05									
	WTZ	IP			1	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
		E			20	42	25.3		-1.0	0.26	78				
		ES					39								
							41		-2.0						
	TUA	IP			20	42	30.1	U	0.9	0.86	154		5.1	4.4	
		ES					50		1.7						
	KRP	IP			20	42	29.7	D	0.2	0.90	277		4.0	3.9	
		ES					49		0.1						
	GNZ	IP			20	42	33.1	UNE	0.7	1.22	120		4.5	4.5	
		ES					54		0.2						
	CNZ	P			20	42	36.9		2.3	1.46	217		4.0	3.8	
		E					43	02							
	GBZ	IP			20	42	38.9	D	-2.2	2.05	332				
	MNG	IP			20	42	48.9	U	-0.6	2.74	199				
		E					43	17							
		ES					24		-0.1						
	ONE	EP			20	42	54		2.2	2.92	320		3.8		
	WEL	P			20	42	58.5		-1.5	3.56	204		4.5	4.9	4.4
		ES					43	42	-0.8						
		H	M	S			SE			75/ 374					
JUL 08		12	42	23.2	36.57S	177.80E	296 KM	SE	1.4	AVG MAG	4.2				
				+ - 1.7	0.12	0.23									
	WTZ	EP			12	43	06	DIR	RES	DIST	AZ	W-A	W P	W S	
		ES					40		-0.7	1.55	204		4.1	4.1	
									-0.3						
	GNZ									2.08	175		4.0	4.2	
	KRP	EP			12	43	12		0.0	2.25	232		3.7		
	TUA	E			12	43	59			2.29	193				
	TRZ	EP			12	43	22		2.2	3.07	194		4.5	4.6	
		E					44	08							
	TNZ	EP			12	43	28		1.0	3.76	225				
	MNG	IP			12	43	33.2	D	-1.3	4.43	203			4.1	
		ES					44	30	-0.2						
	WEL	EP			12	43	43		-1.2	5.27	206		4.2	4.2	
		ES					44	48	0.3						
		H	M	S			SE			75/ 375					
JUL 11		00	33	15.7	34.81S	179.95E	12 KM	SE	1.9	AVG MAG	4.9				
				+ - 2.3	0.09	0.17									
	ECZ	P*			00	34	18.0	DIR	RES	DIST	AZ	W-A	W P	W S	
		S*					48.5	U	0.3	3.09	201		5.1	4.8	
		PN					17.3		-1.8						
	WTZ	PN			00	34	17.3		1.9	3.97	216		5.4	4.7	
		SN					35	02.5	1.5						
	GNZ*	PN			00	34	20		2.4*	4.13	201		4.6	4.7	
		SN					35	07.5	2.5*						
	TUA	PN			00	34	24.5		0.7	4.58	209		4.9	4.8	
		P*					32		-3.1						
		SN					35	17	1.2						
	ONE	PN			00	34	23		-2.0	4.67	257				
	KRP	PN			00	34	26.8		1.0	4.72	228				
		SN					35	19.5	0.2						
	TRZ*	EPN			00	34	33.5		-0.7*	5.35	207		5.2	5.4	
		P*					47		-1.4*						
		SN					35	35	0.5*						
	CNZ*	PN			00	34	37		-0.8*	5.62	217		4.4	4.2	
	TNZ*	EPN			00	34	48		1.8*	6.24	224				
	MNG*	PN			00	34	50		-3.7*	6.79	210				
		SN					36	01.5	-7.5*						
	WEL*	PN			00	35	03		-2.1*	7.65	211		5.2		
		SN					36	20.5	-8.9*						
	COB*	EPN			00	35	10.5		-5.6*	8.47	220				

CIZ*	SN	00 36 39.3	-9.6*						
	EPN	00 35 42	11.9*	9.52	165				
	SN	37 23	8.8*						
KAI*	ESN	00 37 22	-7.9*	10.19	218	4.8			
GPZ*	SN	00 37 26	-11.7*	10.52	210	5.2			

JUL 12 H M S 41.55S 173.13E 33 KM SE 1.1 AVG MAG 75/ 376
 02 42 46.1 0.03 0.02 R 5.0
 +_ 0.3

COB	IP*	02 42 59.0	DIR	RES	DIST	AZ	W-A	W P	W S
WEL	IPN	02 43 08.0	DW	1.5	1.25	78	5.3	5.1	
	P*	11		2.0					
	S*	25.5		-0.4					
KAI	PN	02 43 12		0.4	1.62	233	4.7		
	SN	31.5		0.8					
MNG	IPN	02 43 16.6	D	-0.2	2.00	63			
	P*	21		-0.7					
	SN	39.5		-0.4					
GPZ	PN	02 43 19		-0.2	2.17	190	5.3		
	SN	45		0.8					
CAZ	IPN	02 43 22.3	D	-0.1	2.41	75			
	SN	50		-0.0					
TNZ	IPN	02 43 24.2	D	-0.1	2.55	22	5.7	5.5	
	SN	53		-0.3					
CNZ	PN	02 43 28.8	D	-1.5	2.98	39			
MJZ	PN	02 43 31.0	DNE	-1.4	3.13	218			
	SN	44 06		-1.6					
TRZ*	PN	02 43 34.5		-2.1*	3.44	56	5.4	5.7	
	SN	44 19		3.9*					
WNZ*	PN	02 43 43		2.9*	3.70	39	5.5	5.6	
OMZ*	PN	02 43 41.4	D	-1.1*	3.87	204	5.0	5.3	
	SN	44 22		-3.7*					
KRP*	PN	02 43 43.3	DSW	-1.8*	4.07	28			
	SN	44 29		-1.3*					
TUA*	PN	02 43 42.5		-3.3*	4.11	49	5.4	5.3	
	P*	51		-6.8*					
WTZ*	PN	02 43 48		-4.9*	4.63	41	4.7	4.9	
	SN	44 41.5		-2.6*					
GNZ*	PN	02 43 50.2		-4.0*	4.74	54	5.0	5.2	
	P*	44 07		-1.4*					
	SN	45		-1.5*					
ROX*	EPN	02 43 51		-4.2*	4.81	214	4.5	4.8	
	P*	44 06		-3.7*					
	SN	45.5		-2.8*					
MSZ*	PN	02 43 54.7		-2.3*	4.93	229	4.1	3.7	
	SN	44 49.5		-1.9*					
GBZ*	PN	02 44 05		-1.3*	5.63	20			
ECZ*	PN	02 44 03		-3.9*	5.68	49	5.1	5.2	
	SN	45 06		-3.3*					
MNW*	EPN	02 44 09		0.1*	5.82	222	4.9		
	SN	45 13		0.2*					
ONE*	EPN	02 44 10		0.8*	5.85	10	5.3		
	SN	45 10.5		-2.9*					
WPZ*	EPN	02 44 08		-2.8*	5.97	210	4.5	4.6	
	SN	45 15		-1.3*					
CRZ*	PN	02 44 25.5		-0.9*	7.12	357			
	SN	45 38		-5.8*					

FELT NORTHERN PARTS OF THE SOUTH ISLAND AND SOUTHERN PARTS OF THE NORTH ISLAND

JUL 12 H M S 42.29S 172.87E 12 KM SE 1.0 AVG MAG 75/ 377
 03 13 39.8 0.02 0.02 R 3.8
 +_ 0.2

KAI	EP*	03 14 00	DIR	RES	DIST	AZ	W-A	W P	W S
	PG	03		0.2	1.11	257	3.5		
		03		0.7					

	S*		15		0.3							
	SG		17		-0.3							
COB	IP*	03 14	00.7	U	-0.9	1.21	355					
GPZ	P*	03 14	05		-0.1	1.41	187		3.5			
	S*		24		0.1							
	SG		27		-0.5							
WEL	P*	03 14	11		-0.3	1.74	55		3.3	4.1	3.9	
	PG		15		-0.1							
	S*		35		1.2							
	SG		40		1.4							
MJZ	PN	03 14	19.5		0.9	2.44	225					
	EP*		23		0.3							
	PG		28		-1.2							
	S*		51		-3.9*							
MNG	PN	03 14	21		0.4	2.58	50		4.1	3.8		
	P*		24.5		-0.5							
	SG		15 04.5		-2.3							
OMZ*	EPN	03 14	28		0.0*	3.12	206		3.9	3.8		
	PG		40		-2.9*							
	ESN		15 06		1.6*							
	ESG		22.9		-2.4*							
TNZ*	EPN	03 14	33		2.4*	3.31	21		3.8	3.7		
	EPG		46		-0.7*							
CNZ*	P*	03 14	43		-1.2*	3.70	34		4.3	4.2		
	ESG		15 42		-2.5*							
MSZ*	EPN	03 14	46		1.7*	4.32	235		3.4	3.7		
	ESN		15 36		2.4*							
KRP*	PN	03 14	55		3.8*	4.82	26					
	SN		15 52		5.3*							
JUL 12	H M S										75/ 378	
	10 55	56.7	33.51S	178.73W	33 KM	SE	2.5		AVG MAG		4.6	
	+ 2.3		0.10	0.20	2							
			4	M S	DIR	RES	DIST	AZ	H-A	W P	W S	
ECZ	ESN	10 58	00			3.5	4.71	207			4.6	
WTZ	EPN	10 57	15			-2.0	5.64	216				
	SN		58 20			1.1						
GNZ	PN	10 57	15			-0.4	5.74	206		4.2	4.0	
	SN		58 22			0.5						
ONE	EPN	10 57	25			1.9	6.09	246				
TUA	EPN	10 57	24.5			-0.5	6.23	211				
	ESN		58 36			3.0						
KRP	PN	10 57	28			0.9	6.38	225				
	ESN		58 36.5			-0.3						
TRZ	SN	10 58	55			3.7	6.99	209				
CRZ	EPN	10 57	37.5			-0.0	7.16	260				
CNZ	ES*	10 59	36			-1.6	7.29	217				
MNG	EPN	10 57	51.5			-3.2	8.44	211				
	EP*		58 15			-7.5*						
	SN		59 22.5			-3.5						
	ES*	11 00	09			-3.3						
WEL*	SN	10 59	42			-4.5*	9.30	212		5.0		
COB*	ESN	11 00	16			9.7*	10.14	219				
GPZ*	SN	11 00	49			-4.8*	12.17	211		5.0		
MJZ*	SN	11 01	17			-3.1*	13.40	216				
JUL 14	H M S										75/ 379	
	04 55	30.8	40.58S	172.60E	12 KM	SE	1.5		AVG MAG		3.9	
	+ 0.7		0.03	0.03	2							
			4	M S	DIR	RES	DIST	AZ	H-A	W P	W S	
COB	IP*	04 55	40.0			-1.5	0.52	169				
WEL	PG	04 56	07			-0.1	1.79	114		3.3	4.3	4.1
	SG		30.5			-0.9						
TNZ	ESG	04 56	37			0.4	1.95	45			3.6	
KAI	PG	04 56	13			-1.1	2.14	204		3.7		
	SN		34			2.4						
	S*		36			-0.8						

CIZ*	SN	00 36 39.3	-9.6*						
	EPN	00 35 42	11.9*	9.52	165				
	SN	37 23	8.8*						
KAI*	ESN	00 37 22	-7.9*	10.19	218	4.8			
GPZ*	SN	00 37 26	-11.7*	10.52	210	5.2			

JUL 12 H M S 41.55S 173.13E 33 KM SE 1.1 AVG MAG 75/ 376
 + 0.3 0.03 0.02

		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
COB	IP*	02	42	59.0		1.4	0.56	326			
WEL	IPN	02	43	08.0	DW	1.5	1.25	78	5.3	5.1	
	P*			11		2.0					
	S*			25.5		-0.4					
KAI	PN	02	43	12		0.4	1.62	233	4.7		
	SN			31.5		0.8					
MNG	IPN	02	43	16.6	D	-0.2	2.00	63			
	P*			21		-0.7					
	SN			39.5		-0.4					
GPZ	PN	02	43	19		-0.2	2.17	190	5.3		
	SN			45		0.8					
CAZ	IPN	02	43	22.3	D	-0.1	2.41	75			
	SN			50		-0.0					
TNZ	IPN	02	43	24.2	D	-0.1	2.55	22	5.7	5.5	
	SN			53		-0.3					
CNZ	PN	02	43	28.8	D	-1.5	2.98	39			
MJZ	PN	02	43	31.0	DNE	-1.4	3.13	218			
	SN			44 06		-1.6					
TRZ*	PN	02	43	34.5		-2.1*	3.44	56	5.4	5.7	
	SN			44 19		3.9*					
WNZ*	PN	02	43	43		2.9*	3.70	39	5.5	5.6	
OMZ*	PN	02	43	41.4	D	-1.1*	3.87	204	5.0	5.3	
	SN			44 22		-3.7*					
KRP*	PN	02	43	43.3	DSW	-1.8*	4.07	28			
	SN			44 29		-1.3*					
TUA*	PN	02	43	42.5		-3.3*	4.11	49	5.4	5.3	
	P*			51		-6.8*					
WTZ*	PN	02	43	48		-4.9*	4.63	41	4.7	4.9	
	SN			44 41.5		-2.6*					
GNZ*	PN	02	43	50.2		-4.0*	4.74	54	5.0	5.2	
	P*			44 07		-1.4*					
	SN			45		-1.5*					
ROX*	EPN	02	43	51		-4.2*	4.81	214	4.5	4.8	
	P*			44 06		-3.7*					
	SN			45.5		-2.8*					
MSZ*	PN	02	43	54.7		-2.3*	4.93	229	4.1	3.7	
	SN			44 49.5		-1.9*					
GBZ*	PN	02	44	05		-1.3*	5.63	20			
ECZ*	PN	02	44	03		-3.9*	5.68	49	5.1	5.2	
	SN			45 06		-3.3*					
MNW*	EPN	02	44	09		0.1*	5.82	222	4.9		
	SN			45 13		0.2*					
ONE*	EPN	02	44	10		0.8*	5.85	10	5.3		
	SN			45 10.5		-2.9*					
WPZ*	EPN	02	44	08		-2.3*	5.97	210	4.5	4.6	
	SN			45 15		-1.3*					
CRZ*	PN	02	44	25.5		-0.9*	7.12	357			
	SN			45 38		-3.8*					

FELT NORTHERN PARTS OF THE SOUTH ISLAND AND SOUTHERN PARTS OF THE NORTH ISLAND

JUL 12 H M S 42.29S 172.87E 12 KM SE 1.0 AVG MAG 75/ 377
 + 0.2 0.02 0.02

		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KAI	EP*	03	14	00		0.2	1.11	257	3.5		
	PG			03		0.7					

LOCAL EARTHQUAKES

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MNG	PG	04 56 15			-0.3	2.20	92		3.8	3.8
	ESG	46			1.1					
CNZ	PG	04 56 26			1.5	2.65	60		4.2	4.2
	SG	57 01.5			1.2					
QPZ	SN	04 56 55			-0.4	3.12	179	3.5		
KRP	PG	04 56 39			-3.5	3.50	42			
	S	57 14.5			-3.0					
MJZ	EPN	04 56 29			1.4	3.76	204			
	SN	57 11			0.0					
FELT COBB RIVER (75) MM IV										
H M S										
JUL 15	07 35 21.7	38.535	176.14E	12 KM		SE	2.3		AVG MAG	75/ 380
	+ 0.5	0.03	0.03	4	M	S	DIR	RES	DIST	AZ
										W-A
										W P
										W S
MNZ	IPG	07 35 21.8			-2.1	0.03	274			
CNZ	P	07 35 32.8			-2.4	0.73	219			
TVA	P	07 35 35			-1.5	0.81	103		4.5	4.6
	PG	37			-1.2					
	SG	54.5			5.2					
KRP	P	07 35 37			-0.3	0.85	326			
	PG	41			2.0					
	ESG	53			2.5					
HTZ	P	07 35 38			-0.7	0.93	46		3.9	3.7
	S	47.9			-3.8					
TRZ	P	07 35 40.3			-0.6	1.06	150		4.4	4.6
	EPG	43			-0.3					
	SG	58			0.3					
GNZ	P	07 35 49			1.0	1.48	91		4.5	4.3
	PG	54			2.4					
	SG	36 20			9.4					
TNZ	P	07 35 47			-1.0	1.48	247		4.1	4.0
	ESG	36 14			2.4					
MNG	PN	07 35 54			-1.1	2.05	194			
	P	56			-1.8					
	ESG	36 32			1.3					
ECZ	EP	07 36 00			1.0	2.12	64		4.4	4.3
	ESN	22			0.1					
	SG	45			11.9					
CAZ	PG	07 36 03.9			-4.1	2.27	178			
	ESG	37			-1.2					
HEL	EP	07 36 10			-1.5	2.85	201	4.2	4.3	4.4
	EPG	17			-2.4					
	SG	52.5			-5.3					
ONE	EPG	07 36 31			4.9	3.18	333			
COB	PH	07 36 16			-0.2	3.59	226		4.1	4.1
	S	37 05			-5.1					
GPZ	SN	07 37 48			-1.8	5.70	206	4.1		
FELT TAUPO (41) MM V										
H M S										
JUL 16	11 31 55.8	45.615	167.22E	80 KM		SE	0.5		AVG MAG	75/ 381
	+ 0.5	0.02	0.03	4	M	S	DIR	RES	DIST	AZ
										W-A
										W P
										W S
MNW	IP	11 32 09.0			0.3	0.33	122	3.8		
	S	18.9			0.0					
MSZ	IP	11 32 15.8			-0.2	1.06	28		4.2	4.4
	S	31			-0.2					
ROX	P	11 32 22			0.4	1.48	86		4.3	3.9
	S	41			0.2					
WPZ	P	11 32 22.9			0.1	1.55	133		3.8	4.2
	S	41.9			-0.6					
OMZ	P	11 32 36.9			-1.1	2.66	80		4.1	3.8
HJZ	P	11 32 37.7			-2.2	2.82	56			
	S	33 11			-2.1					
KAI	ES	11 33 48			-1.9	4.31	46	3.7		
GPZ	S	11 33 45.9			-4.5	4.32	66	3.7		

COB*		ES	11 34 26	-6.9*	6.05	44					
H M S								75/ 382			
JUL 19	23 06	12.9	37.80S	177.48E	33 KM	SE	2.2	AVG MAG	4.0		
	+	0.8	0.05	0.04	R						
	H M S	DIR	RES	DIST	AZ	W-A	W P	W S			
WTZ	IP*	23 06 24.6	D	2.3	0.43	244					
ECZ	IP*	23 06 27.9	D	-1.5	0.86	83		5.1	4.6		
	S*	43		1.7							
GNZ	IP*	23 06 29.2	D	-1.8	0.95	153		4.0	4.0		
	S*	43.5		-0.4							
TUA					1.04	194		4.0	4.2		
KRP	IPN	23 06 38.2	DE	0.9	1.54	265					
	SN	57.9		1.9							
TRZ	EP*	23 06 46.9		1.0	1.82	196		3.8	4.2		
	SN	07 06.5		4.0							
	S*	09		-0.9							
CNZ	P*	23 06 46.5		-3.0	2.06	227		3.8	3.9		
	S*	07 15		-1.8							
GBZ	PN	23 06 47		-0.0	2.25	314					
TNZ	P*	23 06 58.9		-3.6	2.79	239		3.8			
MNG	PN	23 06 59		-1.3	3.21	208		3.7	3.8		
	P*	07 09		-0.2							
	ESN	39		2.7							
WEL*	SN	23 07 57		-0.0*	4.06	210		4.2	4.3		
COB*	EPN	23 07 22		-1.6*	4.92	227		3.5	3.9		
	SN	08 22		4.1*							
GPZ*	SN	23 09 03.5		-2.7*	6.94	210		4.3			
MJZ*	PN	23 08 07		0.1*	8.14	218					
	SN	09 34		-1.1*							
FELT OMAIO (28) MM IV											
H M S								75/ 383			
JUL 20	02 52	50.0	40.35S	174.43E	12 KM	SE	1.4	AVG MAG	4.0		
	+	0.3	0.02	0.03	R						
	H M S	DIR	RES	DIST	AZ	W-A	W P	W S			
MNG	IPG	02 53 07.6		0.6	0.83	109					
WEL	PG	02 53 09.5	D	-0.1	0.96	165		3.9	4.1	4.6	
	SG	24		1.4							
TNZ	PG	02 53 13.0	D	-0.6	1.17	357		3.7	4.2		
	SG	31		1.6							
CNZ	P*	02 53 15		-0.5	1.43	37		4.0	4.2		
	EPG	19.5		0.5							
	S*	33		-1.6							
COB	P*	02 53 16.7	D	0.1	1.49	240		4.2	4.5		
	PG	21.5		1.3							
	S*	37.5		1.0							
TRZ	PG	02 53 32		1.7	1.99	67		3.9	4.1		
	SN	45		-2.1							
KRP	PN	02 53 29		-1.5	2.57	20					
	P*	37		2.0							
	SN	54 00.5		-0.7							
TUA					2.60	54		3.9	3.8		
WTZ*	PG	02 53 52		-0.3*	3.08	41		3.3	3.3		
	SN	54 12		-1.7*							
KAI	SN	02 54 14.5		-0.9	3.15	225		3.7			
	ESG	34		-2.2							
GNZ	SN	02 54 13		-4.8*	3.25	59			4.3		
GPZ	SN	02 54 21		-5.4*	3.60	201		4.1			
MJZ*	SN	02 54 49		-3.6*	4.68	218					
MSZ*	EPN	02 54 23		-0.6*	6.47	226					
	SN	55 32		-3.6*							
FELT KAPITI I. (65) MM III											

JUL 20		H	M	S				75/ 384						
		03	39	59.4	37.79S	176.25E	195 KM	SE 0.5	AVG MAG	4.8				
				+ 0.4	0.03	0.02	3							
					-1	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KRP	IP				03	40	26.7	DE	0.2	0.59	257			
							48		0.6					
WTZ	P				03	40	28.2	D	-0.4	0.61	108		4.3	4.4
	ES						47		-0.6					
WNZ	P				03	40	28		0.1	0.84	188		4.8	
TUA										1.23	146		5.0	4.9
CNZ	P				03	40	32.5	D	-0.6	1.51	202		4.9	4.2
GNZ	P				03	40	34.6		0.4	1.63	122		4.7	4.9
	S						41 01		0.0					
GBZ	P				03	40	34.5		-0.3	1.69	338			
TRZ	P				03	40	35.9	U	-0.1*	1.81	166		4.9	5.2
	S						41 07		2.8*					
ECZ	P				03	40	36.5		0.5	1.81	88		5.1	4.9
TNZ	IP				03	40	38.2	U	-0.0	2.03	226		5.0	
MNG	IP				03	40	44.7		-3.4*	2.88	192			
COB	P				03	40	59.9		-3.7*	4.27	219		4.4	4.7
	S						41 49.5		-6.5*					
KAI	S				03	42	26		-10.0*	6.01	217		5.0	
GPZ	P				03	41	28		-3.9*	6.50	204		5.5	
	S						42 37		-10.3*					
HJZ	P				03	41	42		-5.0*	7.58	214			
	S						43 02		-10.9*					
OMZ	S				03	43	20		-9.7*	8.30	207			
ROX	S				03	43	40		-12.1*	9.26	212			
MSZ	P				03	42	02.5		-8.0*	9.31	220			
	S						43 41		-12.1*					
MNW	S				03	44	04		-11.2*	10.26	216		4.9	

JUL 20		H	M	S				75/ 385							
		16	53	38.3	40.26S	176.89E	12 KM	SE 1.2	AVG MAG	4.2					
				+ 0.5	0.02	0.03	2								
					-1	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
TRZ	IPG				16	53	52.7	U	0.0	0.70	358				
	ESG						54 03		0.7						
CAZ	IPG				16	53	56.3	D	1.7	0.80	216				
	S*						54 03.5		-0.5						
MNG	P*				16	53	58.5		0.3	1.10	250				
CNZ	IP*				16	54	02.7	U	-1.5	1.46	316		5.0		
	S*						21.5		-2.2						
TUA										1.47	9		4.3	4.2	
WNZ	EPG				16	54	12		-1.2*	1.72	340		4.9		
GNZ	EPN				16	54	09		-0.0	1.85	30		3.2	3.8	
	SN						32		0.0						
WEL	PN				16	54	08.5		-1.0	1.88	236		3.9	4.2	4.4
	PG						17		0.6						
	SN						31.5		-1.3						
	SG						47		3.1*						
TNZ	EPN				16	54	14		0.4	2.18	299		4.2	4.1	
	P*						16.5		-0.2						
	SN						42		1.9						
	SG						53		1.1						
WTZ	PN				16	54	13		-1.9*	2.27	3		4.1	4.0	
	SN						39		-3.3*						
KRP	PN				16	54	17		-1.5*	2.54	336				
	EP*						24		1.1*						
COB	PN				16	54	26.5		-1.5*	3.24	254		4.2	4.0	
	PG						40.5		-3.2*						
	SN						55 03.5		-2.3*						
GPZ	SN				16	55	35.5		-4.6*	4.65	221		4.3		
KAI										4.68	239		4.3		
HJZ	PN				16	55	05		-1.0*	6.03	230				
	SN						56 10.5		-3.0*						

		OHZ*	ESN	16 56 20	-4.5*	6.50	220			
		MSZ*	SN	16 56 54.5	-4.5*	7.94	233			
		FELT HAIPAWA (60) MM IV								
		H	M	S				75/ 386		
JUL 20	20 01	07.6	38.66S	176.01E	136 KM	SE	1.3	AVG MAG	4.8	
		+ 1.1	0.04	0.04	9					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P W S
WNZ	IP	20 01	26.0		D	-0.1	0.08	69		
CNZ	P	20 01	28.0		D	-0.5	0.65	214	4.7	
			43			-1.5				
KRP	IP	20 01	30.4		DSE	0.7	0.82	333		
			47			0.2				
TUA	IP						0.90	100	4.9	5.0
HTZ	IP	20 01	31.9		U	0.4	1.02	49	4.9	4.9
			49			-0.8				
TRZ	P	20 01	33			0.8	1.09	145	4.7	
			53			2.0				
TNZ	IP	20 01	35.0		U	-0.2	1.38	247	4.8	4.2
			57.9			1.3				
GNZ	IP	20 01	38.3		SE	0.9	1.58	90	4.9	4.9
			59			-1.1				
MNG	IP	20 01	40.1			-2.1	2.00	192		
ECZ*	P	20 01	46.1		U	1.1*	2.22	65	5.4	4.8
			02 16			2.4*				
CAZ*	P	20 01	44.2			-1.2*	2.25	176		
			02 10			-4.2*				
GBZ*	P	20 01	52			3.7*	2.47	350		
WEL*	IP	20 01	49.3		D	-3.3*	2.79	200	4.4	5.0 4.9
			02 21			-5.9*				
COB*	P	20 01	58			-3.8*	3.50	225	5.0 4.7	
			02 37.5			-5.7*				
KAI*	S	20 03	16			-8.1*	5.21	221	4.4	
GPZ*	EP	20 02	24			-6.2*	5.64	206	5.1	
			03 24			-10.3*				
HJZ*	P	20 02	41.5			-4.0*	6.76	216		
			03 52			-9.5*				
OHZ*	P	20 02	49			-5.7*	7.45	209		
			04 08			-10.1*				
		H	M	S				75/ 387		
JUL 21	02 51	55.5	36.89S	177.54E	178 KM	SE	0.8	AVG MAG	5.0	
		+ 0.8	0.05	0.04	8					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P W S
ECZ	P	02 52	24.6			0.4	1.14	135		
			47			0.5				
HTZ	P	02 52	24.4			-0.2	1.18	202	5.4	5.4
			46			-1.1				
GBZ	P	02 52	30.0			-0.5	1.79	291	4.1	
GNZ	IP	02 52	30.7			0.2	1.79	168		
KRP	IP	02 52	32.2		DNE	0.5	1.90	236		
			53 00.5			0.9				
TUA	P	02 52	31			-1.1	1.94	189	5.4	5.5
			53 00.5			0.2				
WNZ	P	02 52	34.0			0.3	2.08	213	5.2	
TRZ*	IP	02 52	40.8		D	-0.5*	2.72	192	5.0	
			53 19			2.4*				
CNZ*	P	02 52	41.8		D	-0.4*	2.79	214	4.9	
ONE*	P	02 52	42			-0.2*	2.80	292		
TNZ*	P	02 52	49.5			-0.0*	3.39	226	4.3	4.1
			53 36			4.9*				
MNG*	P	02 52	54.4			-3.6*	4.06	203		
CAZ*	P	02 52	57.0		D	-2.0*	4.14	194		
			53 46			-2.1*				
CRZ*	P	02 53	05.5			-0.2*	4.65	300	4.7	
WEL*	P	02 53	04.8			-4.0*	4.89	205	5.4	5.2 5.1
			54 01			-4.5*				

LOCAL EARTHQUAKES

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		H	M	S			DIR	RES	DIST	AZ	75/ 388		
		06	12	22.4	41.03S	172.74E	12 KM	SE	1.1	AVG MAG	4.3		
		+- 0.3			0.02 0.03								
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S		
COB*	P	02	53	13.5		-4.8*	5.62	220		4.4	5.0		
	S		54	17		-5.6*							
KAI*	S	02	54	54		-9.4*	7.35	218		5.2			
GPZ*	P	02	53	41		-5.5*	7.76	207		5.8			
	S		55	05		-9.1*							
ONZ*	P	02	54	06		-4.4*	9.58	209					
	ES		55	47		-9.0*							
MSZ*	P	02	54	19		-5.4*	10.66	220					
	S		56	13		-9.1*							
MNW*	S	02	56	36		-6.9*	11.59	217		5.0			
FELT COBB RIVER (75) MM IV													

		H	M	S			DIR	RES	DIST	AZ	75/ 389		
		01	18	20.8	35.90S	178.49E	245 KM	SE	2.1	AVG MAG	4.2		
		- 2.0			0.15 0.17								
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S		
ECZ	P	01	19	01.5		0.1	1.79	178		4.6	4.3		
	S			34		1.2							
WTZ	P	01	19	06.5	U	-0.5	2.40	210		4.8	4.0		
	S			42		-1.1							
GNZ	P	01	19	10.5	U	-0.5	2.76	188		4.3	4.2		
	S			48		-2.0							
TUA	P	01	19	15		0.5	3.09	200		4.3	4.3		
	S			58		1.8							
KRP	P	01	19	15.7		1.0	3.11	229					
TRZ	EP	01	19	24		0.5	3.88	199		4.9			
CNZ	P	01	19	26		0.5	4.04	214		3.6	3.6		
	S			20 23		7.4*							
MNG	P	01	19	39.5		-1.9	5.27	206		3.9	3.7		

LOCAL EARTHQUAKES

ONE	EPN	10 26 48	1.6	6.69	245	
TUA*	EPN	10 26 47	-0.8*	6.80	212	
	SN	28 07	3.3*			
KRP	PN	10 26 51	0.5	6.99	225	
	SN	28 09	1.1			
TRZ*	PN	10 26 59	1.0*	7.55	211	
	SN	28 24	2.7*			
CRZ	EPN	10 27 00.5	0.4	7.71	258	
	P*	22	-0.9			
CNZ*	SN	10 28 33	3.8*	7.88	218	
MNG*	PN	10 27 14	-3.5*	9.01	212	
	P*	39	-5.2*			
	SN	28 53	-3.3*			
WEL*	SN	10 29 11.5	-5.1*	9.87	213	5.5
	L	31 00				
COB*	SN	10 29 32	-4.8*	10.73	220	
CIZ*	SN	10 29 40	0.1*	10.86	174	
GPZ*	SN	10 30 19.5	-4.0*	12.74	212	5.3
MJZ*	EPN	10 28 22.5	0.7*	13.98	216	
	SN	30 49	-3.0*			
MSZ*	EPN	10 28 44	-0.2*	15.77	219	
	SN	31 29	-3.3*			

		H	M	S				75/ 393						
JUL 23		11 59	33.7		37.98S	179.73W	33 KM	SE 1.8	AVG MAG	4.5				
			1.4		0.07	0.10	3							
					4	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ*	P*	11 59	58						-1.0*	1.39	281			
	S*	12 00	12						-3.9*					
GNZ*	PN	12 00	04.5						1.6*	1.89	249		4.3	4.4
	SN		26						1.1*					
TUA	PN	12 00	13						0.6	2.59	250		4.3	4.6
	SN		43						1.1					
WTZ	PN	12 00	12						-0.5	2.59	269		4.8	4.6
	EP*		18						-1.4					
	ESN		39						-3.0					
TRZ	PN	12 00	22						2.2	3.12	239		4.2	4.4
	SN		59						4.1					
KRP	PN	12 00	27.5						-0.7	3.74	269			
CNZ	PN	12 00	30.8						0.4	3.90	250		4.3	4.3
	P*		38						-3.7					
	SN		01 13						-0.8					
GBZ	EPN	12 00	34						-0.7	4.21	293			
MNG	PN	12 00	39						-0.4	4.56	233		4.2	4.2
	SN		01 29						-0.8					
TNZ	PN	12 00	43.5						1.2	4.77	254		3.8	3.7
	ESN		01 37						2.0					
ONE	EPN	12 00	50						1.6	5.22	293			
WEL	PN	12 00	50						-0.5	5.38	230		4.9	4.1
	P*		01 06.5						-0.6					
	SN		48						-1.7					
CIZ	EPN	12 01	15						10.3*	6.43	159			
	SN		02 26						11.0*					
COB	PN	12 01	07						-0.0	6.60	240			
	SN		02 19						0.0					
CRZ	EPN	12 01	15						1.5	7.08	298			
GPZ*	SN	12 02	54						-1.4*	8.13	223		5.2	
KAI*	ESN	12 02	53						-3.2*	8.16	233		4.9	
MJZ*	EPN	12 01	48						1.8*	9.54	228			
	SN		03 27.5						-1.6*					
OMZ*	SN	12 03	40						0.8*	9.97	222			
MSZ*	SN	12 04	11.5						-2.2*	11.44	230			
MNW*	SN	12 04	31						-1.0*	12.23	226		5.0	

JUL 23		H	M	S				75/ 394								
		12	49	49.5	38.49S	175.80E	183 KM	SE 0.7	AVG MAG	3.8						
				+ 0.8	0.04	0.03	6									
					4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
KRP	IP				12	50	15.4	D	0.3	0.59	340					
CNZ	IP				12	50	16.0	D	0.1	0.74	195			4.0		3.6
WTZ	P				12	50	17.5		-0.6	1.06	62			3.4		3.5
							41		0.8							
TUA*	ES				12	50	40		-0.9*	1.11	107					3.8
TNZ	P				12	50	20.0	U	-0.2	1.31	237			3.8		
TRZ	S				12	50	44.5		0.2	1.33	144			3.7		4.3
GNZ	P				12	50	25		0.6	1.75	96			3.7		3.7
							50.5		-0.9							
MNG*	IP				12	50	29.4		0.7*	2.15	186			4.0		4.0
							56.5		-2.4*							
WEL*	P				12	50	35.5		-2.3*	2.91	195	4.0		4.0		4.1
							51 11		-4.0*							
COB*	P				12	50	42		-3.2*	3.51	221			3.4		3.5
							51 25		-3.1*							
GPZ*	S				12	52	11		-8.1*	5.73	204	4.1				
MJZ*	P				12	51	24		-3.9*	6.81	214					
							52 36		-8.6*							
MSZ*	EP				12	51	47		-3.8*	8.55	221					
	ES						53 17		-8.6*							

JUL 25		H	M	S				75/ 395								
		16	54	49.5	36.54S	177.63E	248 KM	SE 1.3	AVG MAG	3.9						
				+ 1.8	0.11	0.25	11									
					4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
WTZ	EP				16	55	27.8		-0.4	1.53	199			3.9		3.5
	ES						57		-1.0							
GNZ										2.12	172			3.9		3.9
KRP	P				16	55	35.0		1.3	2.17	230			3.5		
TRZ	EP				16	55	44		0.9	3.08	192			4.0		4.2
							56 26		1.2							
MNG	P				16	55	58.2		-0.4	4.41	202			4.4		3.3
							56 52		-0.4							
WEL	EP				15	56	07.5		-1.2	5.24	204			4.1		

JUL 26		H	M	S				75/ 396								
		06	08	22.2	32.06S	177.88W	33 KM	SE 2.5	AVG MAG	5.6						
				+ 3.1	0.13	0.19	9									
					4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
ECZ	E				05	11	09			6.34	207					
WTZ	EP				06	10	03		-1.2	7.25	214					
	ES						11 25		2.0							
GNZ										7.37	206					
ONE	EP				06	10	09		2.4	7.43	238					
TUA	ES				06	11	41		3.5	7.86	210					
KRP	EP				06	10	16		2.4	7.96	221					
							11 57									
CRZ	P				06	10	16.7		-0.9	8.25	251					
	ES						11 46		-0.9							
TRZ	E				05	12	02			8.62	208					
MNG	EP				06	10	40		-1.8	10.08	210					
	ES						12 30		-0.3							
WEL	S				06	12	49		-1.3	10.93	211					
GPZ	ES				06	13	53		-3.9	13.80	210	5.6				

JUL 26		H	M	S				75/ 397								
		08	35	26.8	46.44S	166.55E	33 KM	SE 1.3	AVG MAG	4.3						
				+ 1.9	0.18	0.21	9									
					4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
MNW	P				08	35	42.1		-1.6	1.00	49			4.7		4.3
	ES						56.3		0.3							

LOCAL EARTHQUAKES

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	WPZ						1.60	99		4.1	3.9
	OMZ	EP	08 36 17		1.0	3.35	67				
	MJZ	EP	08 36 26								
		I	08 36 20.3		-0.4	3.70	50			4.2	
		ES	28.8								
		E	37 01		-1.1						
			11								
	GPZ						5.12	60		4.4	
	COB	EP	08 37 06		0.9	6.98	42				
		ES	38 22		1.0						
JUL 26	H M S									75/ 398	
	11 36 57.7		44.96S	174.83W	33 KM	SE	1.7		AVG MAG	4.6	
	+ 2.0		0.13	0.11							
	CIZ	P	11 37 21		DIR	RES	DIST	AZ	W-A	W P	W S
		S	43				1.60	308		4.3	
	TRZ	EP	11 38 54				1.4	8.22	308		
	MNG	EP	11 38 52				-2.2	8.34	298		
		ES	40 24				-0.5				
	GPZ	ES	11 40 41				-0.9	9.07	274	5.0	
	COB	EP	11 39 16				1.1	9.89	289		
		ES	41 02				0.5				
	MJZ	EP	11 39 25				1.4	10.56	270		
JUL 26	H M S									75/ 399	
	21 06 16.6		40.84S	173.00E	12 KM	SE	1.0		AVG MAG	3.2	
	+ 0.5		0.04	0.03							
	COB	PG	21 06 23.8		DIR	RES	DIST	AZ	W-A	W P	W S
		SG	27.8				0.4	0.32	219		
	MNG	EPG	21 06 54.0				-1.1	1.90	84	3.2	3.0
		ESG	07 21.5				0.7				
	TNZ	ESG	21 07 23				0.1	1.96	33	3.6	
	FELT	TARAKOHE (72)									
JUL 27	H M S									75/ 400	
	00 54 25.4		39.18S	175.10E	43 KM	SE	1.5		AVG MAG	3.6	
	+ 0.7		0.04	0.05							
	TNZ	P	00 54 37.3		DIR	RES	DIST	AZ	W-A	W P	W S
		S	46.5				-0.0	0.56	269	3.4	3.7
	KRP	P	00 54 47.0				-0.6	1.30	15	3.7	3.6
		S	55 04.8				0.6				
	MNG	P	00 54 48.8				-1.0	1.46	169	3.9	3.7
		ES	55 07				-1.2				
	WTZ	E	00 54 51					1.90	52	3.2	
	WEL	P	00 55 01.0				2.0	2.12	187	3.5	4.1 3.7
		S	26				1.8				
	COB	EP	00 55 06				-0.4	2.63	223	3.4	3.5
		ES	36				-1.5				
JUL 27	H M S									75/ 401	
	06 01 18.0		45.01S	167.23E	33 KM	SE	2.2		AVG MAG	4.2	
	+ 2.2		0.15	0.13							
	WPZ										
	GSP	EP	05 01 52.3		DIR	RES	DIST	AZ	W-A	W P	W S
		S	02 16.9				1.99	147		3.9	4.2
							2.16	67			
	MJZ	P	05 01 56.0				0.2	2.52	67		
		S	02 23.8				-0.7				
	OMZ	P	05 01 57.4				0.5	2.60	93	5.0	4.2
		S	02 24.5				-1.9				
	KAI	E	05 02 52					3.90	52	4.0	
		ES	03 01				2.7				
	COB	EP	05 02 38				0.1	5.61	48	3.9	
		ES	03 36				-3.6				

FIORDLAND STATIONS NOT OPERATING

JUL 28		H	M	S	35.06S	179.47W	282 KM	SE	2.5	AVG MAG	75/ 402
		00	20	29.5	0.17	0.29	31				4.5
		+ - 3.4									
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	EP	00	21	22		-3.2	3.08	211		4.8	4.7
	ES			22		1.9					
	E			19							
WTZ	P	00	21	34.0		-2.2	4.08	223		4.8	
	I			36.0							
GNZ							4.10	209		4.2	4.1
TUA	EP	00	21	42.2		-0.1	4.62	215		4.7	
KRP	P	00	21	45.8		-0.2	4.93	233		4.4	
ONE	EP	00	21	47		-0.9	5.08	260			
CNZ	EP	00	21	59		3.3	5.74	222		4.2	
CRZ	EP	00	22	06		1.1	6.49	273			
MNG	EP	00	22	11		1.8	6.84	214			
	E			26.8							
COB	ES	00	24	05		-1.7	8.60	223			

JUL 29		H	M	S	37.93S	176.26E	209 KM	SE	1.1	AVG MAG	75/ 403
		03	48	45.9	0.05	0.04	6				4.2
		+ - 0.9									
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KRP	P	03	49	14.8		0.3	0.57	270		3.9	
	ES			36		-0.5					
WTZ	P	03	49	14.2		-0.3	0.58	95		4.1	3.9
	S			36.2		-0.4					
TUA	EP	03	49	15.8		-1.8	1.12	141		4.4	4.3
	ES			43		0.8					
GNZ							1.56	118		4.2	4.5
ECZ	EP	03	49	23		-0.7	1.83	83		4.4	4.2
	ES			54		1.1					
THZ	EP	03	49	27		2.2	1.93	229		3.7	
MNG	P	03	49	33.9		0.2	2.75	192			4.3
	ES			50		0.4					
WEL	EP	03	49	42.5		-0.5	3.54	198	4.4	4.2	4.4
	S			50		-0.2					
COB	EP	03	49	51		0.3	4.17	220		3.7	3.8
	ES			50		-0.8					
GPZ	ES	03	51	27		-4.3*	6.38	204	4.7		

JUL 29		H	M	S	38.63S	175.94E	125 KM	SE	1.5	AVG MAG	75/ 404
		09	12	51.2	0.04	0.04	8				4.7
		+ - 0.8									
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
HNZ	P	09	13	09.2		0.6	0.12	90			
CNZ	P	09	13	12.0		1.0	0.64	209		4.5	
KRP	P	09	13	13.0		1.0	0.78	336		4.0	3.9
	S			26.9		-1.1					
TUA	P	09	13	14.7		1.1	0.96	101		4.7	5.0
	S			29.5		-1.2					
WTZ	P	09	13	14.4		-0.1	1.05	52		4.5	
	E			27.0							
	S			30		-2.2					
TRZ	P	09	13	17.0		1.5	1.14	144		5.1	5.2
	S			36.4		2.3					
TNZ	P	09	13	19.8		2.1	1.34	245		4.6	
GNZ							1.63	91		4.6	5.0
MNG	P	09	13	25.6		0.1	2.01	190			
ECZ	P	09	13	28.4		-0.3	2.26	66		5.5	4.8
	S			57		-0.1					
CAZ	P	09	13	29.8		0.8	2.28	175			
WEL	P	09	13	34.8		-1.2	2.80	198	4.7	4.7	4.8
	S			14		-3.5					
COB	P	09	13	44.5		-0.4	3.48	224		4.8	4.3
	S			14		0.1					
	S			26							

LOCAL EARTHQUAKES

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CRZ	E	09 14 15				4.95	327		4.0
GPZ*	EP	09 14 10			-3.9*	5.64	205	5.0	
	S	15 10			-7.9*				
HJZ*	P	09 14 26.8			-2.3*	6.75	216		
	ES	15 37.5			-7.5*				
CIZ	EP	09 14 42			-0.5	7.75	136		
	S	16 03			-6.2*				
JUL 30	H M S	16 11 41.1	38.05S	176.11E	2.4 KM	SE	1.9	AVG MAG	75/ 405 4.3
		+ - 1.4	0.08	0.03	10				
KRP	P	16 12 09.0	4 M S	DIR	RES	DIST	AZ	W-A	W P W S
	S	29.3			0.3	0.47	286		
WTZ	P	16 12 08.8			-0.7				
	E	24.9			-0.9	0.70	85	4.2	3.9
	ES	28.7			-3.1				
TUA	EP	16 12 12.2			-0.0	1.11	133	4.2	4.3
	E	29.7							
CNZ	P	16 12 15.0			1.9	1.23	201	4.1	
	ES	39			1.1				
	E	44.5							
TRZ	EP	16 12 18.0			1.7	1.60	160	4.4	5.2
	S	46.5			3.0				
GNZ						1.61	112	4.8	4.4
TNZ	EP	16 12 20.0			2.1	1.76	230	3.7	
ECZ	P	16 12 19.6			-0.3	1.96	80	4.8	
MNG	P	16 12 27.2			0.2	2.61	191		
	S	13 00.9			-1.9				
WEL	P	16 12 36.0			-0.1	3.39	197	4.4	4.4 4.2
	S	13 18.2			-0.5				
COB	EP	16 12 44.5			0.9	4.00	220	3.9	3.9
	S	13 32			0.0				
GPZ	ES	16 14 19			-3.7	6.22	204	4.8	
JUL 30	H M S	20 28 40.7	33.19S	179.32W	439 KM	SE	2.4	AVG MAG	75/ 406 5.2
		+ - 2.5	0.25	0.37	17				
ECZ	EP	20 30 06	4 M S	DIR	RES	DIST	AZ	W-A	W P W S
	ES	31 09			2.5	4.82	201		
WTZ	EP	20 30 08.8			-3.1	5.65	211	5.1	4.5
	I	11.8							
	E	31 04.0							
	ES	21			-2.6				
GNZ						5.85	201		
KRP	EP	20 30 19			0.2	6.31	220		
	ES	31 40			3.8				
CNZ	P	20 30 30			0.6	7.29	213		
MNG	P	20 30 42			-0.8	8.50	208		
	E	32 17.2							
	S	19.8			0.4				
WEL	ES	20 32 36			-0.6	9.35	209	5.6	
COB	EP	20 31 01			0.2	10.11	216		
	ES	32 49			-3.0				
GPZ	ES	20 33 37			2.0	12.23	209	5.6	
JUL 31	H M S	04 09 20.7	39.79S	177.09E	12 KM	SE	1.0	AVG MAG	75/ 407 3.8
		+ - 0.9	0.05	0.05	3				
TRZ	IP*	04 09 27.2	4 M S	DIR	RES	DIST	AZ	W-A	W P W S
	S*	10 02			0.2	0.31	319		
CNZ	P*	04 09 43.2			-1.2	1.32	296	4.6	4.4
	S*	10 02			-0.1				
GNZ						1.36	33	3.7	
MNG	EP*	04 09 46.8			-0.3	1.48	235	3.2	
	E	55							

	WTZ	EP*	04 09 52	-0.6	1.80	358		3.6			
	TNZ	EP*	04 10 00	1.0	2.17	285		3.8			
	KRP	EPN	04 09 57.9	1.0	2.22	327		3.3			
	WEL	E	04 11 51		2.31	229	3.5		3.9		
	COB	E	04 10 22		3.56	247		3.8			
JUL 31	H	M	S								75/ 408
	13	48	38.7	36.45S	178.13E	130 KM	SE 1.9	AVG MAG			4.1
			+ 1.9	0.12	0.15	20					
	ECZ	EP	13 49 03	DIR	RES	DIST	AZ	W-A	W P	W S	
		ES	25.9		-1.9	1.28	165		4.4	4.6	
		E	30		0.6						
	WTZ	P	13 49 09.8		-0.7	1.78	210		4.7	4.2	
		I	11.8								
		S	34		-0.7						
	GNZ					2.19	182		3.7	4.1	
	KRP	P	13 49 21.0		0.7	2.54	234		3.6		
	TRZ	ES	13 50 10		1.5	3.26	198			4.4	
	CNZ	EP	13 49 35		3.2	3.42	216		3.8	3.9	
		E	50 23								
	MNG	EP	13 49 47		-1.2	4.65	206		3.6	3.7	
		E	59								
		ES	50 41.9		-0.1						
	COB	ES	13 51 19		-1.5	6.26	221				
JUL 31	H	M	S								75/ 409
	17	40	39.5	39.85S	174.10E	117 KM	SE 1.6	AVG MAG			4.2
			+ 1.0	0.04	0.05	11					
	TNZ	P	17 40 56.2	DIR	RES	DIST	AZ	W-A	W P	W S	
		ES	41 10		1.4	0.70	18		3.9		
	MNG	P	17 41 01.9		0.8	1.30	126		4.2		
		S	18.5		-1.8						
	WEL	P	17 41 04.6		1.1	1.52	161		4.4	4.3	
		S	24		-0.7						
	COB	P	17 41 05.8		1.2	1.62	220		4.5	5.0	
		S	27.0		0.4						
	TRZ	EP	17 41 13		2.2	2.12	83		4.2	4.5	
		ES	38.5		1.1						
	KRP	P	17 41 12.0		-0.3	2.23	31		3.7	3.6	
		S	38.0		-2.0						
	WTZ	EP	17 41 20.0		-1.7	2.92	51		3.8		
		E	25								
	GNZ					3.27	70		4.1	3.9	
	KAI	E	17 41 55			3.36	216	4.1			
		ES	42 05		-1.9						
AUG 04	H	M	S								75/ 410
	04	23	49.5	39.43S	173.94E	12 KM	SE 1.4	AVG MAG			3.1
			+ 0.8	0.03	0.04	9					
	TNZ	PG	04 24 00.0	DIR	RES	DIST	AZ	W-A	W P	W S	
		EPG	04 24 14.8		1.9	0.42	55				
	CNZ	EPG	04 24 32.0		-0.3	1.27	80		3.0	3.1	
		ESG	47		0.6						
	MNG	PG	04 24 24.0		0.6	1.68	136		3.1	3.1	
		SG	47		0.9						
	COB	ESG	04 24 54		0.5	1.90	209			3.2	
	KRP	EPG	04 24 27		-2.0	1.95	40		2.9	3.0	
		ESN	46		0.3						
	WEL	E	04 24 52			1.96	161	3.2			
		ESG	54		-1.6						
AUG 04	H	M	S								75/ 411
	21	57	51.2	37.28S	176.79E	336 KM	SE 0.8	AVG MAG			4.8
			+ 0.7	0.05	0.05	5					

LOCAL EARTHQUAKES

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		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S		
WTZ	P	21	58	34.0		-0.6	0.73	167		4.8	4.6		
	S			59.06		-2.6*							
KRP	P	21	58	36.7	D	0.2	1.18	236		4.7	3.4		
	ES			59.12		0.1							
ECZ	P	21	58	37.8		-0.2	1.46	107		5.2	4.8		
	I			39.0									
	E			59.09.9									
	ES			14.9		-0.0							
TUA	P	21	58	38.6	U	0.1	1.56	169		5.3	4.9		
	S			59.15		-0.6							
GNZ							1.68	145		5.0	4.6		
CNZ	P	21	58	42.8		0.2	2.15	207		4.8			
TNZ	EP	21	58	48.8		1.4	2.69	224		4.5			
MNG	P	21	58	54.8		0.2	3.49	197					
	E			59.39									
	S			45		0.7							
WEL	P	21	59	03.5		0.5	4.30	201	5.2	4.6	5.0		
	S			59.9		0.2							
COB	P	21	59	08.5		-1.5	4.94	218		4.7	4.8		
	S	22	00	11		-0.8							
AUG 04											75/ 412		
	H	M	S						AVG MAG		4.2		
	22	00	47.2	39.16S	173.79E	12 KM	SE	1.0					
			+ 0.5	0.03	0.03	R							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
TNZ	P*	22	00	56.0		-0.2	0.46	93					
CNZ	IP*	22	01	10.8		-0.9	1.37	92		4.4	4.7		
	S*			29.0		-1.0							
KRP	EPN	22	01	17.9		-0.1	1.85	49		3.9	4.1		
	IP*			21.0		1.1							
	E			28									
MNG	PN	22	01	19.2		-0.1	1.95	139					
	ESN			44		0.5							
COB	PN	22	01	21.0		-0.1	2.08	202		4.4	4.4		
	IP*			24.8		0.9							
	ESN			45		-1.6							
WEL	EPN	22	01	23.8		-0.4	2.25	161	3.8	4.1	4.1		
	I			25.8									
	I			49.8									
	ESN			52		1.4							
FELT WAREA (46)													
AUG 05											75/ 413		
	H	M	S						AVG MAG		5.6		
	03	37	15.2	31.57S	178.31E	33 KM	SE	1.7					
			+ 2.5	0.14	0.27	R							
				I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	EP	03	38	42		0.1	6.12	178					
	S			39.48		-0.8							
WTZ	P	03	38	49		2.0	6.49	189					
	ES			39.59		1.1							
GNZ							7.07	182					
MNG	P	03	39	22.8		-2.0	9.32	193					
	S			41.06		0.5							
WEL	ES	03	41	23		-1.1	10.11	195	5.6				
COB	E	03	39	20			10.51	204					
AUG 05											75/ 414		
	H	M	S						AVG MAG		3.9		
	06	47	24.9	41.95S	174.19E	33 KM	SE	1.9					
			+ 0.6	0.04	0.05	R							
				I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KKY	EP*	05	47	37.4		-1.0	0.68	213					
	I			38.0									
	ES*			49.8		1.5							
WEL	P*	05	47	37.5		-1.5	0.71	38	3.9	4.1	4.2		
	S*			49		-0.1							

	COB	P*	05 47 48.0	-1.2	1.33	304		4.2	4.1
		S*	48 07	-0.2					
	MNG	P*	05 47 49.8	-3.4	1.57	39		3.8	3.9
		S*	48 15	0.7					
	GPZ	E	05 48 19.5		2.17	211	3.2		
		ES*	32	0.0					
	CNZ	EPN	05 48 10.2	3.0	2.84	22		3.8	4.2
		E	13						
		IP*	15.2	0.3					
		ES*	54	1.7					
		E	58						
	KRP	E	05 48 32		4.06	15			
AUG 06	H M S		38.92S 176.03E	12 KM	SE	2.0		75/ 415	
	20 27	56.5	0.04 0.04					AVG MAG	3.6
		+ 0.7							
			H M S	DIR	RES	DIST	AZ	W-A	W P W S
	CNZ	PG	20 28 08.2		0.8	0.53	225		3.7 4.0
		SG	14.5	-0.2					
	TUA	E	20 28 19		0.3	0.88	89		3.7
	KRP	PG	20 28 16.7		0.3	0.98	337		3.5 3.6
		SG	27.8	-1.8					
	WTZ	EPG	20 28 23	3.6	1.13	42			3.3
	GNZ	E	20 28 37		1.57	84			
		ESN	43	-0.5					
		ESG	48	-1.5					
	MNG	EPG	20 28 33.2	-0.5	1.84	193			3.7
		I	35.3						
	COB*	EPN	20 28 54	5.6*	3.39	227			3.6
AUG 07	H M S		36.70S 179.84W	183 KM	SE	1.2		75/ 416	
	04 32	05.7	0.11 0.13					AVG MAG	4.5
		+ 1.8							
			H M S	DIR	RES	DIST	AZ	W-A	W P W S
	ECZ	P	04 32 38.5		-0.9	1.63	232		4.8
		E	33 06						
	GNZ	P	04 32 50.0		-0.1	2.58	221		4.3 4.3
		S	33 25	0.8					
	WTZ	P	04 32 52.2	-1.0	2.84	242			5.0
	TUA	P	04 32 58	0.7	3.19	228			5.0
	KRP	P	04 33 05.8	-0.3	3.89	250			4.3
	CNZ	P	04 33 15.0	2.0	4.42	234			4.3
	MNG	EP	04 33 24	-1.1	5.36	222			4.0 4.0
		I	26.0						
		ES	34 27	0.2					
	WEL	ES	04 34 46	-0.8	6.22	221		5.0	
	COB	ES	04 35 12	0.4	7.26	231		5.1	
AUG 07	H M S		37.90S 176.40E	198 KM	SE	1.2		75/ 417	
	23 27	47.9	0.05 0.04					AVG MAG	4.0
		+ 1.3							
			H M S	DIR	RES	DIST	AZ	W-A	W P W S
	WTZ	P	23 28 13		-1.9	0.47	101		
	KRP	P	23 28 15.0		-0.8	0.68	267		3.6 3.5
		S	38.1	0.8					
	TUA	P	23 28 19	0.7	1.08	147			4.1
	CNZ	P	23 28 22.8	1.4	1.46	207			3.6 3.4
		E	55						
	GNZ	P	23 28 22.2	0.7	1.48	121			4.2 4.2
		S	48	0.5					
	ECZ	EP	23 28 25	1.2	1.71	84			4.3 4.1
		ES	50	-1.4					
		E	53						
	MNG	P	23 28 35.8	-0.0	2.81	194			4.2 4.1
		S	29 13	0.2					
	WEL	ES	23 29 29	-0.9	3.61	200		4.3	
	COB	ES	23 29 44	-0.5	4.26	221			3.7

LOCAL EARTHQUAKES

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AUG 08	H M S	44.73S	167.63E	12 KM	SE	2.3	AVG MAG	75/ 418			
	07 06 23.5	0.13	0.17					3.8			
	+ - 2.9										
MNW	P*	07 06 42.5		DIR	RES	DIST	AZ	W-A	W P	W S	
	ES*				-0.1	1.05	182	4.1			
					1.2						
GSP	ESN	07 07 19			3.6	1.78	71				
MJZ	EPN	07 06 57			-1.1	2.13	71		3.1	3.6	
	ESN	07 24			-0.0						
OMZ	EPN	07 06 59			-1.7	2.32	100		4.0	4.1	
	ESN	07 27			-1.8						
AUG 08	H M S	44.85S	167.50E	12 KM	SE	1.5	AVG MAG	75/ 419			
	13 28 42.6	0.05	0.07					4.7			
	+ - 1.2										
MNW	IP*	13 29 00.5		DIR	RES	DIST	AZ	W-A	W P	W S	
	ES*				0.9	0.93	175	4.3			
GSP	IPN	13 29 15.9	D		-0.3	1.94	69				
	EPG	24			2.1						
	ESN	39			0.5						
	ES*	45			2.4						
MJZ	IPN	13 29 19.5	D		0.1	2.29	69		4.7	4.9	
	E	31									
	ESN	46			-1.2						
OMZ	IPN	13 29 21.2	D		-0.1	2.43	96		5.2	4.7	
	ESN	49			-1.5						
GPZ	EPN	13 29 39			-2.0	3.87	74		4.5		
	ESN	30 25			-0.6						
COB	EPN	13 30 02			0.5	5.37	47		4.4	4.7	
	ESN	31 00			-2.0						
AUG 09	H M S	39.47S	173.57E	12 KM	SE	1.4	AVG MAG	75/ 420			
	00 45 38.5	0.03	0.05					4.3			
	+ - 0.7										
TNZ	EP*	00 45 53		DIR	RES	DIST	AZ	W-A	W P	W S	
	E	46 06			1.5	0.69	66				
CNZ	IPN	00 46 05.6	D		0.4	1.56	81		4.6	4.6	
	ESN	26.5			1.3						
COB	PN	00 46 07.0			-0.5	1.73	201		4.3	4.4	
	ESN	30			0.5						
MNG	PN	00 46 09.0			-0.4	1.86	128		4.2	4.5	
	IP*	09.7			-1.7						
	ESN	31.5			-1.0						
WEL	IPN	00 46 12.9	D		1.2	2.03	154		3.8	4.3	4.3
	ESN	37			0.4						
	ESG	51			4.0*						
KRP	EPN	00 46 14			0.2	2.18	46				
	EPG	20			-2.7						
	ESN	41			0.7						
AUG 09	H M S	41.70S	174.13E	12 KM	SE	1.4	AVG MAG	75/ 421			
	11 34 23.5	0.03	0.02					4.3			
	+ - 0.3										
WEL	IP*	11 34 34.0		DIR	RES	DIST	AZ	W-A	W P	W S	
	EPG				-1.3	0.63	49	4.0	4.5	4.4	
	ES*	37			0.6						
	ESN	44			-0.0						
	ESN	49			1.5						
KKY	IP*	11 34 39.9			1.8	0.79	204				
COB	IPN	11 34 45.8	D		0.3	1.22	300		4.5	4.5	
	ESN	35 03.5			1.5						
MNG	IPN	11 34 48.3	D		-0.9	1.48	44				
CAZ	PG	11 34 58	U		-1.2	1.76	64				
	ESG	35 23			-0.0						

	KAI	EP*	11 35 01	-1.0	2.19	247	4.0						
		ESG	35	-2.4									
	GPZ	EPN	11 34 59	-1.1	2.28	208	3.7						
	TNZ	EP*	11 35 08	0.4	2.52	4		4.2	4.2				
		ESG	48	-0.3									
	CNZ	EP*	11 35 10	-1.1	2.72	24		4.8	4.9				
		E	13										
		E	51										
	TRZ	EPN?	11 35 11	1.5	2.96	45		4.3	4.1				
		E	20										
		E	36 08										
		E	42										
	MJZ	EPN	11 35 17.5	0.2	3.54	228							
		EP*	24	-1.1									
		ES*	36 14	2.6									
	KRP	EP*	11 35 28	-3.7*	3.92	16							
		E	36 27										
		H	H	S								75/ 422	
AUG 09	16	48	13.6	38.03S	176.68E	12 KM	SE	1.6		AVG MAG		4.6	
			+ 0.4	0.03	0.03	R							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	WTZ	IP*	16 48 18.3	U	-0.6	0.25	79						
	WNZ	EP*	16 48 27.1		-0.4	0.75	217				4.8	5.1	
		ESG	37.5		-1.7								
	TUA	IP*	16 48 27.8	U	-1.5	0.86	155				5.2	5.4	
		ES*	39		-2.0								
	KRP	IP*	16 48 30.8	E	0.5	0.91	276						
	GNZ	PN	16 48 37.0	UNE	1.4	1.22	120						
		IP*	37.4		1.9								
	CNZ	IPN	16 48 38.9	D	-0.1	1.47	217				4.7	4.6	
		EPG	42		-1.3								
		E	49 06										
	ECZ	EPG	16 48 45		0.7	1.51	78				4.9	4.4	
		E	49 14										
	TRZ	PN	16 48 41.0		1.2	1.52	176				5.0	4.9	
		EP*	42.5		1.8								
		ESG	49 07		2.0								
	GBZ	EPN	16 48 45.5		-1.6	2.05	332						
	TNZ	EPN	16 48 50		1.7	2.14	237				4.3	3.8	
		EPG	56		-0.9								
		ESG	49 28		2.2								
	MNG	PN	16 48 55.3		-1.3	2.74	199				4.6	4.4	
		EP*	49 03		1.4								
		E	05		4.3*								
		ES*	42										
		E	50 09										
	CAZ	EPG	16 49 11		-1.0	2.89	187						
		E	57										
		E	50 18										
	ONE	EPG	16 49 15		2.3	2.92	320			3.7			
		E	50 11										
	WEL	EPN	16 49 07		-0.9	3.57	204			4.4	4.4	4.3	
		E	19										
		ESG	50 10		-3.9*								
	CRZ	EPG	16 49 49		-2.4	4.84	317						
	CIZ	E	16 50 10			7.81	141						
		ESN	51 30		-1.3								
	FELT KAHERAU AND TE TEKO (34) MM IV												
		H	H	S									75/ 423
AUG 09	17	03	20.5	37.88S	176.75E	12 KM	SE	2.0		AVG MAG		3.2	
			+ 1.3	0.07	0.04	R							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	WTZ	IP*	17 03 25.8	U	0.6	0.21	120						
		E(S*)	30.9		2.0								
	KRP	EP*	17 03 37.5		-0.6	0.97	267						

LOCAL EARTHQUAKES

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TUA	IP*	17 03 35.4	U	-2.9	0.98	162		3.6	3.7
	ES*	49		-2.5					
GNZ	EPN	17 03 44		1.0	1.25	128		3.4	3.0
	E	04 07							
CNZ	EPN	17 03 47.5		-0.5	1.62	215		3.0	2.8
	ESG	04 18		2.7					
TRZ	EPN	17 03 50		1.2	1.67	178			
MNG	EP*	17 04 10		-1.3	2.91	200			
	ES*	50		0.4					
FELT KAHERAU (34) M III									
AUG 09	H M S	23 12 59.8	46.11S	165.44E	33 KM	SE	2.7	AVG MAG	75/ 424 3.9
		+ 4.2	0.40	0.24					
	H M S	23 13 22			DIR	RES	DIST	AZ	W-A W P W S
MNW	PN	41				-2.4	1.56	78	3.7
	ESN	41				-2.0			
WPZ	EPN	23 13 59				1.3	2.42	104	4.1 4.2
OHZ	EPN	14 45				3.0	3.98	77	4.0
MJZ	EPN	23 14 01				1.1	4.15	61	3.9 3.7
	E	17							
	ESN	45				-1.0			
AUG 11	H M S	13 39 44.5	35.79S	179.86E	293 KM	SE	1.3	AVG MAG	75/ 425 4.3
		+ 1.4	0.10	0.13					
	H M S	13 40 40.7			DIR	RES	DIST	AZ	W-A W P W S
WTZ	P	41 16				-1.3	3.18	225	4.5 4.2
	E	41 16							
GNZ	P	13 40 43.4				1.1	3.21	207	4.5
	E	44.9							
	ES	41 27				-0.4			
TUA	EP	13 40 47				-0.6	3.71	215	4.3
	E	41 07							
	ES	38				1.1			
KRP	EP	13 40 52				0.4	4.07	237	
	ES	41 44				-0.0			
CNZ	EP	13 41 01				0.7	4.83	224	3.9 3.7
	E	34							
	ES	42 07.5							
MNG	EP	13 41 13				-0.3	5.93	214	3.9 3.9
	ES	42 21				-2.0			
WEL	ES	13 42 43.0				1.3	6.78	214	5.5
AUG 11	H M S	14 45 30.3	38.03S	176.71E	12 KM	SE	1.3	AVG MAG	75/ 426 3.6
		+ 0.5	0.03	0.02					
	H M S	14 45 35.0			DIR	RES	DIST	AZ	W-A W P W S
WTZ	IP*	38.5				-0.2	0.22	80	
	ES*	38.5				-0.1			
TUA	IP*	14 45 44.1			U	-1.9	0.85	156	4.0 4.3
	ES*	57.5				-0.1			
KRP	EP*	14 45 47				-0.3	0.93	276	3.4 3.6
	ES*	46 00.5				0.5			
GNZ	IPN	14 45 53.1			U	1.0	1.20	121	3.8 3.6
	ESG	46 12				1.1			
CNZ	EPN	14 45 54.5				-1.5	1.49	218	3.3 3.4
	ESG	46 22.5				2.0			
TRZ	EPN	14 45 57.5				0.9	1.53	177	3.7 3.7
	E	46 29							
MNG	E	14 46 10					2.76	200	3.4 3.2
	E	21							
	ESG	47 02				-1.4			

AUG 11		H	M	S	38.07S	176.23E	182 KM	SE	1.7	AVG MAG	75/ 427				
		19	06	35.5	0.05	0.05	9				W-A	W	P	W	S
		+ - 1.3													
WTZ	IP	19	07	00.0			DIR	RES	DIST	AZ					
	ES			18			D	-1.0	0.56	81				4.5	4.1
KRP	EP	19	07	01				-0.2	0.61	284					
	ES			20.5				-0.4							
TUA	P	19	07	04.7				1.1	1.00	137				4.3	4.8
	E			20											
	ES			25				-0.3							
	E			27											
CNZ	P	19	07	07.0				1.3	1.26	207				4.3	3.9
	ES			32				2.9							
GNZ	IP	19	07	08.9			D	1.2	1.48	113				4.2	4.3
	ES			32.5				-0.1							
TRZ	EP	19	07	10				1.7	1.54	164				4.4	5.0
	ES			35				1.5							
TNZ	P	19	07	12.9			U	1.4	1.86	233				4.2	
MNG	IP,	19	07	19.8				-0.5	2.62	193				4.4	
	E			48											
	ES			53				-1.7							
CAZ	IP	19	07	23.0			U	0.2	2.83	181					
	ES			59				-0.3							
WEL	IP	19	07	28.8			D	-1.2	3.41	200				4.3	4.4
	ES			08 09				-3.0						4.5	

AUG 12		H	M	S	34.97S	179.94W	33 KM	SE	2.5	AVG MAG	75/ 428				
		21	56	10.6	0.11	0.12	9				W-A	W	P	W	S
		+ - 2.1													
ECZ	EPN	21	56	58			DIR	RES	DIST	AZ				4.8	4.8
	ES			57 42				3.2	2.98	204					
WTZ	EPN	21	57	06				-1.3	3.89	219				4.5	4.2
	ESN			46.5				-4.2							
GNZ	EPN	21	57	08				-0.9	4.01	203				4.3	4.2
	ESN			54				0.4							
TUA	EPN	21	57	14				-1.3	4.48	210				4.5	4.4
	ESN			58 07				2.1							
KRP	EPN	21	57	19				0.9	4.69	230					
	ESN			58 11				1.1							
TRZ	E	21	57	49					5.25	209				4.8	4.4
	ES			58 53				2.7							
CNZ	EPN	21	57	33				3.3	5.55	219				4.3	4.0
	E			58 54											
TNZ	E	21	57	46					6.19	226					
CAZ	E	21	59	40					6.65	206					
MNG	EPN	21	57	43				-2.3	6.70	211					
	E			58											
	ESN			58 55				-3.3							
	E			59 27											
CIZ	ESN	22	00	01				-0.4	9.34	165					

AUG 13		H	M	S	38.65S	175.79E	164 KM	SE	1.1	AVG MAG	75/ 429				
		12	25	40.8	0.04	0.04	9				W-A	W	P	W	S
		+ - 1.1													
CNZ	IP	12	26	05.9			DIR	RES	DIST	AZ				4.5	3.7
	E			28			D	1.6	0.58	199					
KRP	P	12	26	05.2				-0.1	0.75	345					
	ES			24				-0.1							
TUA	P	12	26	08.3				0.6	1.08	99				4.6	4.5
	E			25											
	ES			29.5				1.1							
WTZ	EP	12	26	08.5				0.1	1.15	55				3.7	3.9
	ES			28				-1.6							

AUG 11		H	M	S	38.07S	176.29E	182 KM	SE	1.7	75/ 427		
		19	06	35.5	0.05	0.05	9			AVG	MAG	4.4
		+ - 1.3					DIR	RES	DIST	AZ	W-A	W P W S
WTZ	IP	19	07	00.0			D	-1.0	0.56	81		4.5 4.1
	ES			16				-2.5				
KRP	EP	19	07	01				-0.2	0.61	284		
	ES			20.5				-0.4				
TUA	P	19	07	04.7				1.1	1.00	137		4.3 4.8
	E			20								
	ES			25				-0.3				
	E			27								
CNZ	P	19	07	07.0				1.3	1.26	207		4.3 3.9
	ES			32				2.9				
GNZ	IP	19	07	08.9			D	1.2	1.48	113		4.2 4.3
	ES			32.5				-0.1				
TRZ	EP	19	07	10				1.7	1.54	164		4.4 5.0
	ES			35				1.5				
TNZ	P	19	07	12.9			U	1.4	1.86	233		4.2
MNG	IP,	19	07	19.8				-0.5	2.62	193		4.4
	E			48								
	ES			53				-1.7				
CAZ	IP	19	07	23.0			U	0.2	2.83	181		
	ES			59				-0.3				
WEL	IP	19	07	28.8			D	-1.2	3.41	200	4.3	4.4 4.5
	ES			08 09				-3.0				
AUG 12		H	M	S	34.97S	179.94W	33 KM	SE	2.5	75/ 428		
		21	56	10.6	0.11	0.12	9			AVG	MAG	4.4
		+ - 2.1					DIR	RES	DIST	AZ	W-A	W P W S
ECZ	EPN	21	56	58			D	3.2	2.98	224		4.8 4.8
	ES*			57 42				-0.1				
WTZ	EPN	21	57	06				-1.3	3.89	219		4.5 4.2
	ESN			46.5				-4.2				
GNZ	EPN	21	57	08				-0.9	4.01	203		4.3 4.2
	ESN			54				0.4				
TUA	EPN	21	57	14				-1.3	4.48	210		4.5 4.4
	ESN			58 07				2.1				
KRP	EPN	21	57	19				0.9	4.69	230		
	ESN			58 11				1.1				
TRZ	E	21	57	49					5.25	209		4.8 4.4
	ES*			58 53				2.7				
CNZ	EPN	21	57	33				3.3	5.55	219		4.3 4.0
	E			58 54								
TNZ	E	21	57	46					6.19	226		
CAZ	E	21	59	40					6.65	206		
MNG	EPN	21	57	43				-2.3	6.70	211		
	E			58								
	ESN			58 55				-3.3				
	E			59 27								
CIZ	ESN	22	00	01				-0.4	9.34	165		
AUG 13		H	M	S	38.65S	175.79E	164 KM	SE	1.1	75/ 429		
		12	25	40.8	0.04	0.04	9			AVG	MAG	4.1
		+ - 1.1					DIR	RES	DIST	AZ	W-A	W P W S
CNZ	IP	12	26	05.9			D	1.6	0.58	199		4.5 3.7
	E			28								
KRP	P	12	26	05.2				-0.1	0.75	345		
	ES			24				-0.1				
TUA	P	12	26	08.3				0.6	1.08	99		4.6 4.5
	E			25								
	ES			29.9				1.1				
WTZ	EP	12	26	08.5				0.1	1.15	55		3.7 3.9
	ES			28				-1.6				

LOCAL EARTHQUAKES

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		H	M	S			DIR	RES	DIST	AZ	W-A	W P	W S
TRZ	P	12	26	10.3	41.58S	171.81E	12 KM	SE	1.2		AVG MAG	75/ 430	4.8 4.4
	E			36	0.02	0.03							
GNZ	EP	12	26	14.5				0.2	1.75	90			3.7 4.1
	ES			39				-1.1					
MNG	IP	12	26	17.2				0.3	1.98	187			4.1 4.3
	ES			44.5				-0.2					
WEL	EP	12	26	25				-1.3	2.75	196			3.8 3.7
	ES			27 00				-1.1					
AUG 13	H M S	18	25	10.1	41.58S	171.81E	12 KM	SE	1.2		AVG MAG	75/ 430	4.2
				* - 0.4	0.02	0.03							
COB	IP	18	25	25.3			DIR	RES	DIST	AZ	W-A	W P	W S
	ES			37			D	-0.5	0.85	55			
KAI	EP	18	25	28				-0.4					
	ES			39.5				-0.1	0.99	197	4.0		
KKY	PN	18	25	38.0				-2.0					
	EP			39				0.1	1.64	121			
	ESN			59				-0.2					
GPZ	EPN	18	25	46.5				0.4					
	ESN			26 08				0.8	2.20	164	3.7		
WEL	PN	18	25	47.0				-4.4*					
	P			48.7				0.7	2.25	83	4.1		
	ESN			26 19				-0.9					
	ES			20				1.6					
MJZ	EPN	18	25	50				0.8					
	E			51.8				-1.1	2.60	202	4.2	4.1	
	ESN			26 21				-1.1					
	ES			28.9				-1.4					
GSP	P	18	26	00.0				-0.3	2.87	207			
	EPG			10				1.8					
	E			16									
	ESN			30				1.3					
MNG	PN	18	25	55.0				-0.8	2.94	72	4.7	4.4	
	EP			26 01				-0.5					
	ES			39				-1.1					
TNZ	E	18	26	01					3.10	40	4.4	4.2	
	EPG			12				-0.7					
	ESG			52				-2.5					
CNZ	PN	18	26	08.1				1.7	3.72	51	4.8	4.8	
	P			16.0				1.2					
	PG			25.4				0.1					
	ES			27 02				-1.5					
	E			08									
KRP	EPN	18	26	20				0.9	4.65	39			
	ESN			27 13				1.1					
	E			40									
WTZ	EP	18	26	45				1.9	5.37	50	3.8		
GNZ	ESN	18	27	35				0.2	5.60	60			3.9
FELT MURCHISON (80) AND BULLER (79) MAX. INTENSITY MM IV													

		H	M	S			DIR	RES	DIST	AZ	W-A	W P	W S
AUG 13	H M S	18	26	52.9	41.62S	171.80E	12 KM	SE	0.9		AVG MAG	75/ 431	3.3
				* - 0.7	0.03	0.03							
COB	EP	18	27	09.3				0.4	0.88	53	3.3	3.7	
	ES			20				-1.1					
KAI	EP?	18	27	06					0.95	198	3.0		
	ES			23				-0.1					
GPZ	ESG	18	28	06				0.0	2.17	164	3.2		
MJZ	E	18	27	49					2.56	202			3.5 3.1
	ESG			28 19				-0.3					
MNG	EP	18	27	45.3				0.9	2.96	71	3.6		
FELT MURCHISON (80)													

AUG 14		H	M	S							75/ 432			
	06 59	12.8	37.84S	177.13E	104 KM	SE	1.5	AVG MAG	4.1					
		+ 1.4	0.07	0.07	9									
	WTZ	P	4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
			06 59	26.1			-1.6	0.20	222					
				36										
				39			-0.0							
	TUA	ES	06 59	34.5			1.1	0.97	180		4.1		4.5	
		EP		49			-0.1							
		ES		33.2			-1.3	1.06	140		4.0		4.1	
		P		39.7										
		E		52			1.1							
		ES	06 59	46			1.9	1.85	222		4.1		4.1	
		EP		07 00	23									
		E		55			1.4	2.56	237		4.1		3.6	
		EP	06 59	55										
		E		07 00	35									
		P	06 59	58.5			-2.0	3.06	205		4.4		4.1	
		E		07 00	06									
		ES		36			-0.5							
		E		55										
		ES	07 00	20				3.90	207	4.4	4.2		4.2	
		E		57			-0.0							
		E		01 18										
AUG 14		H	M	S							75/ 433			
	12 02	30.4	42.37S	174.19E	12 KM	SE	1.5	AVG MAG	3.9					
		+ 0.5	0.03	0.04	9									
	KKY	IP*	4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
			12 02	39.3		U	1.6	0.37	262					
				50.2		U	-1.2	1.17	22	3.6	4.6		4.1	
				55.0			0.9							
		PG		03 09			1.9							
		ES*		15										
		E		57.0			-1.8	1.68	319				4.3	
		PN	12 02	00.2			0.0							
		P*		09.8										
		E		18			-1.9							
		ESN		59			-0.7	1.74	220	3.4				
		PN	12 02	22			0.5							
		ESN	03 01	01			-2.3	2.00	30		3.9		3.8	
		PN		09			-2.0							
		EPG		27			-0.8							
		ESN	12 03	06			-0.7	2.06	265	3.6				
		EP*		28			-1.2							
		ESN	12 03	19			-0.2	3.16	238		3.5		3.5	
		EPN		28.5			2.9							
		EP*		56.5			0.4							
		ESN		04 29										
		E		26			0.1	3.18	3				3.8	
		EP*	12 03	10			2.3							
		ES*		29			0.5	3.33	19		4.1		4.2	
		EP*	12 03	32										
		E		18			1.3							
		ESG		24			-0.0	3.59	220		4.1		3.8	
		EPN	12 03	07			0.4							
		ESN		04 07										
AUG 14		H	M	S							75/ 434			
	17 08	30.9	39.30S	176.23E	95 KM	SE	1.1	AVG MAG	5.0					
		+ 0.6	0.02	0.04	11									
	TRZ	IP	4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
			17 08	47.4		U	0.8	0.53	119					
				46.4		U	-0.3	0.54	280					
				47.9		U	-0.4	0.67	352					
				49.8		D	-0.0	0.87	56		5.9			
				55.8		D	-1.0	1.44	25					

TNZ	IP,	17 08	58.2		1.4	1.44	274		
MNG	IP,	17 08	57.9		1.1	1.44	203		
GNZ	IP	17 08	58.1	DNE	0.0	1.54	66		
CAZ	IP	17 09	00.7	U	1.9	1.61	180		
	ES		17.3		-2.0				
WEL	P	17 09	07.8		0.2	2.28	209	5.4	5.6
	E		21						
	ES		35		0.1				
	E		52						
GBZ	P	17 09	19.2		-0.2	3.13	349		4.4
COB	P	17 09	19.9		-0.7	3.22	235		
ONE	EP	17 09	30		1.2	3.81	337		3.7 3.9
	ES		10 12		-0.7				
KAI	EP	17 09	42		-1.3	4.87	227		5.9
	E		49						
	E		10 12						
	ES		35		-3.9*				
GPZ*	EP	17 09	44.5		-2.6*	5.15	210		6.2
	E		10 08						
	ES		38		-7.8*				
	E		56						
CRZ*	EP	17 09	56		2.5*	5.63	329		4.5 4.2
	E		10 48						
HJZ*	EP	17 10	01		-2.8*	6.37	221		
	E		02.2						
	E		12						
	ES		11 10		-5.7*				
ONZ*	EP	17 10	10		-2.4*	6.99	213		
	ES		11 24		-6.9*				
CIZ*	EP	17 10	14		-0.3*	7.13	133		
	E		17						
	ES		11 27		-7.3*				
MNW*	EP	17 10	42		1.4*	9.07	222		5.8
	ES		12 19		-6.8*				

FELT THROUGHOUT SOUTHERN HALF OF THE NORTH ISLAND

		H	M	S			SE	75/ 435	
AUG 15		02	48	42.5	39.10S	174.79E	228 KM	1.3	AVG MAG
		+ 0.8		0.04	0.05		6		4.7
		H	M	S	DIR	RES	DIST	AZ	W-A
								H P W S	
TNZ	IP	02	49	13.1	U	0.6	0.33	255	
	ES			38		2.3			
CNZ	IP	02	49	14.2	D	0.9	0.60	100	4.9 4.7
	ES			38		0.8			
WNZ	P	02	49	17.2		1.0	1.13	66	4.7 4.6
	E			47					
KRP	IP	02	49	17.9	DW	0.4	1.31	27	4.3 3.7
	E			41					
	ES			44		-0.7			
MNG	IP,	02	49	20.7		0.8	1.61	161	
	ES			47		-1.8			
TRZ	IP	02	49	21.3	U	1.1	1.64	107	4.9 5.3
	E			44					
	ES			50		0.7			
TUA	P	02	49	22.1		-0.1	1.87	82	5.0 4.9
	E			46					
	ES			51.9		-1.4			
WTZ	IP	02	49	23.1	D	-0.9	2.06	58	5.0 4.6
	ES			54		-2.1			
CAZ	IP	02	49	25.5	U	0.9	2.11	149	
	E			55					
	ES			58		0.9			
WEL	IP	02	49	25.3	U	0.1	2.18	180	4.6 4.7 4.9
	S			58		-0.3			
COB	IP,	02	49	28.3		-0.6	2.53	218	
	E			56					
	ES			50 02		-2.9*			

	GNZ	IP, ES	02 49 29.7 50 03.5	N	0.4 -2.1	2.57	81		4.6	4.4
	ECZ	IP ES	02 49 36.8 50 22	U	-0.4 2.3	3.27	66		5.7	4.6
		H H S								75/ 436
AUG 15	14 31	14.1 + 0.3	40.16S 174.35E 0.01 0.02	12 KM	SE	0.9		AVG MAG		3.7
				DIR	RES	DIST	AZ	W-A	W P	W S
	MNG	IP ^o ES ^o	14 31 31.8 41		0.0 -3.9 ^o	0.97	118			
	TNZ	EP ^o ES ^o	14 31 33.3 44		1.5 -1.1	0.98	1		3.3	3.7
	WEL	EP ^o ES ^o	14 31 35 50		-0.0 -0.7	1.16	165	3.4	3.8	3.9
	CNZ	P ^o ES ^o	14 31 37.2 55		-0.7 -0.7	1.33	44		4.0	4.1
	COB	EP ^o ES ^o	14 31 41 32 02.5		-0.5 0.5	1.54	233		3.8	4.1
	TRZ	EPG ESG	14 31 55 32 22		0.6 0.7	1.99	73			3.7
	KRP	EP ^o ESN	14 31 58 32 21		1.5 -0.6	2.42	23		3.4	3.5
	WTZ	EP ^o	14 32 06		-0.3	2.99	44			3.5
		H H S								75/ 437
AUG 15	16 53	56.1 + 0.7	38.93S 177.22E 0.03 0.05	12 KM	SE	2.2		AVG MAG		4.0
				DIR	RES	DIST	AZ	W-A	W P	W S
	TUA	IP ^o S ^o	16 54 02.2 05.8	U	2.7 3.9	0.14	336			
	GNZ	IP ^o	16 54 08.8	DN	-0.2	0.69	66			
	TRZ	IPG E E	16 54 13.1 27.5 30.5	D	2.8	0.69	206		4.3	4.5
	WTZ	IP ^o ES ^o	16 54 11.0 24	U	-2.7 -2.8	0.96	349		4.3	4.3
	CNZ	PN	16 54 21.1		1.4	1.33	258		4.5	4.1
	ECZ	EPG E E	16 54 30 45 56		1.1	1.62	41		4.3	4.0
	KRP	EPG ESG	16 54 27 53		-2.8 0.7	1.66	307		3.5	3.2
	MNG	IPN EPG E E	16 54 30.8 41 44 55 19	U	-0.2 1.3	2.15	218		3.9	3.6
	TNZ	EP ^o EPG	16 54 34 43.3		-1.3 2.1	2.23	263			3.6
	WEL	PN ESN	16 54 41 55 19		-1.8 0.8	3.01	218		3.9	3.9
	COB	EPN EP ^o ES ^o	16 54 56 55 04 21 59		-1.2 -2.8 -0.9	4.06	237		4.0	3.9
		H H S								75/ 438
AUG 15	17 31	23.9 + 0.4	40.63S 174.53E 0.02 0.02	12 KM	SE	1.1		AVG MAG		3.8
				DIR	RES	DIST	AZ	W-A	W P	W S
	WEL	EP ^o ES ^o	17 31 37 46		0.4 -0.0	0.68	165	3.3	3.6	3.8
	MNG	IP ^o ES ^o	17 31 38.0 48		0.6 0.6	0.73	89			
	COB	IPN SN	17 31 48.1 32 07.5	U	-0.8 -0.1	1.44	251		4.2	4.1
	TNZ	PN	17 31 51.3		2.2	1.44	355		3.6	3.6

		H	M	S									
TNZ	EP*	09	13	59	1.5	2.00	325			3.7	3.9		
	EPG		14	03	0.3								
	ESG			28	-1.7								
COB	EPN	09	14	00	-0.2	2.38	263			3.6	3.8		
	EPG			08	-2.4								
	ESN			28	-0.8								
GNZ	ESN	09	14	36	-1.9	2.75	38						
KRP	EP*	09	14	15	1.8	2.92	355			3.6	3.6		
	ES*			54	2.4								
WTZ	EPN	09	14	05.5	-2.9	2.98	17			3.7	3.3		
	EPG			19.5	-2.9								
	ESN			42	-1.4								
AUG 16	H	M	S									75/ 442	
	18	00	34.5	35.32S	179.05E	290 KM	SE	1.4		AVG MAG	4.4		
			+ 1.3	0.08	0.13	12							
ECZ	P	18	01	24.3	DIR	RES	DIST	AZ		W-A	W P	W S	
				26		0.1	2.40	189			5.0	4.3	
WTZ	ES			02 03.5		0.6							
	P	18	01	30.8		-0.5	3.13	211			4.9	4.2	
GNZ	ES			02 13.5		-2.1							
	P	18	01	34.0		-0.3	3.42	194			4.7	4.3	
TUA	ES			02 19		-2.0							
	EP	18	01	39.5		1.1	3.80	203			4.4	4.4	
KRP	ES			02 31		2.7							
	EP	18	01	40		1.1	3.84	226			3.7		
ONE	EP	18	01	39		0.0	3.85	262					
TRZ	EP	18	01	47		-0.3	4.58	202				4.5	
	ES			02 46		1.8							
MNG	EP	18	02	03		-1.0	5.99	207			4.1	4.0	
	ES			03 13		-1.2							
WEL	EP	18	02	14		-0.4	6.84	208					
	ES			03 33		0.3							
AUG 16	H	M	S									75/ 443	
	21	25	31.2	33.46S	177.99W	236 KM	SE	1.9		AVG MAG	5.3		
			+ 1.7	0.09	0.14	37							
ECZ	EP	21	26	49	DIR	RES	DIST	AZ		W-A	W P	W S	
				27 00		0.8	5.08	213			5.3	5.1	
WTZ	EP			27 54									
	P	21	26	59		-1.8	6.09	221					
GNZ	ES			27 14.5									
	P	21	27	00		0.2	6.10	211					
TUA	ES			28 11		-1.0							
	P	21	27	07		-0.0	6.63	215					
ONE	ES			42.5		-0.7							
	P	21	27	12		-0.1	6.72	248		5.2			
KRP	ES			28 23		3.2							
	P	21	27	09		-2.1	6.90	228					
TRZ	ES			28 00									
	P	21	27	16.5		-0.8	7.38	213					
CNZ	ES			28 41		0.8							
	P	21	27	25.5		3.5	7.75	220					
TNZ	ES			31.8									
	P	21	27	41			8.40	225					
MNG	EP	21	27	33.5		-2.6	8.85	214					

	E		28 04															
	ES		29 13			-0.9												
	WEL	ES	21 29 33.5			0.0	9.71	214	5.6									
	CIZ	E	21 28 06				10.54	174										
	ES		29 54			1.3												
AUG 16	H M S		35.99S	174.37E	12 KM		SE	1.0		AVG MAG	75/ 444							
	23 56 17.3		0.03	0.03	?						2.8							
	+ - 0.6																	
	ONE	EP*	23 56 21.5		DIR	RES	DIST	AZ	W-A	W P	W S							
		S*	25.8			-0.5	0.21	359	2.2									
	GBZ	P*	23 56 33.1			0.4												
			47.5			-1.2	0.93	105										
	KRP	ES*	23 56 53			0.5												
		EPN	57 18			0.9	2.15	154		3.3								
		ESN				-0.2												
	FELT PAPAPOA AND ARARUA (12) MM IV																	
AUG 17	H M S		33.05S	177.94W	231 KM		SE	2.5		AVG MAG	75/ 445							
	06 12 47.3		0.11	0.15	48						5.4							
	+ - 1.9																	
	ECZ	EP	06 14 10		DIR	RES	DIST	AZ	W-A	W P	W S							
	WTZ	EP	06 14 19			1.2	5.45	211	5.4									
		E	15 28			-2.2	6.43	219										
		ES	32			-2.4												
	GNZ	EP	06 14 20			-1.7	6.47	209										
		ES	15 35			-0.4												
	ONE	EP	06 14 28.5			1.1	6.92	245	5.2									
	TUA	EP	06 14 27			-1.3	6.99	213										
		ES	15 51.5			4.2												
	KRP	EP	06 14 31			-0.1	7.20	226										
	TRZ	EP	06 14 37			-1.0	7.74	212										
		ES	16 06			1.4												
	CRZ	EP	06 14 41			0.3	7.93	257										
	CNZ	EP	06 14 40			-2.4	8.08	219										
		ES	16 16			3.5												
	TNZ	EP	06 14 54			3.4	8.72	223										
	CAZ	E	06 16 42				9.12	209										
	HNG	EP	06 14 54			-2.8	9.21	213										
		ES	16 36			-2.2												
	WEL	E	06 15 29				10.06	213	5.6									
		E	51															
		ES	16 56			-1.9												
	CIZ	EP	06 15 23			4.1	10.94	175										
		ES	17 17			-1.0												
AUG 17	H M S		37.31S	176.54E	198 KM		SE	1.5		AVG MAG	75/ 446							
	11 20 19.0		0.05	0.07	11						4.0							
	+ - 1.1																	
	WTZ	EP	11 20 45		DIR	RES	DIST	AZ	W-A	W P	W S							
		ES	21 07			-1.4	0.59	143		3.7	3.6							
	KRP	IP	11 20 49.0		U	1.0	0.90	242		3.5								
	TUA	P	11 20 54.3			2.6	1.38	160		4.2	4.1							
		ES	21 16			-1.0												
	ECZ	EP	11 20 53.5			-0.2	1.60	97			4.1							
		ES	21 21			0.5												
	GNZ	P	11 20 54.0			0.1	1.62	134		4.2	4.2							
		ES	21 19			-1.9												
	CNZ	EP	11 20 58			1.8	1.86	205		3.9								
	TRZ	EP?	11 20 59			0.8	2.05	174		4.2	4.4							
		E	21 04			2.6												
		ES	31															
	TNZ	E	11 21 07.5				2.38	225										
	ONE	EP	11 21 02			-0.8	2.47	314	3.7									
	HNG	IP	11 21 10.9		U	-0.7	3.21	195		4.4	4.0							

		ES	52	-0.2						
		EP	11 21 20.5	-1.0	4.01	200	4.5	4.1	4.1	
		ES	22 08	-1.8						
	H M S								75/ 447	
AUG 17	12 41 18.0		33.40S 177.54W	320 KM	SE	2.5	AVG MAG		4.7	
	+ 2.5		0.15 0.27	38						
	H M S			DIR RES	DIST AZ		W-A	W P	W S	
ECZ	EP	12 42 40			5.34	216		4.8	4.5	
	ES	43 50		4.3						
GNZ	EP	12 42 52		-0.6	6.35	213				
	ES	44 06		-0.9						
WTZ	EP	12 42 49		-4.0	6.38	223				
	ES	51.7								
	EP	44 04		-3.6						
TUA	EP	12 42 59		-0.2	6.90	217				
	ES	44 19.5		0.9						
ONE	P	12 43 04		2.5	7.09	248	4.9			
KRP	EP	12 43 05		1.9	7.22	229				
TRZ	EP	12 43 08		-0.1	7.63	215				
	ES	44 34		-0.7						
CRZ	EP	12 43 14		-0.9	8.20	260				
MNG	EP	12 43 28		2.0	9.11	216				
	ES	45 05		-1.9						
WEL	ES	12 45 28		2.2	9.97	216				
CIZ	ES	12 45 49		10.0*	10.56	176				
	H M S								75/ 448	
AUG 17	22 24 45.3		35.00S 179.90E	128 KM	SE	2.8	AVG MAG		4.2	
	+ 3.7		0.18 0.23	63						
	H M S			DIR RES	DIST AZ		W-A	W P	W S	
ECZ	EP	22 25 33			2.90	202		4.5	4.4	
	ES	26 06		-0.6						
	EP	26								
WTZ	EP	22 25 42		-1.2	3.79	217			4.0	
	ES	26 27		-0.5						
GNZ	P	22 25 44.1		-1.0	3.94	202	4.4		4.0	
	ES	26 30		-1.0						
TUA	ES	22 25 58			4.39	209			4.3	
	EP	26 47		5.1						
	EP	27 04								
KRP	EP	22 25 53		-0.6	4.57	229	3.7			
	ES	26 43		-3.2						
MNG	EP	22 26 24.5		3.3	6.61	211				
	EP	34								
	EP	27 48								
CIZ	ES	22 28 40		-1.7	9.35	164				
	H M S								75/ 449	
AUG 18	01 25 26.7		38.28S 175.96E	198 KM	SE	1.1	AVG MAG		4.9	
	+ 0.8		0.04 0.03	5						
	H M S			DIR RES	DIST AZ		W-A	W P	W S	
KRP	IP	01 25 52.8		UW	-0.9	0.49	316			
	EP	26 11.5								
	EP	13		-1.4						
WTZ	P	01 25 54.4		-1.1	0.86	70	4.8		4.5	
	EP	55.0								
	EP	26 17		-0.9						
CNZ	IP	01 25 56.8		D	0.6	0.98	199	4.5	4.5	
	EP	26 20.5		1.4						
TUA	IP	01 25 57.5		U	0.6	1.07	120	5.0	5.3	
	EP	26 15								
	EP	20		-0.3						
TRZ	P	01 26 01.1		1.2	1.44	153	4.9		5.4	
	EP	20								
	EP	26		0.4						
TNZ	P	01 26 01.3		0.5	1.54	233	4.5		3.9	

LOCAL EARTHQUAKES

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		H	M	S			SE	75/ 450	
GNZ	ES	01	26	29	U	1.8	1.66	103	4.9 5.0
	IP	01	26	02.9		0.9			
ECZ	ES	01	26	28	U	-1.2	2.12	75	5.4 5.0
	IP	01	26	07.0		0.3			
MNG	ES	01	26	39		1.5	2.37	189	
	IP.	01	26	09.0		-0.4			
CAZ	ES	01	26	37		-5.3*	2.63	176	
	EP	01	26	12.5		0.0			
WEL	ES	01	26	43		-0.9	3.14	197	5.2 4.8 5.1
	EP	01	26	47		-1.0			
	ES			17.5					
	EP			49.5					
	ES			57		-1.5			
FELT PATOKA (52) MM IV									
AUG 18	H M S	05	41	33.8	50.16S	164.17E	33 KM	SE 1.3	AVG MAG 4.9
				+ 1.5	0.15	0.18	R		
WPZ	P	05	42	41.2	DIR	RES	DIST	AZ	W-A W P W S
	ES			43 31		-0.1	4.69	43	4.7 4.9
MNH	EP	05	42	44.5		-2.1	4.96	29	4.9
	ES			43 40		0.4			
OMZ	EP	05	43	11		0.7	6.84	44	
	ES			44 18					
HJZ	EP	05	43	19		-0.5	7.53	37	
	ES			42 33					
	ES			44 40		-1.2			
GPZ	ES	05	43	41			8.69	45	5.1
	ES			45 10.5		1.6			
COB	EP	05	44	04		0.1	10.87	37	
	ES			46 02		1.5			
AUG 18	H M S	14	31	40.3	38.66S	175.85E	147 KM	SE 0.6	AVG MAG 5.8
				+ 0.4	0.02	0.02	S		
WNZ	IP.	14	32	00.8	DIR	RES	DIST	AZ	W-A W P W S
CNZ	IP	14	32	02.2	D	0.5	0.20	82	
KRP	IP	14	32	02.9	D	0.3	0.59	203	
TUA	IP	14	32	06.0	U	-0.2	0.77	341	
WTZ	IP	14	32	05.2	D	0.9	1.03	99	
	EP			19.5		-0.8	1.12	53	5.5
TRZ	IP	14	32	07.1	4	0.6	1.17	140	5.9
	ES			26		-0.7			
TNZ	IP	14	32	07.7	D	0.3	1.26	245	
GNZ	IP	14	32	12.2	DNW	0.1	1.70	90	
MNG	IP.	14	32	14.7		-0.5	1.98	188	
CAZ	IP	14	32	18.6	U	-0.2	2.26	173	
ECZ	IP	14	32	20.0	D	0.3	2.33	66	
GBZ	P	14	32	20.7		-0.5	2.45	353	
	EP			51					
WEL	IP	14	32	23.2	USE	-1.9*	2.75	197	6.1
	EP			55					
ONE	P	14	32	29.8		0.1	3.11	337	5.3
	ES			33 07		-0.4			
CRZ	IP	14	32	53.0	UW	-0.5	4.93	328	5.2 4.5
	ES			33 51		0.8			
KAI*	EP	14	32	55		-1.3*	5.13	220	6.2
	ES			33 48		-7.0*			
GPZ*	EP	14	32	57		-5.3*	5.58	205	6.9
	ES			33 55		-10.8*			
HJZ*	P	14	33	13		-4.1*	6.69	216	
	EP			15.4					
	ES			35					
	ES			34 22.5		-9.9*			
CIZ*	EP	14	33	31		-0.8*	7.78	135	

AUG 19		H	M	S	33.10S	178.23W	94 KM	SE	1.7	75/ 455				
		10	42	29.7	0.11	0.15	61							
		+ 2.5						DIR	RES	DIST	AZ	W-A	W P	W S
WTZ	EP	10	43	59	4	M S				6.24	217			
GNZ	EP	10	44	02.5					0.8	6.31	208			
	ES		45	14					1.0					
TUA										6.81	212			
KRP	E	10	44	19						7.00	225			
CRZ	EP	10	44	20				-0.6		7.68	258			
MNG	EP	10	44	41				2.2		9.03	212			
	ES		46	20				0.4						
WEL	E	10	46	33						9.89	212			
CIZ	ES	10	47	04				-0.9		10.91	174			
AUG 19											75/ 456			
		H	M	S	33.39S	177.17W	218 KM	SE	1.9	AVG MAG 5.3				
		10	54	44.2	0.11	0.23	43							
		+ 2.3						DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	EP	10	56	05	4	M S				5.54	218			
	EP		57	27					-1.5			5.4	5.1	
GNZ	EP	10	56	20					0.7	6.53	215			
	EP													
	ES		48.5											
	ES		57	35					1.6					
WTZ	EP	10	56	19					-1.2	6.61	224			
	ES		57	33					-2.1					
TUA										7.10	219			
ONE	EP	10	56	32					1.8	7.38	249	5.2		
KRP	EP	10	56	30					-1.3	7.46	231			
	EP		58	04										
TRZ	EP	10	56	43						7.83	216			
	EP		58	06					2.6					
CNZ	EP	10	56	52						8.26	223			
	EP		58	22										
CRZ	EP	10	56	45					0.2	8.50	260			
TNZ	E	10	57	13						8.94	227			
MNG	EP	10	56	56					0.9	9.30	217			
	ES		58	38					0.5					
WEL	ES	10	58	55					-2.3	10.16	217	5.6		
CIZ	E	10	59	27						10.56	178			
AUG 20											75/ 457			
		H	M	S	39.21S	176.19E	92 KM	SE	1.2	AVG MAG 3.8				
		00	32	32.6	0.03	0.03	7							
		+ 0.6						DIR	RES	DIST	AZ	W-A	W P	W S
CNZ	IP	00	32	47.9	4	M S				0.49	271			
	ES			57					-2.1					
WNZ	EP?	00	32	48.5					0.0	0.58	354		4.2	
	ES		33	02					1.5					
TRZ	ES	00	33	02					1.1	0.60	124		4.2	
TUA	P	00	32	51.2					0.1	0.86	62	4.2	4.1	
	ES		33	06					0.8					
KRP	P	00	32	57.8					0.3	1.38	339	3.0	3.3	
	ES		33	15					-1.2					
WTZ	P	00	32	57.1					-0.5	1.38	28	4.0	4.2	
	E		33	08										
	ES		15						-1.2					
TNZ	EP	00	32	59					1.3	1.40	271		3.5	
	ES		33	18					1.5					
MNG	P	00	32	59.8					0.7	1.50	201	3.8	3.9	
	E		33	09.5										
	ES		17.5						-1.3					
	ES		23											
GNZ	IP	00	32	59.9					0.3	1.55	69	4.0	3.7	
	ES		33	19					-0.7					

		WEL	ES	00 33 37	-0.8	2.33	207	3.7	4.0		
AUG 20	H M S	05 41	14.8	33.48S	177.45W	239 KM	SE	2.5	AVG MAG		75/ 458 4.9
	+ -	3.5		0.15	0.32	58					
				H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	GNZ	EP		05 42 48.3		1.1	6.32	214			
		ES		43 59		-0.7					
	WTZ	EP		05 42 46		-2.0	6.37	224			
		E		49							
		E		43 00							
		E		59		-1.9					
	TUA	EP		05 42 54		-0.4	6.88	218			
		ES		44 15		2.6					
		ES									
	ONE	EP		05 43 00		2.4	7.12	249	4.9		
	KRP	E		05 43 07.5			7.22	230			
	CRZ	EP		05 43 11		-1.0	8.25	261			
	MNG	ES		05 45 05.5		2.6	9.09	216			
	WEL	ES		05 45 20		-2.5	9.94	216			
	CIZ	E		05 45 47			10.48	176			
AUG 20	H M S	08 34	47.4	38.70S	175.81E	145 KM	SE	1.1	AVG MAG		75/ 459 4.1
	+ -	0.7		0.03	0.03	7					
				H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	CNZ	IP		08 35 09.9	D	1.4	0.54	202		4.2	3.9
		E		31							
	KRP	P		08 35 10.3		0.0	0.80	344		3.3	3.3
		ES		29		0.2					
	TUA	IP		08 35 12.9	U	0.3	1.05	96		4.4	4.3
		ES		30.9		-1.0					
	TRZ	E		08 35 17.5			1.16	138		3.9	4.6
		E		29							
		E		36		2.7*					
	WTZ	IP		08 35 12.4	D	-1.1	1.17	53		4.4	3.6
		ES		32		-1.5					
	TNZ	IP		08 35 14.9	U	0.9	1.22	246		3.9	
		E		51							
	GNZ	IP		08 35 19.8	DNW	0.3	1.73	89		4.3	4.0
		ES		43		-1.0					
	MNG	P		08 35 21.9		0.2	1.93	187			
		ES		47		-1.1					
	ECZ	EP		08 35 27.5		0.2	2.38	66		4.8	4.0
		E		37							
		E		59		1.2					
	WEL	P		08 35 31.1		-0.5	2.70	197	4.0	4.2	4.3
		ES		36 04		-1.3					
AUG 20	H M S	12 51	49.5	33.05S	178.59W	281 KM	SE	1.5	AVG MAG		75/ 460 4.8
	+ -	1.9		0.10	0.13	43					
				H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	WTZ	EP		12 53 18		-2.1	6.10	215			
		ES		54 32		0.9					
	GNZ	EP		12 53 22		0.4	6.22	205			
		ES		54 33		-0.8					
	ONE	E		12 53 31			6.43	243	4.8		
	TUA	EP		12 53 27		-0.5	6.70	210			
		ES		54 45		0.6					
	KRP	EP		12 53 31		2.0	6.82	223			
	MNG	ES		12 55 33		-0.9	8.92	210			
	CIZ	ES		12 56 21		0.4	11.00	172			
AUG 20	H M S	15 38	11.6	41.17S	172.58E	12 KM	SE	1.6	AVG MAG		75/ 461 3.9
	+ -	0.7		0.03	0.05	2					

LOCAL EARTHQUAKES

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		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
COB	IP*	15	38	16.3		1.2	0.14	55			
KKY	PN	15	38	35.4		-2.1	1.50	147			
	ESN			55.5		-1.4					
KAI	E	15	38	48			1.61	212	3.1		
	ESG			39 07		1.0					
WEL	IP*	15	38	43.1	D	2.1	1.66	95		4.3	4.2
	ES*			39 03		-0.0					
MNG	P*	15	38	52.2		0.7	2.27	77		4.0	4.1
	ES*			39 21.5		0.0					
TNZ	EPQ?	15	38	59		-1.5	2.42	35			3.8
	ES*			39 23.5		-2.3					
CNZ	EP*	15	39	04		-0.2	3.01	50		4.0	4.2
	ES*			45		1.4					
KRP	EP?	15	39	15			3.97	36		3.5	3.6
	ESN			58		1.1					
AUG 21	H M S	39.855	175.03E	89 KM		SE	0.7		AVG MAG	75/ 462	3.8
	+ -	0.01	0.03	6							
	I M S			DIR	RES	DIST	AZ	W-A	W P	W S	
CNZ	IP	01	46	31.4		-0.2	0.77	32		4.3	4.1
	ES			44		-0.8					
TNZ	P	01	46	32.0		-0.3	0.83	323		4.2	3.8
	ES			46		0.1					
MNG	IP	01	46	32.6	D	0.2	0.84	156			
	ES			46.5		0.4					
WEL	P	01	46	39.7		-0.2	1.44	188	3.3	3.9	3.9
	ES			59		0.0					
KRP	EP	01	46	46		-0.4	1.97	12		3.6	3.3
	ES			47 11.5		1.3					
COB	EP	01	46	48		-0.8	2.14	234		3.5	3.8
	ES			47 15		0.6					
AUG 21	H M S	34.12S	177.09W	299 KM		SE	2.0		AVG MAG	75/ 463	4.5
	+ -	0.17	0.24	38							
	I M S			DIR	RES	DIST	AZ	W-A	W P	W S	
GNZ	EP	05	56	23		-0.7	5.99	220		4.6	4.4
	ES			57 34		-0.1					
WTZ	EP	05	56	22		-3.7	6.15	230			
	ES			57 26							
TUA	EP	05	56	30		-0.9	6.59	223			
	ES			57 41							
KRP	EP	05	56	38		3.0	7.08	235			
TRZ	EP?	05	56	41		1.4	7.29	220			
	ES			58 08							
	ES			32							
CNZ	EP	05	56	47		1.3	7.79	227			
	ES			58 11		-2.4					
CRZ	EP	05	56	55		0.9	8.48	265			
MNG	EP	05	56	58		0.3	8.77	220			
	ES			58 36		0.8					
	ES			53							
CIZ	EP	05	59	25			9.82	178			
COB	ES	05	59	16		-1.0	10.65	226			
AUG 22	H M S	38.87S	175.07E	231 KM		SE	1.3		AVG MAG	75/ 464	4.4
	+ -	0.04	0.05	7							
	I M S			DIR	RES	DIST	AZ	W-A	W P	W S	
CNZ	IP	03	11	13.3	D	1.5	0.50	131			
	S			37		1.3					
TNZ	P	03	11	13.6	J	1.3	0.62	239		3.9	3.5
KRP	P	03	11	14.3		0.0	1.02	21			
	S			40		-0.1					

TRZ	P	03 11 19.7	D	1.7	1.52	117		4.3	4.9
	S	49.5		1.9					
TUA	P	03 11 18.7		-0.2	1.63	88		4.3	4.4
	S	47.5		-0.6					
WTZ	IP	03 11 19.0	D	-1.0	1.75	60		4.3	4.0
	S	48		-2.0					
MNG	IP	03 11 20.8	U	0.6	1.77	170		4.7	4.4
	S	50		-0.4					
GNZ	IP	03 11 25.6	DS	0.2	2.32	85		4.4	4.3
	S	58		-1.8					
WEL	P	03 11 27.3		0.8	2.42	185	4.2	4.1	4.3
	S	12 00.5		-1.2					
COB	IP	03 11 30.4	U	-0.8	2.85	218		4.5	4.2
	S	12 08.5		-1.5					
ECZ	P	03 11 33		0.4	2.98	68		5.2	
KAI*	S	03 12 45		-1.7*	4.59	216	4.4		
GPZ*	EP	03 11 57		-1.8*	5.15	200	5.0		
	S	12 56		-3.3*					
HJZ*	EP	03 12 11		-0.6*	6.17	213			
	S	13 17.5		-4.8*					
AUG 22	H M S	04 12 05.6						75/ 465	
		+ 2.9						AVG MAG	5.1
			32.84S	177.71W	12 KM	SE	2.1		
			0.13	0.14	?				
ECZ	EPN	04 13 32	DIR	RES	DIST	AZ		W-A	W P W S
	SN	14 37		2.8	5.73	211			4.6
WTZ	PN	04 13 41		3.5					
	SN	14 56		-1.1	6.71	219			
GNZ	EPN	04 13 43		-0.1	6.75	210			
	SN	14 57.5		-0.5					
ONE	P*	04 14 09		-0.7	7.18	244			
TUA	SN	04 15 09		-1.4	7.27	214			
KRP*	EP*	04 14 15		0.0*	7.49	226			
	PG	32		-5.1*					
	EL	16 00							
TRZ*	SN	04 15 24		-4.4*	8.02	212			
CNZ*	EP*	04 14 27		-3.0*	8.37	219			
	ESN	15 35		-1.7*					
MNG*	EPN	04 14 18		-1.6*	9.49	213			
	SN	15 58		-5.4*					
WEL*	SN	04 16 16		-7.6*	10.35	213	5.3		
CIZ	SN	04 16 41		-1.0	11.13	176			
COB*	SN	04 16 39.5		-4.7*	11.23	220			
GPZ*	SN	04 17 22.5		-7.8*	13.21	212	5.3		
HJZ*	SN	04 17 51		-7.9*	14.47	216			
AUG 22	H M S	05 12 59.8						75/ 466	
		+ 2.1						AVG MAG	4.0
			36.77S	177.32E	295 KM	SE	1.8		
			0.17	0.13	17				
WTZ	P	05 13 40.8	DIR	RES	DIST	AZ		W-A	W P W S
	ES	14 12	D	-0.5	1.24	192		4.0	
GNZ*	P	05 13 47.3		-1.3					
	S	14 23		1.3	1.95	164		4.5	3.9
TUA	P	05 13 47.5		1.0					
	S	14 38		0.8	2.04	184		4.5	
CNZ	P	05 13 52.6		-1.1	2.80	209		3.7	3.4
	S	14 38		2.3					
TRZ	P	05 13 53		-0.8	2.81	188		4.1	4.4
	S	14 34		-1.8					
MNG*	P	05 14 04.8		-2.6*	4.10	200		4.3	3.9
	S	55		-5.2*					
COB*	S	05 15 25		-5.4*	5.60	218			3.4
GPZ*	S	05 16 13		-6.2*	7.79	206	4.6		

LOCAL EARTHQUAKES

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AUG 22		H	M	S														75/ 467
		09	25	44.5	37.68S	177.17E	149 KM	SE	1.4									AVG MAG 3.9
		+ -		1.5	0.08	0.04	11											
	WTZ	IP			4 M S		DIR RES	DIST	AZ									W-A W P W S
		S			09 26	04.0	U	-1.1	0.34	205								
						19.5		-1.4										
	ECZ	IP			09 26	09.0	U	-1.1	1.09	91								4.7 4.3
		S				31.5		1.8										
	TUA	S			09 26	31		0.6	1.13	181								3.8 4.1
	GNZ	P			09 26	10.7	U	-0.2	1.18	145								4.2 4.2
		S				31		-0.2										
	KRP	P			09 26	13.0	U	0.7	1.32	259								
		S				34.5		0.9										
	TRZ*	EP			09 26	19		0.4*	1.89	188								3.8 4.6
		S				47		2.2*										
	CNZ*	EP			09 26	23.5		3.9*	1.98	219								3.3 3.3
		ES				50		3.4*										
	MNG*	EP			09 26	34		-1.3*	3.22	204								3.6 3.4
		S				27 13		-1.2*										
	HEL*	S			09 27	33		-0.8*	4.06	207								4.0 3.9
	COB*	S			09 27	51		-1.3*	4.84	224								3.3
	CIZ*	S			09 29	04		-1.0*	7.87	145								
	HJZ*	ES			09 29	05		-5.5*	8.10	217								

AUG 22		H	M	S														75/ 468
		09	59	55.8	33.35S	178.53W	33 KM	SE	2.0									AVG MAG 4.4
		+ -		3.5	0.17	0.15	3											
	ECZ	PN			4 M S		DIR RES	DIST	AZ									W-A W P W S
					10 01	10		3.5	4.92	208								4.7
	WTZ	PN			10 01	18		-1.1	5.86	217								4.2
	GNZ	PN			10 01	20		-0.4	5.96	207								4.0 3.9
		SN				02 26		0.3										
	KRP	EPN			10 01	28		-1.3	6.61	225								
		EP*				50		-0.3										
	TRZ*	ESN			10 02	58		2.3*	7.21	210								
	CNZ*	EPN			10 01	43		1.6*	7.52	217								
	MNG*	EPN			10 01	54		-2.8*	8.67	211								
		SN				03 23		-7.5*										
	HEL*	SN			10 03	45		-5.9*	9.52	212								5.1
	COB*	SN			10 04	04.5		-6.3*	10.37	219								
	CIZ*	SN			10 04	18		-0.7	10.70	172								
	GPZ*	ESN			10 04	55		-3.1*	12.40	211								

AUG 22		H	M	S														75/ 469
		11	08	11.3	38.14S	176.60E	12 KM	SE	1.8									AVG MAG 3.8
		+ -		0.5	0.03	0.02	3											
	WTZ	IPG			4 M S		DIR RES	DIST	AZ									W-A W P W S
					11 08	16.7		-1.8	0.34	64								
	WNZ	ESG			11 08	33		0.2	0.63	218								3.7
	TUA	PG			11 08	26		-1.5	0.80	147								4.1 4.4
		SG				38		-0.3										
	KRP	PG			11 08	29		0.1	0.87	284								
		S*				38.5		-0.5										
		SG				43		2.3										
	GNZ	IPG			11 08	35.9	U	-0.2	1.23	115								4.1 3.9
		SG				56.5		3.8										
	CNZ	PG			11 08	38		-0.6	1.34	218								3.5 3.2
		SG				09 03		6.3*										
	TRZ	PG			11 08	39.5		-0.7	1.42	173								4.0 3.5
	ECZ	PG			11 08	41		-2.7	1.60	75								4.0 3.9
		ESG				09 07		1.7										
	MNG	P*			11 08	58.5		1.2	2.63	199								3.5
		PG				09 03.5		-0.9										

FELT KAKERAU (34) MM IV

AUG 22		H	M	S							75/ 470			
	11 08	52.5			38.12S	176.64E	12 KM	SE	1.8	AVG MAG	3.6			
		+ 0.6			0.04	0.03								
			H	M	S	DIR	RES	DIST	AZ	H-A	W	P	W	S
WTZ	IPG		11 08	57.8	U		-1.2	0.30	64					
	SG		09	02.5			-0.9							
WNZ	PG		11 09	07.5			-1.2	0.66	219				3.8	
TUA	PG		11 09	18.5			-1.0	0.80	150			3.6	4.0	
	SG													
KRP	PG		11 09	11			0.3	0.89	282					
	ES*			20			-1.0							
	SG			25			2.2							
GNZ	PG		11 09	17			0.0	1.20	116			3.8	3.4	
	SG			37			3.7							
CNZ	SG		11 09	47			7.9*	1.38	218				3.0	
TRZ	EPG		11 09	22			0.3	1.44	174			3.8		
ECZ								1.56	75			3.8		
MNG	PG		11 09	45			-1.2	2.65	199			3.1		
FELT KAWERAU (34) MM IV														

AUG 22		H	M	S							75/ 471			
	18 01	43.3			38.37S	176.04E	161 KM	SE	0.4	AVG MAG	3.6			
		+ 0.4			0.03	0.02								
			H	M	S	DIR	RES	DIST	AZ	H-A	W	P	W	S
KRP	IP		18 02	06.2	D		-0.3	0.60	318					
	S			24.5			0.1							
WTZ	P		18 02	08			0.0	0.84	63			3.0	3.2	
	S			27			-0.0							
TUA	P		18 02	09			0.1	0.97	117			3.9	3.6	
	S			29			0.3							
TRZ	P		18 02	12			-0.2	1.33	153			4.0	3.2	
GNZ	P		18 02	15.2	D		0.5	1.58	101			3.5	3.4	
	S			38.5			-0.4							
MNG*	IP		18 02	19.7	U		-3.1*	2.28	191			4.2	3.7	
	S			48			-5.1*							
WEL*	S		18 03	05			-5.5*	3.07	198			3.7	3.6	
COB*	S		18 03	18			-7.4*	3.72	222				3.5	
GPZ*	S		18 04	08			-8.7*	5.91	205			4.1		
HJZ*	S		18 04	32			-11.1*	7.01	215					

AUG 22		H	M	S							75/ 472			
	20 01	50.7			42.11S	172.77E	12 KM	SE	1.7	AVG MAG	3.9			
		+ 0.4			0.02	0.03								
			H	M	S	DIR	RES	DIST	AZ	H-A	W	P	W	S
KKY	IPG		20 02	07.8	U		1.7	0.75	115					
	SG			19			2.7							
COB	PG		20 02	11.0	U		-0.5	1.02	358			4.3	4.4	
	SG			25			-0.3							
KAI	PG		20 02	13.5			0.6	1.09	247			3.2		
	SG			28.5			0.7							
GPZ	PN		20 02	18			0.1	1.59	183			3.7		
	SN			36.5			-1.7							
WEL	PN		20 02	19			-0.5	1.71	62			3.2	4.2	4.1
	EPG			27			1.7							
	SN			39			-2.0							
MNG	IPN		20 02	29.3	D		-1.4	2.53	55			4.3	3.8	
	P*			32			-3.0							
	EPG			40			-1.9							
	SN			58.5			-2.4							
HJZ	PN		20 02	31.5			0.8	2.53	221			3.7	3.7	
	P*			36			1.0							
	SN			03 01.5			0.6							
THZ	PN		20 02	41			1.5	3.16	23			3.8	3.8	
	ESN			03 18			1.5							
	S*			30			2.5							
OHZ	PN		20 02	41			0.2	3.25	204			3.8	4.2	

WTZ*	P*	00 01 36		0.1*	1.84	35		4.3	
WEL	P*	00 01 36.2	U	-0.8	1.90	201	4.1	4.5	4.6
	S*	02 02.5		0.3					
	SG	06		-1.6					
GNZ*	PG	00 01 43		-1.5*	2.03	66		4.1	3.8
	SG	02 16		4.0*					
COB*	PN	00 01 48		1.7*	2.74	234		4.4	4.5
	P*	53		1.7*					
	SN	02 23.5		4.8*					
	S*	29		1.8*					
KAI*	SN	00 03 02		2.7*	4.41	225	4.4		
	SG	34		2.1*					
GPZ*	EP*	00 02 29		3.2*	4.76	207	4.1		
	PG	38		-1.5*					
	SN	03 06		-1.8*					
	ESG	39		-4.7*					
MJZ*	EPN	00 02 30		0.4*	5.92	219		3.7	3.6
	SN	03 36		0.0*					
	ES*	04 08		4.9*					
CIZ*	SN	00 04 05		-4.3*	7.32	130			

FELT MOANHANGO (58) MM V AND WAIORU (50)

AUG 24		H	M	S						75/ 475
		19 09	41.0		39.18S	175.05E	156 KM	SE	0.9	AVG MAG 3.7
			+ 1.0		0.03	0.05	7			
					H	S	DIR	RES	DIST	AZ
CHZ	P	19 10	03.6					0.9	0.38	92
	S		20					0.6		
KRP	P	19 10	09.4					-0.1	1.31	17
	S		30.5					-0.8		
TRZ*	S	19 10	35					1.9*	1.42	106
MNG	IP	19 10	11.5	U				0.5	1.47	167
	S		33					-1.1		
TUA	P	19 10	13					-0.2	1.67	78
	S		38					0.1		
WTZ*	P	19 10	15.3					-0.7*	1.93	52
WEL*	EP	19 10	18					-0.1*	2.11	186
	S		46					-0.7*		
GNZ*	IP	19 10	21.5	U				0.1*	2.37	78
	S		52					-0.4*		
COB*	EP	19 10	23					-1.3*	2.61	222
	S		56					-1.5*		
KAI									4.34	218
GPZ*	S	19 11	44					-5.5*	4.86	201
MJZ*	S	19 12	08					-6.4*	5.90	214

AUG 24		H	M	S						75/ 476
		19 11	03.2		40.30S	176.51E	12 KM	SE	1.7	AVG MAG 3.9
			+ 0.5		0.03	0.03	7			
					H	S	DIR	RES	DIST	AZ
CAZ	PG	19 11	16					-0.4	0.64	200
	ESG		27					1.9		
TRZ	PG	19 11	18					-1.2	0.78	18
	SG		32					2.1		
MNG	IP*	19 11	18.6	U				-0.2	0.85	248
	ESG		32.5					0.5		
CHZ	P*	19 11	27.7					0.7	1.33	326
	SG		49					0.9		
TUA	EPG	19 11	34					-1.0	1.57	19
	ESG		58					1.7		
WEL	PN	19 11	29					-2.2	1.65	233
	PG		36.5					-0.2		
	SN		51					-1.1		
	SG		58					-0.9		
WNZ*	PG	19 11	40					2.4*	1.70	349
GNZ	EPG	19 11	46.5					2.3	2.03	36
	SN	12	01.5					0.3		

CIZ*		SN	09 55 48.5	-3.2*	7.29	119			
FELT PUKERUA BAY (68) MM IV									
H M S								75/ 479	
AUG 25	14 39 28.3	38.31S	175.97E	168 KM	SE	0.6	AVG MAG	4.1	
+ 0.5		0.02	0.02	4					
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
HNZ	P	14 39 51		-0.3	0.34	163			
KRP	IP	14 39 52.6	UW	0.6	0.52	318			
	S	40 10.9		0.3					
WTZ	IP	14 39 54.2	U	0.2	0.86	68		4.1	3.8
	S	40 13		-0.9					
CNZ	P	14 39 54		-0.6	0.95	200		3.6	4.2
	S	40 15		0.1					
TUA	P	14 39 55.8	U	0.4	1.05	119		4.5	4.3
	S	40 16.9		0.2					
TRZ	P	14 39 58.6	U	-0.1	1.41	152		4.5	4.6
	S	40 22.5		0.4					
TNZ	P	14 39 59.2		-0.6	1.52	234		3.6	3.0
	S	40 26		1.9*					
GNZ	P	14 40 01.6		0.6	1.64	102		4.2	4.2
	S	25.7		-0.5					
ECZ*	P	14 40 07.5		1.2*	2.12	74		4.4	4.3
	S	32		-3.5*					
MNG*	IP	14 40 08.2	D	-2.7*	2.34	189		4.1	
	S	33.9		-6.5*					
CAZ*	S	14 40 43		-2.8*	2.60	176			
WEL*	P	14 40 14.9	U	-3.5*	3.11	197	4.4		4.3
	S	50		-7.1*					
COB*	P	14 40 21		-5.4*	3.73	221		3.7	4.0
	S	41 04.3		-6.5*					
KAI*	S	14 41 50		-1.5*	5.47	218	4.0		
GPZ*	P	14 40 49		-6.2*	5.94	204	4.6		
	S	41 51		-11.3*					
HJZ*	P	14 41 04.5		-9.2*	7.03	214			
	S	42 17.5		-11.2*					
CIZ*	S	14 42 52.5		1.6*	7.97	137			

H M S								75/ 480	
AUG 25	21 21 18.2	35.97S	178.20E	33 KM	SE	1.9	AVG MAG	4.6	
+ 1.7		0.08	0.05	4					
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	EPN	21 21 48		1.2	1.84	171		4.8	4.6
	P*	51		-0.1					
	SN	22 09.5		1.3					
	S*	14		-1.6					
WTZ	IPN	21 21 53.5	D	0.1	2.32	204		4.8	4.6
	SN	22 19		-1.0					
GNZ	PN	21 21 58.5		-1.0	2.77	183		4.5	4.4
	P*	22 05		-2.0					
	SN	25		-5.9*					
KRP	PN	21 22 04.5		2.4	2.96	225			
	SN	37		1.5					
	S*	46		-3.1					
TUA	PN	21 22 05		1.6	3.05	196		4.6	4.8
	SN	40		2.3					
TRZ*	SN	21 22 55.5		-1.4*	3.84	196			4.9
	S*	23 10		-5.4*					
CNZ*	PN	21 22 18.5		3.1*	3.94	212		4.5	4.6
	SN	23 07		7.7*					
TNZ*	PN	21 22 27		3.9*	4.49	221		4.3	3.9
	SN	23 22		9.2*					
MNG*	PN	21 22 29.5		-3.1*	5.20	203		4.2	4.4
	P*	39		-9.5*					
	SN	23 24		-5.9*					
	S*	40		-18.4*					
CAZ*	ES*	21 23 37		-21.2*	5.26	197			

WEL*	ESN	21 23 44	-5.1*	6.04	205	4.9			
	S*	24 03	-18.5*						
COB*	P*	21 23 12	-3.0*	6.75	218				
	SN	24 04	-3.0*						
GPZ*	SN	21 24 50.5	-8.2*	8.91	207	5.0			
CIZ*	SN	21 24 53	-8.3*	9.02	155				
MJZ*	SN	21 25 15	-10.6*	10.05	214				
AUG 26	H M S	00 20 34.3	38.92S	178.45E	12 KM	SE 0.5	AVG MAG	75/ 481	5.2
		+ 0.4	0.02	0.02					
			H M S	DIR	RES	DIST	AZ	H-A	W P W S
GNZ	IPG	00 20 44.8	W	2.5*	0.38	297			
TUA	IP*	00 20 53.6	U	0.8	1.02	270			5.3 5.5
	S*	21 06.5		-0.1					
ECZ	IP*	00 20 54.3	U	-0.3	1.13	4			5.4 5.4
	ES*	21 10		0.2					
WTZ	IPN	00 20 58.9	U	-0.2	1.42	305			5.2 5.1
	ESN	21 17		-0.6					
TRZ	IPN	00 20 59.8	U	0.1	1.47	240			5.0 5.2
	ESN	21 18		-0.7					
WNZ	PN	00 21 05.5		0.5	1.85	275			5.2 5.4
	I	24.5							
	S*	31.5		-0.0					
	ESG	37		0.3					
CNZ*	IPN	00 21 11.6	D	0.5*	2.30	260			5.1
KRP*	IPN	00 21 12.0	UW	-0.5*	2.46	290			
	SN	41		-1.9*					
CAZ*	PN	00 21 15		-1.6*	2.70	219			
	SN	46.5		-2.1*					
MNG*	PN	00 21 17.5		-2.1*	2.91	231			
	ESN	52		-1.9*					
TNZ*	PN	00 21 24.5		1.0*	3.20	262			5.0 4.4
	SN	22 00		-0.8*					
GBZ*	PN	00 21 27		-0.8*	3.51	317			
WEL*	PN	00 21 28.5		-2.5*	3.75	228	5.1	4.8	5.1
	P*	39		-0.5*					
	SN	22 11.5		-2.8*					
COB*	PN	00 21 44.8		-2.5*	4.95	241			4.8 5.1
	SN	22 41		-2.3*					
CIZ*	PN	00 22 06		-0.3*	6.35	145			
	SN	23 13		-4.0*					
CRZ*	PN	00 22 08		1.3*	6.38	312			
KAI*	SN	00 23 18		-2.9*	6.51	233	5.3		
GPZ*	SN	00 23 14.5		-7.3*	6.55	220	5.6		
MJZ*	PN	00 22 25		-2.3*	7.92	227			
	SN	23 50		-4.5*					
OMZ*	EPN	00 22 31		-2.7*	8.40	220			
	SN	24 00		-6.0*					
MSZ*	EPN	00 22 51.5		-0.9*	9.80	230			
	SN	24 34		-5.5*					
WPZ*	ESN	00 24 56		-0.8*	10.54	219			
MNW*	SN	00 24 52		-6.5*	10.61	226	5.3		
FELT	GISBORNE (45) MM IV								
AUG 26	H M S	03 29 21.3	44.32S	167.10E	12 KM	SE 0.8	AVG MAG	75/ 482	4.3
		+ 0.9	0.03	0.03					
			H M S	DIR	RES	DIST	AZ	H-A	W P W S
MSZ	IP*	03 29 33.6	D	-0.9	0.68	121			
MNW	EP*	03 29 50		1.4	1.50	166	3.8		
	S*	30 08.5		-0.1					
ROX	SN	03 30 18		-0.0	1.95	127			
GSP	PN	03 29 55.5		-0.5	2.11	86			
	P*	59		0.1					
	SN	30 22		0.3					
MJZ	PN	03 29 59.5		-1.2	2.44	83			4.6 4.6

		P	30	04.5	-0.2				
		SN		31	1.0				
WPZ		P	03 30	07.8	-0.3	2.64	153	4.1	4.0
		PG		16	0.8				
		S		42	-0.8				
OMZ		PN	03 30	05.5	-0.4	2.82	107	4.5	4.6
		P		12	0.9				
		S		45.5	-2.7				
KAI		PQ	03 30	29	-3.9	3.61	62	4.4	
		S		31 11.5	-0.6				
		SG		20.5	-3.2				
GPZ		PN	03 30	22	-0.6	4.05	83	4.2	
		EPG		39	-4.7				
		SN		31 07	-2.1				
		S		23	-2.1				
		SG		35	-3.2				
COB		PN	03 30	37.5	-1.6	5.26	54	4.2	4.3
		ESN		31 40	1.6				
MNG		PN	03 31	08	2.5	7.22	62		
<p style="text-align: right;">75/ 483</p>									
AUG 26	H M S		38.91S	178.61E	12 KM	SE	1.8	AVG MAG	4.0
			0.06	0.05					
			I M S	DIR	RES	DIST	AZ	W-A	W P W S
GNZ	IPQ		07 39	06.7	NW	1.5	0.53	300	
	ESG			16		3.5			
TUA	P		07 39	15		0.1	1.14	275	4.1 4.3
	S			29		-1.3			
	SG			31		-2.0			
ECZ	P		07 39	16.2	D	0.0	1.21	358	4.6 4.5
	S			32		-0.5			
TRZ	PN		07 39	21.5		0.9	1.53	245	3.8 4.1
	S			42.5		0.6			
WTZ	IPN		07 39	20.6	U	-0.6	1.57	305	4.5 4.4
	SN			39		-2.3			
CNZ	PN		07 39	34		1.4	2.40	262	3.1 3.3
	SN			40 01		-0.4			
KRP	PN		07 39	34		-1.4	2.60	291	
MNG	IPN		07 39	39.8	U	-0.4	2.95	234	3.7 3.7
	SN			40 14		-0.9			
TNZ	PN		07 39	46		1.0	3.30	264	3.5
WEL	SN		07 40	34		-1.1	3.78	230	4.0 4.0
COB	EPN		07 40	06		-2.2	5.01	242	3.5 3.6
	SN			41 03		-1.8			
CIZ	EPN		07 40	26.5		2.1	6.21	146	
	SN			41 36		2.3			
KAI							6.55	234	4.2
GPZ	SN		07 41	38		-4.1	6.56	221	4.5
MJZ	SN		07 42	13		-2.2	7.94	228	
<p style="text-align: right;">75/ 484</p>									
AUG 26	H M S		36.25S	177.52E	266 KM	SE	0.8	AVG MAG	4.1
			0.08	0.07					
			I M S	DIR	RES	DIST	AZ	W-A	W P W S
GBZ	P		12 05	06.5		-1.2	1.65	271	
ECZ	P		12 05	07.8		0.1	1.66	151	4.7 4.3
	S			40		0.3			
WTZ	P		12 05	08		-0.7	1.78	194	4.2 3.8
	S			41		-0.5			
KRP	P		12 05	14		0.8	2.31	223	
GNZ	P		12 05	14		-0.4	2.42	171	4.1 4.2
	S			52		0.2			
TUA	P		12 05	15.5		-0.4	2.57	186	3.7 4.3
	S			55		0.5			
ONE	P		12 05	17.5		1.2	2.60	280	
TRZ	P		12 05	23.5		-0.5	3.34	189	3.8 4.4
	S			06 12.5		3.6			

LOCAL EARTHQUAKES

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MNG*	P	12 05 37	-2.0*	4.65	200			3.9	3.8
	S	12 06 37	1.3*						
WEL*	S	12 06 55	1.5*	5.47	202	4.4		3.8	
COB*	S	12 07 09	1.4*	6.11	216				
GPZ*	S	12 07 57	-0.3*	8.33	205	4.6			
HJZ*	S	12 08 22	-0.1*	9.43	213				
AUG 26									
	H M S	37.32S	177.56E	83 KM	SE	1.8	AVG MAG	75/ 485	3.7
		0.08	0.05	21					
	H M S	1 M S	DIR	RES	DIST	AZ	W-A	W P	W S
WTZ	IP	17 06 38.2	D	-1.1	0.80	214		4.3	4.3
	S	51		-1.5					
ECZ	P	17 06 39		-0.9	0.87	116		4.2	4.1
	S	55.5		1.8					
GNZ	P	17 06 45		-1.3	1.37	165		3.5	3.7
	IS	07 03		-1.6					
TUA	P	17 06 48.5		0.3	1.52	192		3.6	3.8
	S	07 11		3.2					
KRP	IP	17 06 50.9	DE	0.3	1.72	249			
	S	07 12.5		0.5					
GBZ	P	17 06 54.5		0.2	2.00	303			
TRZ*	S	17 07 27		1.1*	2.30	194			3.8
CNZ*	P	17 07 01		0.3*	2.46	220		3.4	3.2
	S	32.5		2.8*					
TNZ*	P	17 07 13		3.1*	3.12	232		3.5	
MNG*	P	17 07 13.5		-4.0*	3.67	206		3.3	3.2
	S	54.5		-5.3*					
WEL*	S	17 08 17		-3.8*	4.51	208	4.1		3.5
COB*	ES	17 08 44		3.4*	5.31	223			3.3
GPZ*	ES	17 09 30		-1.7*	7.39	209			
CIZ*	S	17 09 39		-7.4*	7.99	148			
AUG 27									
	H M S	45.54S	167.19E	79 KM	SE	0.5	AVG MAG	75/ 486	4.4
		0.02	0.03	4					
	H M S	1 M S	DIR	RES	DIST	AZ	W-A	W P	W S
MNW	IP	02 23 31.7	S	0.2	0.39	129			
	S	41.5		0.1					
HSZ	IP	02 23 38.0	U	0.2	1.01	31			
	ES	52		-0.4					
ROX	S	02 24 04		0.4	1.50	88			
WPZ	IP	02 23 45.7		0.0	1.61	135		4.8	
	S	24 05.5		-0.5					
GSP*	P	02 23 56.0	U	-1.1*	2.45	56			
	S	24 24.5		-1.5*					
OHZ*	P	02 23 59.6		-0.7*	2.67	81		4.6	4.7
	S	24 29.5		-2.3*					
HJZ*	IP	02 24 00.8	U	-1.3*	2.80	58		4.4	4.4
	S	33.5		-1.6*					
KAI*	P	02 24 21		-1.9*	4.28	47	4.0		
GPZ*	P	02 24 21		-3.2*	4.31	67	4.2		
	S	25 07		-2.3*					
COB*	EP	02 24 44		-2.3*	6.01	44			
	S	25 50		-4.5*					
MNG*	P	02 25 09		-2.2*	7.81	54			
AUG 27									
	H M S	41.74S	174.23E	12 KM	SE	2.1	AVG MAG	75/ 487	3.7
		0.03	0.04	9					
	H M S	1 M S	DIR	RES	DIST	AZ	W-A	W P	W S
WEL	P	17 47 49.1	U	-1.9	0.61	42	3.3	4.2	3.9
	PG	52		-0.1					
	SG	58.5		-1.9					
KKY	IP	17 47 54.2	U	0.2	0.79	211			
	ESG	48 08		1.8					
COB	P	17 48 01.5	D	-1.4	1.30	300		4.4	3.9

		S	H	M	S	37.38S	176.61E	211 KM	SE	1.1	AVG MAG	75/ 492	
	S*	39	29					0.8*					
	EL	40	00										
OMZ*	PN	18	38	26				-1.5*	4.07	216	4.7	4.5	
	PG			54				3.3*					
GNZ*	EPN	18	38	29				-1.2*	4.27	43	4.5	4.1	
	EPG			50				-2.7*					
	ESN			39	20			1.0*					
WTZ*	PN	18	38	31				-0.3*	4.35	30	4.4		
MSZ*									5.45	236	4.1	4.2	
ONE*	EP*	18	39	13				2.5*	6.02	1	4.6		
	PG			33				4.9*					
	SN			40	05			3.7*					
	ES*			27				-2.0*					
MNH*	SN	18	40	06				-0.4*	6.24	228	4.9		
CIZ*	SN	18	40	20				-6.2*	7.06	111			
CRZ*	PN	18	39	16				2.6*	7.47	350			
	SN			40	38			2.1*					
AUG 29	H M S	22	44	45.3		37.38S	176.61E	211 KM	SE	1.1	AVG MAG	75/ 492	
				+ 1.2		0.10	0.06	10			5.3		
	H M S	22	45	14.2				DIR	RES	DIST	AZ	W-A	
WTZ	IP	22	45	14.2				U	-0.4	0.68	153	W P W S	
	ES			36					-1.2			5.2	5.4
KRP	IP	22	45	15.8				UW	-0.6	1.01	237		
	S			42					1.5				
WNZ	P	22	45	18					-0.6	1.31	197	5.1	5.2
GBZ	P	22	45	19.7				D	-0.2	1.47	322		
TUA*	P	22	45	19					-1.1*	1.49	163	5.5	5.8
	ES			47.5					0.4*				
ECZ	IP	22	45	22.0				U	1.1	1.57	102	5.8	6.0
GNZ	IP	22	45	22.1				DNW	0.2	1.69	139		
	S			50.5					0.3				
CNZ*	P	22	45	23					-2.0*	2.00	204	4.9	5.0
	S			46	00				4.5*				
TRZ*	P	22	45	25.4					-1.4*	2.18	176	5.4	5.6
	ES			59					0.2*				
ONE*	P	22	45	29					-0.3*	2.41	311	4.3	
	S			46	03.5				0.2*				
TNZ*	IP	22	45	29.1				U	-1.4*	2.52	223	5.0	4.6
	S			46	07.5				2.1*				
MNG*	IP	22	45	35.9				U	-4.3*	3.35	195		
	S			46	16				-6.6*				
CAZ*	P	22	45	39.1				D	-3.2*	3.53	185		
	S			46	21				-5.5*				
WEL*	IP	22	45	44.6				U	-5.4*	4.15	199	5.7	5.0
	S			46	33.5				-6.6*				
CRZ*	P	22	45	49.5					-2.7*	4.34	312	4.6	
COB*	P	22	45	51					-6.7*	4.77	218	4.9	
	ES			46	47				-6.9*				
KKY*	P	22	46	00.5					-6.6*	5.51	203		
	S			47	01				-9.8*				
KAI*	EP	22	46	14					-5.9*	6.51	216	5.7	
	ES			47	25				-8.8*				
GPZ*	P	22	46	18.5					-7.7*	6.99	204	7.3	
	S			47	34				-11.0*				
HJZ*	P	22	46	33					-7.3*	8.08	213		
	S			47	57				-13.3*				
CIZ*	P	22	46	41					-3.1*	8.37	144		
	E			48	19								
	S			24					7.0*				
OMZ*	P	22	46	42.5					-7.1*	8.80	207		
	S			48	18				-8.9*				
MSZ*	P	22	46	52.5					-10.1*	9.80	219		
	S			48	36.5				-13.6*				
MNH*	ES	22	49	03					-9.2*	10.75	216	5.2	
WPZ*	S	22	49	05					-10.9*	10.92	209		

AUG 30		H	M	S	32.55S	178.34W	33 KM	SE	1.0	AVG MAG	75/ 493
		+ - 1.2			0.10	0.19	R				4.9
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	PN	06	06	19.5		5.1*	5.73	206		4.8	4.7
	SN		07	17		-0.3					
WTZ	PN	06	06	27.6		1.0	6.63	214			
	ESN		07	40		1.1					
GNZ	PN	06	06	28.5		0.1	6.76	205			
	ESN		07	43		1.0					
TUA*	ESN	06	07	54		0.5*	7.24	209			
KRP	PN	06	06	36.8		0.7	7.33	221			
TRZ	PN	06	06	44		-1.1	8.01	208			
	SN		08	11.5		-0.3					
CHZ	PN	06	06	48.0		-0.7	8.28	215			
	ESN		08	17		-1.4					
MNG*	PN	06	07	00.5		-3.9*	9.46	210			
	SN		08	39.5		-6.9*					
WEL*	EPN	06	07	12		-3.7*	10.31	210	5.1		
	SN		08	59		-7.6*					
COB*	SN	06	09	17		-8.4*	11.12	217			
CIZ*	SN	06	09	44		10.4*	11.47	174			
GPZ*	SN	06	10	02		-11.4*	13.19	210	5.0		
MJZ*	SN	06	10	31		-10.0*	14.39	214			
AUG 30		H	M	S	42.66S	171.69E	12 KM	SE	1.5	AVG MAG	75/ 494
		+ - 0.4			0.02	0.03	R				4.7
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KAI	IPG	23	21	27.5		1.1	0.25	304			
CHR	P*	23	21	42		1.1	1.11	142			
GPZ	P*	23	21	42.8		-0.5	1.24	146	4.5		
	PQ			44.5		-1.7					
	S*			59		-1.0					
KKY	P*	23	21	48.5		0.8	1.50	81			
	IPG			50		-1.3					
	ISG		22	14.5		2.9					
MJZ	IP*	23	21	48.5		-0.8	1.60	214	5.1	5.1	
	S*		22	10.5		-0.0					
COB	P*	23	21	52		-0.1	1.76	27			
	ESG		22	18.5		-1.8					
GSP*	PN	23	21	53		0.5*	1.91	219			
	P*			55		0.3*					
	S*		22	20.5		0.6*					
OHZ	PN	23	21	59		-1.2	2.47	193	5.5	5.1	
	IP*		22	06		1.7					
	ES*			37		0.2					
WEL	PN	23	22	05		2.0	2.68	60	4.3	4.9	4.8
	EP*			09		1.2					
	IPG			13.5		-1.6					
	SN			39		4.2*					
	S*			42		-1.0					
ROX*	PG	23	22	23		-4.5*	3.29	210			
MSZ*	PN	23	22	12		-0.8*	3.39	233	4.6	4.6	
	P*			23		2.9*					
	PG			31		1.4*					
	SN			53		0.7*					
MNG*	PN	23	22	14.8		0.5*	3.50	56			
	IP*			22		0.1*					
	S*		23	11		3.2*					
CAZ*	EPG	23	22	37		-1.2*	3.82	64			
	SN			07		4.3*					
	SG			34		4.3*					
MNW*	SN	23	23	15		1.3*	4.27	222	4.4		
WPZ*	EPH	23	22	26		-1.7*	4.48	206		4.6	4.3
	P*			40.5		1.8*					

SEP 02		H	M	S	36.67S	170.35E	33 KM	SE	2.0	75/ 500		
		12	51	48.1	0.08	0.11	R			AVG MAG	3.8	
		+ - 1.7										
		H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W S
ECZ	PN	12	52	05		-0.5	1.03	172		4.1	4.3	
	S*			20		-1.5						
WTZ	PN	12	52	13.5		-1.2	1.71	219		4.0	3.7	
	ESN			32.5		-2.3						
GNZ	PN	12	52	18.5		-0.1	1.99	188		3.8	3.5	
	P*			25		1.5						
	SN			44		2.4						
TUA	PN	12	52	22		-1.4	2.34	204		3.5	3.7	
	ESN			53		2.8						
GBZ	PN	12	52	26.2		2.5	2.36	280				
KRP	PN	12	52	26		-0.5	2.57	240				
	SN			54		-1.9						
TRZ*	EPN	12	52	36		1.8*	3.12	202		3.6	3.7	
	SN			53		-3.3*						
	ES*			25		1.2*						
TNZ*	EPN	12	52	50.5		4.0*	4.02	230		3.7		
MNG*	EPN	12	52	53.5		-0.0*	4.54	209		3.4	3.4	
	ESN			53		-0.7*						
	S*			54		-4.3*						
CRZ*	EPN	12	53	03		1.4*	5.14	294		4.2		
WEL*	SN	12	54	03		-1.3*	5.39	210	4.3		3.8	
CIZ*	SN	12	55	07.5		-5.2*	8.25	154				

SEP 02		H	M	S	38.85S	175.99E	12 KM	SE	2.0	75/ 501		
		17	27	38.9	0.21	0.15	R			AVG MAG	2.9	
		+ - 4.1										
		H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W S
WNZ	PG	17	27	42.3	U	-1.9	0.24	23				
TUA	PG	17	27	57		-0.5	0.91	88		3.3		
KRP	PG	17	28	00		1.0	0.99	339				
	SG			12		-0.4						
WTZ	PG	17	28	04.5		1.8	1.17	43		2.5		
FELT MAIRAKEI (41) MM IV												

SEP 05		H	M	S	35.95S	179.67W	33 KM	SE	1.5	75/ 502		
		06	47	37.0	0.07	0.07	R			AVG MAG	4.9	
		+ - 1.2										
		H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W S
ECZ	P	06	48	13.2		2.1	2.25	219		5.2		
GNZ	P	06	48	24.5		-0.4	3.26	214		4.6		
	I			49		10						
WTZ	P	06	48	26.3		-0.0	3.36	232		4.9		
TUA	P	06	48	34.0		1.5	3.81	221		5.2		
KRP	P	06	48	39.3		-0.1	4.32	241				
	I			44.2								
TRZ	EP	06	48	41.0		-1.5	4.55	217		4.7	4.6	
	EE			49		41.0						
MNG	EP	06	49	00.2		-2.2	6.02	218				
	E			02.0								
	I			19.8								
CRZ	P	06	49	09.0		0.8	6.45	281				
	I			18.8								
WEL	EP	06	49	13		-1.0	6.88	218				
	S			50		1.1						
CIZ	EP	06	49	33		-0.5	8.34	164				
	ES			51		1.2						
GPZ	ES	06	51	35		-2.0	9.73	215	5.4			
MSZ	EP	06	50	37		4.3*	12.86	224				
	ES			52		1.1						

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SEP 06	H	M	S	38.44S	175.77E	171 KM	SE	1.6	AVG MAG	75/ 503			
	00	34	11.9	0.05	0.05	10				4.1			
			+ 1.3										
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KRP				00	34	36.0		0.0	0.55	340		3.5	3.3
						54.8		0.2					
CNZ				00	34	39.7		2.4	0.78	193		4.3	3.6
						05.5							
WTZ				00	34	38.8		-0.5	1.06	65		3.4	3.8
						57							
						58.8		-1.7					
TUA				00	34	40		-0.0	1.14	109		4.6	4.5
						01		-0.8					
TRZ				00	34	43.8		1.6	1.38	144		4.6	4.0
						09		3.4					
GNZ				00	34	45.8		-0.4	1.78	97		3.8	4.0
						11.2		-1.5					
MNG				00	34	51.4		0.6	2.19	186		4.3	
						19.7		-1.1					
ECZ				00	34	52.7		0.4	2.31	72		4.5	
						36		-1.2	2.95	195	4.4		4.4
WEL				00	35	36		-1.3	3.53	221			4.0
COB				00	35	49		-6.0*	5.76	203	4.7		
GPZ				00	36	36							

SEP 06	H	M	S	38.25S	175.88E	192 KM	SE	0.9	AVG MAG	75/ 504			
	02	09	37.2	0.03	0.03	5				5.0			
			+ 0.6										
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KRP				02	10	03.6		0.4	0.42	319			
						23.7		0.4					
WTZ				02	10	04.8		-0.8	0.91	74		4.7	5.0
						23.0							
						26.4		-1.3					
CNZ				02	10	07.8		1.5	0.99	195		5.0	4.5
						37.5							
TUA				02	10	07.9		0.6	1.14	120		4.8	5.1
						30.0		-0.7					
TRZ				02	10	12.0		1.6	1.50	151		5.2	5.4
						36.5		0.4					
GNZ				02	10	12.8		0.2	1.73	104		4.7	
						34.8							
						39.0		-1.0					
ECZ				02	10	17.0		-0.3	2.18	76			4.8
						49		0.7					
MNG				02	10	19.9	U	0.2	2.39	187			
						52.5		-0.0					
CAZ				02	10	23.0		-0.1	2.67	174			
						54.5							
						59.5		1.0					
WEL				02	10	28.2		-0.6	3.16	195	5.0	4.9	5.1
						11.08		-0.7					
COB				02	10	35		-1.0	3.74	220			
						11.21		-0.5					
KAI*				02	11	57		-4.1*	5.47	217	5.1		
GPZ*				02	11	02		-2.7*	5.97	203	5.7		
						12.07.3		-5.5*					

SEP 07	H	M	S	38.28S	178.43E	71 KM	SE	1.9	AVG MAG	75/ 505			
	06	38	32.1	0.07	0.09	14				3.8			
			+ 1.5										
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
GNZ				06	38	43.5		-1.5	0.49	221			
						57.0		1.8					
ECZ				06	38	45.8		-0.6	0.59	9		4.5	4.5
						56		-1.1					
TUA				06	39	07		-1.5	1.14	242			

	WTZ	P	06 38 56.4		2.9	1.18	284		3.6	3.8			
		IS	39 09.0		-0.4								
	TRZ	EP	06 39 02		0.4	1.79	224		3.7	3.6			
		ES	24.7		1.4								
		E	28.5										
	MNG	EP	06 39 24		1.8	3.27	223		3.1	3.3			
		ES	59.5		-0.6								
	WEL	ES	06 40 19		-2.5	4.12	222	4.2		3.7			
SEP 07	H	M	S						75/	506			
	13	46	42.3	38.30S	178.53E	33 KM	SE 1.9	AVG	MAQ	3.7			
			+ 1.4	0.06	0.10								
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	GNZ	P	13 46 52.8				-0.0	0.53	229			3.8	3.5
		E	47 05.5										
	ECZ	P	13 46 54.4				0.5	0.61	1			4.5	
		E	47 04.5										
	TUA	EEP	13 47 02				-0.0	1.20	245			3.6	3.7
		E	11										
	WTZ	P	13 47 05.0				2.2	1.26	284			3.7	4.1
		IS	16.3				-1.9						
	TRZ	EP	13 47 10.5				-0.2	1.83	226			3.6	3.7
		ES	35				2.9						
	KRP	E	13 47 31					2.39	278			3.0	
	CNZ	EP	13 47 20				0.1	2.50	248			3.4	3.3
		E	37.5										
	MNG	EP	13 47 28				-3.0	3.31	225			3.2	3.3
		ES	48 08				-0.1						
	WEL	ES	13 48 27				-1.8	4.16	223	4.2			3.7
	COB	ES	13 48 57				1.4	5.27	236				3.6
SEP 07	H	M	S								75/	507	
	15	40	59.5	35.41S	179.72W	33 KM	SE 2.2	AVG	MAQ	4.2			
			+ 2.2	0.17	0.25								
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	ECZ	EP	15 41 41				1.6	2.67	211			4.5	
		E	42 17										
	WTZ	P	15 41 53.5				0.2	3.69	225			3.9	
	GNZ	EP	15 41 52.8				-0.7	3.70	209			3.8	4.0
		S	42 35.5				0.7						
	TUA	EP	15 42 01				0.5	4.22	215			4.4	4.4
		ES	48				0.7						
	KRP	EP	15 42 03				-2.3	4.56	235			3.7	
	TRZ	E	15 42 13					4.97	213			4.2	4.3
		ES	43 08				2.5						
	CNZ	EP	15 42 17				1.2	5.34	223			3.8	3.8
		E	35										
		ES	43 18				3.4						
	MNG	EP	15 42 30				-0.5	6.43	215				
		ES	43 37				-3.8						
	WEL	ES	15 43 56				-3.3	7.29	215	5.0			
	COB	ES	15 44 23				-0.2	8.21	224				
SEP 08	H	M	S								75/	508	
	04	42	36.8	39.16S	175.38E	135 KM	SE 0.7	AVG	MAQ	3.9			
			+ 0.6	0.02	0.02								
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	TRZ	EP	04 43 03				0.7	1.18	110			4.1	4.4
		S	22				0.3						
	KRP	P	04 43 03.5			U	0.6	1.24	6			3.5	3.4
		S	22.0				-0.8						
	TUA	EP	04 43 05				0.1	1.42	76			4.3	4.1
		E	21										
		ES	26				-0.2						
	MNG	P	04 43 04.2				-1.0	1.46	177				
	WTZ	P	04 43 08.3				0.1	1.72	48			3.5	3.7
		ES	32.2				0.1						

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	GNZ	E	04 43	36.5 35.6			2.12	77		4.0
		IS		40.7		0.1				
	WEL	EP	04 43	12.5		-1.1	2.17	192	3.8	3.8 4.0
		ES		37		-4.7*				
	COB	EP	04 43	22		0.1	2.80	226		3.9 4.2
		S		57		0.9				
SEP 08	H M S									75/ 509
	13 21 02.2		35.85S	179.45W	33 KM		SE	2.6	AVG MAG	4.0
	+ - 2.5		0.15	0.13						
		H M S			DIR	RES	DIST	AZ	W-A	W P W S
	ECZ	EP	13 21	41.8		2.9	2.44	221		4.3 4.2
		E		22 08						
	GNZ	EP	13 21	51.5		-1.1	3.44	215		3.8 4.0
		S		22 35.5		4.4				
	WTZ	EP	13 21	53		-1.3	3.56	232		4.0
	TUA	EP	13 22	00		-0.3	4.01	222		4.3
	KRP	EP	13 22	08		0.6	4.52	241		3.6
		E		59						
	TRZ	EP	13 23	07			4.73	218		4.1
	HNG	EP	13 22	27		-3.2	6.21	218		
		E		40						
		ES		23 36		-2.1				
	CIZ	EP	13 23	01		1.6	8.39	166		
		ES		24 29		-1.2				
SEP 08	H M S									75/ 510
	13 40 32.3		35.58S	179.21W	33 KM		SE	1.8	AVG MAG	3.9
	+ - 2.1		0.12	0.09						
		H M S			DIR	RES	DIST	AZ	W-A	W P W S
	ECZ	EP	13 41	15		1.3	2.78	220		4.3
	GNZ	EP	13 41	26		-1.3	3.78	215		3.6 3.8
		S		42 11		1.5				
	WTZ	EP	13 41	28		-0.8	3.88	231		3.9
	TUA	EP	13 41	33		-2.0	4.34	221		4.3
	KRP	EP	13 41	42		0.4	4.83	239		3.4
	HNG	E	13 42	16			6.54	218		
		E		39.5						
		ES		43 16		-0.2				
	CIZ	EP	13 42	35		2.6	8.61	167		
		ES		44 04		-1.6				
SEP 08	H M S									75/ 511
	13 45 42.7		35.72S	179.13W	33 KM		SE	1.9	AVG MAG	4.1
	+ - 2.1		0.11	0.11						
		H M S			DIR	RES	DIST	AZ	W-A	W P W S
	ECZ	EP	13 46	25		1.9	2.71	223		4.3
	GNZ	EP	13 46	37		0.4	3.69	217		3.7 3.9
		S		47 21		3.1				
	WTZ	EP	13 46	37		-1.6	3.84	233		4.1
	TUA	EP	13 46	45		0.5	4.27	223		4.3
	KRP	EP	13 46	52		0.2	4.80	241		3.7
	TRZ	ES	13 47	49		-0.3	4.99	219		4.3
		E		52						
	HNG	EP	13 47	13		-1.2	6.47	219		
		E		48 13						
		ES		22		-2.5				
	CIZ	ES	13 49	12		-0.3	8.45	167		
SEP 09	H M S									75/ 512
	01 25 36.5		42.20S	174.30E	33 KM		SE	0.9	AVG MAG	4.0
	+ - 0.4		0.03	0.03						
		H M S			DIR	RES	DIST	AZ	W-A	W P W S
	KKY	P	01 25	49.8		1.2	0.50	244		
	WEL	IP	01 25	55.3	D	0.1	0.98	21		3.6 4.5
		S		26 07.0		-0.6				

COB	P	01 26 03.8	-0.2	1.62	313	3.9	3.9		
	ES	22.9	-0.7						
MNG	IP	01 26 06.6	-0.1	1.82	30	4.1			
GPZ	EP	01 26 07	-1.2	1.92	219	3.5			
	S	30.2	-0.3						
CAZ	P	01 26 08.2	-0.2	1.94	49	4.8			
KAI	ES	01 26 37	0.5	2.17	261	3.3			
CNZ	P	01 26 26.9	1.9	3.15	18	4.2			
KRP	E	01 26 49		4.38	13				
	E	27 03							
SEP 09	H M S	17 51 34.2	31.92S	178.12W	33 KM	SE	3.2		75/ 513
		+ 4.8	0.23	0.46					
	H M S	17 53 08	DIR	RES	DIST	AZ	W-A	W P W S	
ECZ	EP	17 53 08		3.5	6.38	205			
HTZ	EP	17 53 14		-2.4	7.26	212			
GNZ	EP	17 53 18		-0.4	7.41	204			
	S	54 42		3.1					
CRZ	P	17 53 29.0		1.3	8.11	250			
TRZ	E	17 54 45.9			8.66	207			
MNG	EP	17 53 52		-2.1	10.10	209			
	ES	59 40		-2.9					
SEP 10	H M S	11 51 53.5	45.34S	166.85E	33 KM	SE	1.3	AVG MAG	75/ 514
		+ 1.3	0.04	0.07				4.0	
	H M S	11 52 06.9	DIR	RES	DIST	AZ	W-A	W P W S	
MNW	EP	11 52 06.9		0.2	0.70	130			
	I	07.3							
	S	18.0		2.3					
HSZ	P	11 52 11.8		1.2	1.01	49			
WPZ	P	11 52 22.0		-1.2	1.92	134	3.9	4.1	
	S	44		-1.5					
OHZ	EP	11 52 36.2		-0.2	2.89	86	3.9	4.0	
	ES	53 09		0.0					
MJZ					2.91	64			3.9 3.8
KAI	E	11 53 50			4.33	51	4.0		
GPZ	E	11 53 41			4.46	70	4.2		
	ES	47		-0.2					
COB	E	11 53 19			6.04	47			
	ES	54 25		-0.5					
MNG	E	11 53 51			7.89	56			
SEP 10	H M S	15 48 56.5	49.61S	164.65E	33 KM	SE	2.8	AVG MAG	75/ 515
		+ 2.0	0.07	0.15				5.9	
	H M S	15 49 54.2	DIR	RES	DIST	AZ	W-A	W P W S	
WPZ	P	15 49 54.2		-1.5	4.08	45			
	ES	50 37		-4.1					
CBZ	P	15 49 55.2		-0.6	4.09	138	5.4	5.3	
	S	50 40.9		-0.8					
MNW	P	15 49 57.3		-1.8	4.33	29			
	S	50 47.3		0.2					
HSZ	P	15 50 13		-0.9	5.43	25			
OHZ	EP	15 50 23.8		-1.0	6.23	45			
	I	30.8							
	S	51 27		-5.9					
MJZ					6.90	38			
GPZ	EP	15 50 48		-1.6	8.08	46	5.8		
	S	52 19		1.9					
KAI	EP	15 50 56		0.7	8.50	36	5.3		
	ES	52 27		-0.3					
COB	P	15 51 17.5		-0.9	10.25	37			
	S	53 12.9		3.9					
MEL	ES	15 53 26		1.1	10.94	44	5.7		
MNG	P	15 51 41		2.4	11.80	44			

ECZ	P	22 42 56.2	0.3	1.97	73	4.7	4.9		
	S	43 24.8	0.5						
MNG	P	22 43 01.1	0.5	2.38	193				
ONE	EP	22 43 08	1.1	2.90	330	4.0			
	ES	43	-0.9						
WEL	P	22 43 09.8	-0.5	3.18	199				
	S	48.0	-1.8						
COB	P	22 43 17.2	-1.6	3.85	222	4.4	4.9		
	S	44 03.0	-1.9						
KAI*	ES	22 44 40	-4.9*	5.57	219	4.9			
GPZ*	EP	22 43 45.7	-1.3*	6.02	205	5.4			
	S	44 49	-5.4*						
HJZ*	P	22 44 01	-0.7*	7.13	215				
	S	45 16	-5.7*						
CIZ*	ES	22 45 37	-2.3*	7.87	138				
MSZ*	EP	22 44 22	-2.7*	8.88	222				
	S	45 55.3	-7.7*						
SEP 12	H M S	02 37 41.2	33.30S	178.35W	323 KM	SE	1.7	AVG MAG	75/ 520
		+ 2.5	0.10	0.22	38				5.1
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	EP	02 39 00		-0.9	5.06	209			
WTZ	EP	02 39 11.2		-0.8	6.02	218	4.8		
GNZ	EP	02 39 14		1.2	6.09	208			
	ES	40 25		0.2					
ONE	EP	02 39 19		1.2	6.50	246			
TUA	EP	02 39 18.2		-0.7	6.59	212			
KRP	EP	02 39 20		-1.2	6.79	225			
CRZ	EP	02 39 30		-0.3	7.55	259			
MNG	EP	02 39 47		1.4	8.81	212			
	ES	41 26		2.3					
WEL	ES	02 41 40		-2.5	9.67	213	5.4		
SEP 12	H M S	03 45 32.6	32.77S	179.93W	405 KM	SE	2.0	AVG MAG	75/ 521
		+ 2.9	0.22	0.43	33				5.2
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
WTZ	P	03 47 01		-2.7	5.78	205			4.7
GNZ	P	03 47 09		1.9	6.09	195			
	S	48 21.5		0.1					
KRP	P	03 47 12		2.2	6.34	214			
MNG	P	03 47 34.5		-1.6	8.66	204			
	I	36.0							
	S	49 14		0.4					
WEL	ES	03 49 30		-1.1	9.50	205	5.5		
COB	ES	03 49 45		-0.2	10.17	213			
GPZ	ES	03 50 32		0.8	12.37	206	5.5		
SEP 12	H M S	05 23 16.8	39.12S	173.82E	12 KM	SE	1.5	AVG MAG	75/ 522
		+ 0.7	0.04	0.04	7				4.0
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
TNZ	IP*	05 23 24.8	D	-0.6	0.44	98			
CNZ	IP*	05 23 39.9	D	-1.0	1.34	94			
	ES*	59.8		0.9					
KRP	EP*PN	05 23 45.5		-1.4	1.80	49	3.7	3.7	
	IP*	50.5		1.5					
	S*	24 11.5		-1.1					
MNG	PN	05 23 48.0		-1.1	1.97	140	4.1	4.4	
	SN	24 12		-1.3					
COB	PN	05 23 49.9		-1.5	2.13	203	3.9	4.2	
	EP*	53.7		-0.6					
	ES*	57.0							
	S*	24 20		-2.5					
WEL	PN	05 23 53.0		-0.4	2.28	162	3.7	4.1	4.1
	SN	24 21		0.1					

LOCAL EARTHQUAKES

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	TRZ	EPN	05 23 56		1.4	2.37	101		4.0
		EP*	24 01		2.6				
	KAI	E	05 24 56			3.86	208		4.0
		ES*	25 19		4.5*				
	GPZ	ESN	05 25 14		-4.7*	4.65	191		
	MJZ	PN	05 24 38.0		1.1	5.47	206		3.9 3.7
		SN	25 37.5		-1.0				
	H M S								75/ 523
SEP 12	11 31	13.6	35.93S	176.94E	33 KM	SE	1.5	AVG MAG	4.0
		+ 2.0	0.09	0.06	R				
			4 M S		DIR	RES	DIST	AZ	W-A W P W S
	WTZ	EP*	11 31 49.5		-0.6	2.05	179		4.1 3.9
		ESN	32 10		1.2				
		ES*	17		-0.4				
	ECZ	ESN	11 32 14		2.0	2.19	144		4.4
		ES*	20		-1.3				
	KRP	E	11 32 09			2.29	209		3.2
	GNZ	PN	11 31 55.0		-0.9	2.85	163		3.8 3.8
		SN	32 22.8		-5.3*				
	CNZ	P*	11 32 12.5		-1.4	3.45	198		3.6
		E	57						
	TRZ	EP*	11 32 15		-1.9	3.62	181		4.2
		ESN	48		1.0				
		E	33 04						
	MNG	EPN	11 32 25.2		2.3	4.82	193		3.8 3.5
		E	32.5						
		ESN	33 15		-1.1				
	WEL	ESN	11 33 36		0.8	5.61	197		4.6
	COB*	ESN	11 33 55		7.7*	6.12	211		
	GPZ	ESN	11 34 43		0.3	8.43	202		5.1
	H M S								75/ 524
SEP 13	03 41	06.5	41.85S	175.14E	12 KM	SE	1.1	AVG MAG	4.0
		+ 0.5	0.03	0.04	R				
			4 M S		DIR	RES	DIST	AZ	W-A W P W S
	WEL	IP*	03 41 18.9		0.6	0.62	334		4.1
		S*	26.1		-0.8				
	KKY	P*	03 41 29.2		0.7	1.22	241		
		I	38.2						
		E	42 01.3						
	MNG	IP*	03 41 28.1		U -1.0	1.25	12		
		E	42.5						
	COB	EPN	03 41 38.9		-0.3	1.96	292		4.1 4.2
		EP*	42.8		1.7				
		E	46						
	GPZ	ESN	42 02		-0.9				
		EPN	03 41 47		-0.6	2.60	224		3.6
		ESN	42 17		-1.6				
	CNZ	PN	03 41 49.0		0.6	2.66	7		4.5 4.5
		IP*	42 56.3		3.1*				
		I	42 03.5						
		I	36						
	TNZ	EPN	03 41 51		1.8	2.72	348		
		E	59						
	KAI	E	03 42 00			2.85	255		3.4
	KRP	EPN	03 42 05.0		-0.7	3.93	5		3.9
		EP*	15		0.1				
		I	18.2						
		ES*	43 06		-0.3				
	MJZ	PN	03 42 08		0.7	4.04	236		
	H M S								75/ 525
SEP 13	06 34	54.0	33.23S	178.21W	229 KM	SE	2.1	AVG MAG	5.7
		+ 1.5	0.09	0.10	20				

		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	EP	06	36	12		-0.1	5.18	210			
WTZ	P	06	36	21.0		-3.3	6.15	218		5.2	
	E			23.0							
	ES		37	35		0.2					
GNZ	P	06	36	23.5		-1.6	6.21	208			
	S		37	39		2.9					
ONE	EP	06	36	33		2.4	6.64	245			
TUA	EP	06	36	30		-1.6	6.72	213			
	ES		37	49		1.2					
KRP	EP	06	36	34		-0.2	6.92	226			
	I			48							
TRZ	EP	06	36	40		-1.3	7.48	211			
CRZ	EP	06	36	46		2.1	7.68	258			
CNZ	EP	06	36	44		-1.5	7.81	218			
	I			47.5							
MNG	EP	06	36	57		-3.1	8.94	213			
	E			37 01							
	E			38 23							
	E			29							
HEL	S	06	38	55		-3.4	9.79	213	6.0		
COB	EP	06	37	25		2.9	10.66	220			
	ES		39	19		0.6					
CIZ	EP	06	37	25		1.3	10.79	174			
	ES		39	23		1.7					
KAI	ES	06	39	58		0.4	12.38	218	5.6		
QPZ	ES	06	40	04		-0.1	12.66	212	5.9		
MJZ	EP	06	38	04		1.3	13.91	216			
	ES		40	31		-0.9					
MSZ	E	06	38	31			15.69	219			
SEP 13	H M S	07 15 06.0	33.18S	177.64W	236 KM	SE	0.8	AVG MAG	75/ 526	5.4	
	+ -	1.2	0.15	0.21	12						
GNZ	EP	07 16 40			DIR	RES	DIST	AZ	W-A	W P	W S
	S	17 55				-0.8	6.49	212			
WTZ	P	07 16 40.5				-0.3	6.50	221			
	ES	17 55				0.1					
KRP	E	07 17 01					7.31	228			
TRZ	ES	07 18 25				0.8	7.78	213			
MNG	EP	07 17 17				1.1	9.25	215			
	ES	18 57				-0.8					
HEL	ES	07 19 17				-0.5	10.10	215	5.4		
MJZ	ES	07 20 51				0.1	14.23	217			
SEP 13	H M S	11 09 01.8	31.76S	178.92E	345 KM	SE	1.3	AVG MAG	75/ 527	5.3	
	+ -	1.8	0.17	0.45	29						
WTZ	EP	11 10 39.5			DIR	RES	DIST	AZ	W-A	W P	W S
	E	11 37				1.6	6.41	194			
	ES	53				-0.4					
GNZ	EP	11 10 44				0.2	6.91	186			
	ES	12 04				0.2					
TRZ	ES	11 12 26				-0.3	7.97	192			
MNG	EP	11 11 10				-1.8	9.27	196			
	S	12 54.5				-0.0					
GPZ	ES	11 14 14				0.6	12.91	201	5.3		
SEP 14	H M S	01 42 57.3	33.10S	179.65E	315 KM	SE	1.5	AVG MAG	75/ 528	4.7	
	+ -	1.7	0.13	0.24	18						
ECZ	ES	01 45 12			DIR	RES	DIST	AZ	W-A	W P	W S
WTZ	P	01 44 19.5				-0.2	4.67	191		4.7	
	ES	45 22				-0.2	5.33	203		4.6	4.4
						-2.5					

LOCAL EARTHQUAKES

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GNZ	EP	01 44 24	0.1	5.69	193		4.5	4.3
	S	45 31	-0.9					
KRP	EP	01 44 28	2.0	5.87	214		3.8	
TRZ	ES	01 44 58	1.7	6.83	199			
MNG	P	01 44 52.8	-1.5	8.21	203			
	S	46 26	-0.4					
WEL	EP	01 45 04.0	-0.5	9.05	204		5.6	
	S	46 45	0.2					
COB	ES	01 47 00	0.9	9.70	213			
GPZ	ES	01 47 49	1.1	11.91	205		5.5	
MJZ	ES	01 48 11	-1.3	13.02	211			
SEP 15	H M S	06 24 25.8	40.43S	176.43E	33 KM	SE 1.9	AVG MAG	75/ 529
		+ 0.9	0.05	0.07				3.7
			H M S	DIR	RES	DIST	AZ	W-A W P W S
CAZ	P*	06 24 38.0			1.9	0.49	200	
	E	49.3						
MNG	P*	06 24 41.0			0.5	0.76	256	
TRZ	PN	06 24 41.0			-0.9	0.94	18	3.9
	E	54.2						
	I	57						
GNZ	P*	06 24 50.2			-1.4	1.42	331	4.2 4.3
	S*	25 12.0			1.3			
WEL	PN	06 24 51.0			1.1	1.53	236	3.1 3.6 3.7
	I	57.0						
	S*	25 12			-1.8			
GNZ	E	06 25 06				2.17	35	3.3
	S*	33			-0.0			
KRP	EPN	06 25 02			-2.9	2.61	344	
	EP*	14						
COB*	EP*	06 25 20.8			4.2*	2.89	256	3.7 3.6
	ES*	26 00			5.4*			
SEP 16	H M S	00 00 31.5	48.41S	164.25E	33 KM	SE 1.8	AVG MAG	75/ 530
		+ 1.4	0.05	0.12				5.9
			H M S	DIR	RES	DIST	AZ	W-A W P W S
MNW	P	00 01 22.0			-0.7	3.49	42	
	E	51.3						
WPZ	P	00 01 29.2			1.5	3.57	62	
MSZ	P	00 01 36.3			-0.3	4.51	39	
ROX	P	00 01 38			1.0	4.54	52	
CBZ	PS	00 01 44.3			-1.3	5.19	145	5.7 5.7
	S	02 43			0.1			
OMZ	PP	00 01 51.2			-0.9	5.66	56	
MJZ	P	00 01 56.0			-3.0	6.17	47	
	I	02 05.3						
GPZ	IP	00 02 16			-0.9	7.50	54	6.4
	E	38						
	E	03 52						
KAI	EP	00 02 23			3.0	7.74	43	
COB	P	00 02 41.5			-1.8	9.48	43	
	I	47						
	E	04 15						
WEL	P	00 02 57.0			2.3	10.31	50	
MNG	P	00 03 03.7			-1.8	11.17	50	
	E	14						
TNZ	EMP	00 03 15			1.9	11.76	42	
KRP	EMP	00 03 33			-0.0	13.31	42	
	E	40						
WTZ	EMP	00 03 41.5			0.6	13.94	46	
	E	58						
GNZ	EP	00 03 42			1.0	13.94	51	
	ES	06 07			-2.4			
CIZ	ES	00 03 51				14.00	79	
	ES	06 12			1.2			

LOCAL EARTHQUAKES

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TUA	P	01 18 23.6	U	0.3	1.66	84	5.5	5.3
	S	50		-1.8				
WTZ	P	01 18 24.9	D	-0.1	1.84	57	4.9	
CAZ	P	01 18 28.7		1.2	2.10	155		
	E	53						
	S	19 01		1.8				
AUC	P	01 18 29		0.9	2.16	354		
WEL	P	01 18 29.0		-0.4	2.28	185	5.3	5.2 5.3
	S	19 01		-1.6				
GNZ	IP	01 18 31.0		0.9	2.36	82	5.5	5.0
	ES	19 02		-2.0				
COB	P	01 18 32.2	U	-2.1	2.73	220	5.1	5.3
	S	19 06.5		-4.9*				
ECZ	P	01 18 38.8		0.8	3.05	66	5.7	
KAI*	E	01 18 56			4.46	217	5.3	
	S	19 42		-6.5*				
GPZ*	EP	01 18 59		-3.1*	5.02	200	6.2	
	S	19 54.2		-6.7*				
HJZ*	P	01 19 12.5		-2.7*	6.04	213		
	S	20 17.3		-7.0*				
OMZ*	E	01 20 29			6.79	206		
	ES	35		-6.5*				
MSZ*	P	01 19 32.8		-4.5*	7.76	221		
	S	20 54		-10.0*				

SEP 18 H M S 75/ 535
 16 05 39.5 47.58S 165.68E 33 KM SE 0.8 AVG MAG 4.4
 + 1.1 0.06 0.03 R

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MNW	EP*	15	06	19.5		0.2	2.24	37			
	S*	48.5				-0.4					
WPZ	EP*	15	06	21.7		0.5	2.36	68	4.1	4.5	
	I	23.0									
	S*	51.5				-0.8					
OMZ	E	16	06	48			4.41	57	4.1	4.3	
	EP*	56				-0.3					
	E	08 00									
HJZ	E	16	06	59.5			4.91	45	4.1		
	EP*	07 04.5				-0.4					
	E	12									
	E	41									
GPZ	E	15	07	52			6.24	54	4.7		
	ES*	08 50				1.1					
KAI	E						6.48	41	4.7		
COB*	EPN	16	07	41		6.4*	8.23	40			
MNG	E	15	08	11			9.90	49			

SEP 18 H M S 75/ 536
 16 06 07.0 47.58S 165.68E 33 KM SE ND AVG MAG 4.6
 R 0.25 0.33 R

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MNW	S*	15	07	17		0.7*	2.24	37			
WPZ	S*	15	07	19		-0.7*	2.35	68			4.7
OMZ	E	15	08	29			4.41	57			4.5
COB	PN	16	08	09		7.0*	8.22	40			
MNG	E	15	08	43			9.90	49			

DOUBLE SHOCK, EPICENTRE RESTRICTED TO THAT OF FIRST SHOCK

SEP 18 H M S 75/ 537
 16 29 04.1 47.53S 165.72E 33 KM SE 2.5 AVG MAG 4.2
 + 2.6 0.25 0.33 R

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MNW	EPN	16	29	39		0.7	2.26	36			
	SN	30 06				1.7					
WPZ	EPN	16	29	40.0		0.5	2.35	67	3.9	4.4	
	SN	30 11				4.5					
OMZ	EP*	16	30	18		-2.9	4.41	57	3.9	4.2	

LOCAL EARTHQUAKES

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		ESG		19 20		0.1														
	MJZ	E		03 18 05.5			5.06	45			4.2	4.1								
		ESN				52														
	GPZ	ESN		03 19 27			3.1	6.40	54		4.7									
	COB	ESN		03 20 12			0.7	8.37	41		5.2									
SEP 19		H M S																		75/ 541
		04 49	01.2	48.20S	165.47E	33 KM		SE	3.2		AVG MAG	4.1								
		+	- 7.0	0.33	0.32	?														
		H M S				DIR	RES	DIST	AZ		W-A	W P	W S							
	WPZ	EP		04 49 44			1.6	2.77	57			4.0	4.0							
		ES																		
	MNH	EP		04 49 41			-0.7													
		ES					-2.3	2.83	32		4.2									
		E																		
	MSZ	ES		04 50 43			1.3	3.92	27											
SEP 19		H M S																		75/ 542
		12 24	04.5	38.10S	175.92E	202 KM		SE	1.2		AVG MAG	3.8								
		+	- 1.5	0.05	0.07	13														
		H M S				DIR	RES	DIST	AZ		W-A	W P	W S							
	KRP	EP		12 24 31.5			0.1	0.35	300											
	WTZ	P		12 24 32.9			-0.7	0.85	83		3.6	3.3								
		ES					-0.2													
	CNZ	E		12 25 06				1.14	195				3.4							
	TRZ	ES		12 25 07			0.2	1.61	154				4.1							
	TNZ	P		12 24 41.3			1.6	1.62	228		3.8									
	GNZ	P		12 24 41.0			0.2	1.74	109		4.1	3.6								
		ES					1.1													
	MNG	IP		12 24 48.8		D	-0.6	2.54	188		3.6	4.0								
		ES					-2.1													
	CAZ	ES		12 25 29			-0.7	2.81	175											
	WEL	ES		12 25 41			1.0	3.30	195				4.0							
SEP 19		H M S																		75/ 543
		12 54	39.3	39.28S	174.97E	12 KM		SE	1.0		AVG MAG	4.2								
		+	- 0.2	0.01	0.01	?														
		H M S				DIR	RES	DIST	AZ		W-A	W P	W S							
	CNZ	IP*		12 54 48.7		U	0.6	0.46	81											
		ES*					1.4													
	TNZ	IP*		12 54 49.7		D	1.4	0.47	281											
		ES*					-0.4													
	MNG	IPN.		12 55 01.0		U	-2.8*	1.40	164											
	KRP	PN		12 55 03.0			-1.1	1.42	18		4.1	4.6								
		ESN					-1.6													
	TRZ	EPN		12 55 04			-0.6	1.46	101		4.4	4.3								
		E																		
		ESG					0.4													
	TUA	PN		12 55 08.8			-0.0	1.76	75		4.6	4.1								
		E																		
	CAZ	EP*		12 55 14			1.3	1.89	150											
		EPG					-0.5													
		ES*					0.3													
		E																		
	WEL	EPN		12 55 11			-1.2	2.01	184		4.1	4.6	4.6							
		P*					-0.6													
		ESN					0.1													
	WTZ	EPN		12 55 13			0.4	2.04	51		4.0									
		EP*					-0.3													
	GNZ	PN		12 55 18.2			-0.2	2.46	76		3.9	3.6								
		E																		
		ESN					-0.9													
	COB	IPN		12 55 16.9		U	-1.9	2.49	223											
		ESN					1.4													
	ONE	EPN		12 55 34			1.0	3.53	352		4.0									
		ES*					1.1													
	CIZ*	ESN		12 57 51			-7.5*	7.88	129											
	FELT	NGAMATAPOURI (56)																		

SEP 19		H	M	S			12 KM	SE 2.2	AVG MAG		75/ 544
		15	16	06.3	48.10S	164.75E					4.3
		+ -		2.3	0.14	0.15	?				
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MNW	EPN	15	16	55		1.6	3.04	41	4.9		
	EP*			00		0.6					
	ESN			27		-2.0					
WPZ	P*	15	17	01.5		0.5	3.13	64		4.5	4.4
	ESN			31.9		0.2					
MSZ	P*	15	17	14.7		-2.3	4.07	34		4.3	4.2
	ESN			55		0.9					
OHZ	EP*	15	17	35		-1.6	5.22	57		4.2	4.1
	E			18 38							
GSP	EPG	15	17	52		-3.4	5.40	45			
	E			18 10							
	E			34							
	ES*			50		-0.1					
	ESG			19 08		-0.2					
HJZ	E?	15	17	37			5.72	46		4.0	3.9
	EP*			47		1.7					
	E			18 50							
GPZ	E	15	19	30			7.05	54	4.8		
COB	ESN	15	19	57		4.0	9.03	42			
SEP 20		H	M	S			33 KM	SE 1.3	AVG MAG		75/ 545
		08	07	37.8	35.39S	179.37W					4.1
		+ -		1.6	0.10	0.12	?				
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
GNZ	PN	08	08	33.3		-0.6	3.86	212		3.9	4.2
	ESN			09 16		-1.0					
HTZ	PN	08	08	33.8		-0.8	3.90	227		4.3	4.0
	ESN			09 18.5		0.4					
TUA	EPN	08	08	41.9		0.2	4.40	218		4.6	4.5
	ESN			09 29		-1.1					
KRP	EPN	08	08	47.0		0.1	4.81	237		3.7	3.6
	ESN			09 39		-1.0					
TRZ	E	08	08	57			5.14	215			
	ESN			09 50		2.0					
TNZ	EP*	08	09	28		1.9	6.26	231			
SEP 20		H	M	S			12 KM	SE 1.4	AVG MAG		75/ 546
		08	27	15.1	47.57S	165.30E					4.4
		+ -		1.6	0.09	0.15	?				
		I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MNW	PN	08	27	53.0		-0.3	2.40	43	4.2		
	ESN			28 20		-2.1					
WPZ	PN	08	27	56.7		0.7	2.59	71		4.6	4.6
	I			57.0							
	ESN			28 27		0.2					
MSZ	PN	08	28	06.8		-0.5	3.42	33		4.6	4.5
	ESN			48		0.9					
OHZ	EPN	08	28	23		-0.8	4.62	59		4.1	4.1
	E			29 42							
GSP	EPN	08	28	26		0.4	4.76	46			
	E			29 24.5							
HJZ	E?	08	28	15			5.09	47		4.3	4.2
	EPN			29.5		-0.6					
	E			37							
	E			29 18							
GPZ	E	08	28	57			6.44	56	4.7		
	E			30 12							
KAI	EPN	08	28	52		1.0	6.64	43	4.7		
	EPG			29 32		2.6					
COB	EPN	08	29	13		-1.4	8.39	42			
	ESN			30 42		-4.5*					

SEP 20		H	M	S			12 KM	SE	1.6	AVG MAG	75/ 547		
		10	43	18.1	47.11S	169.12E	3				4.0		
		+_-		1.7	0.10	0.15	3						
		H	M	S	DIR	RES	DIST	AZ	H-A	W P	W S		
MNW	EPN	10	43	53		-0.3	2.18	53	3.7				
	ESN		44	21.5		1.7							
WPZ	EPN	10	43	59		-0.0	2.59	81		4.1	3.9		
	ESN		44	30		0.1							
MSZ	PN	10	44	07.8		1.5	3.12	40		4.1	3.9		
	ESG		45	03		-0.4							
OMZ	EPN	10	44	25		-0.3	4.51	65					
	E		45	28									
GSP	EPN	10	44	28		2.3	4.54	51					
	EP*			35		-1.9							
	E		45	31									
HJZ	PN	10	44	28		-2.3	4.88	52		4.0			
	E			34									
COB	ESN	10	46	43		-0.5	8.13	45					
SEP 20		H	M	S			12 KM	SE	0.6	AVG MAG	75/ 548		
		11	13	06.9	47.32S	165.30E	3				4.2		
		+_-		0.5	0.05	0.04	3						
		H	M	S	DIR	RES	DIST	AZ	H-A	W P	W S		
MNW	EPN	11	13	43		0.3	2.22	47	3.8				
	ESN		14	10		0.4							
WPZ	EPN	11	13	47.0		0.3	2.51	76		4.3	4.3		
	ESN		14	17		0.2							
MSZ	EPN	11	13	57		0.6	3.21	35		4.4	4.1		
	E		14	39									
OMZ	EPN	11	14	13		-0.9	4.50	62		4.1	4.2		
	ES*		15	24		0.3							
GSP	EPN	11	14	15		-0.1	4.59	48					
	E			21									
	EP*			27		0.3							
	ESN		15	05		-2.2*							
HJZ	EPN	11	14	19		-0.6	4.92	49		4.1			
	E			28									
GPZ	E	11	15	04			6.30	58	4.7				
	E			56									
COB	ESN	11	16	33		-0.9	8.20	43					
SEP 20		H	M	S			12 KM	SE	1.3	AVG MAG	75/ 549		
		23	08	21.3	40.00S	173.82E	3				4.1		
		+_-		0.7	0.03	0.04	3						
		H	M	S	DIR	RES	DIST	AZ	H-A	W P	W S		
TNZ	E?	23	08	57			0.92	28					
COB	PN	23	08	45.8		0.4	1.37	217					
MNG	PN	23	08	45.3		-0.3	1.41	117					
	E			54.9									
	ESN		09	03		-1.5							
WEL	IPN	23	08	48.0	D	1.1	1.48	151	3.5	3.9	4.2		
	ESN		09	06		-0.0							
CNZ	IPN	23	08	47.5	U	-0.5	1.55	60		4.6	4.7		
	ESN		09	06.3		-1.4							
CAZ	E	23	09	29			2.05	117					
TRZ	E?	23	09	05			2.36	80			3.9		
	ESG			42		1.2							
KRP	PN	23	08	58.8		-1.7	2.46	33		3.9	4.1		
	ESN		09	31		1.0							
TUA	P*	23	09	12.7		1.7	2.84	66		4.2			
SEP 22		H	M	S			33 KM	SE	1.0	AVG MAG	75/ 550		
		14	28	28.1	39.92S	177.19E	3				3.7		
		+_-		0.6	0.03	0.03	3						

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
TRZ	IPN	14	28	37.7	D	-0.1	0.47	322			
	ESN			45		0.2					
TUA	EPN	14	28	48		1.3	1.12	358		3.8	4.1
	E			55.5							
	ESN			01		0.5					
GNZ	EPN	14	28	53		2.0	1.43	27		3.2	3.6
	ESN			07		-1.2					
	ES*			13		-0.3					
CNZ	PN	14	28	51.2		-0.2	1.46	299		4.3	4.0
	EP*			55		0.4					
	ESN			08		-1.0					
MNG	IPN	14	28	51.7	D	0.0	1.48	242		3.6	3.4
	E			29 00							
	E			22							
WTZ	EPN	14	28	58		-0.1	1.94	355		3.8	3.7
	E			29 06.5							
	E			20		-0.6					
WEL	ESN	14	29	13			2.29	233	3.6		3.9
	E			28		-1.1					
TNZ	ESN	14	29	06			2.29	288		3.8	3.5
	EP*			10		1.3					
	ES*			40		1.0					
KRP	EPN	14	29	03		-1.0	2.38	327		3.3	3.2
	EP*			09		-1.1					
	ES*			37		-4.5*					
SEP 23		H	M	S			75/ 551				
	02	59	39.1	39.82S	174.59E	149 KM	SE	1.4	AVG MAG	3.9	
			+ 0.2	0.05	0.03	11					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
CNZ	IP	03	00	03.8	U	0.1	0.98	52		4.1	4.2
	ES			24		1.3					
MNG	IP	03	00	06.0	U	1.5	1.07	139		4.1	3.9
	ES			23		-1.1					
WEL	EP	03	00	10		1.3	1.48	174	3.7	3.8	4.2
	ES			32		0.7					
COB	IP	03	00	13.2	D	0.1	1.88	227			
	ES			37		-2.2					
KRP	ES	03	00	42.5		0.1	2.04	22			3.2
	P										
GNZ	P	03	00	26.1		-0.3	2.94	68		4.0	3.6
	ES			01 01		-1.5					
SEP 23		H	M	S			75/ 552				
	08	44	25.6	47.39S	165.43E	12 KM	SE	0.9	AVG MAG	4.7	
			+ 0.8	0.07	0.03	3					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MNW	EPN	08	45	01		-0.2	2.21	44	4.5		
	ESN			29		1.0					
WPZ	IPN	08	45	04.6		0.1	2.45	74		4.8	4.8
	ESN			34		0.1					
MSZ	PN	08	45	15		-0.2	3.23	33			
OMZ	EPN	08	45	31		-1.0	4.46	61		4.6	4.8
	ES*			46 42		0.8					
GSP	PN	08	45	33.0		-0.6	4.57	46			
	E			40							
	EP*			44		-1.0					
	ESN			46 25		-0.6					
	E			39							
MJZ	E						4.90	48		4.5	4.5
GPZ	E	08	46	02			6.27	56	5.0		
	EP*			15		1.0					
	E			47 28							
	ESG			56		-0.9					
KAI	E	08	46	58			6.45	43	4.8		
	E			47 23							
COB	EPN	08	46	24		1.7	8.19	42			

TNZ	PN	17 37 29.9	1.7	3.67	28			5.1	5.0
	EPG	43	-3.8						
	ESG	38 37	0.6						
MSZ	EPN	17 37 30	-0.0	3.81	233			4.2	
	EPG	47	-2.5						
CNZ	PN	17 37 36.2	1.6	4.14	39				
TRZ	EP*	17 37 50	-1.5	4.55	52			4.9	
	E	38 08							
MNW	E	17 37 49		4.67	223			4.9	
	EPG	38 06.5	-0.4						
	ESN	37	2.2						
	ESG	39 08.5	-1.4						
WPZ	E	17 38 00		4.82	209			4.4	4.4
	ESG	39 15	-0.0						
KRP	PN	17 37 49.4	0.3	5.21	30			5.2	
TUA	E	17 37 57		5.25	47			4.9	4.7
	E	38 23							
	E	39 06							
WTZ	EPN	17 37 56.5	-0.4	5.79	41			4.3	4.0
	EP*	38 12	-0.6						
	ESN	39 02	0.2						
GNZ	EPN	17 37 56	-1.8	5.86	51			4.5	4.6
	EP*	38 16	2.2						
	ESN	39 03.9	0.1						
ONE	E	17 38 21		6.89	15			5.0	
	ESN	39 30	1.7						
CRZ	EPN	17 38 28	0.9	8.04	3				
	ESN	39 54	-1.6						
FELT ON WEST COAST OF SOUTH ISLAND									
SEP 25	H M S	09 19 06.9	47.14S	165.24E	12 KM	SE	1.9	AVG MAG	75/ 556 3.7
		+ 2.5	0.11	0.14	DIR RES				
			4 M S		DIR RES	DIST	AZ	W-A	W P W S
MNW	E?	09 19 35				2.13	51	3.3	
	EPN	42.5		1.0					
	ESN	20 06		-1.5					
WPZ	PN	09 19 48.2		1.4		2.52	80		4.2 4.0
	ESN	20 16.5		-0.5					
MSZ	EPN	09 19 53		-1.8		3.10	38		3.6 3.5
	E	20 04							
	ES*	43		1.4					
MJZ	E	09 20 36				4.84	51		
	E	21 22							
SEP 26	H M S	04 14 37.7	35.33S	178.85W	223 KM	SE	0.9	AVG MAG	75/ 557 4.4
		+ 0.9	0.05	0.04	DIR RES				
			4 M S		DIR RES	DIST	AZ	W-A	W P W S
ECZ	EP	04 15 30.5		-0.3		3.15	221		4.8 4.4
	ES	16 13		1.1					
GNZ	EP	04 15 42		-0.7		4.14	216		4.1 4.1
	ES	16 32		-1.1					
WTZ	EP	04 15 44		-0.2		4.26	230		4.9 4.7
	ES	16 35		-0.7					
TUA	EP	04 15 51		1.2		4.71	221		4.6 4.6
	ES	16 47		1.3					
KRP	EP	04 15 56		0.2		5.20	239		3.7
	E	16 10							
	ES	56		-0.6					
MNG	EP	04 16 17.5		-0.2		6.91	219		
	ES	17 35		-0.9					
	ES	17 35							
WEL	ES	04 17 56		0.3		7.77	218		
COB	ES	04 18 19		0.6		8.76	227		
CIZ	ES	04 18 19		-0.1		8.79	169		

LOCAL EARTHQUAKES

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SEP 28		H	M	S			38.875	178.35E	12 KM	SE	1.5	AVG MAG		75/ 558
		14	49	36.8	0.03		0.03		R					4.0
				0.6	H	S		DIR	RES	DIST	AZ	W-A	W P	W S
GNZ	IP*	14	49	44.7				USW	0.9	0.35	310			
	ES*			50					1.1					
TUA	IP*	14	49	54.8				U	0.7	0.95	273	4.4	4.5	
	E			50										
	S*			08.8					1.8					
	E			18.9										
ECZ	EPN	14	49	57.5					-0.9	1.18	7	4.3	4.0	
	E			50										
TRZ	EPN	14	50	01					-0.1	1.38	240	4.1	4.2	
	E			08.5										
	ESG			23					-0.3					
	E			36										
WTZ	PN	14	49	59					-2.3	1.39	309	4.2	4.0	
	EP*			50					-1.7					
	ES*			20					-0.3					
CNZ	EPG	14	50	22					0.3	2.22	260	4.2	4.0	
	ES*			46					0.9					
KRP	EPN	14	50	18					2.8	2.41	292	3.6		
CAZ	ESN	14	50	50					0.8	2.62	218			
MNG	EPN	14	50	19					-2.0	2.83	231	3.5	3.5	
	E			43.5										
TNZ	EPN	14	50	23					-2.0	3.12	263			
	E			44										
	E			51										
WEL	ESN	14	51	13					-1.8	3.67	228	4.3	4.1	
CIZ	EPN	14	51	10					1.1	6.35	145			
	ESN			52					1.3					

SEP 28		H	M	S			38.445	177.47E	12 KM	SE	1.6	AVG MAG		75/ 559
		16	57	36.6	0.03		0.03		R					3.6
				0.4	H	S		DIR	RES	DIST	AZ	W-A	W P	W S
TUA	IP*	16	57	48.2				U	2.9	0.45	214			
	E			58.5										
GNZ	IP*	16	57	45.0				UNE	-0.8	0.48	116			
	ES*			53					0.4					
WTZ	IP*	16	57	47.9				U	0.2	0.59	320	3.7	3.9	
	ESG			58					1.2					
ECZ	EP*	16	57	55					-1.9	1.13	49	3.8	3.8	
	ESG			58					1.3					
TRZ	EPN	16	57	58					-0.7	1.23	204	3.8	3.5	
	ESN			58					-1.2					
	E			36										
KRP	EPN	16	58	02					-2.0	1.61	288	3.0		
	EPG			10					0.8					
	ESN			23					-1.5					
MNG	EPG	16	58	32					1.4	2.67	215	3.3		
	ESN			50					-0.2					

SEP 29		H	M	S			45.045	167.73E	98 KM	SE	1.5	AVG MAG		75/ 560
		00	35	59.2	0.05		0.05		10					4.0
				1.4	H	S		DIR	RES	DIST	AZ	W-A	W P	W S
MSZ	IP	00	36	15.7				U	1.3	0.39	20			
	ES			24					-1.9					
MNW	P	00	36	17.4					0.3	0.74	186	4.2		
	ES			31					0.2					
WPZ	IP	00	36	28.9				D	-0.7	1.80	155	4.1	4.1	
	E			45.6										
	ES			52					-0.1					
GSP	IP	00	36	31.3				U	0.8	1.87	62			
	ES			56					2.3					

	MJZ	IP	00 36 34.9	D	-0.5	2.23	63		3.5	3.9
		E	38							
		ES	37 02		-0.1					
	OMZ	ES	00 37 03.9		0.6	2.26	92			3.9
	GPZ	E?	00 36 52			3.77	71	4.0		
		ES	37 38		-2.1					
SEP 29	H M S		39.03S 178.52E	12 KM		SE	0.9	AVG MAG	75/ 561	3.7
			0.04 0.05							
			4 M S	DIR	RES	DIST	AZ	W-A	W P	W S
	GNZ	IP*	21 17 38.0	W	-0.3	0.55	315			
	TUA	IP*	21 17 48.0	D	0.3	1.09	281		4.2	4.2
		ES*	18 02		-0.3					
	WTZ	IPN	21 17 54.2	D	-0.9	1.59	310		4.0	
	KRP	EPG	21 18 21.5		1.2	2.59	294		3.3	
	MNG	EPN	21 18 12.6		0.5	2.83	235		3.3	3.1
		ESN	45		-0.5					
SEP 30	H M S		37.54S 177.19E	177 KM		SE	1.1	AVG MAG	75/ 562	4.0
			0.05 0.04							
			4 M S	DIR	RES	DIST	AZ	W-A	W P	W S
	WTZ	IP	02 58 20.2	U	-0.9	0.47	199			
		E	23		-1.9					
		ES	38		-0.9					
	ECZ	EP	02 58 24		-0.9	1.09	99		4.4	4.2
		ES	48		1.2					
	TUA	IP	02 58 27.0	U	0.5	1.27	181		4.3	4.2
		ES	50		0.6					
	GNZ	IP	02 58 27.0	U	0.4	1.29	149		4.7	4.2
		E	48		-0.3					
		ES	49.9							
		E	51							
	KRP	EP	02 58 28		0.8	1.36	253		3.3	3.2
		ES	52		1.1					
	MNG	IP	02 58 49.4	D	-0.6	3.35	203		3.7	3.4
		E	51.6							
		ES	59 31		-0.2					
	WEL	ES	02 59 51		0.9	4.18	206			4.1
	COB	ES	03 00 07		-0.8	4.95	223			
SEP 30	H M S		46.55S 168.75E	12 KM		SE	1.4	AVG MAG	75/ 563	3.0
			0.03 0.03							
			4 M S	DIR	RES	DIST	AZ	W-A	W P	W S
	WPZ	IP*	09 06 13.6		-0.6	0.13	150			
		S*	16.9		0.5					
	MNW	ESN	09 06 48		1.5	1.10	314	2.6		
	MSZ	EPN	08 06 42		-1.2	1.97	342		2.9	2.7
		ESN	07 07		-0.4					
	OHZ	EPN?	08 06 46		0.8	2.11	46			3.9
		ESN	07 12		1.1					
	GSP	EPN	09 06 50		-1.5	2.57	21			
		EP*	54		-1.9					
	MJZ	EPN	08 06 57		2.0	2.83	26		3.4	3.1
		ESN	07 28		-0.4					
	FELT RUAPUKE IS (155)									
OCT 01	H M S		45.21S 167.70E	101 KM		SE	1.6	AVG MAG	75/ 564	4.1
			0.06 0.07							
			4 M S	DIR	RES	DIST	AZ	W-A	W P	W S
	MSZ	IP.	00 32 43.0		2.5	0.56	16			
	MNW	IP	00 32 40.1	S	-0.5	0.57	185			
		ES	51.5		-1.8					
	WPZ	EP	00 32 53		0.3	1.66	151		4.1	4.3

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	ES	01	52	56		1.4	5.47	191			4.6
WTZ	EMS	01	53	08		-1.5	6.13	202			
CRZ	EMS	01	52	29			6.40	249			
GNZ	EMS	01	53	07			6.49	193			
				14		-3.7					
TUA	EPN	01	52	11		2.8	6.85	198			
	EMS		53	27		1.2					
TRZ	EPN	01	52	25.5			7.63	198			
	ES		53	46		2.2					
MNG	EPN	01	52	33		-2.8	9.01	202			
	ES		54	15		-0.3					
WEL	ES	01	54	35		0.7	9.84	203	5.6		
											75/ 568
OCT 02	H M S	04	12	54.5	39.53S	174.35E	238 KM	SE 0.9	AVG MAG		3.9
				+ 0.8	0.04	0.03	5				
	H M S	04	13	26.2	DIR	RES	DIST	AZ	W-A	W P	W S
TNZ	P	04	13	26.2		0.8	0.34	4			
	ES			50		0.6					
MNG	IP	04	13	32.0	U	1.1	1.39	142		3.9	4.3
	ES			53							
	ES			59		-0.1					
WEL	ES	04	14	05		0.2	1.79	170	3.8		4.1
COB	P	04	13	35.8		-0.2	1.99	218		4.1	3.5
	ES			14 07		-1.1					
TUA	IP	04	13	39.1	U	0.2	2.29	73		4.4	
WTZ	EPN	04	13	41		-0.9	2.57	54		3.7	3.6
	ES			14 18		-0.7					
GNZ	IP	04	13	47.4	U	0.9	2.99	74		4.0	3.6
	ES			14 26		-0.8					
											75/ 569
OCT 02	H M S	09	29	43.1	39.68S	175.37E	33 KM	SE 1.8	AVG MAG		4.1
				+ 0.5	0.03	0.03	2				
	H M S	09	29	53.8	DIR	RES	DIST	AZ	W-A	W P	W S
CNZ	IPN	09	29	53.8		0.6	0.50	16			
	E			30 05.9							
TNZ	IPN	09	30	00.0	D	1.1	0.91	302		4.3	4.0
	ES			14		0.9					
MNG	IPN	09	29	59.8	D	0.4	0.94	175			
	ES			30 14		-0.1					
TRZ	EPN	09	30	02		0.1	1.13	84		3.7	4.4
	ESN			17		1.2					
	ES			21		1.7					
CAZ	E	09	30	16			1.39	152			
	ESN			22		-0.2					
	E			34							
TUA	PN	09	30	09.2		0.4	1.63	58		4.0	4.5
	ESN			30.9		2.4					
WEL	PN	09	30	08.8		-0.5	1.67	196	3.9	4.1	4.4
	E			20							
	ES			35		-0.5					
	E			54							
WTZ	EPN	09	30	12		-3.3	2.11	37		3.8	3.9
	E			32							
	ES			46		-2.5					
GNZ	PN	09	30	14.9		-3.1	2.30	64		3.9	3.7
	ESN			42		-2.4					
	E			57							
COB	EPN	09	30	20.5		0.4	2.46	234		4.2	4.3
	E			22							
	E			32.5							
	ESN			53		4.8					
ECZ	ESN	09	31	09		3.3	3.18	52			4.1
ONE	EPN	09	30	41		0.1	3.98	348			

OCT 02		H	M	S	41.04S	174.91E	33 KM	SE	1.4	AVG MAG	75/ 570	4.3
		+	-	0.3	0.03	0.03	9					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
WEL	IP*	11	27	36.7		-0.6	0.27	202	4.5			
	ES*			42		-0.5						
MNG	IPN.	11	27	40.9		-0.7	0.61	47				
CAZ	EPN	11	27	48		0.8	1.01	83				
	ESN			59		-0.8						
	E			28								
COB	PN	11	27	56.0	D	0.2	1.64	268				
	EP*			58		-1.6						
KKY	EPN	11	27	56		0.0	1.65	213				
	P*			28		1.2						
	E			27								
TNZ	PN	11	27	59.8		0.5	1.89	348	4.6	4.5		
	E			28								
	ES*			28		-0.9						
TRZ	EP*	11	28	08		0.9	2.08	45	4.6	4.4		
	E			43								
TUA	EP*	11	28	21		1.4	2.82	39	4.0	4.6		
KAI	EP*	11	28	24		1.1	3.01	239				
	ESN			50		1.5						
	E			29								
GPZ	EPN	11	28	19		2.6	3.14	211	4.3			
	ESN			49		-2.8						
GNZ	EP*	11	28	30		0.7	3.39	46	4.3	4.2		
	E			44								
	ESN			56		-1.7						
WTZ	EPN	11	28	21		0.4	3.45	29	4.1			
	E			26								
MJZ	EPN	11	28	32		-1.8	4.41	227	4.2	4.0		
	EP*			41.5		-5.3*						
	ES*			29		-7.5*						
	ES*			37								
FELT BOTH SIDES OF COOK STRAIT MM IV												
OCT 02		H	M	S	37.36S	176.82E	206 KM	SE	1.2	AVG MAG	75/ 571	5.2
		+	-	0.9	0.03	0.06	9					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
WTZ	IP	12	14	05.8	1	0.0	0.64	168		5.1	5.2	
ECZ	IP	12	14	13.2	D	2.2	1.41	104		5.4	5.4	
	ES			35		-2.0						
TUA	IP	12	14	12.6	U	1.2	1.47	170		5.5	5.7	
	E			14.7								
	ES			37		-0.9						
GBZ	IP	12	14	12.6	D	0.2	1.57	316				
GNZ	E	12	14	00			1.59	144		5.2		
	E			36								
	ES			40		0.1						
CNZ	P	12	14	18.0		0.5	2.09	208		5.3	5.2	
	ES			49		0.5						
TRZ	IP	12	14	19.7	U	1.2	2.19	180		5.6	5.8	
	S			51		0.7						
ONE	P	12	14	23.0		0.6	2.54	308	4.3			
	ES			56.5		-0.8						
TNZ	IP	12	14	24.7	U	1.0	2.65	226		5.1	4.3	
	ES			15		0.4						
MNG	IP	12	14	31.2	U	-1.5	3.42	197		5.0	5.2	
	E			15		0.1						
CAZ	IP	12	14	34.1	U	-0.5	3.57	187				
	E			15								
	ES			19		0.1						
WEL	P	12	14	40.7		-2.1	4.23	201	5.7	5.5	5.5	
	ES			15		-5.5*						
CRZ	EP	12	14	45		-0.6	4.46	310		4.4		

		H	M	S					75/ 572	
OCT 02		20	29	33.4	34.37S	177.84W	302 KM	SE 1.4	AVG MAG	4.7
				+ - 1.6	0.10	0.17	17			
							DIR	RES	DIST	AZ
	ECZ	EP	20	30 45				0.0	4.43	220
		ES		31 43				2.0		
	GNZ	EP	20	30 57				0.6	5.41	217
		ES		32 00				-1.5		
	WTZ	EP	20	30 56				-1.7	5.52	228
		ES		32 03				-0.8		
	ONE	EP	20	31 18					6.55	255
		ES		31 18						4.8
	CRZ	EP	20	31 26				0.2	7.84	267
	TNZ	EP	20	31 27				0.7	7.88	230
	MNG	EP	20	31 30				-0.1	8.19	218
		ES		33 01				-0.8		
	WEL	ES	20	33 22				1.2	9.05	218

		H	M	S					75/ 573	
OCT 02		21	24	17.4	34.32S	178.07W	335 KM	SE 2.2	AVG MAG	4.8
				+ - 2.5	0.14	0.23	30			
							DIR	RES	DIST	AZ
	ECZ	EP	21	25 29				-0.6	4.34	218
		ES		26 28				1.7		
	WTZ	EP	21	25 39				-2.6	5.42	226
		ES		26 42						
	TUA	EP?	21	25 47.5				0.3	5.91	219
	KRP	EP	21	25 51				-0.9	6.30	233
		ES		27 04				-2.1		
	ONE	EP	21	25 56.9				3.8	6.37	255
		ES		27 04						4.8
	CRZ	EP	21	26 07				-0.9	7.65	267
	MNG	EP	21	26 14				0.6	8.11	217
		ES		27 44				-0.8		
	WEL	ES	21	28 05				1.6	8.97	217

		H	M	S					75/ 574	
OCT 03		02	49	23.0	38.42S	178.00E	12 KM	SE 2.2	AVG MAG	3.8
				+ - 0.7	0.03	0.04	3			
							DIR	RES	DIST	AZ
	GNZ	PG	02	49 29.0				0.9	0.22	176
		SG		35				3.6		
	TUA	PG	02	49 39				0.2	0.77	240
		SG		52				2.7		
	ECZ	EPG	02	49 40				-0.2	0.84	31
		S*		48				-2.0		
		ESG		53				1.4		
	WTZ	PG	02	49 41.5				-0.0	0.91	298
		SG		57				3.1		
	KRP	PG	02	50 03				-0.6	2.00	283
		S*		24				-0.9		
	MNG	PN	02	50 06				-2.7	2.94	221
		EP*		13				-1.4		
		SN		40				-3.2		
	COB	ESN	02	51 29				-0.9	4.86	235

		H	M	S					75/ 575	
OCT 03		13	34	41.5	47.87S	165.04E	12 KM	SE 2.9	AVG MAG	5.2
				+ - 2.5	0.22	0.13	3			
							DIR	RES	DIST	AZ
	MNH	PN	13	35 26.0				1.6	2.74	41
		SN		54				-2.9		
	WPZ	PN	13	35 27				0.9	2.86	66
		ESN		58				-1.9		
	MSZ	PN	13	35 41				2.4	3.77	33
	OMZ	PN	13	35 54				-0.4	4.93	58
		EP*		36 08				1.0		
		S*		37 02.5				-8.8*		

	ESG		30		2.3								
GSP	PN	13 35	57.7	D	1.1	5.10	45						
MJZ	PN	13 36	00.5		-0.5	5.42	46			5.1	5.1		
	P*		15										
	PG		24		-7.2								
	SN		37 03										
	S*		29		2.9								
GPZ*	EPN	13 36	21.5		2.5*	6.76	55			5.4			
KAI*	EPN	13 36	27		4.9*	6.99	42			5.2			
	EP*		42		-0.1*								
	ESN		37 43		3.6*								
	ES*		38 08		-5.1*								
COB*	EPN	13 36	46		0.7*	8.73	42						
	SN		38 21		-0.1*								
WEL*	PN	13 37	03		6.6*	9.56	50			5.1			
	SN		38 39		-2.0*								
MNG*	PN	13 37	09.5		1.8*	10.42	50						
	ESN		39 02		0.9*								
TNZ*	PN	13 37	20.5		5.1*	11.01	41						
KRP*	PN	13 37	39		3.5*	12.56	41						
	SN		39 50		-1.0*								
TUA*	EPN	13 37	42		3.6*	12.63	49						
WTZ*	EPN	13 37	47		3.5*	13.19	46						
	P*		38 26		-2.3*								
GNZ*	EPN	13 37	51.5		7.9*	13.20	50						
CRZ*	PN	13 38	09		7.7*	14.60	26						
	H M S									75/ 576			
OCT 03	15 04	56.5	33.92S	178.44W	33 KM	SE	1.1			AVG MAG	4.4		
	+-	1.5	0.14	0.21	?								
	H M S				DIR	RES	DIST	AZ		H-A	W P	W S	
WTZ	PN	15 06	15.5			-0.5	5.58	220		4.5	4.0		
	SN		07 16.5			-0.7							
GNZ	PN	15 06	16			-0.3	5.60	210		4.1	3.8		
	SN		07 17			-0.9							
TUA	PN	15 06	24			0.6	6.12	214					
	SN		07 32			1.6							
KRP	PN	15 06	27			0.1	6.38	228					
TRZ*	SN	15 07	49			0.5*	6.88	212					
MNG*	PN	15 06	51			-2.1*	8.34	214					
	SN		08 19			-4.4*							
WEL*	SN	15 08	38			-5.9*	9.20	214		5.0			
COB*	SN	15 09	00.5			-4.5*	10.09	221					
GPZ*	ESN	15 09	53			1.9*	12.07	213		5.0			
	H M S									75/ 577			
OCT 03	16 43	44.3	48.11S	165.91E	12 KM	SE	1.2			AVG MAG	4.2		
	+-	1.4	0.12	0.07	?								
	H M S				DIR	RES	DIST	AZ		H-A	W P	W S	
WPZ	PN	16 44	23.6			0.0	2.47	55		4.3	4.2		
	P*		28			0.3							
	SN		53			-0.2							
	S*		59			-1.2							
MNW	PN	16 44	24			-1.5	2.61	27		4.3			
	SN		56.5			-0.1							
MSZ	PN	16 44	39.5			-1.1	3.71	23		4.3	4.3		
OHZ	ESN	16 45	46			1.0	4.60	50		4.2	4.3		
	ES*		46 04			-0.3							
GSP	EPN	16 44	59			2.2	4.90	37					
	PG		45 29			5.6*							
	SN		53			0.8							
MJZ*	P*	16 45	13			-1.5*	5.21	39		4.1	3.8		
	SN		59			-0.6*							
GPZ*	SN	16 46	34			4.5*	6.45	49		4.5			
	ES*		47 02			2.2*							
COB*	PN	16 45	46.5			0.8*	8.54	37					
	SN		47 19			-0.6*							

OCT 04		H	M	S								75/ 578											
		01	42	00.4	40.34S	173.56E	204 KM	SE	0.7	AVG MAG		3.9											
				0.7	0.02	0.03	5																
					H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S							
COB	IP	01	42	30.4					-0.1	0.97	220		4.5	3.8									
	S			53.5					-0.3														
WEL	IP	01	42	33.8			U		0.8	1.31	136	4.0	3.8	4.6									
	S			58.3					-0.0														
TNZ	EP	01	42	32.5					-0.6	1.32	29		3.3	3.3									
	ES			59					0.6														
MNG	IP	01	42	35					0.5	1.49	101												
	S			43 00					-1.0														
CNZ	IP	01	42	38.0			U		-0.5	1.91	54		4.3	3.9									
	S			43 08.5					0.5														
KKY	EP	01	42	40					-0.3	2.08	177												
	ES			43 11.5					0.5														
TRZ*	S	01	43	25					3.0*	2.63	74					3.9							
KAI*	S	01	43	20					-3.9*	2.71	216	3.9											
GPZ*	S	01	43	34.5					-4.0*	3.42	191	4.7											
WTZ*	EP	01	42	56					-1.4*	3.56	50		3.5										
GNZ*	IP	01	42	59.3			U		-1.7*	3.85	65		4.1	3.6									
	S			43 47.5					-0.4*														
HJZ*	S	01	43	55					-3.1*	4.31	211					3.5							
OCT 04													H	M	S								75/ 579
		03	34	43.8	35.19S	179.19E	12 KM	SE	1.0	AVG MAG		4.5											
				1.2	0.04	0.10	R																
					H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S							
ECZ	P*	03	35	28.5					-0.1	2.55	191		4.7	4.6									
	PG			34.5					-1.0														
	S*			36 02					-0.2														
	ESG			11					1.1														
WTZ	PN	03	35	34.8					0.4	3.30	212		4.4	4.1									
	S*			36 20					-4.7*														
GNZ	PN	03	35	38					-0.1	3.57	195		4.5	4.6									
	SN			36 18					-1.5														
AUC	PN	03	35	44					0.9	3.94	244												
TUA	EPN	03	35	45					1.6	3.96	204		4.3	4.3									
	SN			36 29					0.0														
ONE	EPN	03	35	42.5					-1.1	3.97	260												
KRP	PN	03	35	44					-0.0	4.01	226												
TRZ*	SN	03	36	49					1.0*	4.75	203					4.7							
CNZ*	EPN	03	35	55					-1.8*	4.94	215		4.1	3.9									
	EP*			36 07					-2.5*														
	ESN			51					-1.7*														
CRZ*	PN	03	36	03.3			D		0.4*	5.40	276		4.5										
MNG*	PN	03	36	07.5					-5.7*	6.16	207												
	ESN			37 10					-12.0*														
WEL*	SN	03	37	30					-12.3*	7.01	208		4.6										
COB*	SN	03	37	51					-9.6*	7.78	219												
GPZ*	SN	03	38	43					-7.8*	9.88	209		5.1										
HJZ*	SN	03	39	04					-14.4*	11.06	215												
OCT 05													H	M	S								75/ 580
		15	16	02.7	40.22S	174.90E	73 KM	SE	0.6	AVG MAG		3.9											
				0.6	0.01	0.03	9																
					H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S							
MNG	IP	15	16	17.7			D		0.5	0.60	132		3.8	4.2									
	S			27.5					-0.7														
WEL	IP	15	16	23.1			U		0.4	1.07	185	3.4	4.1	4.2									
	S			38					0.2														
TNZ	P	15	16	22.8			U		-0.4	1.10	339		4.4	4.5									
	S			38.5					-0.0														
CNZ	P	15	16	23					-0.6	1.13	26		4.2	4.3									
	S			40					0.8														
TRZ*	EP	15	16	34					4.0*	1.62	66		3.6	3.6									

	WEL*	PN	17 51 13			-2.7*	4.72	224	4.7	4.0	4.6
		SN	52 05			-4.2*					
	COB*	PN	17 51 28			-2.7*	5.84	236		4.1	4.3
		P*	45			-1.6*					
		SN	52 33.5			-2.6*					
	CRZ*	PN	17 51 38.5			2.0*	6.27	302			
	KAI*	ESN	17 53 10			-4.7*	7.45	230	4.9		
	GPZ*	EP*	17 52 14			-1.8*	7.54	218	5.1		
		SN	53 11			-3.9*					
	HJZ*	PN	17 52 10			-1.6*	8.89	225			
		SN	53 43.5			-3.6*					
	MSZ*	SN	17 54 26			-7.2*	10.76	228			
OCT 07		H H S	00 36 43.4	34.92S	178.57W	33 KM	SE	2.0	AVG MAG	75/ 583	4.8
			+ 2.2	0.12	0.20						
				H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	ECZ	PN	00 37 40			2.6	3.70	218		4.8	4.8
		ESN	38 21			2.2					
	GNZ	PN	00 37 51			-0.1	4.70	215		4.4	4.5
		SN	38 45			2.0					
	WTZ	PN	00 37 51.5			-0.7	4.78	227		4.6	4.4
		SN	38 44			-1.0					
	TUA	PN	00 37 59			0.3	5.26	220		4.7	4.7
		SN	38 57			0.4					
	KRP	PN	00 38 03.5			-0.8	5.68	235			
	TRZ*	PN	00 38 08			-0.3*	5.99	217	4.5	4.7	
		EP*	27			-0.3*					
		SN	39 17			2.8*					
	CNZ*	PN	00 38 14.5			0.1*	6.43	225			
		SN	39 29			4.4*					
	CRZ	PN	00 38 26			0.8	7.23	271			
	MNG	PN	00 38 26			-2.4	7.47	217			
		SN	39 46			-3.5					
	WEL*	SN	00 40 06			-4.0*	8.33	217	5.3		
	COB*	EPN	00 38 51			-1.7*	9.29	225			
		SN	40 29.5-			-3.5*					
	KAI*						10.98	223	5.2		
	GPZ*	SN	00 41 14			-3.3*	11.18	215	5.4		
	HJZ*	ESN	00 41 41			-6.5*	12.47	219			
OCT 07		H H S	03 19 09.7	34.69S	178.85W	33 KM	SE	0.7	AVG MAG	75/ 584	4.5
			+ 0.8	0.06	0.07						
				H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	ECZ	EPN	03 20 03.5			0.3	3.66	214		4.5	4.3
		SN	44.5			0.4					
	GNZ	EPN	03 20 17			-0.1	4.68	212		4.0	4.1
		SN	21 07.5			-1.3					
	WTZ	PN	03 20 17.0			-0.4	4.70	224		4.6	4.2
		SN	21 09			-0.3					
	TUA	PN	03 20 24.5			0.2	5.21	217		4.9	4.5
		SN	21 23			1.3					
	KRP	PN	03 20 29			0.0	5.56	233			
		SN	21 30			-0.1					
	CNZ*	PN	03 20 39.5			-0.2*	6.35	223			
		ESN	21 51			1.9*					
	MNG*	PN	03 20 52			-2.2*	7.43	216			
		ESN	22 12			-2.8*					
	WEL*	SN	03 22 30			-5.3*	8.29	216	4.9		
	COB*	SN	03 22 53			-4.5*	9.22	224			
	GPZ*	SN	03 23 35			-7.9*	11.15	214	4.9		
	HJZ*	SN	03 24 05.5			-7.1*	12.42	218			

		H	M	S							75/ 585			
OCT 07		03	27	34.8	41.72S	174.29E	12 KM	SE	1.3	AVG MAG	3.8			
			+ 0.4		0.03	0.03								
					4	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	HEL	IPG		03 27	46.5		U	0.2	0.56	40		3.4	4.1	4.2
		SG			55			1.0						
	KKY	IPG		03 27	51		U	-0.8	0.83	212				
		S*			28 03			1.5						
		SG			05			1.9						
	COB	IP*		03 27	58.8		D	0.2	1.33	298		4.4	4.2	
		S*			28 16.5			0.1						
	MNG	IP*		03 28	00.6		D	0.3	1.42	40		4.1	3.8	
		PG			01.5			-2.0						
		S*			20.5			1.5						
		SG			22			-0.7						
	KAI	EPG		03 28	20			-1.2	2.29	248		3.4		
		ES*			46			0.6						
	GPZ	EPG		03 28	21			-0.8	2.32	211		3.3		
		ESN			38			-2.0						
	TNZ*	EPG		03 28	25			-0.9*	2.53	2		3.7	3.7	
		ESG			58			-2.0*						
	CNZ*	P*		03 28	24			2.1*	2.69	21		4.1	4.3	
		PG			30			0.8*						
		ES*			29 01.5			4.2*						
		SG			11			5.5*						
	HJZ*	EPN		03 28	31			1.3*	3.61	230		3.6	3.2	
		P*			39			1.3*						
		ESN			29 14			2.5*						
		S*			20			-5.1*						
		SG			30.5			-6.1*						
	KRP*	P*		03 28	43			0.3*	3.91	15				
		S*			29 38			4.2*						
		H	M	S							75/ 586			
OCT 07		03	51	48.0	38.12S	179.27E	12 KM	SE	0.7	AVG MAG	4.3			
			+ 1.0		0.03	0.03								
					4	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
	ECZ	PG		03 52	02.3		U	-0.3	0.72	306		5.0	5.1	
	GNZ	PG		03 52	10.9		D	0.3	1.11	242		4.5	4.4	
		SG			26			0.4						
	TUA	P*		03 52	20			0.1	1.80	247		4.1	4.4	
		SN			41			0.5						
	WTZ	PN		03 52	18			-0.1	1.81	274		4.6	4.3	
		P*			21			1.0						
		IPQ			27			2.4*						
		SN			40			-0.7						
	TRZ	P*		03 52	30			0.1	2.39	232		4.3	4.3	
		SN			53.5			-1.3						
	KRP*	PN		03 52	33.5			-0.4*	2.96	273				
		PG			46			-1.8*						
		SN			53 06			-2.5*						
	CNZ*	PN		03 52	37.8			1.8*	3.11	249		4.2	4.1	
		PG			52			1.1*						
		S*			53 18			-5.0*						
	MNG*	PN		03 52	47			0.9*	3.85	229		3.8	3.8	
		SN			53 30			-0.5*						
		S*			40			-3.4*						
	TNZ*	EPN		03 52	49.5			1.7*	3.98	253		4.0		
		EPG			53 08			-0.4*						
	ONE*	P*		03 53	11			3.6*	4.58	299				
	WEL*	SN		03 53	51			0.1*	4.70	226		4.6	4.0	4.4
	COB*	EPN		03 53	13			-0.2*	5.85	238		3.6	4.0	
		P*			29			-0.2*						
		SN			54 19			0.1*						
	CRZ*	EPN		03 53	25			3.4*	6.47	303				
	KAI*	ESN		03 54	57.5			0.6*	7.44	231		4.7		

		H	M	S				75/ 592			
TRZ	PN	06	20	21							
	SN			48	0.4	2.20	25	4.1	4.2		
COB	PN	06	20	21.2	U	0.1	2.24	281	4.7	4.5	
	SN			47.5		-0.7					
TNZ	PN	06	20	27.8		2.3	2.56	338	4.4	4.1	
	EPG			36		-0.9					
	ESN			56.5		0.4					
TUA*	ESN	06	21	06		-0.5	2.99	23		4.0	
GPZ*	EPN	06	20	31		-1.5	3.07	225	4.3		
	SN			21 04		-4.4					
KAI*	EPG	06	20	51		-0.6	3.29	252	4.2		
	SN			21 12		-1.9					
GNZ*	EPN	06	20	36		-1.7	3.45	33	3.7	3.9	
	SN			21 16		-1.7					
KRP*	PN	06	20	42		1.7	3.64	359			
	PG			56		-2.6					
	SG			21 49		1.3					
WTZ*	PN	06	20	40		-1.5	3.73	17	3.8	3.9	
	SN			21 21		-3.5					
HJZ*	PN	06	20	51.5		-0.7	4.51	236	3.8	4.0	
	P*			21 05		1.7					
	SN			40.5		-3.0					
GSP*	PN	06	20	57		0.0	4.86	236			
	SN			21 50		-2.0					
OMZ*	PN	06	20	56.5		-1.2	4.91	223	4.2	4.2	
	SN			21 49		-4.2					
MSZ*	PN	06	21	17		-1.3	6.44	239			
	SN			22 29		-1.0					
OCT 10	H M S	05	22	12.1	37.91S	176.37E	170 KM	SE	1.3	AVG MAG	4.8
				1.6	0.15	0.05	10				
					4						
WTZ	IP	05	22	39.0			D	-0.9	0.50	99	
	S			53				-1.3			
KRP	IP	05	22	36.8			UW	0.1	0.66	268	
	S			56.5				0.8			
WNZ	P	05	22	37				-0.3	0.75	196	4.5
TUA	IP	05	22	40.1			D	0.4	1.09	146	4.7
GNZ*	P	05	22	43.1			D	-0.4	1.49	120	5.0
	S			08.5				0.8			4.7
TRZ*	IP	05	22	46.0			D	0.6	1.68	168	4.7
	S			23 12				1.0			5.1
ECZ	P	05	22	45.0			D	-1.0	1.74	84	5.2
	S			23 14				1.8			4.7
TNZ	P	05	22	49.5				0.5	2.01	230	4.2
MNG*	IP	05	22	56.4				-2.0	2.79	194	4.6
	S			23 33				-1.0			
CAZ*	P	05	22	59.5				-1.4	2.99	182	
	S			23 36.5				-1.9			
WEL*	P	05	23	04.8				-3.6	3.59	200	4.7
	S			48				-3.8			4.6
COB*	P	05	23	12.5				-4.3	4.24	220	4.5
	S			24 02				-4.6			4.7
KAI*	S	05	24	39				-8.3	5.97	218	4.8
GPZ*	EP	05	23	39				-6.6	6.43	205	5.1
	S			24 50				-9.3			
MJZ*	P	05	23	54.5				-5.7	7.53	214	
	S			25 15				-9.5			
GSP*	P	05	23	59.5				-4.9	7.85	216	
	S			25 25				-7.0			
OMZ*	P	05	24	04.3				-5.2	8.24	208	
	ES			25 34				-7.2			
MSZ*	P	05	24	17				-6.1	9.27	221	
	S			25 58				-7.5			

OCT 10		H	M	S	39.59S	173.53E	12 KM	SE	1.1	75/ 593			
		06	39	23.3	0.02	0.03	R			AVG	MAG	3.8	
		+ 0.5					DIR	RES	DIST	AZ	W-A	W P	W S
TNZ	EP*				06 30	38		0.4	0.77	59		3.6	3.8
	S*					50		1.8					
COB	EPN				06 39	50.5		-0.3	1.61	202		3.9	4.3
	P*					52		0.0					
	ESN				40	10.5		-0.8					
	S*					15		1.6					
MNG	P*				06 39	54.7		-0.7	1.81	125		4.1	4.2
	EPG					59		-1.0					
	S*				40	18.5		-1.0					
WEL	P*				06 39	57.5		-0.0	1.94	151	3.6	4.2	4.1
	S*				40	23		-0.2					
	SG					30		1.3					
KRP	P*				05 40	02		-1.6	2.29	44			
	ESN					28		0.3					
	S*					34		0.2					
KAI*	ESN				06 40	54		0.6*	3.34	208	3.7		
	ESG				41	15		-0.9*					
GPZ*	SN				06 41	12		-1.1*	4.15	189	3.6		
MJZ*	EPN				06 40	39		2.5*	4.95	207		3.5	3.4
	SN				41	35		2.5*					
GSP*	EPN				06 40	43		2.7*	5.24	209			
	ESN				41	43		3.6*					
MSZ*	ESN				06 42	16		4.7*	6.57	218			
OCT 11		H	M	S	37.91S	178.90E	12 KM	SE	1.6	75/ 594			
		00	01	16.5	0.05	0.05	R			AVG	MAG	4.7	
		+ 1.3					DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	IPG				00 01	25.6	U	1.7	0.35	308			
GNZ	IP*				00 01	34.2	DE	-0.6	1.01	223		5.1	4.9
	ES*					50		1.6					
WTZ	PN				00 01	41.5	U	-1.0	1.51	267		4.9	
TUA	PN				00 01	44.5		0.1	1.64	236		4.8	4.8
	PG					54		4.3*					
	S*				02	10		2.6					
TRZ	PN				00 01	52		-1.5	2.31	224		4.6	4.8
	ESN				02	22.5		1.1					
	S*					27.5		-0.0					
WNZ	EP*				00 01	58		0.8	2.31	251		4.8	5.0
	S*				02	25		-2.7					
KRP	PN				00 01	57		-1.3	2.66	269			
	EP*				02	05		2.0					
	SN					30		0.1					
CNZ	PN				00 02	00.5		-1.5	2.92	243		4.6	4.4
	SN					35		-1.4					
CAZ*	SN				00 02	51		-2.8*	3.64	214			
TNZ*	EPN				00 02	13		-0.5*	3.76	249		4.4	4.3
	ESN				03	03		6.1*					
MNG*	PN				00 02	09.9		-3.9*	3.79	223		4.3	4.3
	SN					53		-4.5*					
WEL*	EPN				00 02	19		-6.4*	4.64	222	4.9	4.2	4.7
	SN				03	14		-4.1*					
COB*	PN				00 02	36.5		-3.6*	5.73	234		4.1	4.4
	SN				03	42.5		-1.8*					
CRZ*	PN				00 02	48		2.8*	6.11	303			
KAI*	SN				00 04	18		-5.3*	7.35	229	5.0		
GPZ*	SN				00 04	19		-7.2*	7.48	217	5.3		
MJZ*	PN				00 03	18		-3.4*	8.80	224			
	SN				04	52		-5.9*					
GSP*	PN				00 03	22		-3.9*	9.14	224			
	SN				05	01		-5.1*					
OHZ*	SN				00 05	09		-1.4*	9.33	217			

MSZ*		SN	00 05 36	-5.9*	10.67	227				75/ 595
OCT 11	H M S		40.11S 174.92E	12 KM	SE	2.1	AVG MAG	4.0		
	01 17 25.0		0.03 0.03							
	+ 0.6									
	H M S	DIR	RES	DIST	AZ	W-A	W P	W S		
MNG	PG	01 17 38.1		-0.4	0.66	140		4.2	4.0	
	SG	47		-0.5						
TNZ	IPG	01 17 45.3	U	-0.3	1.02	335		4.5	4.2	
	SG	18 01		-1.6						
CNZ	PG	01 17 44		-1.9	1.03	28		4.4	4.4	
	SG	58		-1.9						
WEL	PG	01 17 47		-1.9	1.18	186	3.6	4.1	4.2	
	SG	18 02.5		-2.3						
CAZ	PG	01 17 51		0.3	1.27	129				
	SG	18 11		3.1						
TRZ	PG	01 17 54.5		-2.2	1.57	70		4.3	4.1	
	ESG	18 21		3.2						
COB	IP*	01 18 00.9	U	1.4	1.93	239		4.2	4.0	
	S*	26.5		1.9						
TUA*	P*	01 18 03		-0.0*	2.16	54		4.2		
KRP*	P*	01 18 04		-0.3*	2.24	13				
	S*	32		-1.8*						
WTZ*	PN	01 18 08		1.1*	2.67	38		3.8	3.5	
	P*	12		0.3*						
	ESN	42		3.5*						
	ES*	50.5		3.8*						
GNZ*	PG	01 18 21		-0.9*	2.81	60		3.6		
KAI*	ES*	01 19 12		-2.2*	3.58	227	3.5			
GPZ*	SN	01 19 09		-1.2*	3.96	205	3.6			
FELT WANGANUI (57) MM IV										

MSZ*		SN	41.69S 174.33E	12 KM	SE	1.1	AVG MAG	75/ 596		
OCT 11	H M S		0.02 0.03							
	09 22 09.5									
	+ 0.3									
	H M S	DIR	RES	DIST	AZ	W-A	W P	W S		
WEL	IPG	09 22 19.9	U	-0.4	0.92	39	3.4	4.1	4.2	
	SG	29.5		2.1						
KKY	IPG	09 22 26.0	U	-1.2	0.87	213				
	SG	40		1.0						
COB	IPN	09 22 32.3	D	-1.0	1.34	296		4.5	4.3	
	SN	52		1.0						
MNG	P*	09 22 34.1	U	-0.1	1.38	39		4.2	3.9	
	SG	56		-0.1						
KAI	EP*	09 22 49		-1.4	2.33	248	3.6			
	PG	53.5		-3.1*						
	S*	23 22		0.9						
GPZ	EPG	09 22 56.5		-0.7	2.36	211	3.3			
	ESN	23 17		1.4						
	SG	29		-0.1						
CNZ	P*	09 22 56		-0.0	2.66	21		4.4	4.5	
	EPG	23 02		-1.2						
	SG	39		-0.1						
TRZ*	EPG	09 23 09.5		2.2*	2.86	42		4.1		
MJZ*	EPN	09 23 04		-0.9*	3.65	230		3.9	3.6	
	P*	12		-1.1*						
	PG	23		-0.4*						
	SN	47.5		0.3*						
KRP*	P*	09 23 20		3.1*	3.87	14				
GSP*	EPN	09 23 09		-0.7*	4.00	231				
	P*	17		-2.0*						
	ES*	24 09		-2.3*						
MSZ*	SN	09 24 35.5		2.3*	5.55	235		3.3		

OCT 11	H	M	S	41.59S	174.34E	12 KM	SE	1.2	AVG MAG	75/ 597			
										+	-	0.4	
				0.03	0.03	R							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
WEL	IPG			09	24	10.3	U	-0.7	0.51	39	3.4	4.1	4.2
	SG					20		1.9					
KKY	IPG			09	24	16.0	U	-2.3	0.88	213			
	ESG					31		0.8					
COB	IPN			09	24	22.9	D	-1.4	1.35	296		4.3	4.1
	SN					42		-0.1					
MNG	P*			09	24	24.5		-0.5	1.37	39		4.1	3.9
	PG					28		-0.2					
	SG					46		-0.8					
KAI	S*			09	25	12.5		0.2	2.34	248		3.5	
	SG					20		0.7					
GPZ	ESN			09	25	08		1.3	2.37	211		3.3	
	ESG					20		-0.2					
CNZ	P*			09	24	48		1.2	2.65	21		4.3	4.5
MJZ*	SN			09	25	36		-2.3*	3.66	230		3.6	3.4
KRP*	P*			09	25	08		0.3*	3.87	14			
	S*					56		-2.4*					
GSP*	P*			09	25	07		-3.1*	4.01	231			
	S*					26		-1.5*					
MSZ*	EP*			09	25	33		-3.7*	5.56	235		3.4	3.2
	ESN					26		1.7*					

OCT 12	H	M	S	41.07S	173.97E	12 KM	SE	1.2	AVG MAG	75/ 598			
										+	-	0.3	
				0.02	0.02	R							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
WEL	P*			03	39	47.2		0.6	0.64	110	4.0	4.3	4.5
	S*					57		1.6					
COB	P*			03	39	52.2		0.6	0.93	269		4.0	4.4
	S*					40		0.7					
MNG	P*			03	39	55.2		-1.5	1.23	69			
	EPG					58		-1.6					
KKY	P*			03	39	59		0.1	1.36	189			
	S*					40		-0.1					
TNZ	EPN			03	40	07		0.9	1.91	10		3.5	4.0
	P*					09		0.7					
CNZ	PN			03	40	10.5		0.0	2.23	33		4.1	4.1
	P*					13		-0.8					
	PG					20		0.3					
	S*					43		-0.2					
KAI	P*			03	40	18		1.3	2.40	232		3.5	
	SN					39		-2.7					
	S*					43		-5.4*					
GPZ*	SN			03	40	44		-7.4*	2.80	200		3.8	
KRP*	EPN			03	40	28.5		2.4*	3.37	22			
	P*					35		1.7*					
	SN					41		1.7*					
MJZ*	PN			03	40	31		-2.3*	3.90	220		4.0	3.5
	P*					37		-5.3*					
GSP*	PN			03	40	40		2.2*	4.22	222			
	SN					41		2.9*					
MSZ*	SN			03	42	01		-1.2*	5.72	229			3.7

OCT 14	H	M	S	NEAR TAUPQ (41)	DIR	RES	DIST	AZ	75/ 599		
									+	-	3
				H	M	S					
WNZ	P			02	02	38					
	(S)					39					
FELT TAUPQ (41) MM 1Y											

OCT 14		H	M	S	38.05S	179.36E	12 KM	SE	0.6	AVG MAG	75/ 600	4.1
		+ 1.3			0.03	0.05	3					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
ECZ	PG	21	45	15.0	U	0.6	0.73	298				
GNZ	IPG	21	45	24.0	D	0.0	1.21	240		4.3	4.3	
	SG			41		0.7						
WTZ	P*	21	45	32.5		-0.1	1.87	271		4.5	4.2	
	EPG			37		-0.4						
	ESN			53.5		-0.2						
TUA	S*	21	45	57.5		-0.5	1.89	246				4.4
KRP*	EPN	21	45	45		-1.3*	3.02	271				
	P*			49		-3.2*						
	EPG			59		-1.6*						
	SN			46 19.5		-2.2*						
CNZ*	PN	21	45	51		2.3*	3.20	248		4.0	4.0	
	ESN			46 31		4.9*						
MNG*	PN	21	46	00.1	U	1.1*	3.95	228		3.8	3.7	
	SN			44		-0.5*						
TNZ*	EPN	21	46	04		3.5*	4.06	252			3.7	
WEL*	SN	21	47	04		-0.9*	4.80	226	4.5			4.3
COB*	EPN	21	46	25.5		-0.5*	5.95	237		3.6	4.0	
	SN			47 31		-1.7*						
GPZ*	SN	21	48	10.5		-1.5*	7.60	220	4.8			
HJZ*	SN	21	48	43		-1.7*	8.96	226				

OCT 15		H	M	S	38.04S	176.35E	164 KM	SE	1.2	AVG MAG	75/ 601	4.1
		+ 1.3			0.05	0.05	9					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
WTZ	P	00	25	12.0	D	0.2	0.50	84		3.4	3.4	
	S			29		-0.6						
KRP	IP	00	25	12.7	D	0.2	0.66	280				
	S			30.5		-0.5						
TUA	S	00	25	36		1.0	0.99	141				4.2
CNZ*	P	00	25	18.7	D	-1.1	1.32	208		4.1	3.8	
	ES			42		1.7						
GNZ	P	00	25	20.5		1.5	1.44	115		3.4	4.0	
	S			42		-0.4						
TRZ	P	00	25	19.5		-0.6	1.56	167		4.1	4.0	
	S			43		-1.4						
MNG*	IP	00	25	29.8		-3.2*	2.66	194		4.7	4.0	
	S			26 02		-5.1*						
CAZ*	P	00	25	32.5	U	-3.0*	2.86	182				
	S			26 07		-4.5*						
WEL*	IP	00	25	38.9	U	-4.2*	3.47	200	4.2	4.6	4.4	
	S			26 17		-8.1*						
COB*	S	00	26	32		-8.5*	4.14	221				4.1
KAI							5.86	219	4.6			
GPZ*	S	00	27	19		-12.8*	6.31	205	4.7			
HJZ*	S	00	27	45		-13.3*	7.42	215				

OCT 15		H	M	S	47.67S	165.89E	12 KM	SE	1.4	AVG MAG	75/ 602	4.0
		+ 1.5			0.07	0.05	3					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
MNW	PN	03	26	35.5		-1.3	2.24	33		4.3	4.1	
	SN			27 03		-0.9						
	ES*			10		0.3						
WPZ	PN	03	26	38		0.8	2.26	64		3.8	3.8	
	SN			27 06		1.5						
ROX	PN	03	26	50		-0.5	3.23	48		4.0	4.0	
	ESN			27 27.5		-0.7						
	S*			38		-1.5						
MSZ	PN	03	26	51.5		-0.2	3.32	26		4.3	4.1	
	SN			27 33		2.7						

OCT 16		H	M	S			41.76S	171.79E	12 KM	SE	1.3	AVG MAG	75/ 605	3.8
		+	-	0.6			0.03	0.03	9					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S			
KAI	P*	08	59	27.6		-0.7	0.81	200						
	S*			38		-1.4								
COB	P*	08	59	31.5	U	0.3	0.98	47		4.4	4.5			
	SG			45.5		-1.1								
KKY	P*	08	59	40.5		-0.6	1.56	116						
	ES*	09	00	04		2.1								
	SG			06		-0.1								
GPZ	PN	08	59	46		-0.6	2.03	162	3.3					
	P*			50.5		1.3								
	SN	09	00	11		-0.5								
	SG			20		-1.9								
WEL	S*	09	00	24		0.3	2.29	79	3.3			3.7		
HJZ	PN	08	59	52		0.0	2.43	203		3.8	3.6			
	SN	09	00	23		1.9								
	S*			29		1.1								
HNG*	PN	08	59	59.5		-0.6*	3.01	69		3.7	3.6			
	S*	09	00	42.5		-3.0*								
	SG			52		-2.9*								
TNZ*	P*	09	00	08.5		-1.4*	3.24	38		3.5	3.7			
	PG			16.5		-2.5*								
	SG			01 00		-2.7*								
OMZ							3.37	191			4.1			
CNZ*	EP*	09	00	19		-1.2*	3.84	49		4.0	4.0			
	SG			01 19		-3.9*								
KRP*	SN	09	01	19		0.2*	4.80	38						
	SG			49		-6.0*								
OCT 16		H	M	S			39.46S	174.19E	227 KM	SE	1.0	AVG MAG	75/ 606	4.1
		+	-	1.1			0.04	0.03	9					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S			
TNZ	P	15	34	25.7	U	0.8	0.31	28						
CNZ	IP	15	34	28.6	D	0.3	1.08	77		4.5	3.8			
	ES			55.5		1.4								
HNG	IP	15	34	32.2	U	0.6	1.53	140		4.3	4.1			
	S			35 00		0.1								
KRP	ES	16	35	04		-1.1	1.86	35						
WEL	S	16	35	05.5		0.1	1.88	167	4.1	3.7	4.4			
COB	P	16	34	35.8	D	0.2	1.97	214		4.4	4.2			
	S			35 06		-1.0								
TRZ	P	15	34	36		-0.2	2.04	94		3.9	4.3			
	ES			35 07		-1.1								
CAZ*	S	16	35	10		0.3*	2.13	133						
TUA*	P	16	34	39		-0.8*	2.39	75		4.1	4.1			
	S			35 12.5		-2.0*								
WTZ*	ES	16	35	15		-4.3*	2.64	57				3.8		
GNZ*	P	16	34	46		-1.6*	3.09	76		3.7	4.2			
	S			35 24		-4.4*								
KAI							3.72	214		4.0				
GPZ*	S	16	35	51.5		-4.6*	4.39	195		4.6				
OCT 16		H	M	S			36.33S	179.64W	12 KM	SE	0.5	AVG MAG	75/ 607	4.0
		+	-	0.5			0.05	0.06	9					
		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S			
ECZ	EP*	19	08	31		-0.6	1.99	226				4.3		
	S*			58		0.0								
	SG			09 04		0.3								
GNZ	PN	19	08	43		0.4	2.97	218		3.8	3.9			
	SN			09 17		-0.4								
WTZ	PN	19	08	45		-0.2	3.16	237		4.3				
TUA	PN	19	08	51		0.4	3.55	225		4.3	4.1			

LOCAL EARTHQUAKES

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KRP	PN	18 08 59	0.0	4.17	246							
CNZ*	PN	18 09 07	-0.2*	4.77	232			3.9	3.5			
	ESN	18 10 02	0.9*									
TNZ*	EPN	18 09 21.5	4.1*	5.53	237			3.8				
	P*	29	-3.2*									
MNG*	EPN	18 09 17	-3.3*	5.74	220			3.4	3.6			
	P*	33	-2.9*									
	SN	10 21	-3.7*									
WEL*	ESN	18 10 41	-4.2*	6.60	220							
COB*	SN	18 11 05	-4.7*	7.62	229							
GPZ*				9.44	216			4.7				
OCT 16	H M S	36.17S 179.90E	12 KM	SE	1.2	AVG MAG	75/ 608					
		0.07 0.03	R				4.5					
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S			
ECZ	P*	18 29 30		-0.2	1.87	215		4.8	4.8			
	PG	36		1.0								
	SG	30 02		1.9								
GNZ	PN	18 29 42		-0.2	2.88	211		4.1	4.3			
	SN	30 15.5		-0.7								
WTZ	PN	18 29 43.5		0.4	2.95	231		4.5	4.2			
	SN	30 16.5		-1.3								
TUA	PN	18 29 50		0.5	3.42	219		4.6	4.5			
	SN	30 30		0.7								
KRP	PN	18 29 57		0.9	3.91	242						
TRZ	PN	18 29 58		-1.6	4.16	215		4.3	4.6			
	ESN	30 46		-1.3								
AUC*	PN	18 30 04		4.0*	4.19	259						
CNZ*	PN	18 30 06		0.5*	4.59	228		4.4	4.0			
	SN	31 01		3.4*								
TNZ*	PN	18 30 18		2.7*	5.31	234		4.3				
MNG*	PN	18 30 17		-2.6*	5.63	217		3.9	4.1			
	P*	32		-2.7*								
	SN	31 19		-3.9*								
	SG	32 05		-2.1*								
WEL*	SN	18 31 38		-5.4*	6.49	217	4.8					
COB*	SN	18 32 04		-2.4*	7.45	227						
	ES*	37		-5.9*								
KAI*					9.14	223	5.0					
GPZ*	SN	18 32 44		-7.7*	9.35	214	5.0					
OCT 16	H M S	36.26S 179.79E	12 KM	SE	1.0	AVG MAG	75/ 609					
		0.06 0.03	R				4.5					
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S			
ECZ	P*	19 16 25.5		-0.5	1.74	214		4.6	4.6			
	PG	31		0.6								
	S*	46.5		-2.6*								
	SG	53		-0.9								
GNZ	PN	19 16 37		-1.4	2.76	210		4.1	4.5			
	SN	17 11		-0.1								
WTZ	PN	19 16 39		-0.2	2.82	231		4.6	4.4			
	SN	17 12		-0.5								
TUA	PN	19 16 46		0.3	3.30	219		4.6	4.6			
	SN	17 24.5		0.4								
KRP	PN	19 16 52.5		0.2	3.78	243						
TRZ	SN	19 17 44		1.8	4.04	215			4.8			
CNZ*	PN	19 17 01		-0.6*	4.46	228		4.3	4.0			
	SN	54		1.6*								
TNZ*	PN	19 17 12		0.6*	5.19	234		4.1				
MNG*	PN	19 17 12		-3.7*	5.51	216		3.9	4.2			
	SN	18 14		-3.7*								
WEL*	SN	19 18 33		-5.3*	6.37	216	4.8					
COB*	EP*	19 17 58		-3.5*	7.32	227						
	SN	19 00		-1.1*								
KAI*					9.01	223	5.0					

GPZ*	SN	19 19 39	-7.6*	9.23	214	5.0				
OCT 17	H M S 05 04 54.4 + 1.3	35.44S 179.64W	238 KM	SE	1.3	AVG MAG	75/ 610			
		0.06 0.10	14					W-A	W P	W S
ECZ	P	05 05 44.6	DIR RES	DIST	AZ					
GNZ	P	05 05 54.5		1.5	2.68	212		4.8		
	ES	06 40.3		-0.2	3.70	210		4.1	4.2	
TUA	P	05 06 00.5		-1.1						
KRP	P	05 06 05.0		-0.4	4.22	216		4.5		
	ES	07 01		-0.4	4.60	236		3.9	4.0	
CNZ	EP	05 06 13.5		0.3						
CRZ	P	05 06 28.5		-1.4	5.36	224		4.3		
MNG	EP	05 06 28		0.7	6.38	277				
	E	31		-0.5	6.44	215				
	ES	07 44		2.0						
WEL	ES	03 08 02		0.4	7.30	215				
COB	ES	05 08 21		-1.8	8.22	224		5.2		
GPZ	ES	05 09 08		0.9	10.16	213		5.3		
OCT 18	H M S 02 02 06.3 + 0.4	39.22S 175.13E	12 KM	SE	1.6	AVG MAG	75/ 611			
		0.03 0.03	9							
CNZ	P	02 02 12.7	DIR RES	DIST	AZ			W-A	W P	W S
TNZ	P	02 02 18.5	U	-0.2	0.32	86				
	ES	27.3		1.2	0.58	273		3.6	3.4	
	E	29.5		1.8						
KRP	EPN	02 02 29.0		-0.9	1.33	14		4.1	4.0	
	IP	30.0		-0.2						
	S	47.0		-1.0						
TRZ	EP	02 02 33		2.6	1.35	105		3.6	3.7	
	E	54.5								
MNG	PN	02 02 31.0		-0.1	1.42	169				
	ESN	48.5		-1.1						
WEL	PN	02 02 42.2		2.0	2.08	188		3.4	4.1	3.9
	ESN	03 07		1.4						
COB	EPN	02 02 47		0.5	2.62	224		3.6	3.6	
	EP	50.5		-1.6						
	ESN	03 17		-1.7						
GPZ	SN	02 04 11		-1.8	4.84	202		4.1		
OCT 18	H M S 06 49 07.4 + 1.2	37.26S 176.54E	210 KM	SE	1.1	AVG MAG	75/ 612			
		0.06 0.05	9							
WTZ	EP	06 49 37	DIR RES	DIST	AZ			W-A	W P	W S
	ES	50 01		-0.2	0.81	154		3.5	3.4	
KRP	EP	06 49 38		0.7						
ECZ	EP	06 49 45		-0.6	1.04	230		3.0		
	ES	50 11		1.3	1.66	106		4.3	4.0	
GNZ	P	06 49 45.8	D	-0.7						
	E	50 07.5		0.6	1.81	140		4.7	4.5	
	S	12.2		-2.1						
TRZ	EP	06 49 50		-0.1	2.30	175		3.9	4.1	
	ES	50 25		1.9						
MNG	P	06 50 03.2		-0.3	3.46	193		4.3	3.8	
	ES	47		0.1						
WEL	ES	06 51 04		-0.3	4.25	198		4.4		4.0
COB	ES	06 51 17		-0.4	4.83	217				3.8
OCT 19	H M S 18 58 16.1 + 0.7	35.65S 178.79E	280 KM	SE	0.8	AVG MAG	75/ 613			
		0.06 0.03	8							

		ES*		52.5		-0.3												
	GNZ	SN	19	49	57		-0.7	2.86	39									3.4
	KRP	EPN	19	49	29		2.2	2.97	357				3.5					3.6
		EP*			35		0.1											
		S*			50		1.0											
	WTZ	E	19	49	35			3.07	19				3.5					3.9
		SN			50		01.5											
	GPZ	ESN	19	50	14		-2.0	3.61	218			3.8						
	MJZ	ESN	19	50	49		0.2	4.97	230									
OCT 26		H M S																75/ 623
		21 29 20.7	41.63S	174.33E		12 KM		SE	1.8			AVG MAG						3.8
		+ 0.8	0.04	0.04														
		H M S				DIR	RES	DIST	AZ			W-A	W P	W S				
	HEL	PG	21	29	30.2		-0.3	0.47	44			3.6						
		SG			36.8		-0.2											
	COB	PG	21	29	46.8		-0.7	1.32	294				4.2					4.0
		SG			30		06.3											
	CAZ	EPG	21	29	53.0		-0.1	1.60	64									
	GPZ	ESN	21	30	27		-1.1	2.41	211			3.3						
	TNZ	ESG	21	30	41		-2.0	2.44	1									3.7
	CNZ	P*	21	30	09		2.8	2.60	21				4.1					4.2
		SG			48		-0.3											
	TRZ	E	21	30	50			2.81	43									
	KRP	EPN	21	30	21		2.7	3.81	14				3.7					
		E			33.5													
		EPG			35		-2.8											
		ES*			31		1.0											
		E			23													
	WTZ*	EP*	21	30	35		1.8*	4.17	30				3.7					3.6
		ES*			31		2.8*											
OCT 27		H M S																75/ 624
		10 55 21.4	37.18S	177.29E		175 KM		SE	1.1			AVG MAG						3.7
		+ 1.1	0.06	0.07														
		H M S				DIR	RES	DIST	AZ			W-A	W P	W S				
	WTZ	P	10	55	47		-0.6	0.84	196				3.5					3.4
		ES			56		07											
	ECZ	EP	10	55	51		1.1	1.13	117				4.0					3.7
		E			56		19											
	KRP	EP	10	55	55		1.0	1.57	241				3.0					
	GNZ	P	10	55	53.3		-0.7	1.57	158				4.0					3.6
		S			56		19.0											
	TUA	ES	10	56	21		0.9	1.63	184									3.9
	TRZ	ES	10	56	40		4.9*	2.40	188									3.9
	MNG	P	10	56	18.2		-1.2	3.71	202				4.1					3.2
		ES			57		04.7											
	WEL	ES	10	57	23		-0.1	4.54	205				4.4					3.7
OCT 28		H M S																75/ 625
		03 28 18.0	45.04S	167.63E		122 KM		SE	1.1			AVG MAG						4.3
		+ 0.8	0.04	0.05														
		H M S				DIR	RES	DIST	AZ			W-A	W P	W S				
	MSZ	P	03	28	36.6		0.7	0.42	29									
	MNH	IP	03	28	38.1	D	0.0	0.74	181				4.5					4.7
		S			52.3		-1.2											
	ROX							1.27	111				4.9					4.6
	WPZ	P	03	28	50.3		0.5	1.83	153				4.7					4.2
		ES			29		13.5											
	GSP	P	03	28	52.0		0.9	1.93	63									
		S			29		17.0											
	MJZ	P	03	28	56.4		0.7	2.28	64				3.7					4.4
		S			29		24.0											
	OMZ	P	03	28	57.4		1.2	2.33	92				4.6					4.7
		S			29		24.8											
	KAI	E	03	29	57			3.71	49			4.0						
	GPZ	ES	03	29	57		-4.1*	3.84	71			4.1						

LOCAL EARTHQUAKES

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	COB	EP	03 29 37	-0.9	8.44	45		3.9	3.8
		S	30 38	-1.8					
	MNG	E	03 31 10.8		7.27	55			
OCT 28	H	M	S					75/ 626	
	14	50	33.1	37.985	177.79E	12 KM	SE 1.2	AVG MAG	3.4
				0.06	0.03	2			
						DIR	RES	DIST	AZ
	ECZ	PG	14 50 46.0				0.2	0.62	100
	WTZ	SG	14 51 00.5				0.8	0.78	234
	GNZ	PG	14 50 56.7				0.7	1.13	171
	TUA	SG	51 11				-0.4		
	TUA	E	14 51 08					1.38	201
	CNZ	EPG	14 51 21				-1.2	2.43	226
OCT 29	H	M	S					75/ 627	
	14	28	44.3	37.90S	178.73E	103 KM	SE 1.9	AVG MAG	4.0
				0.09	0.12	13			
						DIR	RES	DIST	AZ
	ECZ	IP	14 28 59.9				-3.4	0.25	324
	GNZ	P	14 29 05.4				0.9	0.93	216
		S	21.5				1.7		
	WTZ	P	14 29 10.4				0.5	1.38	266
		S	29				-0.0		
	TUA	EP	14 29 14				2.2	1.54	233
		S	21.5						
	TRZ	P	14 29 21				0.4	2.23	221
		S	33						
	KRP	P	14 29 25.8				1.1	2.52	268
		S	54				-0.9		
	CNZ	ES	14 29 30.5				1.9	2.81	241
		P	38						
		S	42.9						
	MNG	P	14 29 40.3				-0.5	3.71	222
		S	59.5						
		S	30 09.7						
	WEL	ES	14 30 21.5				-2.2		
		S	43				-1.7	4.56	221
OCT 29	H	M	S					75/ 628	
	18	50	21.0	44.86S	169.19E	12 KM	SE 1.6	AVG MAG	2.8
				0.06	0.03	2			
						DIR	RES	DIST	AZ
	MSZ	EPG	18 50 41				1.1	0.93	282
		SG	52				-0.5		
	GSP	PG	18 50 38.5				-1.6	0.94	39
		SG	53.8				1.0		
	OMZ	ESG	18 51 03				0.1	1.24	100
	FELT	WANAKA (123) MM	IV						
OCT 30	H	M	S					75/ 629	
	05	41	07.5	37.97S	175.96E	199 KM	SE 1.6	AVG MAG	4.9
				0.04	0.04	7			
						DIR	RES	DIST	AZ
	KRP	IP	05 41 35.0			D	0.9	0.34	277
		S	56				1.3		
	WNZ	EP	05 41 36.7				1.3	0.67	170
	WTZ	IP	05 41 35.0			D	-1.1	0.81	91
		S	56.3				-2.0		
	TUA	P	05 41 39.8				0.5	1.26	132
		ES	42 04				0.1		
	CNZ	P	05 41 41.0				1.6	1.27	195
	TRZ	P	05 41 44.3				0.9	1.72	157
		I	49.0						
		S	42 12.5				1.3		

LOCAL EARTHQUAKES

275

	HEL	ES	11 36 46			-1.3	4.13	223					3.6		
	COB	EP	11 36 13.8			-1.5	5.25	237					4.0 3.8		
		ES	37 13			-2.0									
OCT 30	H	M	S										75/ 632		
	14	10	51.5	38.61S	175.79E	171 KM	SE	1.4		AVG	MAG		4.4		
			+ 1.0	0.04	0.04										
				H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
	WNZ	P	14 11 15.3					0.7	0.24	95					
	CNZ	P	14 11 17.2					1.2	0.62	198				4.5	
	KRP	P	14 11 17.0			D		0.5	0.71	343				4.1	3.8
		S	35.2					-0.6							
	TUA	P	14 11 20.0					0.9	1.08	101				4.7	4.9
		ES	39.8					-0.6							
	WTZ	P	14 11 18.4					-1.2	1.13	57				4.4	4.2
		E	35.2												
		IS	40.3					-0.9							
	TRZ	P	14 11 22.0					1.5	1.24	140				5.0	5.0
		S	46.0					3.1							
	TNZ	P	14 11 22.0					1.4	1.25	242				4.0	3.4
		E	48												
	GNZ	P	14 11 25.7					0.2	1.75	92				4.3	4.5
		S	50.0					-1.8							
	MNG	P	14 11 29.5					0.9	2.02	187				4.4	
		E	49												
		S	56					-1.1							
	ECZ	P	14 11 33					0.5	2.35	68				4.7	4.4
		ES	12 03					-0.9							
	HEL	P	14 11 37.3					-0.5	2.79	196	4.5	4.4		4.8	
		S	12 11.5					-1.9							
	COB	E	14 11 49						3.42	223				3.8	4.4
		S	12 26					-1.3							
	KAI	ES	14 13 02					-5.2	5.14	219					
	GPZ	S	14 13 13					-5.2	5.61	204	4.9				
OCT 31	H	M	S										75/ 633		
	16	30	07.4	41.01S	172.33E	12 KM	SE	1.5		AVG	MAG		4.4		
			+ 0.4	0.03	0.03										
				H	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
	COB	IP*	16 30 11.0					-2.8	0.31	104					
	KAI	EPN	16 30 37.5					1.9	1.67	204					
		ESN	59					2.4							
	KKY	PN	16 30 37.0					0.4	1.74	145					
		ES*	31 01					-0.3							
	HEL	IPN	16 30 38.0			D		-0.3	1.86	99	4.6	4.7		4.9	
		P*	38.3					-2.0							
		ESN	31 02					0.7							
	TNZ	IPN	16 30 45.2			U		-0.5	2.40	41				4.1	4.5
		E	31 24												
	MNG	PN	16 30 45.6					-0.4	2.42	82				4.8	
		ES*	31 21					-0.8							
	GPZ	EPN	16 30 52					2.3	2.69	175	4.2				
		EP*	56.5					1.9							
		ESN	31 22					0.3							
	CAZ	EP*	16 31 01					2.0	2.95	89					
		E	41												
	CNZ	PN	16 30 54.0					-0.7	3.06	55				5.0	5.0
		E	31 03												
		ESN	30					-0.5							
		ES*	40					-0.9							
	MJZ								3.28	204				4.4	4.3
	GSP	PN	16 31 02.0					0.4	3.56	208					
		E	04.9												
		ESN	43					0.2							
	TRZ	EPN	16 31 03					-0.9	3.73	68				4.5	4.3
		E	19												
		ESG	32 15					1.9							

		H	M	S			75/ 634
KRP	IPN	16	31	06.0	UNE	-1.0	3.95 40 4.3 4.2
	E			49			
OMZ	EPN	15	31	08		-2.2	4.19 194 4.4 4.2
	E			24			
	ESN			55		-3.1	
TUA	E	15	31	16			4.31 61 4.5 4.4
	E			30			
	ESG			32 35		2.4	
WTZ	EPN	16	31	17		-0.1	4.70 51 4.3
MSZ	PN	15	31	20.2		0.5	4.89 220 4.3 4.3
	E			22			
	ESN			32 14		-1.1	
	E			47.5			
GNZ	E	15	31	36			4.98 63 4.1 3.9
	ESN			32 17		-0.1	
ONE	E	16	31	38			5.46 18 4.6
	ESN			32 29		0.1	
CRZ	EPN	16	31	43		0.6	6.57 3
CIZ	ESN	16	33	42		-4.7*	8.71 113
FELT	MURCHISON (80) AND FAREWELL SPIT (72), MM IV						
OCT 31	H M S	17	17	14.7	38.00S	176.35E	187 KM SE 1.5 AVG MAG 3.9
				*- 1.4	0.05	0.05	10
				4 M S	DIR	RES	DIST AZ W-A W P W S
WTZ	IP	17	17	39.2	D	-1.3	0.51 89 4.1
KRP	EP	17	17	41		-0.1	0.64 276 3.3 3.1
	ES			18 01		-0.4	
TUA	ES	17	18	06.5		0.8	1.03 142 4.2
CNZ	EP	17	17	47.0		0.8	1.35 207 3.7 3.3
	E			18 14			
GNZ	IP	17	17	47.7	U	0.5	1.47 117 4.2 3.9
	ES			18 10		-2.3	
TRZ	EP	17	17	51		2.6	1.60 167 3.9 4.2
	ES			18 16		1.5	
TNZ	EP	17	17	54		2.0	1.94 232
MNG	IP	17	18	00.5		-0.2	2.70 194 4.7 3.7
	ES			35.5		-0.7	
HEL	P	17	18	09.0		-1.4	3.50 200 4.6 3.8
	ES			53		-0.4	
COB	S	17	19	07		-1.2	4.16 221 3.7
NOV 01	H M S	19	53	38.6	37.90S	177.90E	127 KM SE 1.9 AVG MAG 4.8
				*- 1.0	0.05	0.05	9
				4 M S	DIR	RES	DIST AZ W-A W P W S
ECZ	IP	19	53	59.2	D	1.4	0.55 69 5.5 5.5
	ES			54 12		-0.5	
GNZ	IP	19	53	59.8	U	0.5	0.75 173 4.7 4.8
	E			54 06.5			
	ES			13		-2.1	
TUA	IP	19	54	01.3	D	-1.0	1.08 213 5.0 5.4
	E			04			
	ES			21		0.6	
TRZ	EP	19	54	12.5		1.5	1.86 207 4.8 5.1
	ES			38		2.4	
	E			49			
KRP	IP	19	54	08.7	DNE	-2.5	1.87 268 4.5 4.2
	E			27.5			
CNZ	P	19	54	16.2		0.1	2.26 234 4.7 5.0
	E			50			
TNZ	EP	19	54	28		1.5	3.04 244 4.6 4.1
	E			55 09			
MNG	P	19	54	29.1		-0.9	3.30 214 4.5 4.7
	ES			55 12		2.9	
	E			24			
ONE	EP	19	54	35		1.9	3.54 306 4.1

LOCAL EARTHQUAKES

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	WEL	ES	55 14		-0.8														
		EP	19 54 40		-1.4	4.16	215				4.6	4.8							
		ES	55 26		-3.6														
		E	46																
	CIZ	E	19 35 35			7.36	147												
		ES	56 47		-0.1														
NOV 02	H M S																		75/ 636
	06 35 43.9		37.75S	178.89E	33 KM	SE	1.4				AVG MAG	4.1							
	+ 1.3		0.05	0.09															
			H M S	DIR	RES	DIST	AZ				W-A	W P	W S						
	ECZ	IPN.	06 35 52.9		1.3	0.28	281												
	GNZ	IPN	06 36 03.7	D	1.1	1.13	217					4.5	4.5						
		IP*	04.0		-0.7														
		ESN	18.8		1.9														
	WTZ	IPN	06 36 08.1	D	0.0	1.53	261					4.6	4.4						
		ESN	26		-0.3														
	TUA	PN	06 36 08.6		-2.3	1.73	232					4.3	4.3						
		EP*	17		2.0														
		E	44																
	TRZ	EPN	05 36 20.5		0.1	2.42	221					4.2	4.1						
		ESN	48.5		0.4														
	KRP	EPN	06 36 23		-0.7	2.66	265					3.5	3.4						
		ESN	53		-0.9														
	CNZ	IPN	06 36 28.9	D	0.5	3.00	240					4.0							
		EP*	37		0.4														
	TNZ	EPN	05 36 41		1.4	3.82	247												
	MNG	EPN	06 36 38.5		-2.2	3.90	222					3.8	3.4						
		E	37 10																
	WEL	ESN	05 37 43		-1.9	4.76	221												3.9
NOV 02	H M S																		75/ 637
	13 57 54.1		37.45S	177.19E	170 KM	SE	1.5				AVG MAG	4.7							
	+ 0.7		0.04	0.04															
			H M S	DIR	RES	DIST	AZ				W-A	W P	W S						
	WTZ	IP	13 58 17.3	U	-0.8	0.55	196					5.2	4.9						
		E	32																
	ECZ	IP	13 58 21.6	U	-0.2	1.11	103					5.6	5.4						
		E	25.0																
		ES	43		-0.2														
	TUA	IP	13 58 24.8	U	0.8	1.35	181					4.6	5.0						
		E	42																
	GNZ	IP	13 58 24.6	UNE	0.5	1.36	151					4.9	5.1						
		ES	45		-2.3														
	KRP	IP	13 58 25.4	U	1.0	1.39	250					4.6	4.0						
		ES	49		1.3														
		P	13 58 27.9		-1.1	1.84	312												
	GBZ	IP	13 58 32.0	U	1.1	2.01	286												
	AUC	IP	13 58 32.0	U	1.1	2.01	286												
	TRZ	P	13 58 33.3	D	1.2	2.12	188					4.5	5.4						
		E	50.5																
		E	59.5																
		ES	59 03		1.6														
	CNZ	IP	13 58 34.4	U	1.7	2.17	216					4.5	4.4						
		E	39																
		E	59																
	TNZ	EP	13 58 43		2.5	2.80	231					4.0	3.7						
		E	59 24																
	ONE	EP	13 58 40		-0.7	2.82	306				4.1								
	MNG	IP	13 58 47.0	D	-1.3	3.43	202					4.3	4.6						
		ES	59 29		-1.0														
	CAZ	P	13 58 49.1		-0.4	3.52	192												
		E	59 28																
	WEL	IP	13 58 57.3	U	-1.7	4.26	205				5.2	4.6	5.0						
		E	59 02.3																
		ES	47		-2.1														
	CRZ	EP	13 59 04		-1.2	4.74	308					4.2							
	COB	EP	13 59 10		1.3	5.01	222					4.2	4.5						

MNG		E	13 00 23		4.97	214	3.5	3.4	
		E	01 22						
NOV 08	H M S		40.915	172.45E	12 KM	SE	1.1	AVG MAG	75/ 644
	00 24 46.7		0.02	0.02					3.7
	+ 0.4								
	COB	IP*	00 24 50.9		DIR	RES	DIST	AZ	W-A W P W S
	KKY	P*	00 25 15.8						
	WEL	EP*	00 25 19				1.79	103	3.6 3.8 4.2
		EPG	22						
		ES*	42						
	KAI	EPG	00 25 22			1.79	206	3.5	
		ESN	38						
		ES*	44						
	TNZ	EP*	00 25 25			2.27	41		3.6
		ESG	26 04						
	MNG	P*	00 25 26.7			2.32	84		3.8 3.8
		EPG	33.5						
		ES*	26 00						
	GPZ	EP*	00 25 36			2.79	177	3.5	
		ES*	26 12.5						
	CAZ	E	00 26 20			2.86	91		
	CNZ	EP*	00 25 35			2.93	55		4.2 4.0
		E	26 20						
	MJZ	EPN	00 25 39.5			0.7	3.41	205	3.4 3.3
		E	26 24						
	GSP	EPN	00 25 42			3.69	208		
		ESN	26 25.5						
		ES*	40						
	KRP	EPN	00 25 45			3.82	40		3.5 3.5
		ESN	26 29						
	WTZ*	EPN?	00 25 57			2.4*	4.57	52	3.8
NOV 08	H M S		35.27S	179.87E	228 KM	SE	1.1	AVG MAG	75/ 645
	16 10 30.9		0.05	0.05					4.1
	+ 0.9								
	ECZ	EP	16 11 19.5		DIR	RES	DIST	AZ	W-A W P W S
		E	12 09						
	WTZ	EP	16 11 26			3.57	220		4.5 4.0
		ES	12 13						
	GNZ	EP	16 11 29			3.68	203		3.9 3.8
		ES	12 16						
	TUA	EP	16 11 36			4.15	211		4.4 4.3
		ES	12 27						
	KRP	P	16 11 39.2			4.38	231		3.7 3.5
		ES	12 33						
	ONE	EP	16 11 41			4.52	262	4.3	
	TRZ	EP	16 11 45			4.92	209		4.2
		ES	12 46						
	CRZ	EP	16 11 59			5.97	276		4.3
	MNG	EP	16 12 04			6.37	212		
		E	20						
		E	13 08						
		E	51						
	WEL	ES	16 13 35			7.22	212		
	CIZ	ES	16 14 20			9.10	164		
NOV 09	H M S		37.61S	177.40E	58 KM	SE	1.2	AVG MAG	75/ 646
	04 18 15.1		0.07	0.05					3.6
	+ 1.2								
	WTZ	IP	04 18 27.5		DIR	RES	DIST	AZ	W-A W P W S
		S	36.4			0.1	0.50	221	
	GNZ	IP	04 18 35.4			0.1	1.15	155	3.8 3.9
		ES	51						

LOCAL EARTHQUAKES

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TUA	EP	04 18 36	-0.5	1.22	189	4.2	4.0		
	ES	52	-0.5						
KRP	P	04 18 39.8	-0.7	1.51	257	3.0	2.9		
	ES	19 01	1.5						
TRZ	EP	04 18 49.5	2.4	2.00	193	3.9	4.0		
	ES	19 11	0.1						
	E	19							
CNZ	EP	04 18 48	-1.4	2.16	222	3.5	3.6		
	E	19 19							
TNZ	EP	04 18 58.5	-0.9	2.85	235				
MNG	EP	04 19 02	-4.4*	3.36	206	3.4	3.5		
	E	37							
	E	51							
NOV 09	H M S	40.60S 174.10E	132 KM	SE	1.6	AVG MAG	75/ 647		
		04.8					4.3		
		+ 0.6							
		0.03	0.04						
		4 M S	DIR	RES	DIST	AZ	H-A	W P	W S
WEL	IP	08 13 10.1	USE	2.3	0.85	144	3.9	4.5	4.6
	ES	23.5		-1.2					
MNG	IP	08 13 11.7		2.1	1.05	92			
COB	IP	08 13 12.3		1.7	1.15	244		4.6	4.5
	E	24.5							
	ES	29		-0.6					
TNZ	IP	08 13 15.2	D	1.5	1.43	9		4.7	4.5
	ES	34		-0.9					
CAZ	E	08 13 36			1.64	101			
	ES	39		-0.1					
CNZ	IP	09 13 19.2	U	1.5	1.79	39		4.5	4.5
	E	33.5							
	E	45.5							
TRZ	EP	08 13 25		0.4	2.33	64		4.0	4.2
	ES	55		1.0					
KAI	ES	08 14 05		0.2	2.79	226	4.2		
KRP	EP	08 13 33		0.9	2.89	23		4.2	4.3
	ES	14 06.5		-0.7					
GPZ	ES	08 14 13.5		-2.5	3.28	199	4.7		
WTZ	EP	08 13 38		-1.1	3.44	42		3.6	3.7
	ES	14 18		-1.9					
GNZ	IP	08 13 41.0	U	-0.3	3.60	58		4.3	4.0
	ES	14 22		-1.7					
MJZ	EP	08 13 54		3.0	4.33	217			
	ES	14 39		-2.0					
GSP	E	08 14 06			4.65	219			
	E	21							
	ES	48		-0.7					
ONE	ES	08 14 52		-0.8	4.82	3	4.3		
NOV 10	H M S	39.27S 178.26E	12 KM	SE	1.3	AVG MAG	75/ 648		
		04.8					4.3		
		+ 0.7							
		0.03	0.04						
		4 M S	DIR	RES	DIST	AZ	H-A	W P	W S
GNZ	IP	05 42 18.1	USE	1.0	0.65	344			
	ES	28		1.9					
TUA	IP	05 42 21.2	U	-1.4	0.98	298		4.9	5.2
	ES	35		-0.9					
TRZ	IP	05 42 26.0	U	0.5	1.15	255		4.9	4.8
	ES	42.5		1.6					
ECZ	EPN	05 42 33		1.0	1.59	8		4.3	4.1
	E	43 22							
WTZ	PN	05 42 30.4		-2.1	1.63	322		4.5	
	I	30.9							
	EP	34		0.3					
CNZ	PN	05 42 37.3		-1.6	2.11	271		4.8	4.6
	P	42.0		0.1					
	E	53.5							
CAZ	EPN	05 42 42		0.9	2.25	223			

		H	M	S			DIR	RES	DIST	AZ	W-A	W P	W S
KRP	ESN	43	10.3					2.1					
	EPN	05 42	44.3					-0.2	2.52	301	3.8	3.5	
MNG	EP*	47						-2.0					
	ES*	43	23					0.9					
MNG	PN	05 42	44.3			U		-0.5	2.52	237	4.0	3.8	
	I	44.8											
TNZ	E	43	03										
	EPN	05 42	52					0.5	3.01	270	4.0	3.8	
WEL	E	43	12										
	EPN	05 42	55					-1.0	3.34	232	4.3	4.0	4.3
CIZ*	ESN	43	34					-0.9					
	ESN	05 43	40						6.08	142			
FELT ROTORUA (33) MH IV													
NOV 10	H	39.21S	178.12E					12 KM	SE	1.4	AVG MAG	75/ 649	4.2
	H M S	05 46	16.1										
		0.04	0.05										
GNZ	IP*	05 46	28.2			U		1.3	0.57	353	W-A	W P	W S
	IP*	05 46	31.4					-0.4	0.85	298		4.9	4.9
TRZ	ES*	44						0.6					
	P*	05 46	36.1			U		0.8	1.06	251	4.6	4.7	
WTZ	ES*	50						0.4					
	E	59											
ECZ	IPN	05 46	40.6			U		-1.5	1.51	324	4.7	4.2	
	PG	44.0						-2.7					
CNZ	E	55.3											
	PN	05 46	43					0.3	1.55	13	4.2	4.0	
CAZ	E	47	26.3										
	EPN	05 46	48.3					-0.3	2.00	270	4.5		
KRP	EP*	51						-0.3					
	EPG	57						0.5					
MNG	E	05 47	12						2.23	220			
	ESN	20.3						1.5					
TNZ	EPN	05 46	57					2.7	2.40	302	3.6	3.3	
	E	47	34										
WEL	PN	05 46	54.3			U		-0.9	2.46	234	3.8	3.7	
	E	47	11.3										
CIZ	ESN	05 47	02					-1.8	2.90	269	3.9	3.6	
	EPN	19						0.7					
WEL	E	41											
	ESN	05 47	44					-1.0	3.29	230	4.1		
CIZ	E	05 47	53						6.19	142			
	ESN	48	59					3.9*					
NOV 10													
NOV 10	H	44.65S	168.27E					72 KM	SE	0.8	AVG MAG	75/ 650	3.7
	H M S	07 47	08.9										
		0.03	0.03										
MSZ	IP	07 47	20.9			D		0.3	0.25	265			
	P	29.3						0.2					
ROX	ES	07 47	30.3					1.3	1.11	138	3.7	3.5	
	P	45						0.1					
MNV	ES	07 47	31.0					0.0	1.22	202	3.9	4.1	
	P	46						-1.4					
GSP	IP	07 47	33.2			D		0.5	1.35	68			
	ES	50.3						0.0					
HJZ	ES	07 47	37.0					-0.3	1.71	68	3.5	3.5	
	P	57						-1.3					
OMZ	ES	07 47	41.0					0.8	1.93	104	3.8	4.1	
	P	48	03					-0.3					
WPZ	EP	07 47	42					0.0	2.05	169			3.4
	ES	48	06.3					0.1					

LOCAL EARTHQUAKES

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GPZ ES		07 48 34	-3.4*	3.29	75	3.9			
NOV 10	H M S	43.49S 170.67E	12 KM	SE	2.0	AVG MAG	75/ 651		
	11 00 25.8	0.04 0.05					3.4		
	+ 0.7								
	H M S	4 M S	DIR	RES	DIST	AZ	W-A	W P	W S
MJZ	IP*	11 00 34.1	USH	-1.7	0.52	197		3.8	3.7
	ES*	40.5		-2.6					
GSP	IP*	11 00 39.0	U	-1.6	0.80	216			
	ES*	54		2.5					
KAI	EP*	11 00 45		-0.7	1.10	30	2.8		
	ES*	01 00		-0.6					
GPZ	EPN	11 00 49		-2.0	1.45	99	2.8		
	ESN	01 11.5		1.7					
OMZ	EPN?	11 00 52		-1.0	1.59	174		3.5	3.6
	EP*	58		-0.1					
	ESN	01 16		2.7					
MSZ	EPN	11 01 05		2.2	2.31	238		3.3	3.3
	E	40							
COB	E	11 01 13			2.84	33			3.5
	ESN	45		1.2					
NOV 10	H M S	44.39S 167.19E	12 KM	SE	1.5	AVG MAG	75/ 652		
	11 07 21.4	0.03 0.05					4.2		
	- 1.0								
	H M S	4 M S	DIR	RES	DIST	AZ	W-A	W P	W S
MSZ	IP*	11 07 29.2		-2.2	0.52	100			
MNH	IP*	11 07 44.2	D	0.7	1.23	166		4.2	4.2
	ES*	59		-1.0					
ROX	IPN	11 07 51.1	D	0.3	1.75	121		4.5	4.8
	P*	52.2		-0.2					
	ESN	08 12		-0.7					
GSP	IPN	11 07 57.0	D	1.8	2.08	78			
	IP*	58.0		0.0					
	E	08 00.0							
	ESN	23		2.4					
WPZ	PN	11 08 01.0		1.7	2.38	151		3.9	3.9
	ESN	28		0.1					
MJZ	IPN	11 08 00.9	D	0.9	2.42	77		4.0	3.9
	ESN	31		1.9					
OMZ	PN	11 08 04.1		0.5	2.69	102		4.6	4.3
	ESN	35		-0.6					
	ES*	43		-0.9					
KAI	EPG	11 08 34		-2.0	3.69	58	4.1		
	ESN	58.5		-1.5					
	ES*	09 16		2.0					
GPZ	E	11 08 28			4.02	79	4.1		
	EPG	41		-1.7					
	ES*	09 25		1.1					
COB	EPN	11 08 40		-0.1	5.37	51		4.3	3.9
	ESN	09 38		-2.6					
	E	10 14							
NOV 10	H M S	37.89S 176.59E	158 KM	SE	1.8	AVG MAG	75/ 653		
	15 44 14.5	0.06 0.07					3.8		
	+ 1.7								
	H M S	4 M S	DIR	RES	DIST	AZ	W-A	W P	W S
WTZ	IP	15 44 35.8	U	-0.5	0.36	105			
	ES	51		-2.1					
KRP	IP	15 44 38.8	U	0.2	0.80	267		3.8	3.0
	ES	58		0.8					
TJA	EP	15 44 40.5		0.1	1.03	153		3.9	3.7
	ES	45 01		0.7					
GNZ	IP	15 44 44.0	US	0.2	1.38	123		4.3	3.8
	S	45 04.9		-1.3					
CNZ	P	15 44 46.7		1.5	1.52	211		3.5	
TRZ	EP	15 44 47.5		0.7	1.67	173			3.8

LOCAL EARTHQUAKES

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	GPZ*	E		23	12														
		E		06	22	09			8.01	47	5.1								
	KAI*	ES		05	23	34													
	COB*	EP		05	23	51		7.3*	8.40	37	5.1								
		S		05	22	37			1.0*	10.14	38								
					24	25			-0.1*										
NOV 11	H	M	S																75/ 656
	09	50	47.6	41.05S	174.31E	12	KM	SE	1.4		AVG	MAG	3.8						
			+ 0.4	0.03		0.02													
	WEL	(PG)		09	50	59.1	DIR	RES	DIST	AZ	W-A	W P	W S						
		E			51	02		2.7	0.42	125	3.1								
		E				08		0.1											
	MNG	IP*		09	51	05.3	D	-0.3	0.99	65		3.6	3.8						
		E				12.5													
		ES*				19		0.1											
	COB	IP*		09	51	09.0	D	-0.0	1.19	267		4.5	4.1						
		ES*				25		-0.0											
	KKY	PN		09	51	11.2		-1.6	1.45	198									
		E				23													
	CAZ	ESN		09	51	30		-1.9	1.46	85									
	TNZ	EPN		09	51	19		0.5	1.86	2			3.6						
		ESN				43		1.5											
	CNZ	EPG		09	51	30.5		0.9	2.08	28			4.4						
		ESN				46		-0.8											
		S*				52.0		0.4											
	TRZ	E		09	51	48			2.43	53									
	KRP	E		09	51	49			3.26	17		3.4	3.4						
		ESN				52		-1.7											
NOV 11	H	M	S																75/ 657
	11	02	13.2	47.45S	165.55E	33	KM	SE	1.9		AVG	MAG	4.2						
			+ 1.7	0.13		0.10													
	MNW	IPN		11	02	45.8	DIR	RES	DIST	AZ	W-A	W P	W S						
		ESN				03	U	-0.8	2.20	41	4.0	4.3	4.2						
	WPZ	PN		11	02	49.0		-0.2	2.39	72		4.3	4.3						
		ESN				03		-0.6											
	MSZ	EPN		11	03	01		0.2	3.23	31		4.1	4.2						
		E				03													
		ESN				42		4.8*											
	ROX	EPN		11	03	00		-1.3	3.27	54		4.1	4.1						
		ESN				37		-1.1											
	ONZ	EPN		11	03	19		2.0	4.42	59		4.1	4.1						
		EP*				29		-1.1											
		ES*				04		1.2											
	GSP	EPN		11	03	21.5		2.6	4.56	45									
		E				28													
		ESN				04		3.6											
	HJZ	E		11	03	29			4.89	47		4.0	3.8						
		EP*				37		-1.1											
		E				04													
	GPZ	E		11	04	20			6.24	56	4.7								
		ES*				05		0.1											
	COB	ESN		11	05	33		-3.4	8.19	42									
NOV 12	H	M	S																75/ 658
	01	13	20.1	41.27S	172.64E	223	KM	SE	1.1		AVG	MAG	3.9						
			+ 0.8	0.04		0.05													
	COB	P		01	13	51.0	DIR	RES	DIST	AZ	W-A	W P	W S						
		ES				14		1.6	0.20	20									
		E				13		1.1											
	KAI	ES		01	14	24		-0.9	1.56	216	3.8								
	WEL	EP		01	13	58		0.9	1.60	91	3.7	4.4	4.2						
		ES				14		-0.5											
	MNG	IP		01	14	04.3	U	1.1	2.25	74		4.1	4.0						

	ES		37				0.5												
GPZ	ES		01 14 38.5				-1.3	2.42	180	3.7									
TNZ	EP		01 14 05				-0.6	2.47	33										3.9
	ES		40				-0.7												
MJZ	ES		01 14 54				-0.4	3.15	210										3.3
GSP	P		01 14 17.8				1.0	3.45	213										
	ES		15 00.5				-0.2												
KRP	ES		01 15 11				-1.8	4.02	35										3.6
GNZ	ES		01 15 32.5				0.3	4.90	59										4.0
NOV 12	H M S																		75/ 659
	01 47 45.0		38.50S	175.71E	208 KM			SE	1.8			AVG MAQ							5.2
	+ 0.8		0.03	0.05															
	H M S		H M S	DIR	RES			DIST	AZ			W-A	W P	W S					
WNZ	IP		01 48 14.3	U	1.7		0.33	113											
KRP	IP		01 48 14.7	NW	1.2		0.59	346						5.1	4.4				
	ES		36				0.5												
CNZ	IP		01 48 16.8	D	2.8		0.71	191											5.2
WTZ	IP		01 48 15.8	U	-0.8		1.13	63											5.0
	E		27.5																
	E		36																
TUA	IP		01 48 17.8	U	0.9		1.17	106											5.3
	ES		39				-2.6												
TNZ	P		01 48 20.6				3.1	1.24	236										4.6
	E		50																4.6
TRZ	IP		01 48 20.8	U	2.4		1.36	141											5.8
	ES		42				-2.3												5.9
AUC	P		01 48 22.0				-0.4	1.80	335										
GNZ	IP		01 48 23.0	DSW	0.4		1.82	95											5.1
	ES		49				-2.5												5.1
HNG	IP		01 48 27.9				2.3	2.12	185										
ECZ	IP		01 48 27.7	D	-0.7		2.38	71											5.5
	E		56																5.6
CAZ	IP		01 48 31.3	U	2.4		2.43	171											
	ES		49 02				-0.9												
	E		08																
WEL	IP		01 48 35.2	USW	1.1		2.87	194											5.9
	E		49 07																5.0
	E		13				0.9												5.7
ONE	EP		01 48 33				-1.8	2.93	338										4.3
	ES		49 12				-1.3												
COB	IP		01 48 40.8	D	-0.1		3.45	221											5.3
	ES		49 23				-1.2												5.5
KKY	P		01 48 51.6				1.4	4.20	201										
	E		49 34.4																
	ES		41.8				1.1												
CRZ	EP?		01 48 57.5				0.5	4.74	328										4.2
	E		49 05																
	E		17																
KAI	EP		01 49 03				0.4	5.19	218										5.4
	ES		50 01				-1.9												
GPZ	EP		01 49 08.2				-0.8	5.68	203										6.3
	ES		50 12.5				-1.8												
MJZ	EP		01 49 22				-0.8	6.75	214										
	ES		50 36				-3.2												
GSP*	IP		01 49 26.0	U	-0.9*		7.07	215											
	ES		50 45				-1.5*												
OHZ*	P		01 49 31.9				-0.3*	7.48	207										
	ES		50 55				-1.0*												
CIZ*	E		01 49 51					7.97	136										
	ES		51 14				6.6*												
MSZ*	EP		01 49 42				-3.4*	8.49	221										
	ES		51 16				-3.5*												
MNH*	EP		01 49 57				-0.6*	9.43	217										5.4
	ES		51 43				1.7*												

FELT KAPITI ISLAND (65) AND KELBURN (68) MH IV

NOV 12		H	M	S					AVG MAG	75/ 660
		08	49	55.6	39.25S	177.89E	12 KM	SE 1.5		3.7
				+ 0.9	0.03	0.05	2			
					4 M S	DIR	RES	DIST	AZ	W-A W P W S
GNZ	IP*	08	50	06.9	U		-0.4	0.62	10	3.7 3.8
				17			1.1			
TUA	IP*	08	50	09.0	U		-0.0	0.72	308	4.0 4.0
				20			1.1			
TRZ	EP*	08	50	14			2.4	0.87	250	3.9 3.7
				20						
				31						
WTZ	EPN	08	50	19			-1.8	1.45	331	3.7 3.3
				22			0.6			
				45			0.5			
CNZ	EPG	08	50	31			-1.3	1.81	271	4.0
KRP	EPG	08	50	39			-2.4	2.27	305	3.2
MNG	EPN	08	50	32			-0.4	2.29	233	3.0
				49						
WEL	ESN	08	51	21			0.6	3.13	229	3.6
NOV 12		H	M	S					AVG MAG	75/ 661
		11	46	20.6	37.10S	176.70E	269 KM	SE 1.1		4.1
				+ 1.0	0.06	0.09	9			
					4 M S	DIR	RES	DIST	AZ	W-A W P W S
WTZ	P	11	46	57			-0.4	0.91	166	4.2 3.7
				47 25			-1.2			
KRP	EP	11	47	00			0.6	1.24	228	3.5
ECZ	EP	11	47	02			0.3	1.58	113	4.5 4.2
				29						
TUA	EP	11	47	03			0.1	1.74	168	4.1 4.3
				37.5			1.9			
GNZ	IP	11	47	03.8			0.0	1.86	146	4.3 4.3
				36			-1.3			
TRZ	P	11	47	09.7			0.6	2.45	178	4.3 4.4
				48			1.1			
MNG	P	11	47	21.1			-0.6	3.64	195	4.1 3.8
				48 09			-0.3			
WEL	ES	11	48	25			-0.8	4.44	199	4.1
NOV 13		H	M	S					AVG MAG	75/ 662
		05	03	15.4	36.88S	177.42E	238 KM	SE 1.4		4.1
				+ 1.7	0.08	0.07	11			
					4 M S	DIR	RES	DIST	AZ	W-A W P W S
WTZ	P	05	03	48.8			-1.5	1.15	197	4.1 3.9
				04 12.5						
ECZ	EP	05	03	53.5			2.8	1.21	132	4.4 4.3
				04 17			-1.0			
GNZ	IP	05	03	54.9	D		-0.7	1.82	165	4.2 4.4
				04 18						
				26			-0.6			
KRP	P	05	03	55.7			0.1	1.83	235	3.8
				04 27			0.4			
TRZ	ES	05	04	44			1.5	2.71	190	4.5
MNG	IP	05	04	18.6	U		-0.9	4.03	202	4.1 3.9
				05 09			-0.3			
WEL	ES	05	05	28.0			0.5	4.86	204	4.1
COB	ES	05	05	43			-0.2	5.56	220	4.1
NOV 13		H	M	S					AVG MAG	75/ 663
		17	48	56.3	42.63S	173.81E	12 KM	SE 1.1		4.2
				+ 0.3	0.02	0.03	3			
					4 M S	DIR	RES	DIST	AZ	W-A W P W S
GPZ	EP*	17	49	20			-0.8	1.37	218	3.8
				27						
				38			-1.0			
WEL	IPN	17	49	22.2	D		-0.3	1.52	29	3.8 4.6 4.4

	ESN		41		-1.0														
COB	IPN	17 49	25.1	U	-0.4	1.73	332					4.9	4.7						
	ESN		46.5		-0.7														
KAI	EPN	17 49	27		1.0	1.77	272			3.8									
	ESN		48		-0.2														
MNG	PN	17 49	33.5		-0.6	2.37	33					4.4							
	E		41																
CAZ	ESN	17 50	05		-0.8	2.50	47												
MJZ	EPN	17 49	40		0.0	2.79	240												
	EPG		52		-0.8														
	E		50 39																
GSP	PN	17 49	45.0		0.2	3.15	240												
	EPG		50 02		2.1														
	ESG		43		0.6														
OHZ	PN	17 49	45		-0.8	3.22	220					4.5							
	EPG		50 02		0.6														
	EPN		50 50		0.9														
TNZ	E	17 49	50 57									4.2	4.2						
	PN	17 49	52.6		0.6	3.67	22					4.6	4.5						
	E		50 06																
	ESN		35.5		1.1														
TRZ	EPN	17 49	56		1.9	3.82	38					4.4	4.4						
	EPG		50 17		3.4*														
	ESN		39		0.9														
MSZ	EPN	17 50	10		3.5*	4.74	242												
	EPG		31		-1.1														
	E		51 42																
KRP	EPN	17 50	08		-0.5	4.88	16					4.1	3.9						
	E		27																
	ESG		51 40		-0.8														
GNZ	ESN	17 51	09		-0.3	5.11	40						3.8						
WTZ	E	17 50	23			5.24	29					3.8	3.6						
	ESN	51	09.5		-2.8														
FELT KAIKOURA (90)																			
	H	M	S																75/ 664
NOV 14	20	11	47.4		33.375	178.81W	12 KM	SE	1.8			AVG MAG	4.9						
			+ 1.6		0.10	0.24													
	I	M	S				DIR	RES	DIST	AZ		W-A	W P	W S					
ECZ	PN	20 13	00.5				1.7		4.82	206			5.3	4.9					
	SG		14 27				-2.9												
WTZ	PN	20 13	10				-1.1		5.73	215			4.8						
GNZ	PN	20 13	12.5				-0.2		5.85	205			4.7	4.5					
	SN		14 18				-0.3												
	SG		15 08				3.3												
ONE	PN	20 13	17.5				1.2		6.12	245									
TUA	PN	20 13	19				-0.2		6.33	210									
	SN		14 30				0.2												
	S*		59				-0.4												
KRP	PN	20 13	19.5				-1.5		6.46	224									
TRZ*	SN	20 14	48				-0.1*		7.10	208									
CNZ*	PN	20 13	33				-0.4*		7.38	216									
MNG*	PN	20 13	45				-3.9*		8.55	211									
	SN		15 20				-2.8*												
	S*		16 02				-4.0*												
WEL*	SN	20 15	37				-6.2*		9.41	211		5.2							
COB*	SN	20 15	58				-4.5*		10.23	219									
GPZ*	SN	20 16	44				-6.5*		12.28	210		5.3							
	H	M	S																75/ 665
NOV 15	18	35	47.2		42.58S	173.79E	12 KM	SE	1.0			AVG MAG	3.9						
			+ 0.4		0.03	0.03													
	I	M	S				DIR	RES	DIST	AZ		W-A	W P	W S					
GPZ	PN	18 36	11				-0.6		1.39	216		3.4							
	PG		18				2.6												
	SN		30				0.2												
WEL	IPN	18 36	12.9	U			-0.1		1.49	30			4.4	4.0					

	PQ			18				0.6				
	SN			32.5				0.3				
COB	IPN	18 36		15.9	U			0.2	1.69	332		4.8
	SN			37				0.1				
KAI	EPN	18 36		17				0.4	1.75	271	3.7	
	SN			39.5				0.9				
MNG	PN	18 36		24				-0.6	2.34	34		4.0 3.7
	PG			34				-0.6				
	SG			37 12				5.9*				
HJZ	PN	18 36		30				-1.0	2.80	239		3.9 3.5
	PG			42				-1.8				
	SN			37 04				-0.0				
	SG			21				-0.6				
GSP*	P*	18 36		42.5				0.3*	3.15	239		
	PG			49.5				-1.5*				
OMZ*	PN	18 36		37				-0.0*	3.24	219		3.9
	EPG			52				-0.7*				
TNZ*	P*	18 36		48				1.2*	3.42	8		3.6 3.7
	SG			37 40				-2.6*				
CNZ*	PN	18 36		43				0.6*	3.63	22		4.1 4.1
	EP*			56				5.5*				
	ESN			37 26				1.6*				
	SG			50.5				0.8*				
KRP*	PN	18 36		59				0.1*	4.84	17		
	SG			38 30				-0.4*				

FELT KAIKOURA (90)

		H	M	S							75/ 666	
NOV 15		20 08	41.9		46.63S	165.72E	12 KM	SE	0.5	AVG MAG	4.0	
			± 0.5		0.04	0.03						
							DIR	RES	DIST	AZ	W-A	W P W S
MNH	PN	20 09	08.5					-0.3	1.57	58	3.7	4.2 4.0
	SN		28.5					-0.4				
WPZ	PN	20 09	17.0	U				0.1	2.16	92		4.4 4.2
	SN		43					-0.1				
MSZ	PN	20 09	21					-0.5	2.49	39		3.8 4.2
	SN		52					0.7				
ROX	PN	20 09	25.7					0.5	2.76	67		3.8 4.1
	SN		58					0.2				
OMZ*	EPN	20 09	40					-1.4*	3.95	69		3.9 3.8
	EP*		50.5					-0.1*				
	ESN		10 30					3.1*				
	S*		46					3.7*				
HJZ*	EPN	20 09	44					-1.7*	4.27	53		3.6 3.7
	SN		10 33					-1.5*				
GPZ									5.71	62		4.1
		H	M	S							75/ 667	
NOV 15		22 40	40.7		38.32S	176.17E	148 KM	SE	0.4	AVG MAG	4.3	
			± 0.5		0.02	0.02						
							DIR	RES	DIST	AZ	W-A	W P W S
KRP	IP	22 41	03.3	DSE				0.5	0.64	308		
	IS		19.8					0.0				
WTZ	P	22 41	03					-0.4	0.73	63		3.7 3.5
	S		20.5					-0.3				
TUA	EP	22 41	05					0.3	0.91	122		4.3 4.8
	S		23.5					0.4				
CNZ	IP	22 41	05.0	U				-0.5	1.00	209		4.6 4.0
TRZ	P	22 41	08.8	D				0.1	1.33	158		4.7 4.7
	S		30					-0.1				
GNZ*	P	22 41	11					0.5*	1.49	103		3.8 4.2
	S		32					-1.0*				
TNZ*	P	22 41	12.3					0.3*	1.64	238		4.3 3.8
	S		38					2.0*				
ECZ*	P	22 41	19					3.2*	1.98	72		4.3 4.3
MNG*	IP	22 41	18.5					-2.0*	2.35	193		
	ES		49					-1.8*				

LOCAL EARTHQUAKES

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		SN	09 04	0.4					
	ROX	SN	01 09 28.5	0.8	3.69	49			4.0
	HSZ	PN	01 08 47	1.2	3.74	29		3.9	3.8
	OMZ				4.80	55			3.8
	MJZ*	EP*	01 09 19	-2.6*	5.34	43		3.7	3.5
		SN	10 06	-1.6*					
		S*	29	-2.2*					

NOV 17	H M S								75/ 670
	01 59 37.3	49.73S	164.46E	12 KM	SE	1.5		AVG MAG	5.7
	+ - 1.5	0.04	0.12	R					
		H M S		DIR	RES	DIST	AZ	W-A	W P W S
	CBZ	EPN	02 00 39		0.4	4.09	135		5.3 5.6
		EP*	46		-2.3				
		ESN	01 27		1.5				
	WPZ	PN	02 00 41.7		0.5	4.25	45		5.1 5.8
		SN	01 27.5		-2.0				
	MNW	PN	02 00 44.0		-0.2	4.49	29	6.2	5.6 5.7
		SN	01 35		-0.3				
	ROX	PN	02 00 56.5		0.3	5.38	39		5.1 5.9
		SN	01 58.5		1.7				
	HSZ	PN	02 00 59		0.0	5.59	26		
	OMZ*	PN	02 01 12		2.1*	6.40	46		
		ESN	02 18		-3.2*				
	MJZ*	PN	02 01 17		-2.0*	7.07	38		
		SN	02 37		-0.2*				
	GPZ*	EPN	02 01 38		3.3*	8.25	46	6.4	
		SN	03 06.5		1.1*				
	KAI*	SN	02 03 17		1.5*	8.67	36	6.1	
	COB*	PN	02 02 04.5		1.0*	10.41	37		
		SN	03 56		-0.8*				
	WEL*	SN	02 04 13		-0.1*	11.11	44	5.9	
	MNG*	EPN	02 02 28		4.3*	11.97	45		
		SN	04 38		4.9*				
	CIZ*	PN	02 03 03.5		11.4*	14.20	73		
		SN	05 37		12.6*				
	KRP*	EPN	02 02 57		4.5*	14.24	38		
		SN	05 30		4.7*				
	CRZ*	PN	02 03 27		7.1*	16.45	25		
		SN	06 24		9.1*				

NOV 17	H M S								75/ 671
	02 01 58.6	31.99S	179.85W	411 KM	SE	1.4		AVG MAG	5.7
	+ - 1.2	0.13	0.12	42					
		H M S		DIR	RES	DIST	AZ	W-A	W P W S
	GBZ	P	02 03 29		-0.3	5.73	221		
	ECZ	P	02 03 31		0.5	5.84	193		5.7 5.6
		S	04 42		-0.8				
	ONE	P	02 03 34		0.5	6.12	230	5.5	
		S	04 50		1.8				
	WTZ	P	02 03 38		0.0	6.52	203		
		S	04 55		-1.3				
	AUC	IP	02 03 40.0	D	1.3	6.58	221		
	CRZ	(P)	02 03 39		-1.2	6.72	247		
		S	04 59		-1.3				
	GNZ	(P)	02 03 42.1		0.3	6.86	194		
		S	05 05		1.7				
	KRP	P	02 03 44.2	U	0.5	7.03	211		
		S	05 08		1.4				
	TUA	P	02 03 45		-1.0	7.23	199		
		S	05 08.5		-2.1				
	TRZ*	P	02 03 54		-0.9*	8.02	199		
		S	05 25		-1.6*				
	CHZ*	P	02 03 53.7	D	-2.2*	8.11	206		
		S	05 24		-4.5*				
	TNZ*	EPN	02 04 00		-1.3*	8.58	212		
		ES	05 31		-7.2*				

LOCAL EARTHQUAKES

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TRZ*	IP	06 23	13.0	D	0.3*	1.64	169		4.2	4.0
	S		39		0.4*					
ECZ*	EP?	06 23	13		-0.3*	1.72	82		4.3	4.2
	I		14.2							
	ES		37		-3.0*					
MNG*	IP	06 23	23.8	U	-1.4*	2.76	195		3.4	3.9
	S		57		-4.1*					
WEL*	P	06 23	33		-2.0*	3.57	200	4.3	3.9	4.2
	S		24		-3.6*					
COB*	S	06 24	30		-3.5*	4.23	221			3.7
GPZ*	S	06 25	18		-6.4*	6.41	205	4.3		
NOV 17	H M S									75/ 675
	06 50 03.0	43.12S	172.72E		33 KM	SE	1.3	AVG MAG		3.6
	+ 0.4	0.03	0.03		?					
	H M S			DIR	RES	DIST	AZ	W-A	W P	W S
GPZ	P*	06 50	14.4		-0.4	0.58	185	3.3		
	S*		22		-1.2					
KKY	P*	06 50	21.5		-0.3	1.01	46			
	S*		32		-3.6*					
KAI	S*	06 50	37		-2.3	1.13	301	3.3		
MJZ	PN	06 50	32.4	U	0.7	1.85	241		3.3	3.8
	SN		94		0.8					
COB	PN	06 50	35.9		1.3	2.03	0		3.8	3.4
GSP	PN	06 50	38		1.5	2.20	242			
	SN		51 03		1.2					
OHZ	PN	06 50	38.9	D	0.1	2.34	213		3.9	4.2
	SN		51 04		-1.2					
WEL	SN	06 51	06		-0.3	2.39	40	3.7		3.8
MNG*	PN	06 50	50		-0.8*	3.24	40		3.2	3.3
	SN		51 26		-1.2*					
MSZ*	EPN	06 50	59		0.7*	3.80	244		3.3	3.4
	P*		51 07		-2.3*					
	SN		40		-0.7*					
CNZ*	SN	06 51	57		0.1*	4.46	30			3.8
MNW*	SN	06 51	58		-0.1*	4.51	232	3.7		3.6
TRZ*	P*	06 51	24		-1.1*	4.72	42		4.6	
KRP*	PN	06 51	23		-0.0*	5.62	23			
NOV 17	H M S									75/ 676
	09 22 42.5	40.27S	176.47E		12 KM	SE	1.8	AVG MAG		3.7
	+ 0.5	0.03	0.04		?					
	H M S			DIR	RES	DIST	AZ	W-A	W P	W S
CAZ	SG	09 23	06		0.8	0.66	196			
TRZ	PG	09 22	59		1.0	0.76	21		3.7	4.0
	SG		23 11.5		3.1					
MNG	IPG	09 22	59.3	U	-0.1	0.83	245		3.7	3.9
	SG		23 11		0.3					
CNZ	IP*	09 23	05.6	D	0.2	1.28	326		4.2	4.2
	S*		22.5		-0.1					
TUA*	S*	09 23	29.5		-1.2*	1.55	20			3.7
WEL	PN	09 23	09.5		-0.9	1.64	231	3.0	3.7	3.8
	PG		19		3.2					
	SN		30.5		-0.7					
TNZ*	P*	09 23	15		-1.7*	1.94	303		3.7	3.4
	SN		38		-0.3*					
	S*		40		-2.3*					
GNZ	PN	09 23	15		-0.5	2.02	37		3.1	3.3
	SN		40.5		0.2					
WTZ*	PG	09 23	30		0.7*	2.31	10		3.2	3.1
	SN		45		-2.5*					
KRP	PN	09 23	19.5		-1.9	2.45	343			
	PG		29		-3.0					
	SN		46		-4.7*					
COB*	PN	09 23	27		-1.4*	2.96	253	4.0		4.0
	SN		24 01		-2.2*					
	SG		18		-4.2*					

	GPZ*	SN	09 24 35.5	-4.2*	4.46	218	4.0				
	HJZ*	SN	09 25 09	-3.3*	5.81	228				3.4	
	CIZ	SN	09 25 24	-1.5	6.36	128					
	FELT MOUNT VERNON (60) NM IV										
											75/ 677
NOV 17	H M S		45.12S 167.53E	78 KM	SE	0.1	AVG MAG				3.9
			0.01 0.01	2							
				DIR	RES	DIST	AZ	W-A	W P	W S	
	MSZ	IP	16 01 44.2	U	-0.1	0.52	32				
		S	55		0.0						
	MNW	IP	16 01 45.6	U	-0.1	0.67	175	3.5	4.2		
		S	57.5		0.0						
	ROX	S	16 01 53.7	D	0.1	1.31	106		4.2	4.3	
		S	02 11		-0.1						
	WPZ*	S	16 02 22		0.3*	1.80	150			3.8	
	GSP*	P	16 02 02		-0.9*	2.03	62				
		S	26.5		-0.6*						
	HJZ*	P	16 02 06.0	D	-1.9*	2.38	63		3.5	3.9	
		S	34		-2.0*						
	OHZ*	IP	16 02 07.2	D	-0.8*	2.40	90		4.5	4.2	
		S	34.5		-1.8*						
	GPZ*	S	16 03 08		-5.6*	3.93	71	3.6			
	COB*	S	16 03 49		-5.7*	5.54	45			3.7	
											75/ 678
NOV 18	H M S		37.85S 176.30E	165 KM	SE	1.7	AVG MAG				4.9
			0.06 0.05	11							
				DIR	RES	DIST	AZ	W-A	W P	W S	
	WTZ	P	12 08 41.8		-1.6	0.56	103		4.6	4.5	
		S	09 01		-0.4						
	KRP	IP	12 08 42.7	UW	-1.0	0.61	264				
		S	09 01		-1.0						
	WNZ	EP	12 08 43.5		-1.2	0.79	192		4.7		
	TUA*	IP	12 08 46.2	U	-1.5*	1.16	145		5.4	5.3	
		S	09 07.5		-1.5*						
	CNZ*	P	12 08 48.8	D	-1.8*	1.46	204		4.9	4.4	
	GNZ*	IP	12 08 50.7	D	-0.9*	1.56	121				
		S	09 14		-1.9*						
	TRZ	P	12 08 51.6	U	-1.8	1.74	167		5.4	5.3	
		S	09 20		0.8						
	ECZ	IP	12 08 54.0	D	0.1	1.78	85		5.4	5.0	
		ES	09 22.5		2.4						
	TNZ	P	12 08 55.7	U	-0.7	2.01	228		4.4	4.0	
		S	09 27.5		3.0						
	ONE	P	12 09 04		0.4	2.60	323	3.7			
		S	38		1.0						
	MNG*	IP	12 09 02.4	U	-4.0*	2.83	193				
		ES	37		-5.1*						
	CAZ*	P	12 09 05.6		-3.5*	3.04	181				
		S	43.5		-3.3*						
	WEL*	P	12 09 11.4	D	-5.1*	3.62	199	5.3	5.1	5.4	
		S	53		-7.0*						
	COB*	P	12 09 18.5		-5.1*	4.25	219		4.5		
		S	10 09		-5.4*						
	KAI*	S	12 10 45		-10.3*	5.98	217	5.1			
	GPZ*	S	12 10 55.5		-11.1*	6.46	204	5.9			
	HJZ*	EP	12 10 01		-7.2*	7.55	214				
		S	11 21.5		-11.2*						
	CIZ*	S	12 11 42		-4.6*	8.14	141				
											75/ 679
NOV 19	H M S		40.17S 176.45E	12 KM	SE	1.7	AVG MAG				3.7
			0.04 0.05	3							
				DIR	RES	DIST	AZ	W-A	W P	W S	
	TRZ	IP	03 42 27.6	U	-0.8	0.67	24		3.8	4.0	
		SG	37		-0.6						

LOCAL EARTHQUAKES

295

CAZ	IPG	03 42 29.0	U	-1.0	0.76	194			
	SG	42.5		2.3					
MNG	PG	03 42 31.0		-1.3	0.87	239			
CNZ	P*	03 42 36.5		0.4	1.20	324	4.4	4.0	
	PG	41		2.1					
WEL	EPG	03 42 49		-0.0	1.70	229	3.1	3.7	3.7
	SN	43 03		-1.7					
TNZ*	EP*	03 42 46		-1.8*	1.88	301		3.8	3.4
	PG	52		-0.7*					
	S*	43 12		-0.8*					
GNZ	PG	03 42 56		2.1	1.94	39		3.5	3.5
	SN	43 09		-1.5					
WTZ*	PN	03 42 47.5		-2.9*	2.22	11		3.3	3.5
	PG	56		-3.5*					
	SN	43 14		-3.3*					
KRP*	PN	03 42 50		-2.2*	2.35	342			
	PG	43 03.5		1.3*					
COB*	EPN	03 42 59		-1.8*	2.98	251		3.7	3.8
	EP*	43 08		1.4*					
	SN	43 35		-0.8*					
GPZ*	SN	03 44 07		-6.5*	4.53	218	3.7		
MJZ*	SN	03 44 39		-6.8*	5.87	228			3.4
CIZ*	SN	03 44 55		-4.0*	6.42	128			

FELT MOUNT VERNON (60) MM IV

NOV 20	H	M	S							75/ 680			
	02	48	13.3	39.63S	174.83E	88 KM	SE	0.9	AVG MAG	4.1			
			+ 0.5	0.02	0.03	7							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
TNZ	P	02 48 29.2		D		0.5	0.57	320			4.3	4.4	
	S	40				-0.4							
CNZ	IP	02 48 29.6		U		-0.2	0.69	52			4.6	4.5	
	S	42.5				0.2							
MNG	P	02 48 34				-0.4	1.10	154			3.8	4.1	
	ES	50				-0.3							
								1.52	88			4.5	
TRZ	P	02 48 41				-0.5	1.66	182	3.5	3.9	4.1		
	S	49 02				-0.4							
KRP	IP	02 48 42.0		D		-1.1	1.78	18					
	S	49 05				-0.1							
TUA	EP	02 48 45				-0.4	1.97	66			4.3	4.6	
	S	49 11				1.8							
COB	P	02 48 48.0				-0.4	2.18	227			4.5	4.5	
	S	49 16				1.6							
WTZ*	EP	02 48 49.5				-1.2*	2.34	46			3.6	3.7	
	ES	49 20				1.5*							
GNZ*	IP	02 48 51.9		D		-3.2*	2.65	69			3.9	3.7	
	S	49 24				-2.5*							
KAI*	ES	02 49 58				1.1*	3.89	221	4.1				
GPZ*	S	02 50 03				-6.2*	4.39	201	4.4				
MJZ*	S	02 50 31.5				-4.0*	5.45	216				3.3	

NOV 20	H	M	S							75/ 681			
	05	02	30.5	38.53S	175.84E	161 KM	SE	0.7	AVG MAG	4.8			
			+ 0.6	0.05	0.03	5							
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
WNZ	P	05 02 52.3		U		-0.1	0.23	117					
	S	03 10				0.9							
KRP	IP	05 02 54.2		DSE		0.2	0.65	338					
	S	03 12				-0.2							
CNZ*	IP	05 02 53.5		D		-0.9*	0.71	199					
	ES	03 12				-0.8*							
WTZ	IP	05 02 56.8		D		-0.1	1.05	59			4.6	4.5	
	S	03 16.5				-0.8							
TUA*	P	05 02 57				0.0*	1.06	106			4.6	5.0	
	S	03 18				0.6*							
TRZ*	P	05 02 59.6		D		0.6*	1.27	144			4.8	5.0	

LOCAL EARTHQUAKES

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		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
MNG	IP	03	30	48.8		0.4	0.71	110			
WEL	IP	03	30	50.9	U	0.6	0.91	172	4.2	4.2	4.8
	S			31 05.5		-0.3					
TNZ	IP	03	30	53.8	D	0.2	1.21	352		4.2	4.5
	S			31 12		0.4					
CNZ	IP	03	30	55.1	U	-0.7	1.39	32		4.3	4.5
	S			31 15		-0.3					
COB	P	03	30	58.1		-0.0	1.58	243		4.4	4.7
	S			31 19		-0.3					
TRZ	P	03	31	02		0.1*	1.90	65		3.9	4.5
	S			25		-0.8*					
KKY	S	03	31	29		-2.7*	2.15	198			
TUA	S	03	31	39.5		-1.2*	2.52	52		4.1	4.3
KRP	EP	03	31	10		-0.9*	2.56	17			
	S			42		0.3*					
WTZ	EP	03	31	14		-3.1*	3.03	39		3.3	3.8
	S			49		-3.9*					
GPZ	S	03	32	03		-4.2*	3.62	203	4.2		
MJZ	S	03	32	31		-3.5*	4.73	219		3.5	3.8
MSZ	S	03	33	14		-4.5*	6.54	227			
NOV 21	H M S	19	15	10.9	41.01S	172.85E	211 KM	SE	1.4	AVG MAG	75/ 685
				+ 1.5	0.05	0.05	11				4.3
COB	IP	19	15	40.1	U	1.5	0.12	227			
	S			16 00.5		0.6					
WEL	P	19	15	46.2	U	0.6	1.48	102	4.5	4.4	4.8
	S			16 13		0.5					
KKY	IP	19	15	47.4	U	1.2	1.55	156			
	ES			16 13		-0.6					
MNG	IP	19	15	51.5		0.6	2.03	80		4.2	4.3
	S			16 22		0.2					
TNZ	P	19	15	52		-0.2	2.16	33		3.8	4.1
	S			16 22		-2.1					
GPZ	S	19	16	32.5		-2.2	2.69	183	4.0		
CNZ	IP	19	15	57.9	U	-0.8*	2.74	50		4.5	4.6
	S			16 34.5		-1.2*					
TRZ	S	19	16	49		0.4*	3.37	66			4.5
MJZ	P	19	16	07.3	D	0.2*	3.46	210		3.9	4.0
	S			49.5		-1.1*					
KRP	EP	19	16	08		-2.1*	3.71	35			
	S			55		-1.0*					
TUA	S	19	17	00		-1.6*	3.97	58			4.6
OHZ	P	19	16	17.5		0.1*	4.30	199		4.0	4.2
	ES			17 09		-0.0*					
WTZ	P	19	16	16		-2.6*	4.40	48		4.1	3.9
	S			17 09.5		-1.7*					
MSZ	P	19	16	26.4		-1.3*	5.15	223		4.4	4.1
ROX	ES	19	16	26.3		-2.2*					
	P			17 26		-1.9*	5.16	209			5.8
	S			17 23.5		-4.3*					
NOV 22	H M S	14	00	54.2	40.33S	176.54E	12 KM	SE	1.1	AVG MAG	75/ 686
				- 0.6	0.04	0.05	2				5.2
CAZ	PG	14	01	08.8		1.8	0.62	203			
TRZ	IPG	14	01	10.7	D	0.1	0.80	16		5.4	
	SG			25		3.4*					
MNG	IPG	14	01	11.6		-0.1	0.86	250			
CNZ	IP	14	01	20		1.4	1.36	325			
TUA	PN	14	01	21	D	-0.4*	1.59	17		4.9	5.1
	SG			49.5		1.6*					
WEL	IPN	14	01	21.5	U	-0.7	1.65	234	5.1		
	PG			27		-0.7					

	SN		42.5		-0.6					
	SG		50		0.0					
WNZ*	PG	14 01	27		-2.3*	1.73	349			6.4
	SG		56		3.4*					
TNZ*	P*	14 01	29		-0.9*	2.02	394		5.1	5.1
	SG		02 04		1.6*					
GNZ	PN	14 01	26.5	D	-1.0*	2.04	35		4.8	4.8
WTZ*	PN	14 01	31.2	U	-0.8*	2.37	9			5.6
	SN		02 00.5		-0.0*					
KRP*	PN	14 01	34.0	UNW	-0.2*	2.52	342			5.6
	PQ		43		-2.3*					
	ESG		02 21		1.6*					
COB*	PN	14 01	39.5	U	-1.2*	2.99	254		5.2	5.6
	PG		50		-4.8*					
	SG		02 29.5		-3.6*					
KKY*	PN	14 01	38.5		-2.2*	2.99	225			
	PQ		52.5		-2.3*					
ECZ*	PN	14 01	40		-1.5*	3.06	31			5.5
	SN		02 18		0.6*					
KAI*	EPN	14 02	00		-0.4*	4.44	239		5.0	
	P*		13		1.7*					
	PG		24		-0.0*					
	SN		49		-2.0*					
	ESG		03 16		-7.9*					
GPZ*	EPN	14 01	59		-1.5*	4.44	220		5.3	
	SN		02 48		-3.1*					
ONE*	EPN	14 02	08.5		2.4*	4.86	339		4.7	
	SG		03 33		-5.0*					
HJZ*	PN	14 02	17		-1.9*	5.81	229		4.9	4.8
	P*		38		3.3*					
	SN		03 21.5		-2.5*					
	S*		54		3.5*					
MNW*	SN	14 04	24		-4.5*	8.50	227		5.2	
FELT SOUTHERN HAWKES BAY AND MANAWATU, MAXIMUM INTENSITY MM V										

	H	M	S							75/ 687			
NOV 22	14	59	15.5	42.65S	174.19E	12	4M	SE	1.2	AVG MAG	4.6		
			+ 0.4	0.03	0.03		?						
				I	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KKY*	IP*		14 59	25.6			U	1.7	0.43	303			
WEL	PN		14 59	40.7				0.2	1.43	18	4.2	5.1	4.8
	SN			58				-1.2					
GPZ	PN		14 59	42				0.1	1.53	227	4.9		
	P*			43				0.2					
	SN		15 00	00				-1.5					
COB	PN		14 59	47.6			U	0.6	1.90	325		5.1	4.9
	PG			52				-2.0					
	SN		15 00	10				-0.5					
KAI	EPN		14 59	51				2.0	2.05	273	4.6		
	P*			55				3.3*					
	SN		15 00	15				0.9					
MNG	PN		14 59	51.6				-0.2	2.25	26			
	PG			00				-1.1					
CAZ	P*		14 59	57				0.7	2.32	42			
	SN		15 00	21.5				0.5					
HJZ	PN		15 00	03				0.7	3.02	243		4.7	4.7
	PG			17				0.4					
	SN			37				-0.8					
OHZ	PN		15 00	08.0				0.8	3.38	223		5.0	5.2
	SN			45				-1.5					
TNZ*	EPN		15 00	10.5				2.1*	3.47	3		4.7	4.6
	P*			15				-0.9*					
	ESN			53.5				4.9*					
CHZ*	PN		15 00	11.5				1.2*	3.60	17		5.0	4.9
	PG			31.5				3.1*					
	SN			52				0.1*					
TRZ*	PH		15 00	11.5				0.1*	3.68	34		4.7	5.1

		P*	20.7	1.1*						
		SN	57	3.1*						
TUA*	EPN	15 00	21.5	-0.4*	4.45	31	4.3	4.7		
		PG	46	0.4*						
		SN	01 11.5	-1.1*						
ROX*	PN	15 00	23	0.5*	4.50	230	4.4	4.4		
		SN	01 13	-0.7*						
KRP*	PN	15 00	28	0.9*	4.84	13				
		PG	54	0.7*						
		SN	01 23	1.2*						
GNZ*	PN	15 00	27	-1.7*	4.96	37	4.1	4.6		
		SN	01 23	-1.8*						
HSZ*	PN	15 00	28.5	-0.4*	4.97	244	4.3	4.4		
		SN	01 25	-0.1*						
HTZ*	PN	15 00	30.5	-0.6*	5.13	26	4.3	4.5		
		SN	01 29	-0.0*						
WPZ*	PN	15 00	39	2.7*	5.52	222	4.4	4.4		
		SN	01 40.5	2.1*						
MNW*	PN	15 00	39	0.9*	5.66	234	4.7	4.4	4.5	
		SN	01 43.5	1.8*						
		SG	02 26	-0.2*						
NOV 22	H M S	40.02S	176.72E	12 KM	SE	2.2	AVG MAG	75/ 688	3.2	
	+ -	1.1	0.05	0.07						
	H M S	DIR	RES	DIST	AZ	W-A	W P	W S		
TRZ	PG	15 51 24	1.6	0.47	10					
	SG	33	4.0							
MNG	PG	15 51 34.7	-0.6	1.12	237	3.1	3.2			
	SG	50	-0.4							
CNZ	PG	15 51 37	-0.4	1.22	312	3.2	3.3			
	SG	53	-0.9							
TUA	S*	15 51 49	-3.0	1.26	16					
GNZ	SN	15 52 01	-1.9	1.71	37	3.2	3.1			
WEL	EPN	15 51 45	0.3	1.95	229	3.1	2.9	3.6		
	SN	52 10	1.3							
TNZ*	S*	15 52 15	1.0*	1.99	294					
WTZ*	PN	15 51 45	-1.0*	2.05	6	3.1	2.9			
	SN	52 08	-3.1*							
COB*	EPN	15 52 02.5	0.4*	3.22	249					
	SN	40	0.4*							
GPZ*	SN	15 53 14	-3.3*	4.77	218	3.8				
MJZ*	SN	15 53 48.5	-1.2*	6.11	228					

NOV 23	H M S	37.57S	176.29E	279 KM	SE	1.1	AVG MAG	75/ 689	5.4	
	+ -	1.0	0.09	0.07						
	H M S	DIR	RES	DIST	AZ	W-A	W P	W S		
WTZ	P	07 30 29.1	U	-0.8	0.69	127	4.9	5.0		
	S	58	-0.3							
KRP	IP	07 30 29.8	D	-0.1	0.69	239				
	S	59.5	0.7							
WNZ*	EP	07 30 30.5	-1.2*	1.07	188	5.1	5.2			
	S	31 02	0.2*							
AUC	IP	07 30 33.5	U	-0.3	1.40	300				
TUA	P	07 30 34	0.1	1.41	151	5.3	5.6			
	S	31 07	1.7							
GBZ	P	07 30 34.5	D	0.0	1.50	334				
CNZ	P	07 30 35.2	-0.8	1.73	200					
GNZ	IP	07 30 36.3	U	0.2	1.74	129				
	S	31 08	-1.5							
ECZ	P	07 30 38.0	U	1.5	1.79	95	5.5	5.6		
	S	31 16	5.7*							
TRZ*	P	07 30 37.7	U	-0.6*	2.02	168	5.5	5.7		
	S	31 13	-0.6*							
TNZ*	P	07 30 38.5	U	-1.4*	2.20	222	4.9	4.8		
	S	31 14	-2.5*							

ONE*	P	07 30	41.5	0.1*	2.37	319	4.2						
	ES	31	19.5	0.3*									
MNG*	P	07 30	49.5	U	-3.3*	3.11	191						
CAZ*	IP	07 30	49.3	U	-1.9*	3.33	181						
	S	31	34.5		-2.0*								
WEL*	P	07 30	53.2	U	-4.2*	3.89	197	6.3	5.6	5.9			
	S	31	42		-3.6*								
CRZ*	IP	07 31	00.7	DE	-1.2*	4.29	316				4.8		
COB*	IP	07 30	58.3	U	-5.6*	4.46	217						
	ES	31	52		-7.4*								
KAI*	P	07 31	19.5		-5.3*	6.20	216	5.7					
	S	32	37		0.2*								
GPZ*	P	07 31	25		-6.1*	6.72	203	6.6					
	S	32	38		-10.1*								
HJZ*	P	07 31	35		-9.4*	7.78	213						
	S	33	02		-9.8*								
MNW*	P	07 32	10		-7.6*	10.45	216	5.2					
	S	34	06.5		-5.2*								
NOV 24	H M S												75/ 690
	03 09	11.1	41.91S	174.03E	12 KM	SE	2.2	AVG MAG					3.6
		+ 0.6	0.05	0.05									
	H M S			DIR	RES	DIST	AZ	W-A	W P	W S			
KKY	P	03 09	22.5		0.7	0.56	206						
	S		33		3.3								
WEL	P	03 09	26.4	D	-0.1	0.84	42	3.4	4.5	4.1			
	S		39.5		1.6								
COB	PN	03 09	32.5		-1.4	1.28	310		4.1	3.7			
	SN		50		-0.9								
MNG	PN	03 09	37.8	D	-1.9	1.70	41		3.7	3.6			
	PG		45		-0.5								
	SG		10 10		1.6								
KAI	SN	03 10	13		3.6	2.04	252	3.1					
GPZ	EPN	03 09	42.5		-2.1	2.05	209	3.1					
	PG		51.5		-1.1								
	SN		10 07		-2.7								
TNZ						2.74	6		3.4	3.4			
CNZ*	P	03 10	02		-0.6*	2.95	24		3.9	3.9			
	PG		10		-0.7*								
	SG		50		-0.5*								
HJZ*	PN	03 10	01.5		-0.7*	3.34	230		3.4	3.2			
	P		08		-1.3*								
	PG		19		0.4*								
	SN		40.5		-0.6*								
	S		56		3.0*								
NOV 24	H M S												75/ 691
	17 07	42.9	36.77S	177.68E	194 KM	SE	1.9	AVG MAG					3.7
		+ 2.0	0.11	0.15	17								
	H M S			DIR	RES	DIST	AZ	W-A	W P	W S			
ECZ	EP?	17 08	15		1.6	1.15	143		4.0				
WTZ	P	17 08	14		-0.9	1.33	204		3.8	3.7			
	S		39.5		-0.1								
GNZ	P	17 08	15.5	D	-1.7	1.89	172		3.9	4.1			
	S		50		1.1								
KRP	EP	17 08	22		0.0	2.06	235						
TRZ	EP	17 08	30		-1.2	2.86	193		3.7	3.8			
	S		09 06.5		-2.0								
MNG	P	17 08	48		0.2	4.21	203		2.9	3.0			
	S		09 41		3.0								
NOV 24	H M S												75/ 692
	18 38	20.7	32.95S	177.74W	33 KM	SE	1.1	AVG MAG					5.2
		+ 1.4	0.07	0.12									
	H M S			DIR	RES	DIST	AZ	W-A	W P	W S			
ECZ	PN	18 39	42		1.3	5.62	212		5.3				
WTZ	PN	18 39	53		-1.1	6.61	219						

LOCAL EARTHQUAKES

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GNZ	PN	19 39 55.2	D	0.7	6.64	210
	SN	41 08		1.1		
ONE	EPN	19 40 01		0.2	7.11	244
TUA	PN	19 40 01.9		-0.1	7.16	214
	ESN	41 21		1.6		
KRP	PN	19 40 04.9		-0.1	7.40	226
TRZ	PN	19 40 11		-0.6	7.92	212
CRZ	PN	19 40 15		0.7	8.12	257
CNZ	PN	19 40 15		-1.3	8.27	219
	ESN	41 45		-0.8		
TNZ	EPN	19 40 24		-0.8	8.91	223
MNG	EPN	19 40 27		-4.1	9.38	213
	SN	42 06		-6.4		
WEL	SN	19 42 26		-6.7	10.24	214
GPZ	SN	19 43 31.9		-7.8	13.11	212
HJZ	SN	19 43 59.9		-8.5	14.36	216

5.3
5.0

NOV 24 H M S 22 30 20.9 37.73S 176.72E 166 KM SE 0.4 AVG MAG 4.0 75/ 693
+ - 0.6 0.05 8.03 7

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	M S
WTZ	IP	22 30	51.2		U	-0.9	0.33	140			
KRP	P	22 30	59			-0.0	0.99	250			
	S	31	15.3			0.1					
TUA	S	22 31	16			0.3	1.12	163			4.2
GNZ	IP	22 30	50.7		U	-0.1	1.37	132	4.3		4.3
	S	31	21.9			-0.2					
ECZ	P	22 31	08			0.9	1.45	89	4.5		
CNZ	S	22 31	32			2.1	1.73	212			3.2
TRZ	S	22 31	32			2.1	1.62	178			4.4
MNG	IP	22 31	15.6		D	-2.5	3.04	190	4.0		3.9
	S	50				-9.9					
WEL	S	22 32	10			-4.4	3.85	202	3.9		3.9
COB	EP	22 31	37.9			-0.1	4.55	221			3.3
	S	32	27			-3.6					
GPZ	EP	22 32	05			-1.1	6.71	206	4.3		
	S	33	13			-8.7					
HJZ	ES	22 33	38			-10.5	7.84	215			

NOV 25 H M S 02 11 12.5 40.93S 174.69E 69 KM SE 0.5 AVG MAG 3.9 75/ 694
+ - 0.3 0.01 8.01 4

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	M S
WEL	P	02 11	24.4		D	-0.1	0.36	169	3.7		
	S	33.9				-0.0					
MNG	IP	02 11	27.0		U	-0.6	0.68	63	4.0		4.0
	S	37				-2.0					
CAZ	P	02 11	33.9		D	-0.2	1.17	89			
	S	50				0.9					
COB	IP	02 11	37.9		D	-0.3	1.48	263	4.2		4.2
	S	56.5				-0.2					
KKY	P	02 11	40			-0.2	1.66	206			
	S	12	01.8			0.8					
TNZ	P	02 11	41.8			0.4	1.75	352	4.4		3.9
	S	12	03.9			0.7					
CNZ	P	02 11	42.0		D	-0.7	1.85	21	4.3		4.1
	S	12	05			0.0					
TRZ	S	02 12	12			-0.0	2.14	51			4.2
TUA	S	02 12	27			-3.3	2.85	43			4.0
KAI	S	02 12	30			-2.2	2.92	236	3.8		
KRP	P	02 11	57.8			-2.3	3.07	13			
GPZ	S	02 12	32.9			-9.0	3.15	208	3.8		
WTZ	EP	02 12	01			-4.0	3.44	32			
GNZ	EP	02 12	01			-4.0	3.44	50	3.6		4.1
	S	41				-3.7					
HJZ	EP	02 12	16.8			-1.4	4.37	224	3.4		3.4
	S	13	03.8			-4.4					

MJZ*		ES	01 34 18	-3.7*	8.87	217					
H	M	S							75/ 706		
DEC 02	04	54	31.2	34.18S	178.30W	274 KM	SE	0.8	AVG MAG	5.1	
			+ 0.8	0.04	0.03						
				H	M	S	DIR	RES	DIST	AZ	W-A W P W S
ECZ	EP			04	55	39.7		-0.8	4.34	215	5.2 5.1
	EE					40.5					
	EE					56 28					
GNZ	EP			04	55	52.0		-0.4	5.35	213	4.6 4.7
	ES					56 56		-0.1			
WTZ	EP			04	55	49.5		-3.3*	5.38	224	4.9 4.6
	IS					51.5					
TUA	EP			04	55	59.8		-4.7*			
	P					56 10		0.7	5.89	217	5.3 5.1
	E					37 08		0.1			
ONE	EP			04	56	03		-0.2	6.23	253	
KRP	EP			04	56	02.0		-1.2	6.23	231	
	I					04.0					
TRZ	P			04	56	09		0.8	6.63	215	
	ES					57 25		0.7			
CNZ	P			04	56	14.5		1.3	7.03	223	
	I					57 19					
CRZ	EP			04	56	19		0.4	7.47	266	
MNG	EP			04	56	26		-0.6	8.10	216	
	ES					57 58		0.8			
WEL	S			04	58	15.5		-1.0	8.96	216	5.8
COB	EP			04	56	49		0.0	9.90	223	
	ES					58 37		-0.5			
GPZ	ES			04	59	20		-0.8	11.82	214	5.7
MJZ	S			04	59	50		0.8	13.10	218	
DEC 02	18	42	26.4	39.13S	174.99E	225 KM	SE	1.5	AVG MAG	4.1	
			+ 1.8	0.06	0.03						
				H	M	S	DIR	RES	DIST	AZ	W-A W P W S
CNZ	P			18	42	57.6		1.2	0.45	100	
	S					43 20.5		0.9			
TNZ	P			18	42	57.5		1.0	0.47	262	
KRP	S			18	43	27		-0.7	1.28	20	
MNG	P			18	43	04.8		1.8	1.54	166	4.2 4.2
	S					31.5		0.2			
WEL	ES			18	43	41		-0.6	2.16	184	3.9 4.1
GNZ	ES			18	43	45		-1.4	2.43	80	
COB	EP			18	43	13.0		-0.5	2.61	221	4.2
	ES					48		-1.9			
DEC 03	01	17	15.8	45.31S	167.57E	92 KM	SE	1.6	AVG MAG	4.7	
			+ 1.1	0.05	0.06						
				H	M	S	DIR	RES	DIST	AZ	W-A W P W S
MNW	P			01	17	30.2		-0.6	0.47	176	
	S					40.8		-1.4			
MSZ	P			01	17	32.6		-0.0	0.68	21	
ROX	IP			01	17	40.2	D	1.2	1.24	98	4.8 5.0
	S					58		1.6			
WPZ	P			01	17	44.0		0.3	1.62	147	
	S					18 03.5		-0.9			
BSP	P			01	17	54.0		1.1	2.31	52	
	ES					18 23.5		3.1			
OHZ	P			01	17	55.2	D	1.4	2.38	85	5.1 5.2
	S					18 21.5		-0.5			
MJZ	P			01	17	55.0		0.2	2.45	58	4.5 4.6
	I					18 04					
	S					24		0.1			
KAI	E			01	18	51			3.93	46	4.3

KRP	EP	18 50 12	-1.7	6.51	232				
	ES	51 28	-0.2						
CNZ	EP	18 50 24.5	0.9	7.29	224				
CRZ	EP	18 50 31	1.8	7.74	265				
MNG	EP	18 50 36	-0.9	8.35	217				
	ES	52 08	-1.8						
COB	ES	18 52 51	0.1	10.16	224				
GPZ	ES	18 53 35	1.0	12.06	214	5.5			
DEC 06	H M S	17 11 15.0	32.07S	177.32W	352 KM	SE	2.1	AVG MAG	75/ 712 5.3
		+ 2.6	0.14	0.30	24				
	H M S	17 12 52.5	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	EP	17 12 52.5		-0.5	6.55	210			
	ES	14 14		4.1					
GBZ	EP	17 13 00		-1.2	7.26	233			
GNZ	EP	17 13 03		-2.0	7.56	209			
	S	14 30.0		-1.3					
TUA	ES	17 14 42		-0.5	8.09	212			
KRP	EP	17 13 12		-1.2	8.27	223			
CRZ	P	17 13 18.5		0.2	8.70	252			
TRZ	ES	17 14 59		0.3	8.85	211			
CNZ	EP	17 13 20		4.0	9.18	217			
MNG	EP	17 13 38		0.4	10.31	212			
	ES	15 29		-1.4					
WEL	S	17 15 47		-1.9	11.17	212			
COB	E	17 14 27			12.03	219			
	ES	16 07		-0.4					
KAI	ES	17 16 46		1.4	13.75	217	5.3		
DEC 06	H M S	19 42 15.3	37.90S	179.00E	33 KM	SE	1.3	AVG MAG	75/ 713 3.9
		+ 2.1	0.10	0.21	9				
	H M S	19 42 24.0	DIR	RES	DIST	AZ	W-A	W P	W S
ECZ	P	19 42 24.0		-0.4	0.42	300			
GNZ	P	19 42 34.0		0.8	1.07	226	4.0	4.1	
	S	47.4		0.9					
TRZ	EP	19 42 52		0.9	2.37	225		4.2	
CNZ	P	19 43 00.5		0.7	3.00	243		3.8	
MNG	P	19 43 09.7		-1.6	3.85	224		3.5	3.6
	S	53		-1.3					
WEL	S	19 44 13		-1.9	4.70	223	4.4		4.0
DEC 07	H M S	02 49 25.0	38.14S	176.25E	12 KM	SE	ND	AVG MAG	75/ 714 2.7
		R	R	R	R				
	H M S	02 49 37.0	DIR	RES	DIST	AZ	W-A	W P	W S
KRP	EP	02 49 37.0		0.6	0.60	291		2.7	
	I	38.4							
	ES	43.0		-1.7					
FELT ROTORUA (33) MM IV									
DEC 08	H M S	08 19 38.2	38.53S	175.60E	169 KM	SE	1.3	AVG MAG	75/ 715 3.5
		+ 2.3	0.07	0.07	23				
	H M S	08 20 02.0	DIR	RES	DIST	AZ	W-A	W P	W S
KRP	EP	08 20 02.0		-0.4	0.60	356		3.2	
CNZ	P	08 20 04.0		1.2	0.67	183		4.2	
GNZ	P	08 20 14.7		0.9	1.90	94		3.4	3.2
	S	40.0		-1.2					
MNG	P	08 20 15.7		-0.2	2.09	182		3.1	3.7
	S	45.5		0.5					
COB	ES	08 21 12		-1.0	3.38	220			3.4

		H	M	S								75/ 716
DEC 08		22	21	30.2	40.47S	176.08E	73 KM	SE	1.8		AVG MAG	4.1
				+ 1.1	0.05	0.07	14					
							DIR	RES	DIST	AZ	W-A	W P W S
	CAZ	P			22 21	45.5		2.3	0.45	166		
		ES				50.7		-2.4				
	HNG	P			22 21	44.5		1.0	0.48	252		
	WEL	EP			22 21	54.0		0.9	1.29	230	4.0	3.8 4.5
		I			22	03.0						
		S				11.0		0.9				
	CHZ	P			22 21	55.0		1.3	1.33	342		4.3 4.6
		S			22	11.0		-0.3				
	THZ	S							1.83	314		4.0 4.1
	GNZ	S			22 22	36.3		0.8	2.36	40		4.1
	KRP	EP			22 22	11.2		0.4	2.58	350		3.4
		E				20.0						
		E				30.0						
	WTZ	S			22 22	38.2		-3.2	2.58	16		4.0
	COB	EP			22 22	11.8		0.4	2.62	255		4.1 4.2
		ES				42.5		0.2				
	KAI	ES			22 23	16		-2.1	4.07	238		4.2
	GPZ*	ES			22 23	14		-5.4*	4.11	217		4.3
DEC 09		20	55	30.1	39.16S	174.99E	12 KM	SE	1.2		AVG MAG	75/ 717 3.6
				+ 0.5	0.03	0.03	3					
							DIR	RES	DIST	AZ	W-A	W P W S
	CHZ	P*			20 55	39.0		0.2	0.44	96		
		S*				44.2		-0.9				
	THZ	S							0.47	266		
	KRP	P*			20 55	55.5		2.0	1.31	20		3.6 3.5
		S*				56 10.2		-0.9				
	HNG	P*			20 55	57.0		-0.0	1.51	165		3.7
	WEL	EP*			20 56	09		0.3	2.13	184	3.3	4.1 3.6
		ES*				37		1.1				
	COB	EP*			20 56	14		-1.4	2.58	221		3.4 3.2
		E				43						
		ES*				49		-0.4				
DEC 09		21	27	02.0	45.41S	167.14E	76 KM	SE	1.1		AVG MAG	75/ 718 4.2
				+ 1.0	0.04	0.05	3					
							DIR	RES	DIST	AZ	W-A	W P W S
	MNH	P			21 27	16.0		0.2	0.50	138		
		S				25.2		-0.9				
	MSZ	P			21 27	21.1		0.9	0.92	37		
		I				22.3						
	ROX	P			21 27	29.9		1.6	1.53	93		4.1 4.2
		S				48.8		1.0				
	WPZ	EP			21 27	30.0		-0.7	1.72	137		4.4 4.4
		I				31.2						
		ES				51.5		-0.4				
	OHZ	P			21 27	44.5		0.3	2.69	84		4.4
	HJZ	P			21 27	45.0		-0.3	2.76	60		3.9 4.3
		S				28 19.3		0.4				
	KAI	ES			21 28	52		-1.5	4.22	48	4.3	
	COB	EP			21 28	29		-0.2	5.94	45		4.1 4.2
		ES				29 32		-4.7*				
DEC 09		21	27	09.9	35.76S	178.51E	261 KM	SE	1.6		AVG MAG	75/ 719 4.5
				+ 1.3	0.07	0.10	11					
							DIR	RES	DIST	AZ	W-A	W P W S
	ECZ	P			21 27	53.0		0.1	1.93	179		5.0 4.7
		ES				28 27		0.7				
	GBZ	P			21 27	56.0		-2.3	2.50	259		

WTZ	P	21 27 58.8	0.1	2.53	208	4.9	4.4		
	I	28 31.6							
	S	34.6	-2.0						
GNZ	P	21 28 02.9	0.4	2.90	188	4.7	4.6		
	S	42.9	-0.9						
KRP	P	21 28 07	1.2	3.22	227	3.5			
	ES	51	1.7						
TUA	ES	21 28 51	1.5	3.23	199		4.6		
CNZ	P	21 28 19.0	2.4	4.16	214	3.9	3.9		
	ES	29 09.0	0.9						
	E	12.2							
MNG	P	21 28 31.2	-0.3	5.40	205	4.4	4.3		
	S	29 33	-2.3						
WEL	ES	21 28 42.0	0.1	6.25	207	5.1			
	EP	29 53	-0.9						
	ES	53	-1.2*						
COB*	P	21 28 50	-1.2*	6.99	219				
	S	30 12	1.5*						
DEC 10	H M S	13 54 47.3	35.92S	178.30E	229 KM	SE	1.5	AVG MAG	75/ 720
		+ 1.7	0.10	0.11	14			3.8	
					DIR	RES	DIST	AZ	H-A W P W S
ECZ	EP	13 55 27			0.6	1.78	174		4.2 4.0
	ES	57			0.5				
GBZ	P	13 55 29.9			-1.9	2.31	262		
WTZ	P	13 55 31			-0.5	2.32	207		3.9 3.7
	S	56 07			1.3				
GNZ	P	13 55 39.8			-0.2	2.73	185		3.9 3.8
	S	56 12.0			-1.7				
KRP	EP	13 55 40			1.2	2.99	227		3.5
CNZ	EP	13 55 52			2.0	3.94	213		3.6
MNG	P	13 56 05.6			0.1	5.19	204		3.7 3.5
	ES	57 05			-1.3				
DEC 10	H M S	17 52 22.4	36.30S	178.30E	147 KM	SE	1.2	AVG MAG	75/ 721
		+ 1.3	0.07	0.03	14			3.6	
					DIR	RES	DIST	AZ	H-A W P W S
ECZ	EP	17 52 52.0			0.9	1.40	172		4.1
	E	53 17							
	E	23.5							
WTZ	P	17 52 57.4			-0.1	1.98	212		4.1 3.8
	ES	53 25			0.6				
GBZ	EP	17 53 00.7			-0.5	2.28	271		
	E	08							
GNZ	P	17 53 00.9			-1.5	2.35	185		4.0 3.6
	S	32.0			-0.4				
KRP	E	17 52 58				2.74	233		3.2
CNZ	E	17 53 26				3.63	216		3.4 3.6
	E	54 20							
MNG	EP	17 53 36			1.4	4.85	206		3.5 3.3
	E	44.5							
	ES	54 30			-0.3				
DEC 11	H M S	09 32 59.1	33.94S	179.75W	33 KM	SE	2.0	AVG MAG	75/ 722
		+ 2.2	0.13	0.21	3			4.0	
					DIR	RES	DIST	AZ	H-A W P W S
ECZ	EP	09 33 57			-0.0	3.99	200		4.5
GBZ	EP	09 34 06			1.7	4.52	239		
WTZ	EP	09 34 06			-2.4	4.82	212		4.3 3.9
	ES	35 03			1.4				
GNZ	EP	09 34 12			0.9	5.02	200		3.9 3.8
	E	16.5							
	S	35 09			2.5				
KRP	EP	09 34 18			0.3	5.51	223		3.7
MNG	EP	09 34 46			-0.7	7.67	208		

LOCAL EARTHQUAKES

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		COB	ES	36 07	-2.9							
		ES		09 36 48	-0.8	9.30	218					
		H M S								75/ 723		
DEC 11	09 40 08.5	37.37S	178.99E	76 KM	SE	1.1		AVG MAG	3.4			
	+ - 1.2	0.05	0.07	3								
		H M S		DIR	RES	DIST	AZ	W-A	W P	W S		
	ECZ	EP	09 40 21.0		-1.0	0.47	227					
		I	25.0									
		S	32.0		-0.2							
	GNZ	EP	09 40 34		-0.1	1.48	211		3.1			
		ES	55		1.8							
	WTZ	IP	09 40 37.6		0.7	1.70	248		4.2			
	KRP	EP	09 40 51.8		-0.4	2.79	258		3.3			
		ES	41 24.8		-0.2							
	GBZ	P	09 40 56.5		1.0	3.04	291					
	CNZ	EP	09 40 58		-0.6	3.26	235		3.5			
		E	41 11									
	MNG	EE	09 41 23			4.24	219		3.2	3.0		
		ES	59.8		-0.9							
		H M S								75/ 724		
DEC 11	12 03 58.9	33.00S	178.92W	295 KM	SE	1.5		AVG MAG	5.0			
	+ - 1.5	0.07	0.10	15								
		H M S		DIR	RES	DIST	AZ	W-A	W P	W S		
	ECZ	P	12 05 19.0		0.9	5.12	203		4.9	4.9		
		ES	06 23		2.8							
	GBZ	P	12 05 24.0		-0.1	5.62	234					
	WTZ	EP	12 05 26.9		-2.0	5.99	213		4.9	4.5		
		E	28.5									
		ES	06 37		-1.7							
		E	41									
	GNZ	P	12 05 31.7		1.2	6.15	203					
		S	06 41		-1.3							
	ONE	EP	12 05 31		-0.1	6.20	242					
	KRP	EP	12 05 35		-1.9	6.67	221					
		E	39									
	CRZ	EP	12 05 44.0		1.4	7.14	256					
		ES	07 04		0.0							
	CNZ	EP	12 05 49		0.3	7.63	214					
	MNG	EP	12 06 03		-0.4	8.82	209					
		ES	07 37		-4.3*							
	WEL	ES	12 08 00		-0.3	9.68	210		5.5			
	GPZ	ES	12 09 04		-0.2	12.55	209		5.3			
	MJZ	ES	12 09 32		1.5	13.75	214					
		H M S								75/ 725		
DEC 11	16 56 36.8	44.92S	166.69E	33 KM	SE	1.0		AVG MAG	3.9			
	+ - 0.7	0.03	0.04	7								
		H M S		DIR	RES	DIST	AZ	W-A	W P	W S		
	MSZ	P	16 56 53.0		0.4	0.91	75					
	MNW	P	16 56 54.5		-0.4	1.09	143					
		S	57 06.8		-1.5							
	ROX	P	16 57 08.0		1.2	1.95	108		3.7	3.8		
		S	30.0		0.6							
	WPZ	P	16 57 11.9		-0.2	2.31	140		4.2	3.9		
		ES	38.5		0.3							
	MJZ	EP	16 57 20.0		0.6	2.87	72		3.6	3.7		
		E	29.0									
		S	52.5		0.7							
	OMZ	EP	16 57 22.5		1.2	3.01	94		4.0	4.1		
		ES	55		-0.2							
	KAI	ES	16 58 22		-1.8	4.18	57		3.9			
	GPZ					4.45	76		4.0			
	COB	EP	16 58 00.5		0.4	5.86	51		4.3	3.9		
		ES	59 03.5		-0.9							
	MNG*	EP	16 58 27		1.2*	7.77	59					

		E		31.8						75/ 726	
DEC 12	H M S	39.13S	174.94E	12 KM	SE 1.4	AVG MAG	3.9				
	06 35 30.8	0.02	0.03								
	+ - 0.4										
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S		
TNZ					0.44	263					
CNZ	IP*	06 35 37.2	U	-2.7	0.47	99					
	E	41									
KRP	PN	06 35 53.4		-0.4	1.29	21		4.3	4.1		
	P*	54.5		0.6							
	ESN	36 11		0.1							
	ESG	17		2.6							
TRZ	EP*	06 35 57		-0.8	1.52	107		3.8	3.9		
	EPG	36 02		0.5							
	ESQ	23		1.0							
MNG	IPN	06 35 54.8	U	-2.5	1.54	165		3.9	3.9		
	ESN	36 13		-4.1*							
CAZ	EP*	06 36 07		0.5	2.03	151					
	ES*	34		0.7							
WEL	IPN	06 36 07.0	U	1.3	2.16	184	3.6	4.5	4.2		
	P*	09.0		0.2							
	SN	33.3		1.3							
	ES*	36		-1.2							
	ESG	44		0.5							
COB	PN	06 36 12.0		0.4	2.59	220		3.8	3.9		
	EP*	15		-1.1							
	ESN	43		0.6							
	ES*	51		0.8							
GBZ	EPG	06 36 28		-2.2	2.94	8		3.4			
DEC 13	H M S	33.73S	178.29W	266 KM	SE 0.7	AVG MAG	4.5	75/ 727			
	09 34 51.5	0.07	0.09								
	+ - 0.7										
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S		
ECZ	EP	09 36 05		0.0	4.72	212		4.7	4.5		
	E	37 09									
	E	32									
WTZ	EP	09 36 16		-1.1	5.72	221		4.3	4.2		
	ES	37 24		-0.1							
GNZ	EP	09 36 18		0.7	5.74	210		4.2	4.1		
	ES	37 24		-0.5							
TUA	EP	09 36 24		0.2	6.26	215					
	ES	37 36		-0.1							
KRP	EP	09 36 28		0.9	6.53	228					
	E	41									
	ES	37 42		-0.1							
TRZ	ES	09 37 54		1.1	7.01	213					
CNZ	EP?	09 36 54			7.38	220					
	ES	38 05		3.9*							
MNG	EP	09 36 51		-0.6	8.48	214					
	E	38 18									
	ES	26		0.1							
WEL	ES	09 38 45		-0.3	9.34	214	5.5				
DEC 13	H M S	32.79S	178.57W	295 KM	SE 1.7	AVG MAG	5.2	75/ 728			
	12 53 48.4	0.13	0.26								
	+ - 1.8										
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S		
ECZ	EP	12 55 12		0.7	5.43	205		5.2	5.2		
	E	15.5									
	ES	56 18		1.7							
GBZ	EP	12 55 19		1.1	5.98	234		4.3			
WTZ	IP	12 55 21.9	D	-0.2	6.33	214					
	E	56 26.1									
	ES	33		-2.6							
GNZ	EP	12 55 23		-0.8	6.46	204					

		ESG	37 09	-4.0*					
		H M S			119 KM	SE 1.3	AVG MAG		75/ 731
DEC 14	11 09 13.2	45.13S	167.47E	9					4.0
	+ - 1.4	0.04	0.05	9					
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	MSZ	IP,		1.0	0.56	34		4.1	4.4
		ES		0.2					
	MNH	IP,		-0.4	0.66	171	3.8	4.4	4.2
		ES		-1.2					
	ROX	ES		1.9	1.35	105			3.7
	WPZ	IP	D	1.2	1.81	148		4.2	4.3
		ES		-0.4					
	HJZ	IP	U	-1.0	2.43	63		3.5	3.8
		ES		-0.5					
	OMZ	ES		-0.8	2.44	90		3.8	
		ES							
		H M S			33 KM	SE 1.3	AVG MAG		75/ 732
DEC 15	04 46 48.9	38.72S	176.30E	3					4.2
	+ - 0.3	0.02	0.02	3					
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	WNZ	EP*?		-1.1	0.18	299			
		ES*		-0.6					
	TUA	IPN	U	-0.1	0.67	98		4.9	5.1
		ESN		1.5					
	GNZ	P*		1.5	0.76	230		3.9	4.0
		E							
	WTZ	IPN	D	-1.2	0.91	37		4.7	4.6
		ESN		-0.2					
	TRZ	EPN		1.1	0.93	154		4.8	4.8
		IP*		-0.4					
		ES*		1.6					
	KRP	IPN	DSE	1.4	0.99	322		4.0	3.8
		ES*		0.6					
	GNZ	IPN	DNW	-0.6	1.35	87		4.3	4.5
		ESN		-1.0					
	TNZ				1.57	252		4.0	3.5
	MNG	PN		-0.6	2.00	198		3.8	3.6
		EP*		-0.5					
		ESN		3.2*					
	GBZ	PN		0.2	2.58	345		3.7	3.4
		ESN		1.6					
	WEL	EPN		-1.9	2.82	204	4.0	4.1	4.2
		EP*		-2.6					
		ESN		0.1					
		ES*		1.3					
		H M S			168 KM	SE 1.4	AVG MAG		75/ 733
DEC 15	06 57 57.7	38.40S	175.93E	9					4.0
	+ - 1.1	0.04	0.05	9					
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S
	KRP	IP	D	0.3	0.57	327		3.8	3.3
		ES		0.1					
	GNZ	IP	D	1.5	0.85	200		4.4	4.4
	WTZ	EP		-0.8	0.93	64		3.4	3.5
		ES		-2.0					
	TUA	IP	U	0.4	1.04	113		4.3	4.3
		ES		1.5					
	TRZ	P		1.3	1.35	149		4.7	4.4
		I							
		ES		1.7					
		E							
	TNZ				1.44	237		3.8	3.6
	GNZ	P		0.8	1.66	99		3.7	4.0
		ES		-1.9					
	AUC	EP		0.1	1.79	329			
	MNG	P		0.3	2.24	189		4.1	4.2

		H	M	S				75/ 738			
TUA	EPN	03	10	43	-0.5	1.20	6	4.0	4.0		
	ESN			57.5	-0.8						
MNG	PN	03	10	45.7	0.7	1.31	241			3.8	
	ESN			54							
	IPN			11 01.5	0.6						
CNZ	IPN	03	10	46.2	U	0.3	1.37	305	4.3	4.0	
	ESN			11 02	-0.5						
GNZ	EPN	03	10	49	0.3	1.58	31			3.7	
	ESN			11 09	1.6						
WTZ	EPN	03	10	54	-0.7	2.01	0	3.6	3.7		
	ESN			11 05							
	ESN			17	-1.0						
WEL	ESN	03	11	11		2.12	232	3.6		4.1	
	ESN			22	1.4						
TNZ	EPN					2.17	291		3.9		
KRP	EPN	03	11	03	3.5*	2.36	331		3.4		
DEC 16	H M S	07	07	03.8	38.30S	176.80E	117 KM	SE	1.5	AVG MAG	4.2
				+ 0.9	0.04	0.05	7				
WTZ	P	07	07	20.6	DIR	RES	DIST	AZ	W-A	W P	W S
	ESN			29		-0.2	0.34	25			
	IPN			31.5		-2.3					
TUA	IPN	07	07	22.9	U	0.7	0.58	152	4.8	4.6	
	ESN			36		-0.2					
GNZ	P	07	07	26.9		0.9	1.02	110	4.0	4.1	
	ESN			30.8							
	ESN			36.5							
	ESN			42.5		-0.4					
KRP	IPN	07	07	27.7	D	1.1	1.07	290	3.6	3.4	
	ESN			44.5		0.5					
TRZ	P	07	07	29.7		1.0	1.26	179	4.3	4.7	
	ESN			47							
	ESN			50		2.4					
CNZ	EPN	07	07	30.9	D	1.2	1.33	227	4.6	3.8	
	ESN			54		4.8*					
TNZ	IPN	07	07	42.4	D	0.5	2.09	244		4.0	
GBZ	IPN	07	07	44.0	U	0.5	2.33	333		4.2	
MNG	P	07	07	44.0	U	-0.5	2.54	203	4.1	4.0	
	ESN			54							
	ESN			08 07							
	ESN			14		-1.7					
CAZ	IPN	07	07	46.3	D	0.0	2.64	190			
	ESN			08 19.5		1.2					
WEL	EPN	07	07	54		-1.9	3.37	207	4.4	4.2	4.4
	ESN			08 33.5		-2.1					
DEC 17	H M S	11	49	52.1	44.84S	167.83E	95 KM	SE	1.4	AVG MAG	4.0
				+ 1.0	0.05	0.05	11				
MSZ	IPN	11	50	06.7	DIR	RES	DIST	AZ	W-A	W P	W S
MNW	IPN	11	50	12.0	D	0.7	0.18	21			
	ESN			25		-0.0	0.96	189	3.6	4.1	4.2
	ESN			17		-2.0					
ROX	EPN	11	50	17		1.5	1.23	122	4.1	4.0	
	ESN			33.5		0.5					
WPZ	EPN	11	50	25.0		0.5	1.96	159	4.1	3.8	
	ESN			47.5		-0.9					
MJZ	EPN	11	50	27		1.0	2.07	67	4.1	4.4	
	ESN			40							
	ESN			52		0.9					
OMZ	P	11	50	29.3		1.5	2.20	97	4.2	4.2	
	ESN			54		-0.3					
GPZ	EPN	11	51	22.5			3.64	73	4.0		
	ESN			28		-1.7					
COB	EPN	11	51	09		0.1	5.19	46			4.0

LOCAL EARTHQUAKES

317

		ES		52 06		-2.1					75/ 740		
DEC 17	H M S	12 12 34.6		38.99S 175.40E		153 KM		SE	1.0	AVG MAQ	3.7		
		+ 0.7		0.02 0.04		6							
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S				
CNZ	IP	12 12 56.1	D	0.6	0.24	152							
	ES	13 12		0.6									
KRP	EP	12 13 01		0.6	1.07	6	3.0	2.9					
	ES	20		-0.2									
TRZ	EP	12 13 03		1.0	1.23	117		4.0					
	ES	24		1.0									
TUA	EP	12 13 04		0.6	1.38	83	3.9	3.9					
	ES	25.9		0.0									
WTZ	P	12 13 05.7		-0.0	1.60	52	3.5	3.2					
	ES	28		-1.6									
MNG	IP	12 13 05.8		-0.2	1.62	178		3.7					
	S	28.8		-1.3									
CAZ	P	12 13 10.7		0.4	2.01	162							
	ES	38		0.2									
GNZ	EP	12 13 12		0.9	2.08	81	3.7	3.7					
	ES	38		-1.2									
WEL	EP	12 13 13		-1.4	2.34	192	3.9	3.9	4.2				
	ES	41		-3.9*									

		H M S		37.61S 176.41E		315 KM		SE 0.7			75/ 741		
DEC 18	H M S	08 08 25.5		0.04 0.05		4					4.2		
		+ 0.6											
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S				
WTZ	IP	08 09 05.9	U	-0.3	0.59	129							
	ES	11											
	ES	37		-1.1									
KRP	IP	08 09 07.0	U	0.3	0.76	245	3.9						
	ES	40		1.0									
TUA	EP	08 09 10		0.5	1.33	154	4.7	4.4					
	ES	43		-0.7									
GBZ	P	08 09 10.3		-0.7	1.58	332	3.6						
GNZ	P	08 09 12.1		0.7	1.64	129	4.1	4.1					
	I	13.4											
	I	17.0											
	ES	45.7		-0.1									
CNZ	IP	08 09 12.2	U	0.3	1.72	203	4.1						
TRZ	EP	08 09 14		0.4	1.97	171	4.3	4.4					
	ES	52		0.8									
MNG	IP	08 09 22.8		-0.7	3.09	193	4.4	4.1					
	ES	10 06		-2.9*									
CAZ	P	08 09 26.2		0.6	3.29	182							
WEL	EP	08 09 31		-0.7	3.88	199	4.3	4.5					
	E	44											
	ES	10 23		-0.5									

		H M S		38.61S 176.65E		12 KM		SE 1.8			75/ 742		
DEC 19	H M S	13 33 47.2		0.03 0.03		3					3.9		
		+ 0.5											
		H M S	DIR	RES	DIST	AZ	W-A	W P	W S				
TUA	IP	13 33 55.8	U	-0.0	0.44	117							
	E(SG)	34 06		3.5									
WTZ	IP	13 34 00.3	U	0.5	0.68	24	3.9	4.0					
	ES	11		1.9									
TRZ	EP	13 34 04		-0.6	0.96	172	4.2	4.3					
	E(SG)	19.5		-0.1									
CNZ	IP	13 34 05.0	U	-1.1	1.04	235	4.3	4.0					
	ES	19.5		-0.6									
GNZ	P	13 34 04.0		-2.7	1.08	92	3.8	4.0					
	ES	18		-3.2									
KRP	IP	13 34 06.9	DS	-0.3	1.11	308	3.1						

LOCAL EARTHQUAKES

319

ONE	E	02 05 39				6.57	246	4.9				
TUA	EP	02 05 17				-2.0	6.62	213				
	ES	06 35				-0.1						
KRP	EP	02 05 24				2.4	6.83	226				
	E	52										
	ES	06 43				3.3						
CRZ	EP	02 05 30				-1.4	7.62	259				
MNG	P	02 05 48				1.4	8.84	213				
	ES	07 23				-1.6						
HEL	ES	02 07 44				0.2	9.70	213				
CIZ	ES	02 08 07				0.6	10.70	173				
DEC 21	H M S	10 27 39.4	38.48S	176.03E	120 KM	SE	1.3	AVG MAG	75/ 746	4.1		
		+ 0.8	0.03	0.04	7							
	H M S	10 27 57			DIR	RES	DIST	AZ	W-A	W P	W S	
HNZ	EP	10 27 57				0.8	0.16	165				
KRP	P	10 27 59.9			D	0.6	0.68	324		3.2	3.4	
	E	28 08.9										
	ES	13.5				-0.4						
GNZ	P	10 28 01.0			D	0.9	0.82	208		4.3		
WTZ	IP	10 27 59.7			D	-0.9	0.89	57		4.6	3.9	
	ES	28 15				-1.9						
TUA	EP	10 28 01				0.0	0.92	111		4.1	4.4	
	ES	19				1.6						
TRZ	EP	10 28 05				0.7	1.23	151		4.5	4.4	
	ES	23.5				0.3						
TNZ							1.48	241		4.0	3.5	
GNZ	IP	10 28 07.6			D	-0.4	1.56	97		4.3	4.2	
	ES	27.9				-2.1						
ECZ	EP?	10 28 17				2.1	2.12	69		4.3	4.2	
	ES	42				0.3						
	E	55.5										
MNG	IP	10 28 15.0			U	-0.7	2.18	191				
GBZ	P	10 28 17.7				0.4	2.30	348		3.5		
CAZ	IP	10 28 18.8			D	-0.2	2.43	177				
	E	43										
	EP	50				1.2						
HEL	EP	10 28 24				-2.4	2.97	199		4.7	3.9	4.8
	ES	57.5				-4.5						
DEC 22	H M S	20 49 55.0	39.86S	174.10E	76 KM	SE	1.6	AVG MAG	75/ 747	3.6		
		+ 1.3	0.05	0.05	28							
	H M S	20 50 17.2			DIR	RES	DIST	AZ	W-A	W P	W S	
TNZ	IP	20 50 17.2			D	-1.1	0.71	18		3.3	3.2	
MNG	ES	35.5				-0.2	1.30	126		3.9	3.5	
GNZ	P	20 50 16.3					1.30	60		3.7	3.9	
	ES	36				0.3						
	E	40										
HEL	EP	20 50 22				0.9	1.51	160		3.3	3.7	3.9
	ES	41				0.6						
COB	IP	20 50 21.1			U	-1.1	1.60	220				
	ES	43				0.6						
CAZ	P	20 50 25.0				-1.5	1.93	123				
	ES	51				1.3						
KRP	EP	20 50 33				2.2	2.24	31				
DEC 23	H M S	05 04 41.0	39.01S	175.57E	125 KM	SE	1.1	AVG MAG	75/ 748	3.8		
		+ 0.9	0.03	0.04	7							
	H M S	05 04 59.3			DIR	RES	DIST	AZ	W-A	W P	W S	
GNZ	IP	05 04 59.3			D	0.8	0.19	165				
	ES	05 12				0.2						
	E	18										
KRP	IP	05 05 04.9			D	0.3	1.08	359		3.3	3.1	

WEL		ES	02 23 03	-0.5	6.99	209			
DEC 25	H M S		39.15S 176.02E	12 KM	SE	1.6	AVG MAG	75/ 754	3.9
	19 50 22.1		0.02 0.03	R					
		+ 0.4							
	TRZ	P*	19 50 36.2	DIR U	RES 0.4	DIST 0.74	AZ 123	W-A 4.5	W P W S 4.7
		EPG			1.8				
		ES*			0.1				
		ESG	48.5		1.3				
	KRP	PG	19 50 48.2		-0.0	1.28	343	3.2	
		ESG	51 07		1.4				
	WTZ	EPN	19 50 46.9		-0.0	1.39	33	3.6	4.0
		ESN	51 03		-1.7				
	MNG	PN	19 50 48.7		0.4	1.52	196	4.0	3.8
		EPG	52.5		-0.5				
		ESN	51 07		-0.9				
	GNZ	EPN	19 50 48		-2.0	1.64	73	4.1	3.9
		E	58.0						
		ESN	51 09		-1.8				
		ESG	19		1.5				
	CAZ	ESN	19 51 11		-2.5	1.75	175		
	WEL	EP*	19 51 06		2.8	2.34	204	3.6	3.9 4.0
		E	18						
		ESN	27.5		-0.2				
DEC 25	H M S		40.35S 173.95E	12 KM	SE	1.8	AVG MAG	75/ 755	4.2
	23 11 22.9		0.03 0.03	R					
		+ 0.5							
	WEL	IP*	23 11 44.8	DIR U	RES 1.6	DIST 1.12	AZ 147	W-A 3.7	W P W S 4.6 4.5
		ES*	12 00		1.7				
	COB	IP..	23 11 46.0		1.8	1.18	231		
		ES*	12 02		1.9				
	MNG	IP..	23 11 46.1		1.7	1.20	104		
		E	53.5						
		ES*	12 01		0.5				
	TNZ	IPN	23 11 52.9	DIR U	RES 1.6	DIST 1.21	AZ 16	W-A 4.4	W P W S 4.6
	CNZ	EPG	58		1.1	1.68	48	4.5	4.6
		ESN	12 14		1.5				
	CAZ	IPN	23 11 53.7	DIR D	RES 0.5	DIST 1.82	AZ 109		
		ESN	12 14		-1.8				
	KKY	IPN	23 11 56.4		-0.4	2.08	185		
		SN	12 19.8		-2.3				
	TRZ	E	23 12 05			2.34	71	4.1	4.3
		E	32.5						
	KRP	PN	23 12 05.9		0.4	2.72	28	4.0	4.3
		ESN	37		-0.7				
	KAI	E	23 12 10			2.90	220	4.1	
		ESN	39		-3.1				
	WTZ	E?	23 12 12			3.34	46	3.7	3.9
		E	19						
		ESN	52		-0.9				
	GPZ	E	23 12 48			3.48	196	4.8	
	GNZ	IPN	23 12 15.0	DIR U	RES -2.3	DIST 3.58	AZ 63	W-A 4.1	W P W S 4.1
		ESN	56		-2.8				
	MJZ*	EPN	23 12 28		-1.4*	4.46	214	3.9	4.0
		ESN	13 13.5		-6.7*				
	GSP*	EPN	23 12 34		0.3*	4.78	216		
		ESN	13 22		-3.8*				
DEC 26	H M S		42.70S 171.77E	12 KM	SE	1.1	AVG MAG	75/ 756	4.2
	06 40 20.3		0.01 0.02	R					
		+ 0.2							

		H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KAI	IP	05	40	26.7		-0.2	0.32	303	3.2		
	ES			32		0.4					
CHR	P	05	40	38.8		-0.4	1.04	143			
	ES			54.5		1.3					
GPZ	EP	05	40	40		-1.5	1.18	148	4.0		
	PN			41.2		-0.7					
	ES			56.5		-1.0					
KKY	PN	05	40	46.2		0.7	1.45	79			
	ESN			41 05.5		1.2					
MJZ	PN	05	40	47.2		-0.4	1.60	216		4.7	4.2
	ESN			41 07.5		-0.4					
	ES			11		1.0					
COB	PN	05	40	49.4		-0.5	1.77	24		4.8	4.7
	P			50.1		-1.5					
	ESN			41 13		1.0					
GSP	PN	05	40	51.6		-0.4	1.92	221			
	EP			54		-0.2					
	ESN			41 16		0.3					
OMZ	P	05	41	04.7		1.4	2.45	194		4.7	4.5
	S			36.8		1.3					
WEL	EPN	05	41	01		-1.0	2.65	59	3.9	4.4	4.2
	EP			08		1.3					
	ESN			34		0.5					
MSZ	EPN	05	41	11		-1.6	3.42	234		4.1	3.9
	ES			42 09		4.3					
MNG	PN	05	41	12.8		-0.5	3.47	54		4.4	3.8
	P			18.8		-2.1					
	ES			42 05		-1.4					
TNZ							4.03	30		4.3	4.1
CNZ	PN	05	41	29		1.4	4.52	41		4.6	4.3
	P			38		-0.8					
	ES			42 39.5		1.7					
TRZ	E	05	41	53			4.94	52		4.5	
KRP	EPN	05	41	42		0.2	5.57	32		4.1	3.9
	ESN			42 46		1.5					
GNZ	ESN	05	43	00		-0.5	6.25	52			
DEC 26		H	M	S							75/ 757
		19	22	19.3	44.21S	168.12E	12 KM	SE	1.7	AVG MAG	4.0
				0.9	0.05	0.05	9				
MSZ	P	19	22	27.8		-0.8	0.48	198			
	ES			35		-0.4					
GSP	IPN	19	22	41.5	D	-1.9	1.37	87			
	ESN			56		-5.3					
ROX	PN	19	22	45.8		0.3	1.52	146		3.9	4.2
	ESN			23 02.5		-2.6					
MNW	PN	19	22	47.8		0.9	1.61	193	3.5	4.2	4.0
	P			48.3		0.4					
	EPG			54		2.1					
	ESN			23 08		0.9					
	ESG			12		-1.6					
MJZ	PN	19	22	46.8		-1.2	1.70	83		3.9	4.0
	ESN			23 07		-2.5					
OMZ	EPN	19	22	57		2.6	2.17	114		4.1	3.9
	ESN			23 24		3.2					
WPZ	ESN	19	23	29		0.1	2.50	168			3.8
KAI	E	19	23	15			2.93	56	3.8		
	ESN			40.5		1.2					
	ES			50		1.0					
GPZ	E	19	24	02			3.31	83	4.0		
COB	EPN	19	23	27		-0.9	4.62	49		4.1	4.0
	ESN			24 19.5		-0.9					

DEC 27		H	M	S				75/ 758						
	04	04	19.3	38.03S	176.35E	162 KM	SE	1.5	AVG MAG	3.9				
			+ 1.2	0.05	0.05	9								
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
WTZ	IP			04	04	42.1	D	-0.0	0.50	84		3.8	3.7	
	ES					58		-1.7						
KRP	IP			04	04	42.4	UW	-0.6	0.66	279		3.9	3.4	
	ES					05 01		-0.2						
TUA									0.99	141		4.6	4.5	
CNZ	EP			04	04	50		1.7	1.33	208		3.4	3.4	
	ES					05 13		2.4						
	E					18								
GNZ	IP			04	04	50.9	U	1.4	1.44	115		4.0	3.9	
	E					56								
	E					05 00								
	E					13		0.3						
TRZ	ES			04	04	56			1.56	167		4.1	4.3	
	E					05 19								
GBZ	P			04	04	54.8		0.0	1.94	339		3.4		
MNG	P			04	05	03.2		-0.4	2.67	194		3.8	3.7	
	ES					36.8		-1.1						
WEL	ES			04	05	54		-1.7	3.47	200			3.9	
DEC 28		H	M	S				75/ 759						
	02	04	22.0	45.24S	167.21E	80 KM	SE	1.5	AVG MAG	4.7				
			+ 1.2	0.05	0.08	13								
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
MNH	IP.			02	04	37.4		0.2	0.62	152		4.9		
	ES					47.9		-1.2						
MSZ	IP			02	04	38.7	U	0.1	0.76	42				
ROX	IP			02	04	49.6	D	0.9	1.51	100				
	ES					05 08		0.5						
WPZ	IP			02	04	52.9	D	0.4	1.83	142		4.7	4.9	
	E					05 07								
	E					15		0.6						
GSP	IP			02	04	59.7	D	1.3	2.29	62				
	ES					05 27		1.5						
OMZ	IP			02	05	03.8	D	0.4	2.63	88		5.2	4.7	
	ES					31.8		-2.9						
HJZ	IP			02	05	03.6	DSH	0.1	2.64	63				
	E					11								
	E					34		-0.7						
KAI	E			02	05	27			4.07	50		4.9		
	ES					06 12		2.0						
GPZ	EP			02	05	24		-0.9	4.18	70		4.6		
	ES					06 08.9		-4.3						
COB	EP			02	05	47		0.1	5.79	46		4.6	4.6	
	ES					06 50		-2.7						
DEC 29		H	M	S				75/ 760						
	06	13	20.7	40.06S	176.65E	33 KM	SE	1.2	AVG MAG	4.9				
			+ 0.4	0.02	0.04	9								
				H	M	S	DIR	RES	DIST	AZ	W-A	W P	W S	
TRZ	IPN			06	13	32.0	U	0.8	0.53	14				
CAZ	IPN			06	13	37.4	U	1.0	0.90	201				
	ESN					50		2.1						
MNG	IPN.			06	13	38.8		0.4	1.05	238				
CNZ	IPN			06	13	41.8	U	1.2	1.21	315				
									1.31	17		5.4	5.4	
TUA									1.49	343				
WNZ	PN			06	13	44.8		0.3						
	EP					47		-0.7						
GNZ	IPN.			06	13	47.6	W	-0.7	1.77	37				
WEL	IPN			06	13	49.1	U	-0.7	1.88	229		4.4	4.6	4.8
	ESN					14 12		0.3						
TNZ									1.96	296		4.8		
WTZ	IPN			06	13	51.8	U	-0.9	2.09	7		5.3	5.2	

KRP	E	14 12							
	IPN	06 13 55.3	UNW	-0.3	2.31	338		4.5	4.4
	P*	14 02		0.5					
	ESN	21		-1.0					
ECZ	PN	06 14 01.7		-0.6	2.79	33		5.7	5.0
	E	29							
COB	EPN	06 14 06.5		-0.8	3.15	250		4.4	4.7
	EP*	18		2.0					
	ESN	44		1.2					
GBZ	IPN	06 14 18.3	U	0.2	3.95	346		4.8	
ONE	EPN	06 14 30		2.3	4.65	336	4.3		
KAI	E	05 14 48			4.65	236	4.5		
	ESN	15 17		-2.2					
GPZ	EPN	06 14 27		-1.4	4.70	218	5.1		
	ESN	15 16		-4.4*					
MJZ	PN	06 14 45.8		-0.7	6.05	228			
	ESN	15 51		-1.9					
GSP	PN	05 14 51		-0.2	6.39	228			
	ESN	16 01		-0.0					

FELT IN HAWKES BAY, MAX INTENSITY MM V AT MOUNT VERNON (60)

DEC 29	H	M	S	41.53S	173.69E	33 KM	SE	1.3	AVG MAG	75/ 761			
				0.02	0.03	R				5.0			
				4	M	S	DIR	RES	DIST	AZ	W-A	W P	W S
KKY	IPN	11 50 00.0					1.7	0.79	180				
WEL	IPN	11 50 00.5				DNW	1.0	0.88	67	5.0			
COB	IPN.	11 49 59.2					-0.6	0.90	307				
MNG	IPN.	11 50 10.5					-0.1	1.69	54				
KAI	PN	11 50 14.8					1.0	1.92	241	5.0			
	EP*	18					-0.4						
	ESN	37					1.0						
CAZ	EPN	11 50 15					-0.5	2.05	70				
	E	23.5											
	E	58.5											
CHR	EPN	11 50 15.5					-0.2	2.06	202				
	E	24											
	ESN	40					0.5						
GPZ	PN	11 50 16					-1.7	2.20	200	5.1			
	EP*	25					1.8						
	ESN	41					-2.0						
TRZ	EPN	11 50 29					-1.8	3.16	50		5.1	5.2	
	EP*	41					1.4						
	ES*	51 17					-4.1*						
	E	37											
MJZ	EPN	11 50 32.5					-0.8	3.34	224				
	E	38											
	ESN	51 09					-1.8						
WNZ	PN	11 50 35.4					-0.3	3.52	33		5.2	5.4	
	E	40											
	ESN	51 14					-1.1						
GSP	PN	11 50 37.8					-0.1	3.68	226				
	E	43											
	E	51 25											
KRP	PN	11 50 41.7	DS				-0.1	3.97	22		5.1	5.3	
	ESN	51 28					2.1						
OMZ	PN	11 50 41.3					-0.8	3.99	210		5.4	5.1	
	E	49											
	E	51 21											
WTZ	EPN	11 50 45					-3.3*	4.44	36		4.5	4.5	
	E	55											
	ESN	51 37					-0.4						
GNZ	PN	11 50 48.8					0.2	4.46	50		4.8	4.9	
	E	51 08											
	ESN	36					-2.0						
	E	52 07											
AUC	IPN	11 50 54.9	U				1.2	4.84	10				

	ESN	51 49		1.9					
ROX	E	11 51 04			4.98	218		4.6	4.7
	ESN	52		1.4					
ECZ	EPN	11 51 03		1.3	5.43	45		4.9	4.8
	E	10							
GBZ	PN	11 51 04.0		0.3	5.58	15		4.6	4.6
	ESN	52 05		-0.0					
ONE	EPN	11 51 09		1.4	5.87	5	5.6		
	ESN	52 10		-1.9					
MNW	EPN	11 51 12		2.1	6.05	225	5.2		
	ESN	52 17		0.8					
WPZ	EPN	11 51 10		-0.9	6.11	213			
	ESN	52 16		-1.8					
CRZ	EPN	11 51 26.5		0.6	7.23	353			
	ESN	52 42		-2.5					

FELT BOTH SIDES OF COOK STRAIT. MAXIMUM INTENSITY MM V AT
 BLENHEIM (77) AND WYE HILLS (83)

DEC 29	H M S	39.69S	175.90E	12 KM	SE	1.7		AVG MAG	75/ 762
	21 21 07.6	0.02	0.03	R					3.9
	+ 0.4								
	H M S	DIR	RES	DIST	AZ	W-A	W P	W S	
CNZ	IPG	21 21 18.5	U	-0.7	0.57	331		4.2	4.2
	S*	27		0.7					
	SG	29		2.0					
TRZ	PG	21 21 22.5		0.1	0.72	79		4.0	4.3
	ESG	34		1.7					
MNG	IPG	21 21 26.7	D	-0.8	0.98	199		3.6	3.7
	ES*	40		1.4					
WNZ*					1.07	8		4.3	4.3
CAZ	ES*	21 21 46.5		0.2	1.23	169			
TNZ					1.28	293		3.7	
TUA					1.31	48		4.0	4.1
KRP	PN	21 21 34.5		-3.0	1.79	351			
	P*	41		1.7					
WEL	PG	21 21 43		-1.3	1.81	208	3.2	3.9	3.8
	S*	22 05		1.4					
	SG	08		-0.7					
WTZ	PN	21 21 37		-2.2	1.91	27		3.5	3.7
	PG	48		1.8					
	SN	22 00.5		-2.2					
COB*	PN	21 21 50		-1.3*	2.79	239		3.9	4.0
	S*	22 29		-4.1*					
KAI					4.42	229	3.7		
GPZ*	ESN	21 23 05		-5.3*	4.68	210	3.8		
HJZ*	SN	21 23 36		-3.7*	5.90	222		3.4	3.4
DEC 29	H M S	38.70S	176.30E	12 KM	SE	ND		AVG MAG	75/ 763
	23 35 17.0	0.04	0.04	R					2.5
	R								
	H M S	DIR	RES	DIST	AZ	W-A	W P	W S	
WNZ	PG	23 35 20.9	D	-0.1*	0.17	294			
	ESG	23		-0.7*					
KRP	PG	23 35 36		-0.9*	0.98	322			
MNG	EPG	23 36 01		3.2*	2.02	198		2.5	
FELT WAIRAKEI (41)									
DEC 30	H M S	38.68S	176.39E	12 KM	SE	1.5		AVG MAG	75/ 764
	00 27 24.4	0.04	0.04	R					3.1
	+ 0.7								
	H M S	DIR	RES	DIST	AZ	W-A	W P	W S	
WNZ	IPG	00 27 28.9	U	-0.5	0.22	284			
TUA					0.62	102		3.4	
CNZ	PG	00 27 41		-0.3	0.83	231		3.2	3.2
WTZ	EPG	00 27 44		2.3	0.85	35		2.9	
	SG	51.5		-1.7					
KRP	PG	00 27 44.5		-0.4	1.00	319			

												75/ 771			
DEC 30	H	M	S												
	02	12	22.0	38.70S	176.30E	12 KM	SE	ND							
			R	R	R	R									
				4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
WNZ	PG			02	12	26		-0.0*	0.17	294					
						28		-0.7*							
KRP	ESG			02	12	43		1.1*	0.98	322					
FELT WAIRAKEI (41)															
												75/ 772			
DEC 30	H	M	S												
	02	22	24.0	38.70S	176.30E	12 KM	SE	ND							
			R	R	R	R									
				4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
WNZ	IPG			02	22	27.6	D	-0.4*	0.17	294					
						29.0		-1.7*							
KRP	SG			02	22	45		1.1*	0.98	322					
FELT WAIRAKEI (41)															
												75/ 773			
DEC 31	H	M	S									AVG	MAG	4.1	
	09	26	41.4	38.34S	177.59E	60 KM	SE	0.5							
			+ 0.4	0.02	0.02	5									
				4	M	S	DIR	RES	DIST	AZ	W-A	W	P	W	S
GNZ	IP			09	26	53.6	UNE	0.1	0.46	132					
						27		0.1							
TJA	S					02.5									
WTZ	IP			09	26	55.0	D	0.1	0.58	216		4.2	4.2		
						27		-0.0	0.59	306		4.1	4.1		
ECZ	P			09	27	00.4	D	0.5	0.99	50		4.5	4.2		
						13		-0.5							
WNZ*	ES			09	27	17		-1.7*	1.21	255				4.1	
TRZ	P			09	27	04.5		-0.3	1.36	206		4.3	4.1		
CNZ*	IP			09	27	10.9	U	-0.1*	1.82	241		4.2	3.7		
						35.5		2.6*							
GBZ*	P			09	27	23		-0.7*	2.70	321					
						55		-0.6*							
MNG*	S			09	27	22.1	D	-3.0*	2.80	215		3.8	3.5		
						56		-2.1*							
WEL*	P			09	27	34.5		-2.5*	3.66	216	4.0	3.9	4.0		
						28		-3.8*							
COB*	P			09	27	47		-3.8*	4.65	232		3.5	3.9		
						28		-3.0*							
KAI*	S			09	29	18.5		-6.9*	6.31	226		4.5			
GPZ*	S			09	29	19.5		-11.5*	6.53	213		4.5			
CIZ*	S			09	29	40		-5.9*	7.14	144					
MJZ*	S			09	29	51		-11.2*	7.79	221					

FELT EARTHQUAKES

THE FELT REPORTING SYSTEM

In addition to its instrumental network, the Observatory has organised a network of about 400 voluntary observers covering the country, who describe the effects of any earthquakes they feel on a standard form. The Observatory also receives many unsolicited reports from meteorological observers, radio and newspaper reporters, postmasters and members of the general public. In the case of large earthquakes, or ones that present features of special interest, questionnaires are issued or the district visited.

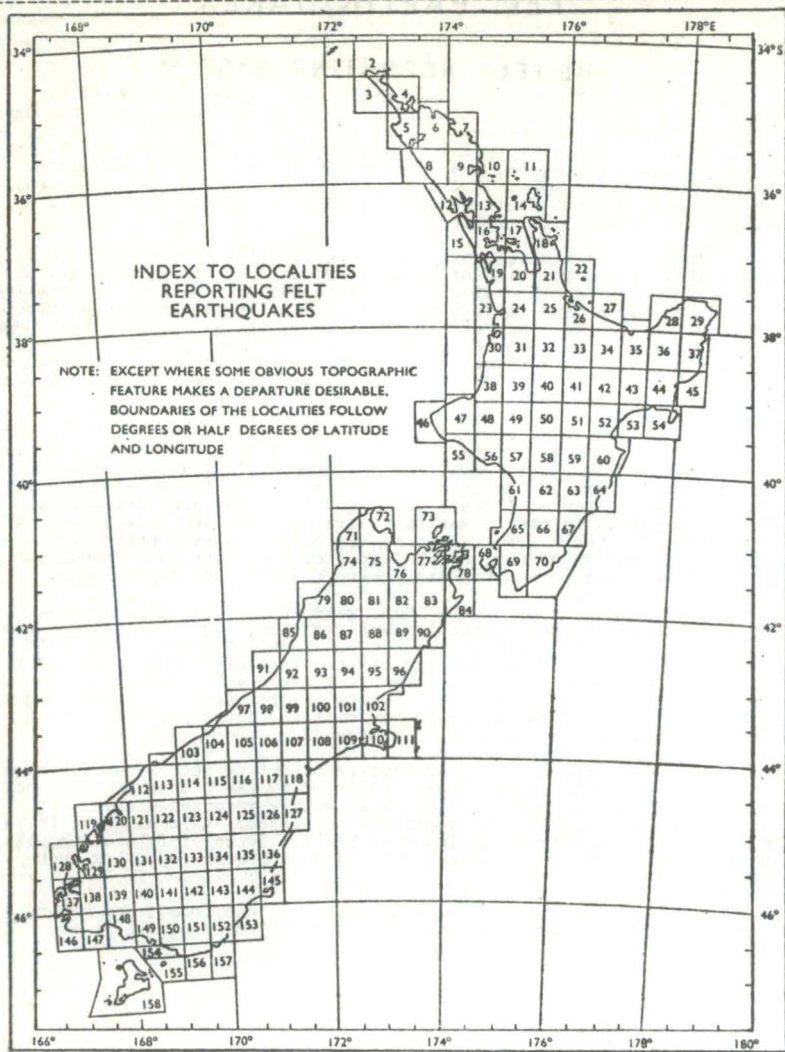
Several difficulties arise in assessing the 'distribution of felt intensity. The population of the country is very unevenly distributed, and the observer's personal circumstances may prevent him from feeling a shock that has been noticed by others. Similar shortcomings affect lists of earthquakes felt at any one place. It may reasonably be assumed that a strong earthquake reported from one township was felt in another a few miles distant, even though the Observatory has received no report. However, an index of this kind must summarise the data and not the deductions, so the following scheme is used:

The land area of New Zealand has been divided into numbered rectangles, with sides measuring half a degree of latitude or longitude, as shown on the accompanying map. Each rectangle is given a number and a name, usually that of the principal centre of population within it. These areas are termed 'localities', and the names are listed in the following page. In most areas there are at least two well-separated reporters, but there are still some sparsely populated parts of the country without observers, notably in Fiordland, the mountainous parts of Southland, and on the boundary between Nelson and Marlborough.

The first section of the index gives the names of the actual places from which each earthquake was reported, together with the number of the locality. Intensities on the Modified Mercalli scale (N.Z. version, 1965) have been assigned at the Observatory. This intensity scale is set out in the N.Z. Journal of Geology and Geophysics, Vol. 9, pp. 122-9, 1966. A ? indicates that no information is available beyond the fact that the shock was felt, or that the description is too imprecise to allow an intensity to be assigned.

In the second section, localities reporting shocks during the year are listed in alphabetical order, followed by the number of the shock in the list of origins and the maximum intensity reported within that locality. By comparing the reports in neighbouring localities, it is possible to form a truer estimate of the incidence of felt earthquakes than would be possible from a simple list of places reporting each shock.

Finally, reported shocks that cannot be confirmed, and reports from places in the south-west Pacific not collected elsewhere are listed.



STANDARD REPORTING LOCALITIES

1	Three Kings	54	Mahia	107	Mt Somers
2	Te Reinga	55	Hawera	108	Ashburton
3	Ninety Mile Beach	56	Waverley	109	Rakaia
4	Doubtless Bay	57	Wanganui	110	Christchurch
5	Kaitaia	58	Taihape	111	Akaroa
6	Kaikohe	59	Rushine	112	Big Bay
7	Bay of Plenty	60	Hastings	113	Jacksons Bay
8	Dargaville	61	Bulls	114	Makarora
9	Whangarei	62	Palmerston North	115	Lake Ohau
10	Bream Head	63	Dannevirke	116	Pukaki
11	Moko Hinau	64	Porangahau	117	Fairlie
12	Kaipara	65	Otaki	118	Timaru
13	Warkworth	66	Masterton	119	George Sound
14	Barrier Islands	67	Castlepoint	120	Milford
15	Helensville	68	Wellington	121	Glenorchy
16	Auckland	69	Featherston	122	Arrowtown
17	Waiheke	70	Martinborough	123	Wanaka
18	Coromandel	71	Mt Stevens	124	St Bathans
19	Pukekohe	72	Takaka	125	Kurow
20	Mercer	73	D'Urville Is	126	Duntroon
21	Thames	74	Karamea	127	Waimate
22	Mayor Is	75	Motueka	128	Secretary Is
23	Raglan	76	Nelson	129	Doubtful Sound
24	Hamilton	77	Blenheim	130	Te Anau
25	Matamata	78	Picton	131	Livingstone Mts
26	Tauranga	79	Westport	132	Kingston
27	Whakatane	80	Murchison	133	Alexandra
28	Te Kaha	81	Glenhope	134	Poolburn
29	East Cape	82	Wairau	135	Ranfurly
30	Kawhia	83	Awatere	136	Oamaru
31	Te Kuiti	84	Cape Campbell	137	Resolution Is
32	Tokoroa	85	Greymouth	138	Pillans Pass
33	Rotorua	86	Reefton	139	Monowai
34	Murapara	87	Maruia	140	Mossburn
35	Opotiki	88	Hanmer	141	Waikaia
36	Motu	89	Clarence	142	Roxburgh
37	Tolaga Bay	90	Kaikoura	143	Lawrence
38	Mokau	91	Hokitika	144	Outram
39	Taumarunui	92	Kumara	145	Dunedin
40	Tokanuu	93	Arthur's Pass	146	Puysegur Point
41	Taupo	94	Lake Sumner	147	Poteretere
42	Te Whaiti	95	Culverden	148	Tuatapere
43	Tuai	96	Cheviot	149	Invercargill
44	Whakapunaki	97	Franz Josef	150	Gore
45	Gisborne	98	Hari Hari	151	Clinton
46	Cape Egmont	99	Whitcombe Pass	152	Balclutha
47	New Plymouth	100	Lake Coleridge	153	Waihola
48	Whangamomona	101	Oxford	154	Bluff
49	Ohakune	102	Rangiora	155	Ruapuke
50	Chateau	103	Haast	156	Tahakopa
51	Kaweka	104	Bruce Bay	157	OWaka
52	Napier	105	Mt Cook	158	Stewart Is
53	Wairoa	106	Tekapo		

PLACES REPORTING FELT EARTHQUAKES

75/004	Jan	04d MM6 MM5 MM4 MM3 ?	20h 37m (See Isoseismal Map in back pocket) Raumati South (65); Kapiti I., Pukerua Bay (68); Mountain House (47); Wanganui (57); Moawhango, Table Flat (58); Pahiatua, Palmerston North (62); Kapiti I., (65); Baring Head, Eastbourne, Lower Hutt, Northland, Pukerua Bay, Tawa, York Bay (68); Blenheim (77); Fighting Bay, Waitaria Bay (78); Opunake (46); Stratford (47); Raetihi (49); Patoka (52); Hawera (55); Ngamatapouri (56); Dannevirke (63); Eketahuna (66); Khandallah, Whitby (68); Waiorongomai (69); Havelock (77); Conway Flat (96); Waipawa, Waipukurau (60); Mahoenui (38); Ongarue (39); Stratford, Upper Mangorei (47); Waiouru (49); Chateau (50); Kairanga (61); Glebelands (64); Levin, Purunui (65); Karori South, Kelburn, Wellington (68); Kaitoke (69); Cobb Dam (75); Rai Valley (77); Ocean Bay (78).
75/032	Jan	17d MM4 ?	08h 36m Ormond (44); Gisborne (45); Wairoa (53); Waerenga-o-Kuri (44).
75/036	Jan	18d MM4 ?	10h 19m Kapiti I. (65); Lower Hutt (68); Nelson (78).
75/051	Jan	24d MM4	13h 30m Fighting Bay (78).
75/055	Jan	27d MM4	14h 38m Moawhango (50); Wanganui (57).
75/062	Feb	02d MM4	10h 24m Ohakune (57).
75/064	Feb	04d MM3	07h 17m Ohakune (57).
75/079	Feb	11d MM4	15h 24m Wanganui (57); Lower Hutt (68).
75/080	Feb	11d MM4 MM3	16h 45m (Isoseismal Map, page 19) Marsden Point, Waipu (9); Moko Hinau (11); Helensville (15); Matakana, Warkworth (13); Oratia (16).
"Not Felt" reports were received from places in localities 5-9, 12-21, 24-26, 31 and 32.			
75/086	Feb	14d ?	15h 16m Wairakei (41).

75/088	Feb	15d MM4	00h 31m Murchison (80).
75/097	Feb	19d MM4	11h 05m York Bay (68).
75/113	Feb	27d MM3 ?	10h 26m Ormond (44); Gisborne (45).
75/114	Feb	27d MM3	16h 41m Upper Hutt (69).
75/115	Feb	27d MM4	19h 09m Rotorua (33).
75/121	Mar	02d MM4 MM3	16h 42m Koiro (39); Ohakune (57); Omori (40).
75/140	Mar	16d MM4 MM3	06h 22m Mt Aspiring Station (114); Te Anau Downs (115); Wanaka (123); West Arm (138); Awarua (154); Gore (150).
75/179	Apr	02d MM3	06h 10m Feilding (62).
75/186	Apr	03d MM4	06h 17m Murchison (80).
75/187	Apr	03d MM5	07h 05m Murchison (80).
75/196	Apr	09d MM4 MM3	19h 02m Kapiti I. (65); Naenai, York Bay (68).
75/204	Apr	13d MM5 MM4 MM3 ?	07h 25m Kapiti I. (65); Berhampore, Karori, Khandallah, Ngaio, Tawa (68); Fighting Bay (78); Raumati South (63); Avalon, Baring Head, Brooklyn, Day's Bay, Eastbourne, Karori, Khandallah, Lower Hutt, Morningson, Naenae, Newlands, Ngaio, Oriental Bay, Pukerua Bay (68); Farewell Spit (72); The Brothers (78); Stratford (47); Eastbourne (63); Somes I. (68); Port Hardy (73).
75/205	Apr	13d MM3	10h 53m Gisborne (45).
75/207	Apr	13d MM3	22h 06m Wellington, York Bay (68).
75/208	Apr	14d MM4 MM3	08h 47m Acacia Bay, Kinloch, Taupo (41); Taupo (41).
75/210	Apr	15d MM5 MM3	07h 44m Fighting Bay (78); Pukerua Bay (68).

75/222	Apr	21d MM4	20h 56m Taupo (41).
75/223	Apr	21d ?	21h 06m Taupo (41).
75/228	Apr	22d ?	18h 55m Palmerston North (62).
75/230	Apr	24d MM4	17h 52m Murchison (80).
75/233	Apr	26d MM4 ?	17h 41m Wairoa (26); Patoka (52); Mahia Beach (54); Mangatoto (44).
75/234	Apr	26d MM4	06h 47m Mahitahi (104).
75/235	Apr	27d MM4	08h 06m Mahitahi (104).
75/237	Apr	27d MM4	12h 33m Warea (46).
75/238	Apr	28d MM4	04h 07m At junction of Grey and Robinson Rivers (87).
75/239	Apr	29d MM4	12h 00m Khandallah, Lower Hutt, Pukerua Bay, Somes I., Stokes Valley, Taita (68).
75/240	Apr	29d MM4 MM3 MM2 ?	15h 20m Ohope Beach, Opotiki (35); Gisborne (45); Ohakune (49); Patoka (52); Wanganui (56); Moawhango, Table Flat (58); Ongaonga (59); Mt Vernon (60); Feilding (62); Tataramoa (63); Porangahau (64); Castlepoint, Tinui (67); Eastbourne, York Bay (68); Collingwood (72); Waitahanui (41); Ormond (44); Gisborne (45); Waipawa (60); Palmerston North (62); Wellington (68); Waingarara (52); Moawhanga (58); Mangleton (59); Anawai, Waimarama (60); Waitahora (63); Glebelands (64); Hillwood (66).
75/241	May	01d MM3	23h 09m Patoka (52).
75/243	May	02d MM4	14h 34m Taupo, Wairakei (41).
75/244	May	02d MM4	14h 36m Taupo, Wairakei (41).
75/245	May	02d MM4	19h 09m Patoka (52), Ongaonga (50).
75/247	May	03d MM4	09h 03m Napier (52).
75/265	May	11d MM4	17h 37m Marshlands (??).

75/284	May	17d MM4 MM3 ?	13h 12m Seatoun, York Bay (68); Marshlands (77); Raumati South (65); Karori, Kelburn (68).
75/288	May	18d ?	22h 59m Bainham (72); Cobb River (75).
75/289	May	18d MM5 MM4 ?	23h 04m Cobb River (75); Wellington (68); Nelson (76); Murchison (80); Bainham (72).
75/290	May	19d ?	00h 28m Bainham (72).
75/294	May	24d MM3	18h 48m York Bay (68).
75/297	May	26d MM3	18h 17m York Bay (68).
75/303	May	30d MM5 MM4	16h 14m Taupo (41); Taupo (41).
75/308	Jun	01d MM4 MM3	16h 35m Ohakune (49); Ohakune (57).
75/310	Jun	03d MM5 MM4	09h 35m Mount Vernon (60); Waipawa (60).
75/316	Jun	05d MM5 MM4 ?	04h 45m Mt Aspiring Station (123); Queenstown (132); Gibbston (133); Mahitahi (104); Arthur's Point (122); Wanaka (123); Queenstown (132).
73/323	Jun	09d MM4 MM3	11h 07m Table Flat (58); Mt Vernon, Waipawa (60); Ongaonga (60).
75/324	Jun	10d MM6 MM5 MM4	10h 11m Dannevirke (63); Porangahau (64); Eketahuna, Pa Valley (66); Hunterville, Moawhango, Table Flat (58); Taradale (60); Feilding, Kimbolton, Palmerston North (62); Tataramoa (63); Muhunoa East (65); Eketahuna (66); Tawa (68); Trentham (69); Matahina (34); Ohope Beach, Opotiki (35); Taumarunui (39); Omori (40); Taupo, Waitahanui (41); Stratford (47); Napier, Patoka (52); Hotemaori (53); Hawera (55); Ohakune, Wanganui (57); Hihitahi (58); Flemington, Ongaonga, Waipawa (60); Bulls (61); Palmerston North (62); Kapiti I. (65); Masterton (66); Castlepoint, Tinui (67);

		MM4	(Contd) Baring Head, Eastbourne, Hataitai, Karori, Khandallah, Lower Hutt, Pukerua Bay, Tawa, Thorndon (68); Martinborough (70); Farewell Spit (72); Murchison (80); Akaroa (111);
		MM3	Taupo (41); Eastbourne (68); Wairongomai (69); Mangles Valley (80);
		?	Wairakei (41); Orautoha (49); Chateau (50); Ohakea (61); Mt Holdsworth (65); Kelburn (68); Nelson (76).
75/327	Jun	16d	06h 44m
		MM4	Omori (40).
75/334	Jun	18d	13h 13m
		MM4	Waitahanui (41).
75/339	Jun	20d	19h 46m
		MM4	Wairakei (41).
75/344	Jun	21d	22h 54m
		MM4	Farewell Spit (72); Nelson (76);
		MM3	Pukerua Bay, Tawa (68);
		MM2	Paremata (68).
75/365	Jul	03d	16h 34m
		MM4	Palmerston North (62); Whangaeu (66); Wellington, Wilton (68);
		?	Marshlands (77).
75/366	Jul	03d	18h 25m
		MM3	Wellington, Wilton (68); Marshlands (77);
		?	Kelburn (68).
75/370	Jul	07d	02h 31m
		MM4	Wairakei (41).
75/376	Jul	12d	02h 42m
		MM5	Murchison (80);
		MM4	Whangaeu (66); Eastbourne, Northland, Tawa, Whitby (68); Martinborough (70); Cobb River (75); Nelson (76);
		?	Porirua, Kelburn, Kilbirnie, Somes I. (68); Tarakohe (72); Nelson (76); The Brothers (78).
75/379	Jul	14d	04h 55m
		MM4	Cobb River (75).
75/380	Jul	15d	07h 35m
		MM5	Taupo, Waitahanui (41);
		MM4	Taupo, Wairakei (41).
75/382	Jul	19d	23h 06m
		MM4	Omaio (28).
75/383	Jul	20d	02h 52m
		MM3	Kapiti I. (65).
75/385	Jul	20d	16h 53m
		MM4	Waipawa (60).

75/388	Jul	21d MM4 ?	06h 12m Cobb River (75); Bainham (72); Cobb Dam (75).
75/391	Jul	22d MM3	23h 18m Opunake (46).
75/399	Jul	26d ?	21h 06m Tarakohe (72).
75/412	Aug	04d MM4	22h 00m Warea (46).
75/422	Aug	09d MM4	16h 48m Kawerau, Te Teko (34).
75/423	Aug	09d MM3	17h 03m Kawerau (34).
75/430	Aug	13d MM4 MM3	18h 25m Murchison (80); Ngakawau (79).
75/431	Aug	13d ?	18h 26m Murchison (80).
75/434	Aug	14d MM4 MM3 ?	17h 08m Taupo (41); Gisborne (45); Patoka (52); Hunterville, Moawhango, Okeore, Table Flat, Wanganui (58); Mount Vernon, Taradale, Waipawa (60); Palmerston North (62); Dannevirke, Tataramoa (63); Taupo (41); Upper Hutt (69); Rangipo, Waiouru (50); Moawhango (58); Makara (68).
75/444	Aug	16d MM4	23h 56m Ararua, Paparoa (12).
75/449	Aug	18d MM4	01h 25m Patoka (52).
75/451	Aug	18d MM4 MM3 ?	14h 31m Opotiki (35); Gisborne (45); Patoka (52); Wairoa (53); Wanganui (57); Table Flat (58); Mount Vernon, Taradale, Waipawa (60); Palmerston North (62); Dannevirke (63); Levin (65); Melrose, Miramar, Stokes Valley, Wellington (68); Gisborne (45); Hunterville, Moawhango (58); Pukerua Bay (68); Blenheim (77); Tuai (43); Gisborne (45); Waiouru (50); Moawhango (58); Kelburn, Makara (68).
75/452	Aug	19d MM4	09h 56m Cobb River (75).
75/469	Aug	22d MM4	11h 08m 11s Kawerau (34).
75/470	Aug	22d MM4	11h 08m 52s Kawerau (34).

75/473	Aug	22d MM5 ?	23h 48m Moawhango (58); Waiouru (50).
75/474	Aug	23d MM5 ?	00h 01m Moawhango (58); Waiouru (50).
75/478	Aug	25d MM4	08h 52m Pukerua Bay (68).
75/481	Aug	26d MM4	00h 20m Gisborne (45).
75/495	Aug	31d MM4	14h 51m Te Teko (34).
75/501	Sep	02d MM4	17h 27m Wairakei (41).
75/516	Sep	11d MM5 ?	00h 46m 04s Wairakei (41); Taupo (41).
75/517	Sep	11d MM4	00h 46m 56s Taupo, Wairakei (41).
75/543	Sep	19d MM4	12h 54m Ngamatapouri (56).
75/555	Sep	24d MM4 MM3	17h 36m Mangles Valley, Murchison (80); Blackball (85); Lewis Pass (94); Ngakawau (79).
75/563	Sep	30d ?	08h 06m Ruapuke I. (155).
75/566	Oct	01d MM4	13h 41m Dannevirke (63).
75/570	Oct	02d MM4	11h 27m Eastbourne, Lower Hutt, Northland, Paremata, Pukerua Bay, Tawa, Whitby (68); Fighting Bay (78).
75/580	Oct	05d MM5	15h 16m Wanganui (57).
75/595	Oct	11d MM4	01h 17m Wanganui (57).
75/599	Oct	14d MM4	02h 02m Taupo (41).
75/603	Oct	15d MM4	14h 41m Moawhango (58).
75/604	Oct	15d MM4	15h 36m Stratford (47).

75/628	Oct	29d MM4	18h 50m Wanaka (123).
75/633	Oct	31d MM4	16h 30m Farewell Spit (72); Murchison (80).
75/648	Nov	10d MM4	05h 42m Rotorua (33).
75/659	Nov	12d MM4 MM3	01h 47m Kapiti I. (65); Kelburn (68); Kelburn (68).
75/663	Nov	13d ?	17h 48m Kaikoura (90).
75/665	Nov	15d ?	18h 35m Kaikoura (90).
75/668	Nov	16d MM4	13h 26m East Cape (29).
75/676	Nov	17d MM4	09h 22m Mount Vernon (60).
75/679	Nov	19d MM4	03h 42m Mount Vernon (60).
75/682	Nov	20d ?	12h 46m Ngakuru (33).
75/686	Nov	22d MM5 MM4 ?	14h 00m Mount Vernon (60); Glebelands (64); Castlepoint (67); Castlecliff (56); Ongaonga (60); Feilding, Palmerston North (62); Dannevirke, Tataramoa (63); Masterton (66); Wanganui (57); Karori (68).
75/689	Nov	23d MM4 MM3 ?	07h 29m Patoka (52); Eastbourne, York Bay (68); Waikawa Beach (65); Lower Hutt (18); Tawa, Wellington (68).
75/696	Nov	25d MM4	11h 13m Karori (68).
75/714	Dec	07d MM4	02h 49m Rotorua (33).
75/736	Dec	15d ?	12h 11m Wairakei (41).
75/760	Dec	29d MM5 MM4 ?	06h 13m Mount Vernon (60); Patoka (52); Glenfarg (53); Hastings, Waipawa (60); Mahia Beach (54).
75/761	Dec	29d MM5 MM4	11h 49m Blenheim (77); Wye Hills (83); Eastbourne (68); Farewell Spit (72); Harakeke (75); Nelson (76); Fighting Bay, Wataria Bay (78);

	"strong"		Renwick (83);
	?		Karori, Wellington (68); Appleby, Nelson (76); Middlehurst (82).
75/763	Dec	29d	23h 35m
		?	Wairakei (41).
75/766	Dec	30d	01h 49m
		MM5	Wairakei (41);
	"strong"		Wairakei Powerhouse (41);
	?		Acacia Bay, Taupo (41);
	N.F.		Kinloch (40); Aratiatia Powerhouse,
			Oruanui (41).
75/767	Dec	30d	01h 51m
		?	Wairakei (41).
75/768	Dec	30d	01h 55m
		?	Wairakei (41).
75/769	Dec	30d	01h 56m
		?	Wairakei (41).
75/770	Dec	30d	01h 58m
		?	Wairakei (41).
75/771	Dec	30d	01h 12m
		?	Wairakei (41).
75/772	Dec	30d	02h 22m
		?	Wairakei (41).

EARTHQUAKES FELT IN STANDARD LOCALITIES

Localities within which earthquakes were felt in 1975 are listed in alphabetical order, preceded by its number on the reference map. The figure following the name of the locality is the number of the epicentre, followed by the maximum intensity (in brackets) reported within the district covered by the locality name. The instrumental magnitude may be found from the epicentre list, and the places that actually reported the shock from the table of "Places Reporting Felt Earthquakes".

133	Alexandra	316 (5).
111	Akaroa	324 (4).
122	Arrowtown	316 (4).
16	Auckland	80 (3).
83	Awatere	761 (5).
77	Blenheim	4 (5), 265 (4), 284 (4), 365 (?), 366 (3), 451 (3), 761 (5).
154	Bluff	114 (3).
104	Bruce Bay	234 (4), 235 (4).

61	Bulls	4 (?),	324 (4).			
46	Cape Egmont	4 (4),	237 (4),	391 (3),	412 (4).	
67	Castlepoint	240 (4),	324 (4)	686 (5).		
50	Chateau	4 (?), 473 (?),	55 (4), 474 (?).	324 (?),	434 (?),	451 (?),
96	Cheviot	4 (4).				
63	Dannevirke	4 (4), 451 (4),	204 (4), 566 (4),	240 (4), 686 (4).	324 (6),	434 (4),
73	D'Urville Island		204 (?).			
29	East Cape	668 (4).				
69	Featherston	4 (4),	324 (5)	434 (3).		
45	Gisborne	32 (4), 451 (4),	113 (?), 481 (4).	205 (3),	240 (4),	434 (4),
150	Gore	114 (3).				
85	Greymouth	555 (4).				
60	Hastings	4 (3), 385 (4), 760 (5).	240 (4), 434 (4),	310 (5), 451 (4),	323 (4), 676 (4),	324 (5), 686 (5),
55	Hawera	4 (4),	324 (4).			
15	Helensville	80 (4).				
90	Kaikoura	663 (?),	665 (?).			
12	Kaipara	444 (4).				
132	Kingston	316 (5).				
94	Lake Sumner	555 (4).				
54	Mahia	233 (4),	760 (?).			
87	Maruia	238 (4).				
70	Martinborough	324 (4),	376 (4).			
66	Masterton	4 (4), 686 (4).	240 (?),	324 (6),	365 (4),	376 (4),
38	Mokau	4 (?).				
11	Moko Hinau	80 (4).				
75	Motueka	4 (?), 388 (4),	288 (?), 452 (4),	289 (5), 761 (4).	376 (4),	379 (4),
80	Murchison	88 (4), 324 (4), 633 (4).	186 (4), 376 (5),	187 (5), 430 (4),	230 (4), 431 (?),	289 (4), 555 (4),

34	Murupara	324 (4), 495 (4).	422 (4),	423 (3),	469 (4),	470 (4),
52	Napier	4 (4), 440 (4),	233 (4), 451 (4),	240 (4), 689 (4),	324 (4), 760 (4).	434 (4),
76	Nelson	289 (4),	324 (?),	344 (4),	376 (4),	761 (4).
47	New Plymouth	4 (5),	204 (3),	324 (4),	604 (4),	604 (4).
49	Ohakune	4 (4),	240 (4),	308 (4),	324 (?).	
35	Opotiki	240 (4),	324 (4),	451 (4).		
65	Otaki	4 (6), 324 (5),	36 (4), 383 (3),	196 (4), 451 (4),	204 (5), 659 (4),	284 (3), 689 (3).
62	Palmerston North	4 (5), 365 (4),	179 (3), 434 (4),	228 (?), 451 (4),	240 (4), 686 (4).	324 (5),
78	Picton	4 (5), 376 (?),	36 (4), 570 (4),	51 (4), 761 (4).	204 (5),	210 (5),
138	Pillans Pass	114 (3).				
64	Porangahau	4 (?),	240 (4),	324 (6),	686 (5).	
33	Rotorua	648 (4),	682 (?),	714 (4).		
59	Ruahine	240 (4).				
155	Ruapuke	563 (?).				
58	Taihape	4 (5), 451 (4),	240 (4), 473 (5),	323 (4), 474 (5),	324 (5), 603 (4).	434 (4),
72	Takaka	204 (4), 324 (4), 633 (4),	240 (4), 344 (4), 761 (4).	288 (?), 376 (?),	289 (?), 388 (?),	290 (?), 399 (?),
39	Taumarunui	4 (?),	324 (4).			
41	Taupo	86 (?), 303 (5), 380 (5), 599 (4), 768 (?),	208 (4), 324 (4), 434 (4), 736 (?), 769 (?),	222 (4), 334 (4), 501 (4), 763 (?), 770 (?),	223 (?), 339 (4), 516 (5), 766 (5), 771 (?),	240 (3), 370 (4), 517 (4), 767 (?), 772 (?).
26	Tauranga	233 (4).				
28	Te Kaha	382 (4).				
40	Tokaanu	324 (4),	327 (4).			
43	Tuai	451 (?).				
82	Wairau	761 (?).				
53	Wairoa	32 (4),	324 (4),	451 (4),	760 (4).	
123	Wanaka	114 (3),	316 (5),	628 (4).		

57	Wanganui	4 (5), 308 (3), 686 (?).	55 (4), 324 (4),	62 (4), 451 (4),	64 (3), 580 (5),	79 (4), 595 (4),
13	Warkworth	80 (3).				
56	Waverley	4 (4),	240 (4),	543 (4),	686 (4).	
68	Wellington	4 (6), 204 (5), 284 (4), 344 (3), 451 (4), 689 (4),	36 (4), 207 (3), 289 (4), 365 (4), 478 (4), 696 (4),	79 (4), 210 (4), 294 (3), 366 (3), 570 (4), 761 (4).	97 (4), 239 (4), 297 (3), 376 (4), 659 (4),	196 (3), 240 (4), 324 (5), 434 (?), 686 (?),
79	Westport	430 (3),	555 (3).			
44	Whakapunaki	32 (4),	113 (3),	233 (?),	240 (3).	
9	Whangarei	80 (4).				

UNCONFIRMED REPORTS

The following shocks reported to the Observatory as having been felt cannot be confirmed either by an instrumental record or by an independent report.

Jan	20d	17h	35m	Karori (68)	?
	24d	16h	45m	Moko Hinau (11)	MM4
Feb	09d	10h	25m	Omaio (28)	MM4
	18d	-	-	Owhango (49)	?
	19d	-	-	Bayfields (100)	?
Mar	01d	early morning		Onautoha (49)	?
	17-18d	-	-	Waiau (96)	?
	18-19d	-	-	Waiau (96)	?
	29d	17h	28m	Wanganui (57)	MM3
Apr	01d	19h	05m	Mangles Valley	MM3
	07d	10h	27m	Rotorua (33)	MM4
	09d	09h	35m	Kapiti I. (65)	MM4
	09d	09h	36m	Kapiti I. (65)	MM4
	09d	19h	14m	Kapiti I. (65)	MM4
	09d	23h	40m	Kapiti I. (65)	?
	10d	02h	40m	Kapiti I. (65)	MM4
	10d	18h	42m	Kapiti I. (65)	MM4
	10d	22h	27m	Kapiti I. (65)	MM4
	13d	08h	30-45m	Tihoi (40)	MM4
	13d	10h	53m	Karori (68)	MM3
	15d	03h	59m	Karori (68)	MM3
	29d	05h	57m	Mahitahi (104)	MM5
	30d	21h	00m	Mahitahi (104)	MM4
May	11d	19h	30m	Fighting Bay (78)	MM4
	12d	02h	12m	Waiau (96)	?
	22d	06h	33m	Karori (68)	?
	24d	12h	40m	Waiau (96)	?
	28d	20h	05m	Taupo (41)	MM4
	30d	15h	30m	Gisborne (45)	?
	30d	16h	23m	Taupo (41)	MM3
	31d	02h	20m	Kinloch (41)	MM4

Jun	14d	06h	00m	Omori (40)	MM4
	16d	17h	32m	Omori (40)	MM4
	20d	09h	30m	Omori (40)	MM4
	29d	19h	10m	Rotorua (33)	MM4
Jul	12d	02h	47m	Northland (68)	?
	16d	during night		Auckland (16)	?
	25d	03h	22m	Wellington (68)	MM3
Aug	09d	14h	00m	Mahoeahi (34)	?
	15d	18h	09m	Patoka (52)	MM4
	16d	15h	05m	Pukerua Bay (68)	MM4
	28-29d			Bainham (72)	?
	30	08h	55m	Peak Hill (101)	MM4
Oct	17d	08h	20m	Miramar (68)	MM3
	17d	08h	25m	Miramar (68)	MM3
Nov	16d	07h	15m	Table Flat (58)	MM3
	16d	14h	00m	Table Flat (58)	?
	20d	00h	20m	Ngakuru (33)	MM4
	20d	00h	50m	Ngakuru (33)	?
	22d	16h	10m	Feilding (62)	?
	24d	17h	49m	Glebelands (64)	MM4
Dec	29d	03h	30m	Waipu (9)	MM5
				The time of this event coincides with that of a quarry explosion about 2.5 km to the north east.	
Dec	30d	03h	34m	Wairakei (41)	?

REPORTS FROM OUTSIDE NEW ZEALAND

The Observatory sometimes receives reports of earthquakes felt on islands of the south-west Pacific and at other places beyond the limits of its systematic reporting network. The following reports were received during 1975:

Jan	24d	19h	20m	Raoul Island	?
Feb	09d	07h	08m	Raoul Island	MM4
	09d	07h	12m	Raoul Island	MM4
	23d	10h	06m	Raoul Island	MM4
Apr	03d	21h	06m	Raoul Island	?
	04d	11h	12m	Raoul Island	?
	05d	01h	00m	Raoul Island	?
	06d	07h	02m	Raoul Island	?
	12d	06h	41m	Raoul Island	?
	21d	11h	12m	Raoul Island	?
	21d	23h	34m	Raoul Island	?
May	04d	00h	05m	Raoul Island	?
	05d	04h	53m	Raoul Island	MM6
	20d	21h	20m	Raoul Island	?
	21d	09h	21m	Raoul Island	?
Jun	14d	04h	12m	Raoul Island	?
	24d	12h	15m	Raoul Island	?
Jul	12d	07h	06m	Raoul Island	MM4
	12d	19h	04m	Raoul Island	?
	12d	19h	35m	Raoul Island	?
	12d	20h	34m	Raoul Island	?
	13d	07h	04m	Raoul Island	?
	13d	19h	03m	Raoul Island	?
	28d	08h	35m	Raoul Island	MM4
Aug	07d	13h	17m	Raoul Island	?
Sep	12d	22h	36m	Raoul Island	?
	13d	22h	32m	Raoul Island	?

Oct	10d	15h	47m	Niue Island	MM4
	11d	14h	35m	Niue Island	?
				Raoul Island	?
Nov	29d	23h	07m	Raoul Island	?
Dec	16d	21h	00m	Laucala Bay, Nausori (Fiji)	?
	16d	21h	01m	Laucala Bay, Nausori (Fiji)	?

LAKE PUKAKI NETWORK

The origins listed in this section have been determined from data provided by the stations of the Lake Pukaki network, details of which are given in earlier sections of this Report. For some large events an alternative solution, using the stations of the standard network, is given in the main section of the Report. Because of the close spacing of the Pukaki network and the use of well-established velocities appropriate to the region, the origins given below are to be preferred for most studies of tectonic setting and structure; but for statistical work involving a larger part of the country the results of the standard network will provide more homogenous data.

The solutions listed below have been determined using a slightly modified version of a micro-earthquake programme developed by W.H.K. Lee and J.C. Lahr of the U.S. Geological Survey (HYPO 71: A Computer Program for Determining Hypocenter, Magnitude and First-Motion Patterns of Local Earthquakes. USGS Open File Report, 1972) in conjunction with the following crustal model:

Depth	Velocities	
	P-waves	S-waves
0 to 1.7 km	4.44 km/s	2.60 km/s
1.7 9.6	5.88	3.44
9.6 32	6.5	3.8
32 to -	8.1	4.7

At any particular distance, the computer uses only the first P-type and the first S-type wave to arrive and selects the appropriate velocity.

In addition to the date, origin time, latitude and longitude of the epicentre, focal depth, and magnitude of the shock, the following quantities are given:

NUM OBS	Number of phases used.
GAP	Largest azimuthal separation between stations used.
D MIN	Epicentral distance to nearest station.
RMS	Root-mean-square of time residuals.
ERH	Standard error of the epicentre.
ERZ	Standard error of the focal depth.

Because the statistical interpretation of standard errors involves assumptions that may not always remain valid, the values given may not represent the actual limits of error, as explained in the discussion of the standard network procedure. An indication of the uncertainties is given by the fact that explosions and icefalls in the region can be placed within a few kilometres of their known positions.

Where no value is shown for ERH or ERZ either the number of observations is insufficient to give a valid estimate, or the epicentre lies outside the periphery of the network and the formal errors are large.

REF NUM		ORIGIN TIME				LAT S DEG	LONG E DEG	DEPTH KM	MAG	NUM OBS	GAP DEG	DMIN KM	RMS S	ERH KM	ERZ KM
		H	M	S											
P75/001	JUN	18	14	49	32.6	43.914	178.231	2.2	0.0	7	236	11.3	0.7	7.0	
P75/002		18	15	14	12.4	43.899	178.301	1.0	1.0	8	287	16.1	0.8	5.1	0.5
P75/003		18	20	34	2.5	44.317	178.122	5.0	0.0	6	267	0.2	5.4	0.7	0.5
P75/004		18	23	02	25.3	43.975	169.713	5.0	1.0	11	260	17.7	0.4	3.2	5.5
P75/005		19	01	06	56.9	43.501	178.147	7.0	1.0	9	338	41.2	0.2	2.7	1.7
P75/006		19	07	30	0.0	43.514	178.173	3.2	1.0	10	329	40.0	0.2	3.0	2.2
P75/007		21	14	09	29.2	44.000	178.100	28.7	1.0	11	81	10.5	0.8	5.3	0.5
P75/008		21	19	43	39.8	44.420	178.610	9.5	1.0	10	305	41.1	0.4	13.6	27.4
P75/009		21	21	46	10.6	44.443	178.690	9.2	1.0	12	293	30.3	0.6	14.1	28.5
P75/010		21	23	01	5.5	44.453	178.612	24.0	1.0	10	287	25.4	0.2	2.6	3.3
P75/011		24	13	00	39.9	44.416	169.029	5.0	1.0	14	240	0.2	2.2	14.4	9.1
P75/012		26	00	25	47.0	44.104	169.046	5.0	1.0	7	142	0.2	1.3	19.2	12.1
P75/013		26	22	50	6.0	44.370	178.270	7.0	1.0	15	210	7.7	0.2	0.7	0.5
P75/014		29	06	45	59.6	43.901	178.000	5.0	1.0	11	219	9.1	1.2	0.8	15.5
P75/015		29	10	03	30.0	44.045	178.200	0.7	0.0	5	201	10.9	0.6	49.6	42.4
P75/016		30	10	03	50.9	44.216	178.131	10.2	1.0	13	71	11.0	2.4	10.0	21.2
P75/017		30	19	33	6.6	44.030	169.611	3.2	2.0	20	267	20.0	0.9	4.5	4.0
P75/018	JUL	03	02	54	51.2	44.412	169.029	30.6	1.0	8	101	0.3	0.7	15.9	6.2
P75/019		03	02	54	56.0	44.153	169.916	2.0	1.0	15	240	24.3	0.9	4.9	
P75/020		03	07	55	20.3	44.425	169.696	9.5	0.0	6	295	10.5	0.1	1.1	0.5
P75/021		07	03	41	44.0	44.416	169.776	11.3	1.0	8	201	4.1	0.2	2.5	1.9
P75/022		08	04	43	9.4	44.010	178.417	16.6	1.0	26	141	4.5	0.6	2.4	3.0
P75/023		08	23	04	26.9	43.919	178.220	0.8	1.0	22	175	11.3	1.0	4.3	4.3
P75/024		09	13	05	25.3	43.926	169.405	9.9	1.0	10	290	34.9	1.5	16.9	
P75/025		11	11	06	1.3	43.993	178.209	5.0	1.0	10	137	13.7	1.7	9.2	24.0
P75/026		12	06	29	16.0	44.401	169.959	2.0	1.0	7	207	22.5	0.2	2.0	
P75/027		12	00	20	10.5	43.935	169.605	4.2	1.0	12	292	22.6	0.2	1.7	1.6
P75/028		17	06	03	29.7	43.933	178.230	14.1	0.0	13	167	12.0	1.6	0.1	16.7
P75/029		17	06	00	57.2	43.926	178.260	5.0	0.0	14	170	13.9	1.0	4.3	21.9
P75/030		24	13	17	2.0	44.135	178.004	11.4	0.0	6	179	5.3	0.1	12.6	2.1

P75/031	JUL	31	15	38	57.9	43.927	169.733	2.2	1.0	19	283	21.5	0.2	0.9	29.0
P75/032	AUG	02	05	47	24.6	43.718	170.106	5.0	0.0	10	291	16.9	0.3	2.4	2.4
P75/033		02	05	48	19.1	43.072	170.156	5.0	0.0	5	206	4.2	0.6	10.6	11.8
P75/034		09	09	37	58.7	44.125	170.300	3.2	1.0	4	186	19.6	0.8		
P75/035		10	20	14	29.3	44.093	168.737	2.1	3.0	11	335	08.7	0.2	27.8	57.7
P75/036		11	13	05	50.0	44.573	170.200	19.5	1.0	13	284	27.7	0.0	6.1	9.2
P75/037		12	15	58	34.7	44.000	170.300	9.7	1.0	5	232	15.1	0.1	1.7	4.7
P75/038		13	08	01	34.1	43.948	170.304	1.8	1.0	10	173	13.4	1.0	4.5	
P75/039		17	02	14	46.3	44.006	169.960	5.0	1.0	19	177	14.2	0.9	3.2	13.8
P75/040		17	05	00	9.1	44.023	169.961	7.0	1.0	23	160	12.9	0.4	1.1	1.4
P75/041		17	11	19	20.3	44.018	169.951	7.0	1.0	22	175	12.7	0.2	0.5	0.7
P75/042		17	13	28	17.6	44.162	170.347	1.9	0.0	14	261	18.4	1.6	9.3	
P75/043		17	13	46	27.4	44.425	170.437	0.8	1.0	18	293	13.0	0.5	3.3	1.6
P75/044		18	14	01	18.3	44.015	169.946	10.6	1.0	22	179	12.7	0.4	1.5	3.4
P75/045		24	03	00	47.9	44.490	170.107	5.0	1.0	9	244	19.5	0.4	3.1	17.2
P75/046		26	07	28	19.4	43.056	169.676	5.0	1.0	9	299	30.6	0.3	3.3	3.7
P75/047		26	12	47	17.0	44.006	170.402	6.0	1.0	19	128	4.9	0.1	0.5	1.2
P75/048		27	10	49	56.0	43.049	169.670	5.0	1.0	9	300	31.5	0.3	3.1	3.2
P75/049		27	11	10	55.0	44.297	169.759	9.6	1.0	10	283	22.7	0.3	3.8	7.6
P75/050		27	21	33	30.2	44.407	170.290	1.6	0.0	5	200	9.9	0.2	7.2	6.0
P75/051		28	13	38	2.0	43.640	170.501	5.0	1.0	10	317	39.4	0.0	10.0	7.5
P75/052		29	09	47	50.5	44.411	170.303	5.2	1.0	6	286	9.9	0.0	0.7	1.4
P75/053		29	16	00	40.2	43.953	170.635	34.9	1.0	14	207	14.7	1.0	9.4	7.3
P75/054		30	04	11	43.8	44.006	170.353	0.3	1.0	9	142	0.7	0.0	3.5	6.1
P75/055	SEP	02	21	19	40.0	43.050	169.673	5.0	1.0	9	300	31.2	0.3	2.9	3.1
P75/056		03	11	41	31.3	44.324	170.396	9.6	1.0	7	257	4.1	0.1	1.6	0.9
P75/057		04	02	31	5.0	44.314	169.981	9.0	1.0	6	242	20.3	2.7	79.6	
P75/058		05	01	46	0.1	44.450	169.029	0.3	1.0	11	206	3.9	0.2	2.0	0.0
P75/059		06	00	55	28.1	44.377	169.902	0.0	0.0	7	207	13.0	0.6	2.0	1.4
P75/060		06	16	56	31.6	44.395	170.196	2.5	0.0	6	260	10.0	0.1	0.7	4.0
P75/061		11	02	25	5.0	43.911	169.551	10.0	1.0	17	310	31.7	1.2	9.2	
P75/062		14	19	05	50.6	44.104	170.062	14.0	0.0	8	193	4.0	0.9	9.7	7.4
P75/063		15	04	43	24.6	44.205	170.105	5.0	1.0	10	102	13.3	1.2	5.6	43.4
P75/064		15	15	47	29.2	44.553	170.007	2.1	1.0	8	298	20.0	0.3	3.1	
P75/065		16	13	03	0.9	44.130	169.554	5.0	1.0	9	302	23.4	0.6	7.1	0.0

REF NUM		ORIGIN TIME			LAT B DEG	LONG E DEG	DEPTH KM	MAG	NUM OBS	GAP DEG	DMIN KM	RMS S	ERH KM	ERZ KM		
		H	M	S												
P75/866	SEP	18	08	30	0.8	44.317	170.866	9.2	1.0	11	230	4.3	1.9	8.9	5.8	
P75/867		18	18	51	47.4	44.428	170.179	1.8	0.0	7	274	13.4	0.1	1.6		
P75/868		19	07	10	25.4	44.300	169.572	4.9	1.0	6	312	30.9	9.6			
P75/869		19	21	30	39.5	43.970	169.528	2.3	2.0	12	282	29.3	0.5	3.4	5.3	
P75/870		22	05	55	10.3	43.679	169.747	2.1	2.0	14	311	35.0	0.2	1.9	1.0	
P75/871		22	19	47	0.6	44.135	170.117	12.7	1.0	5	178	7.9	0.1	17.7	2.5	
P75/872		23	22	35	48.1	43.964	169.843	1.9	1.0	10	244	15.4	0.1	0.6	84.6	
P75/873		24	06	50	27.1	44.363	170.046	10.4	1.0	10	250	0.0	0.3	2.9	2.7	
P75/874		24	10	19	16.6	44.432	170.036	5.0	1.0	10	272	14.6	1.2	11.3	17.3	
P75/875		26	17	01	7.5	44.241	170.104	5.0	0.0	7	135	9.7	1.0	23.6	97.0	
P75/876	OCT	28	00	28	6.3	44.404	169.968	5.0	1.0	10	190	11.2	0.4	2.3	10.6	
P75/877		01	17	52	10.3	44.028	170.573	2.4	0.0	5	275	10.0	0.5	2.1	24.6	
P75/878		04	09	28	38.1	44.456	169.996	5.0	1.0	13	200	10.5	0.3	1.9	1.5	
P75/879		06	11	16	29.4	44.208	169.935	9.1	1.0	12	239	15.1	0.2	1.4	0.0	
P75/880		06	17	57	26.4	44.108	169.509	0.9	1.0	9	299	20.5	0.5	12.5	14.0	
P75/881		08	10	22	59.1	44.311	169.916	3.1	0.0	4	291	16.3	0.0			
P75/882		08	17	15	9.2	44.444	170.061	5.0	2.0	11	275	15.1	0.2	1.0	1.6	
P75/883		09	01	01	47.3	44.504	169.029	9.0	1.0	13	295	10.0	1.4	11.1	20.9	
P75/884		09	12	53	45.0	43.941	170.200	5.0	0.0	3	174	14.0	0.0			
P75/885		10	04	23	10.5	44.104	169.046	5.0	0.0	4	202	0.2	1.0			
P75/886		11	02	11	26.4	43.792	170.779	5.0	1.0	6	309	55.0	5.0	13.0	13.7	
P75/887		14	10	17	50.1	43.519	170.202	5.0	1.0	9	316	41.6	2.0	25.5	16.4	
P75/888		15	16	15	12.2	44.558	170.021	1.3	1.0	8	314	20.1	0.7	36.4	38.2	
P75/889		15	21	28	37.2	43.072	170.106	0.5	1.0	11	151	0.2	1.5	9.9	6.0	
P75/890		15	21	35	3.9	43.072	170.106	5.0	1.0	8	191	0.2	1.7	3.0	3.0	
P75/891		21	06	04	42.0	44.506	170.019	0.0	1.0	10	251	10.3	0.2	1.7	1.0	
P75/892		25	14	22	32.4	43.961	170.550	7.5	1.0	11	316	0.0	0.2	1.9	0.9	
P75/893		31	19	49	22.6	44.433	169.071	6.9	1.0	7	228	4.0	0.0	0.7	0.5	
P75/894		NOV	02	19	47	7.6	43.993	170.461	5.0	2.0	11	230	0.2	2.2	2.6	2.5
P75/895			06	06	21	34.2	44.085	169.740	7.3	1.0	8	333	0.6	0.1	1.0	0.4

P75/896	NOV	07	20	12	52.0	44.580	169.883	5.0	1.0	10	272	10.4	0.1	1.0	1.7
P75/897		10	00	45	47.5	43.624	169.828	5.0	1.0	6	344	53.2	0.6		64.7
P75/898		11	00	30	9.6	43.949	170.376	5.0	1.0	8	237	8.2	0.8	7.1	16.3
P75/899		11	01	18	7.0	43.993	170.684	0.1	1.0	4	305	10.0	1.0		
P75/100		11	14	30	54.6	43.784	170.433	3.6	1.0	6	285	23.1	0.9	2.6	21.7
P75/101		12	11	00	36.5	44.537	169.808	5.0	1.0	8	318	35.0	1.4	16.6	15.1
P75/102		12	14	15	54.2	44.274	170.071	1.2	0.0	6	315	22.1	0.4		
P75/103		12	14	30	20.7	43.993	170.455	20.0	0.0	7	159	0.4	0.7	0.2	7.2
P75/104		12	14	55	27.8	43.993	170.320	5.0	0.0	6	197	11.2	1.6	2.2	10.3
P75/105		13	10	39	30.2	44.079	169.749	7.4	2.0	10	279	8.1	0.1	2.0	0.6
P75/106		14	21	54	23.9	44.104	169.846	5.0	0.0	8	187	0.2	1.9	0.8	7.3
P75/107		16	06	18	1.5	44.005	170.406	7.0	1.0	14	128	4.6	0.1	0.5	0.6
P75/108		17	10	36	39.1	44.557	169.918	5.0	1.0	14	300	31.3	0.7	4.6	3.8
P75/109		20	04	56	20.0	44.242	170.399	5.0	1.0	6	301	47.0	0.4	0.7	
P75/110		20	07	31	40.6	43.918	169.948	0.5	1.0	15	225	13.6	1.4	0.1	10.3
P75/111		22	12	00	34.7	43.993	170.314	5.0	1.0	11	140	11.7	1.9	9.4	51.2
P75/112		22	13	13	3.1	43.993	170.265	9.9	1.0	8	133	15.6	1.0	19.3	82.3
P75/113		24	00	49	10.0	43.942	169.058	5.0	1.0	12	309	65.5	0.6	20.2	41.5
P75/114		24	01	52	29.5	43.986	169.102	5.0	2.0	14	306	60.9	0.4	9.3	19.0
P75/115		24	03	15	57.4	44.126	169.973	14.0	1.0	6	254	24.6	0.9		
P75/116		25	01	34	5.3	43.072	170.106	5.0	0.0	7	191	0.2	0.9	4.7	3.6
P75/117		26	10	59	41.5	44.015	169.051	9.9	1.0	7	229	9.7	1.4	9.7	9.0
P75/118		28	11	02	39.1	43.961	170.461	5.0	0.0	7	253	3.3	1.2	14.9	9.3
P75/119		28	23	04	21.7	43.993	170.482	2.7	2.0	15	262	1.0	0.5	2.9	3.1
P75/120		30	03	42	30.7	43.047	169.399	5.0	2.0	14	299	45.6	0.0	6.1	5.5
P75/121		30	13	32	4.6	43.988	170.445	3.9	1.0	14	172	1.2	0.2	1.1	1.6
P75/122		30	18	18	41.8	43.986	170.461	5.0	1.0	8	259	0.6	0.2	2.3	2.0
P75/123	DEC	01	02	50	37.8	43.711	170.037	1.0	1.0	10	318	10.5	0.3	16.3	10.1
P75/124		01	17	59	33.9	44.151	169.025	5.0	1.0	10	269	29.3	1.7	14.5	
P75/125		02	02	50	46.1	43.058	169.131	5.0	1.0	6	355	63.3	0.3		
P75/126		02	22	51	50.1	43.601	170.575	1.9	2.0	11	320	44.4	0.5	5.5	4.0
P75/127		05	06	47	45.3	44.111	169.969	7.5	1.0	7	183	4.7	0.0	0.7	0.4
P75/128		06	01	31	25.0	43.988	170.124	9.1	1.0	8	151	13.2	0.1	0.4	0.5
P75/129		08	09	41	56.6	44.284	169.900	12.7	1.0	8	256	15.6	0.0	0.5	0.6
P75/130		09	05	52	49.3	43.458	170.414	11.5	1.0	8	331	52.2	0.6	9.1	76.3

REF NUM		ORIGIN TIME			LAT S DEG	LONG E DEG	DEPTH KM	MAG	NUM OBS	GAP DEG	DMIN KM	RMS S	ERH KM	ERZ KM
		H	M	S										
P75/131	DEC	18	04	28	44.286	178.185	5.8	1.8	13	77	3.4	0.4	1.2	4.3
P75/132		18	16	48	44.334	169.989	8.8	0.8	7	165	11.1	0.5	6.8	5.8
P75/133		13	01	16	44.392	169.524	5.8	2.8	13	278	24.3	0.3	1.9	1.6
P75/134		13	01	26	44.394	169.525	5.8	1.8	8	278	24.2	0.1	1.2	1.3
P75/135		14	12	51	44.682	178.841	2.5	2.8	7	259	13.7	0.1	1.8	1.8
P75/136		14	14	56	44.471	169.898	6.8	1.8	7	141	8.8	0.8	0.2	0.6
P75/137		17	03	33	44.886	168.748	5.8	2.8	7	325	88.4	0.3	58.4	
P75/138		17	05	15	44.846	178.236	5.8	1.8	18	188	11.2	1.5	6.9	19.8
P75/139		19	14	44	44.569	178.847	1.9	1.8	6	248	12.9	0.1	1.3	64.8
P75/140		29	07	49	44.265	169.755	8.3	1.8	18	254	17.5	0.2	1.2	1.1
P75/141		38	08	49	44.272	169.752	9.8	1.8	18	254	16.9	0.1	0.7	0.4
P75/142		38	23	28	44.256	169.726	8.8	1.8	11	231	19.4	0.2	1.1	1.3

PUBLICATIONS BY STAFF MEMBERS

During 1975 the following papers by members of the Seismological Observatory staff were published:

S-217 ADAMS, R.D.: "Developments in Studies of Earthquake Risk".

Bull. N.Z. Natl. Soc. Earthq. Engng. 8: 1-11.

Following recent developments in geophysics, analyses of earthquake risk should take full account of the tectonic setting of the regions concerned, of variations in soil properties, and of source characteristics of the earthquakes. New theories of global tectonics differentiate among various types of geophysically active areas. In particular, New Zealand's environment is closer to that of Japan and other west Pacific countries than to that of California, which is tectonically one of the least typical parts of the Pacific margin. The limitation of Californian earthquakes to depths in the upper crust, and their often established close lineations along surface traces of geological faults have resulted in the development of a refined process of quantitative risk analysis there, the techniques of which may not be appropriate in other areas. Small scale variations in soil characteristics cause variations in earthquake response which are often more significant in the evaluation of earthquake risk than regional differences in seismicity. Recent developments in seismic source theory show that a single parameter such as magnitude is not adequate to define source characteristics closely. With the additional determination of seismic moment, source parameters such as fault radius, fault displacement and stress drop can all be estimated. These source parameters define the expected shape of the source spectra, and thus the frequency characteristics of earthquakes that may be expected in different parts of an active area such as New Zealand.

S-218 ADAMS, R.D. (compiler): "Seismology and Related Research in New Zealand 1971-74".

N.Z. Dept. Sci. and Industr. Res. Bull. Inf. Ser. 110.32 pp.

The New Zealand National Report to the International Association of Seismology and Physics of the Earth's Interior, presented at the Grenoble Assembly of the International Union of Geodesy and Geophysics. It contains a summary of current New Zealand geophysical research, details of seismograph stations, macroseismic studies of the more important earthquakes, and an extended bibliography of research carried out in or having special reference to New Zealand.

- S-219 EIBY, G.A.: "Seismology in New Zealand".

Geophysical Surveys 2: 55-72.

New Zealand is a country of moderate seismicity. Its earthquakes are well-located and their magnitudes found with closely-spaced modern seismographs. Historical catalogues have been prepared. Deep and shallow shocks are associated with two active continental margins having the usual geophysical associations. The northern one is orientated towards the Pacific and the southern one towards the Tasman Sea. The structure is complex, and below the continental-type crust there are large lateral inhomogeneities in the upper mantle. There is a marked lack of correlation between all except the most superficial earthquake foci and the geological faults, and this persists to the micro-earthquake level. New Zealand seismologists have made theoretical studies of earthquake mechanism and examined the statistical properties of earthquake occurrence. They have also studied the fine structure of the Earth's core, and made microzoning and other studies with engineering implications.

- S-220 GIBOWICZ, S.J.: "Variation of Source Properties: The Inangahua, New Zealand, Aftershocks of 1968".

Bull. Seismol. Soc. Amer. 65: 261-76.

A theoretical relationship between seismic moment and local magnitude M_L is derived from the relationship between magnitude M_L and source dimension given by Randall (1973). For a circular fault of radius smaller than about 0.5 km, the magnitude M_L is proportional to the logarithm of the seismic moment M_0 , and these values alone cannot specify other source parameters. For greater radii the values of M_0 and M_L define Brune's (1970) far-field spectrum and in these cases other source characteristics can be readily obtained. The seismic moment can be estimated from the long-period amplitudes and therefore the moment-magnitude relation provides a convenient method for determination of the source properties. The relationship between the logarithm of the various source parameters and seismic moment is considered for a number of regions and earthquake sequences. It appears to be of linear form and, furthermore, it seems that the same slope coefficient can be used in different regions. Source properties show regional differences, and the most suitable parameter to describe these differences is the average displacement. Besides the regional variations, there seems to be a time variation of source properties. This is the case for the Inangahua aftershock sequence, during which the variation of the displacement residuals correlates with the variation of the coefficient b , which defines the frequency-magnitude relation.

- S-221 RODGERS, P.W.: "Note on the Non-linear Response of the Pendulous Accelerometer".

Bull. Seismol. Soc. Amer. 65: 523-30.

When the pendulous accelerometer experiences large off-axis acceleration in a direction which produces significant along-the-boom acceleration, the dynamics of the instrument are altered and it becomes nonlinear in its response. The response to an off-axis horizontal acceleration step is derived and found to exhibit small changes in damping, overshoot, damped resonant frequency, and final value of boom position. The size of these effects is negligible for all but the largest accel-

ations and even then acceptable. The change in overshoot is the largest, about 5 per cent, for an AR-240 strong-motion accelerometer subjected to a 1-g horizontal acceleration step at 45° to the sensitive axis.

An expression is developed for the steady-state response to off-axis sinusoidal acceleration. In addition to the proper response, it contains both a double frequency term and a constant offset. The size of these terms is discussed and an example is given.

S-222 EIBY, G.A.: "A History of Anti-Seismic Measures in New Zealand".

Bull. N.Z. Natl. Soc. Earthq. Engng. 8: 255-9.

The existence of a seismic problem in New Zealand was recognised in 1848. Limited governmental action and pioneering structural investigations followed. There were no major disasters between 1855 and 1929, and interest in earthquakes declined. Nevertheless, several papers by New Zealanders were published in the early 1920s, and the schools of engineering and architecture drew the attention of students to seismic problems. Modern building regulations have their origin in the report of a committee set up after the Hawke's Bay Earthquake in 1931, but some local authorities have still to adopt anti-seismic measures. The Hawke's Bay earthquake also stimulated observatory seismology. The earliest Civil Defence legislation was intended to deal with riots, and later with the effects of air attack, and the organisation has only recently become concerned with natural disaster. Relief measures were traditionally considered a matter for local bodies or for the police and armed forces, and these bodies are still involved. Unique insurance measures were introduced during the Second World War. Since then there has been continuous advance in engineering and seismological research, improvements in building regulations, insurance provisions, and the organisation of civil defence.

S-223 SMITH, W.D.: "The Application of Finite-Element Analysis to Body-Wave Propagation Problems".

Geophys. J. Roy. Astr. Soc. 42: 747-68.

The finite-element method is shown to be a powerful tool for the numerical modelling of seismic body-wave propagation problems. Applications extend to both problems on a scale of interest to engineers and also to large-scale seismological problems. Solutions are sought in the time domain. Efficient programs have been written to accomplish this. The scope of numerical solutions has been greatly enhanced by the use of a previously reported scheme for exactly cancelling reflections at the boundaries of the model.

The finite difference results of Boore and the analytical results of Trifunac for the amplification due to a mountain and an alluvial valley respectively are compared with new finite-element results. The new results agree well, although there are some difficulties with resonance in the alluvial valley problem. Boore's SH results have been extended to vertical P and SV incidence. A deep earthquake zone has been modelled realistically in two dimensions and earthquakes simulated at depth. It is suggested that the variation in observed amplitude across the top of the zone, due to refraction away from the slab, may be used to provide an estimate of the thickness of the slab from long-period observations of local earthquakes.

- S-224 HUSSEINI, M.I., JOVANOVIĆ, D.B., RANDALL, M.J., and FREUND, L.B.: "The Fracture Energy of Earthquakes".

Geophys. J. Roy. Astr. Soc. 43: 367-85.

The arrest of a semi-infinite longitudinal shear crack is caused by either (1) the finiteness of available strain energy, or (2) an increase in fracture energy along the trajectory of the running crack. In the former case the following relationship may be used to evaluate the fracture energy:

$$\gamma_0 = R\Delta\sigma^2/2\mu$$

where γ_0 is the fracture energy per unit length along the crack edge per unit extension of the cracktip (erg cm⁻²), R is the characteristic radius of the fault (cm), $\Delta\sigma$ is the stress drop (dyne cm⁻²) and μ is the rigidity (dyne cm⁻²). This leads to the following relationship:

$$\log \Delta\sigma = -\frac{1}{2} \log R + \frac{1}{2} \log (2\mu\gamma_0)$$

or from the Keylis-Borok relationship (1959):

$$\log M_0 = 5/2 \log R + \frac{1}{2} \log (2\mu\gamma_0) + 0.64$$

where M_0 is the seismic moment in dyne cm⁻¹. These two relationships are statistically acceptable for Southern California faults and the Tonga-Kermadec Arc earthquakes. The fracture energy is found to vary from 10^3 to 10^9 erg cm⁻² while frictional rupture with 10^3 - 10^7 erg cm⁻². These values are in good agreement with other independent estimates.

- S-225 GIBOWICZ, S.J. and HATHERTON, T.: "Source Properties of Shallow Earthquakes in New Zealand and Their Tectonic Associations".

Geophys. J. Roy. Astr. Soc. 43: 589-605.

Seismic moments estimated from the surface-wave parameter AR , together with local magnitudes M_L have been used to determine the source parameters of 270 shallow New Zealand earthquakes between 1965 and 1973 which were well recorded on long-period seismographs at Wellington. Average displacements across the fault plane, referred to a common seismic moment, show differences several times larger than errors likely in their estimation.

The displacements display a regular regional pattern. In the northern seismic zone displacements are small between the Hikurangi Trench and the east coast of the North Island and also on the continental side of the volcanic front. Between these two regions, and thus over most of the North Island, displacements are large. The whole central region of the South Island has small displacements. The Fiordland region in the south-west, which has island-arc affinities but no volcanism or active faulting, is one of predominantly large displacements.

EIBY, G.A.: "Earthquakes".

N.Z. Nature Heritage 3: 1181-7.

A brief popular account.

EIBY, G.A.: "The Southern Sky".

N.Z. Nature Heritage 4: 1321-8.

An introduction to astronomical objects visible from middle southern latitudes.

EIBY, G.A.: "Urania".

Southern Stars 26: 31-8.

An address to the annual general meeting of the Royal Astronomical Society of New Zealand examining the cultural importance of astronomical studies.

ROBINSON, R., ARABASZ, W.J.: "Microearthquakes in the north-west Nelson region, New Zealand.

N.Z. J. Geol. Geophys. 18: 83-91.

Focal depths of microearthquakes indicate that seismicity in the north-west Nelson region is confined to depths less than about 15 km. This result provides a contrast with the Marlborough and Wellington regions where earthquake activity extends through the lower crust and well into the mantle. A composite focal-mechanism implies current NW-SE compression, in accord with results for shallow earthquakes in other parts of New Zealand.

ROBINSON, R., ARABASZ, W.J., and EVISON, F.F.: "Long-term behaviour of an aftershock sequence: The Inangahua, New Zealand, Earthquake of 1968.

Geophys. J. Roy. Astr. Soc. 41: 37-50.

The behaviour of the aftershock sequence of the Inangahua, New Zealand, earthquake (magnitude 7.1, depth 12 km), as determined 3.6 years after the main event, can be compared with the behaviour during the first 40 days of the sequence. The b-value (slope of the magnitude-frequency relationship) remains near unity and the rate of aftershock occurrence is consistent with a decay proportional to $(\text{time})^{-1.05}$. Epicentres of the late aftershocks (magnitudes less than 3.3) occupy roughly the same area as the epicentres of the early aftershocks (magnitudes greater than 3.8), an elliptical region elongated along the trace of the Glasgow Fault. No fault plane is defined by the hypocentres of the late aftershocks. There has been a radical change in mechanisms from the thrusting of the early aftershocks (and main event) to the normal faulting mechanism of the late aftershocks. This change can be interpreted as due to outflow of pore fluids if the dilatancy hypothesis of earthquake occurrence is correct.

E-153 New Zealand Seismological Report 1969.

N.Z. Govt. Printer, Wellington. 654 pp. 3 maps.

E-154 New Zealand Seismological Report 1972.

N.Z. Govt. Printer, Wellington. 668 pp. 3 maps.

EXCHANGE AGREEMENTS

The Seismological Observatory issues the following series of publications:

1. E-bulletins. These consist of the annual "New Zealand Seismological Reports", containing a detailed summary of all standard measurements made at stations of the N.Z. network, lists of epicentres, felt intensity data, and a brief account of the principal earthquakes of the year.
2. S-bulletins. These are mostly reprints of papers by members of the Observatory staff, but occasionally it has included material not published elsewhere, such as the Eiby-Muir near earthquake tables, and a descriptive account of the Observatory and its work issued to conference delegates.
3. A-bulletins. These are cyclostyled sheets giving preliminary readings from Wellington and a small selection of well-distributed outstations. They are issued fortnightly to observatories and data centres needing rapid access to New Zealand readings, and are not intended to have a wide circulation.

The Observatory will be pleased to consider exchange agreements for any of this material. Stations requesting the A-series normally receive S and E-series as well, and those requesting the E-series also receive the S-series. This arrangement facilitates mailing procedures.

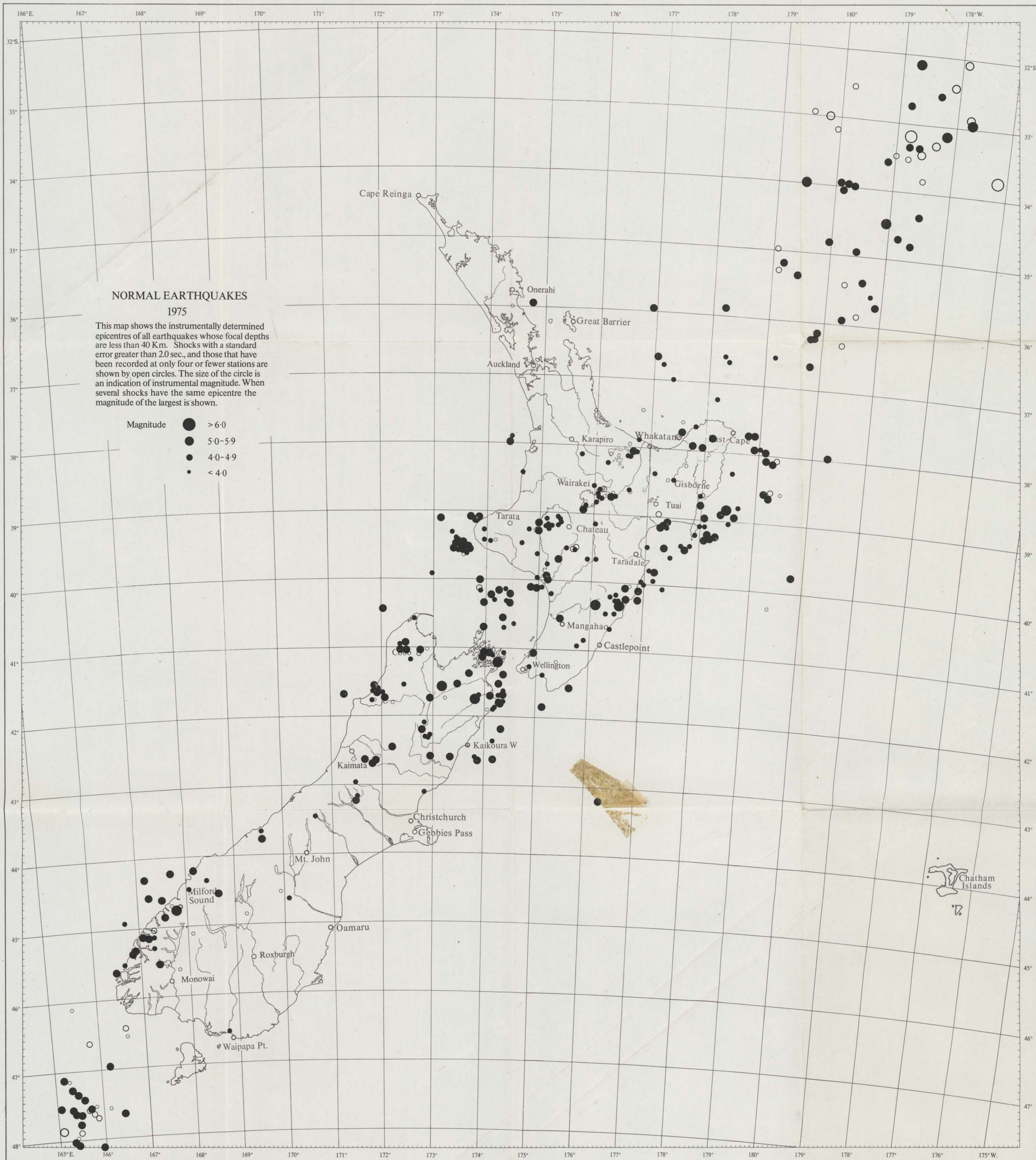
COMPUTER FILE

The Observatory has a master file of over 13,000 earthquake origins and associated information stored on magnetic tape. From this, lists of earthquakes within particular geographical areas of New Zealand or restricted in other ways can be made available to geologists, and others engaged in research. Full details have been published elsewhere (W.D. Smith, 1976: "A Computer File of New Zealand Earthquakes"; Bull. N.Z. Soc. Eq. Engng, Vol.9, No.2, pp.136-7, or N.Z. Jl. Geol. Geophys., Vol.19, No.3, pp.393-4). Limits that may be specified are dates, magnitudes, focal depths, and regions bounded in a number of different ways. Because of the dangers inherent in the use of incompletely assessed data, users are asked to discuss their search criteria with the Observatory.

LIST OF MAPS

(in pocket inside back cover)

1. Epicentres of Normal Focus Earthquakes in 1975.
2. Epicentres of Deep Focus Earthquakes in 1975.
3. Isoseismals for the Earthquake of 1975 Jan 4 (Origin 75/004).
4. Isoseismals for the Earthquake of 1975 June 10 (Origin 75/324).



**NORMAL EARTHQUAKES
1975**

This map shows the instrumentally determined epicentres of all earthquakes whose focal depths are less than 40 Km. Shocks with a standard error greater than 2.0 sec., and those that have been recorded at only four or fewer stations are shown by open circles. The size of the circle is an indication of instrumental magnitude. When several shocks have the same epicentre the magnitude of the largest is shown.

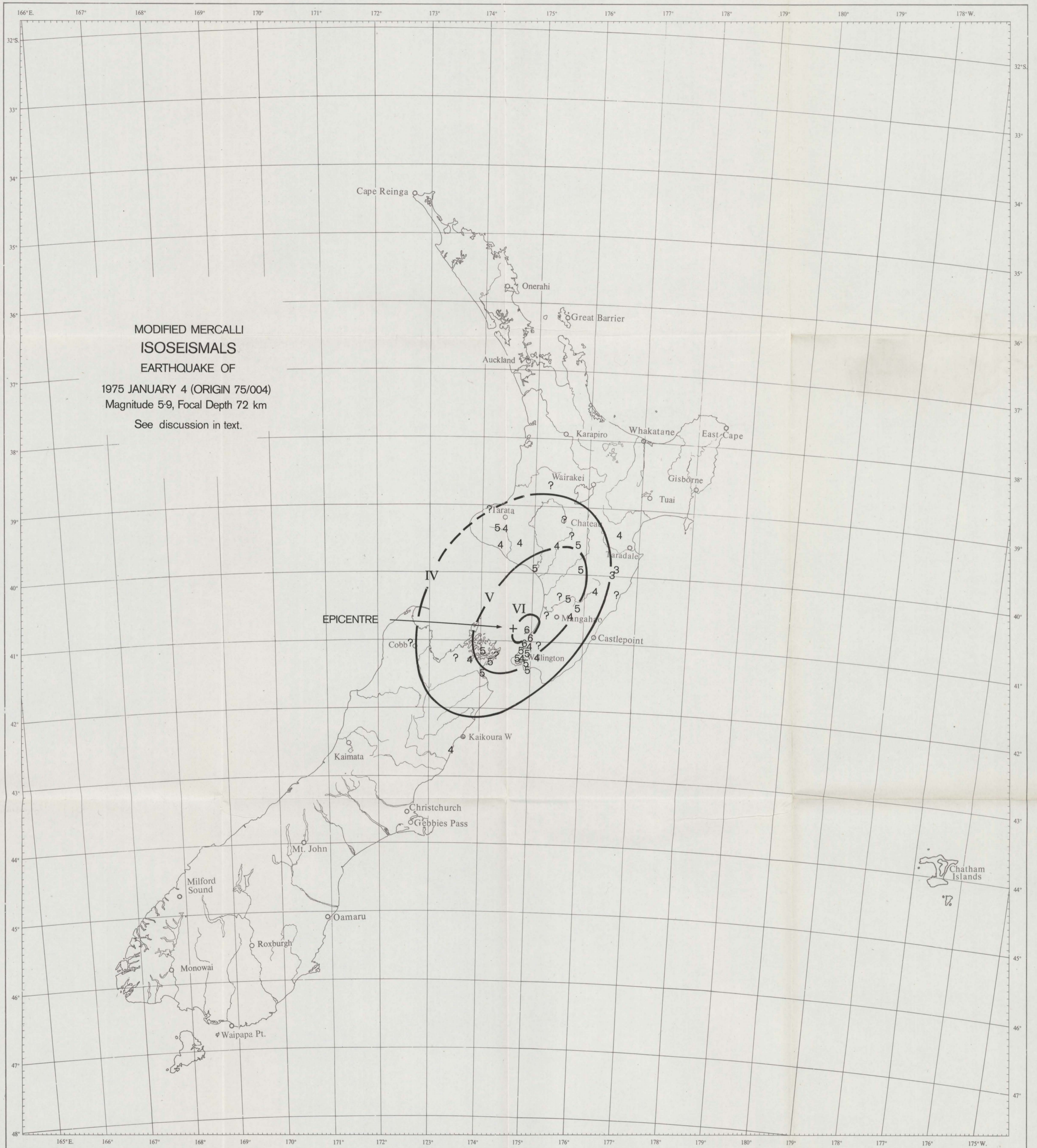
- Magnitude
- > 6.0
 - 5.0-5.9
 - 4.0-4.9
 - < 4.0



**DEEP FOCUS EARTHQUAKES
1975**

This map shows the instrumentally determined epicentres of all earthquakes whose focal depths are 40 Km or more. Shocks with a standard error greater than 2.0 sec., and those that have been recorded at only four or fewer stations are shown by open circles. The size of the circle is an indication of instrumental magnitude. When several shocks have the same epicentre, the magnitude of the largest is shown.

- Magnitude
- > 6.0
 - 5.0-5.9
 - 4.0-4.9
 - < 4.0



MODIFIED MERCALLI
 ISOSEISMALS
 EARTHQUAKE OF
 1975 JANUARY 4 (ORIGIN 75/004)
 Magnitude 5.9, Focal Depth 72 km
 See discussion in text.

EPICENTRE

