New Zealand Department of Scientific and Industrial Research
GEOPHYSICS DIVISION

NEW ZEALAND SEISMOLOGICAL REPORT

1979

New Zealand Department of Scientific & Industrial Research
GEOPHYSICS DIVISION

NEW ZEALAND SEISMOLOGICAL REPORT 1979

SEISMOLOGICAL OBSERVATORY BULLETIN

E - 161

POSTAL SERVICE

All measurement and interpretation of records is carried out at the central station. Requests and communications should therefore be sent to :

The Superintendent
Seismological Observatory
P.O. Box 1320
Wellington
New Zealand.

Correspondents are asked to note that surface mails from Europe and the Americas are infrequent, and that articles not sent by air-mail may take four or five months to reach us.

Published in 1980

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SCIENTIFIC STAFF IN 1979

WELLINGTON

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APIA

Superintendent: C.A.Y.Hewson.

Observer/Technician: Seve Iosa.

RAROTONGA

Observer in Charge: A.Cresswell.

NIUE

Observer: A.T.Pringle.

NADI

Observer: H.Kashyap.

RAOUL ISLAND

Observers: D.H.Pratt
C.S.Coutts.

CAMPBELL ISLAND

Observer: M.S.Sim.

SCOTT BASE

Observer: A.Burt.

INTRODUCTION

The form and content of this bulletin follows that established in the 1977 Report (E – 159).

Teleseismic data do not appear in this Report, but are sent to the International Seismological Centre and published in their bulletins. Seismologists urgently requiring unpublished New Zealand data may apply to the Observatory. Definitive epicentres of local earthquakes are normally available within about three months of their occurrence, and these Reports ready for printing by the middle of the following year.

Mr G.A. Eiby retired, after 40 years public service, on July 24 and was succeeded as Superintendent of the Observatory by Dr W.D. Smith. A brief outline of Mr Eiby's career appears at the end of this Report.

D. E. WARE
Editor

PRINCIPAL EARTHQUAKES IN 1979

New Zealand had only moderate activity during 1979, with very little damage. This followed the pattern of the previous few years, when the level of earthquake occurrence was generally low.

By far the most significant shock of the year was the Puysegur Bank earthquake of October 12 (Origin 79/613). This occurred at 10.25 p.m. NZST and was felt strongly throughout Southland and Stewart Island, and less strongly further north. Initial reports from the U.S. Geological Survey in Colorado put the surface-wave magnitude at 7·7, and as a result of this a Civil Defence alert in New Zealand was initiated. Felt effects were minimal, however, and there are three reasons for this. Firstly, the epicentre was out to sea, some 75 km south-west of Puysegur Point. Secondly, the local magnitude was only 6·5, very much less than the estimate made in the United States from observations of surface waves. Thirdly, the region to the west of Stewart Island appears to have, in common with the Fiordland area to the north of it, the property that earthquakes within it are accompanied by lower intensities than would be expected from earthquakes elsewhere. In this case the maximum intensity reported was MM V. Almost all reports are of long-period effects, *i.e.* swaying but no vibration. This distinguishes the shock from those of the Fiordland area, in that Fiordland shocks are generally of high frequency.

Only one small event which could be described as a foreshock has been identified. This was of magnitude 3·7, and occurred three hours before the main event, 50 km to the north (Origin 79/612). There was however a large series of aftershocks, of which about 150 have been located. Half of these occurred during the first 24 hours, and the remainder during the following month. The largest was of magnitude 5·6, and occurred three hours after the main shock (Origin 79/642). Only three others were large enough to be felt. The aftershocks occurred within a circular region about 85 km in diameter. Although poor epicentral control contributes to the spread of epicentres, this size implies a source volume rather larger than would be expected for an earthquake of local magnitude 6·5, and it is consistent with the

high value of surface wave magnitude and with the long-period felt effects.

Wairoa, Wanganui and Murchison experienced the strongest shaking during the year. An earthquake of magnitude 5·1 (Origin 79/261) shook northern Hawkes Bay on April 22. Intensities reached MM VI, bringing goods off shelves in Wairoa and causing some alarm. A deep earthquake of magnitude 5·7 (Origin 79/357) occurred on June 17 and intensities were sufficiently high, in spite of a focal depth of 137 km, for many people in the Wanganui area to be woken with the strong rolling motion and goods to come off shelves in many shops there. It was felt as far away as Gisborne and Akaroa. The Buller area, and in particular the towns of Murchison and Ross, was shaken by a shock of magnitude 5·6 on March 24 (Origin 79/175). It was felt strongly in Westport, Greymouth and Hokitika, and at lower intensities as far away as Christchurch.

Other felt earthquakes were less severe and caused little damage. The Cook Strait area was jolted by a sharp shock of magnitude 4·9 on January 13 (Origin 79/30), again on April 10 (Origin 79/220) and also on September 3 (Origin 79/522). All were felt on both sides of Cook Strait and further afield. The last of these three was rather deeper than the other two, with a focal depth of 83 km, but it was still felt strongly and weakened a previously damaged building in Palmerston North. Its magnitude was 5·1.

On May 15 an earthquake of magnitude 5·5 occurred at a depth of 104 km beneath Lake Te Anau (Origin 79/301). It was in almost exactly the same location as the first deep earthquake to be reliably located in Fiordland, the event of 1965 May 20 which had a magnitude of 6·4 (Origin 65/274). Deep activity in Fiordland had been suspected earlier, but the 1965 event established it beyond doubt. Since then many hundreds of deep events have been located there. The May 15 shock was felt throughout Central Otago, and as far away as Dunedin and Stewart Island.

New Zealand lies to the south of the Fiji-Tonga-Kermadec seismic zone, which is very active. More than half of the earthquakes over magnitude 5 that were located by the Observatory in 1979 were in the southern part of this zone. A few were felt in New Zealand, such as the magnitude 6·3 shock on November 8 (Origin 79/822) which was felt in Gisborne and Hawkes Bay.

A small shock occurred to the west of Oamaru on January 22 (Origin 79/48). Earthquakes in this part of the country are not

frequent but do occur occasionally. The magnitude was 4·1, but it was not reported felt. Another area of occasional earthquake activity is the northern flank of the Chatham rise. Two earthquakes occurred there, some 300 km east of Christchurch, during the year (Origins 79/120 and 79/277). The latter was a little further south than is common, but still in the region which is recognised as active.

Volcanic activity in New Zealand was limited to intermittent ash and steam eruptions from White Island throughout the year. The volcanoes of the central North Island were quiet.

THE INSTRUMENTAL NETWORKS

INTRODUCTION

The system of seismograph stations now under the scientific direction of the Seismological Observatory, Wellington, comprises a standard network of 34 stations covering the 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 1000 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.

The Pukaki network consists of nine stations set up by the New Zealand Electricity Department in 1975 to monitor any changes in seismicity that might accompany the raising of the level of Lake Pukaki for power generation. The stations transmit their outputs to a central recorder at Twizel, and the records are analysed 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.

The Wellington network is technically similar, but is intended primarily for research. It is also used in the rapid location of shocks of public interest or of importance for civil defence.

Also near Wellington is the 'Seismic Research Observatory' at South Karori. This is a specialised instrument 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 165 mm 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 one vertical component short-period outputs are recorded.

Additional contributions to the standard network come from one station operated by the Geology Department of Otago University at Dunedin, and from four stations operated for volcanological research, one on White Island operated by the Geology Department of the Victoria University of Wellington, and three in the Tongariro National Park operated by the Geophysical Survey of the D.S.I.R. The stations are not under the control of the Observatory and are intermittent in operation, but their readings are available for inclusion in the local epicentre location programme when this is helpful.

CHANGES TO THE NETWORKS IN 1979

During 1979 one new station was added to the standard network, and two stations to the Wellington network. The Observatory also began receiving seismograms from an instrument operated by Otago University.

The standard network station at Borland Lodge is situated on quaternary gravels about 10 km west of the former station at Monowai (closed 1978), which it replaces. Recording at Borland Lodge began on September 22.

The two new stations of the Wellington network, Mount Morrison and Big Hill, were installed in the southern Wairarapa and began operating on June 29. The output from Big Hill is telemetered to Mount Morrison, and both signals are transmitted to the Observatory via Mount Climie.

The Geology Department of Otago University began operating a seismometer at the university in Dunedin, and records from this station are sent to the Observatory.

Recording at Niue was intermittent due to lightning strikes, and Raoul Island was inoperable during October.

INDEX OF 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

Afiamalu	AFI	Gisborne	GNZ	Oban	OBZ
Apia	API	Glacier Shelter	GSZ	Onerahi	ONE
Auckland	AUC	Great Barrier	GBZ	Raoul Island	RAO
Borland Lodge	BRZ	Kaikoura West	KKY	Rarotonga	RAR
Campbell Island	CBZ	Kaimata	KAI	Roxburgh	ROX
Cape Reinga	CRZ	Karapiro	KRP	Scott Base	SBA
Cashmere	CMZ	Mangahao	MNG	Taradale	TRZ
Castlepoint	CAZ	Milford Sound	MSZ	Tarata	TNZ
Chateau	CNZ	Mount John	MJZ	Tuai	TUA
Chatham Islands	CIZ	Nadi	NDF	Wairakei	WNZ
Cobb River	COB	Ngauruhoe	NGZ	Wellington	WEL
Dunedin	DNZ	Niue	NUE	Whakatane	WTZ
East Cape	ECZ	Oamaru	OMZ	White Island	WIZ

PUKAKI NETWORK

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

WELLINGTON NETWORK

Baring Head	BHW	Makara Radio	MRW	Wainui Dam	WDW
Big Hill	BLW	Moikau	MOW	Wellington	WEL
Cannon Point	CAW	Mount Morrison	MTW	Wright's Hill	WHW
Kapiti Island	KIW	Tory Channel	TCW		

SEISMIC RESEARCH OBSERVATORY

South Karori	SNZO

GEOGRAPHICAL POSITIONS

STA	LATITUDE	LONGITUDE	ALT	GEOCENTRIC DIRECTION COSINES		
	d m s	d m s	m	A	B	C
AFI	13 54 34 S	171 46 38 W	706	−0.961 070	−0.138 883	−0.238 864
API	13 48 26 S	171 46 30 W	2	−0.961 482	−0.138 981	−0.237 142
AUC	36 51 36 S	174 46 41 E	79	−0.798 711	0.072 997	−0.597 271
BHW	41 24 33 S	174 52 17 E	10	−0.749 202	0.067 242	−0.658 919
BLW	41 22 07 S	175 28 29 E	340	−0.750 333	0.059 386	−0.658 387
BRZ	45 46 45 S	167 32 19 E	190	−0.583 352	0.151 009	−0.714 301
BSP	43 52 14 S	170 06 15 E	750	−0.712 478	0.124 294	−0.690 598
CAW	41 06 32 S	175 04 04 E	330	−0.752 855	0.064 969	−0.654 972
CAZ	40 54 15 S	176 13 34 E	6	−0.756 343	0.049 890	−0.652 270
CBZ	52 33 03 S	169 09 33 E	30	−0.599 744	0.114 851	−0.791 907
CIZ	43 57 18 S	176 33 56 W	45	−0.720 923	−0.043 266	−0.691 663
CMZ	43 35 10 S	172 38 23 E	255	−0.720 670	0.093 091	−0.687 000
CNZ	39 12 00 S	175 32 51 E	1116	−0.774 682	0.060 323	−0.629 467
COB	41 05 16 S	172 44 02 E	213	−0.749 824	0.095 604	−0.654 693
CRZ	34 25 55 S	172 40 47 E	140	−0.819 834	0.105 318	−0.562 833
DNZ	45 51 59 S	170 30 54 E	15	−0.689 197	0.115 147	−0.715 366
DMP	44 24 51 S	169 49 38 E	820	−0.705 389	0.126 574	−0.697 427
ECZ	37 41 37 S	178 32 46 E	40	−0.793 026	0.020 128	−0.608 855
GBZ	36 13 04 S	175 28 52 E	70	−0.806 157	0.063 714	−0.588 261
GNZ	38 38 39 S	178 01 21 E	30	−0.782 622	0.027 022	−0.621 911
GSZ	39 16 40 S	175 35 14 E	2600	−0.773 872	0.059 720	−0.630 520
HGP	44 06 09 S	169 50 39 E	590	−0.709 150	0.127 032	−0.693 519
HHP	44 19 39 S	170 20 44 E	490	−0.707 545	0.120 364	−0.696 343
KAI	42 31 33 S	171 24 31 E	82	−0.730 944	0.110 433	−0.673 443
KIW	40 51 50 S	174 54 42 E	320	−0.755 456	0.067 268	−0.651 738
KKY	42 25 12 S	173 41 31 E	101	−0.735 998	0.081 360	−0.672 077
KRP	37 55 30 S	175 32 15 E	64	−0.788 423	0.061 531	−0.612 049
MJP	43 59 28 S	170 27 34 E	960	−0.711 801	0.119 633	−0.692 118
MJZ	43 59 14 S	170 27 58 E	1000	−0.711 861	0.119 558	−0.692 069
MMP	44 08 33 S	170 16 42 E	950	−0.709 615	0.121 573	−0.694 022
MNG	40 37 07 S	175 28 55 E	396	−0.758 859	0.059 965	−0.648 488
MOW	41 25 18 S	175 15 07 E	430	−0.749 489	0.062 253	−0.659 083
MRW	41 13 57 S	174 42 18 E	235	−0.751 022	0.069 604	−0.656 599
MSZ	44 40 14 S	167 55 01 E	38	−0.697 720	0.149 363	−0.700 627
MTW	41 09 34 S	175 30 07 E	282	−0.752 750	0.059 217	−0.655 638
NDF	17 45 25 S	177 27 00 E	30	−0.952 009	0.042 398	−0.303 118
NGZ	39 11 00 S	175 36 49 E	1400	−0.774 933	0.059 443	−0.629 241
NUE	19 04 35 S	169 55 41 E	56	−0.931 186	0.165 400	−0.324 864
OBZ	46 54 18 S	168 06 55 E	26	−0.670 966	0.141 208	−0.727 918
OMZ	45 04 14 S	170 54 53 E	95	−0.699 729	0.111 895	−0.705 591
ONE	35 46 33 S	174 21 45 E	30	−0.809 242	0.079 882	−0.582 019
RAO	29 15 06 S	177 55 06 W	110	−0.873 304	−0.031 743	−0.486 140
RAR	21 12 45 S	159 46 24 W	28	−0.875 524	−0.322 593	−0.359 711
RHP	44 06 03 S	170 05 02 E	899	−0.709 695	0.124 068	−0.693 499
ROX	45 28 33 S	169 19 13 E	106	−0.691 423	0.130 393	−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 37 S	174 42 17 E	−10	−0.750 134	0.069 526	−0.657 621
TCW	41 12 48 S	174 16 33 E	150	−0.750 697	0.075 250	−0.656 347
THP	44 32 42 S	169 53 17 E	760	−0.703 954	0.125 545	−0.699 062
TMP	44 18 54 S	170 07 12 E	720	−0.707 215	0.123 175	−0.696 186
TNZ	39 11 14 S	174 22 49 E	123	−0.773 432	0.076 105	−0.629 294
TRZ	39 33 12 S	176 49 17 E	17	−0.771 946	0.042 870	−0.634 241
TUA	38 48 29 S	177 09 02 E	274	−0.780 343	0.038 841	−0.624 145
WDW	41 16 07 S	174 59 37 E	130	−0.750 950	0.065 784	−0.657 074
WEL	41 17 10 S	174 46 06 E	122	−0.750 486	0.068 718	−0.657 304
WHW	41 17 51 S	174 44 17 E	383	−0.750 320	0.069 103	−0.657 453
WIZ	37 31 42 S	177 11 21 E	40	−0.794 075	0.038 988	−0.606 568
WNZ	38 37 53 S	176 06 10 E	350	−0.781 416	0.053 234	−0.621 736
WTZ	37 59 05 S	176 59 18 E	43	−0.789 092	0.041 516	−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_o 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, where the magnifications are given at the conventional periods of 1·0 and 15 seconds. Typical period response curves for Willmore II, Benioff, Wood-Anderson and Mark Products L – 4C seismographs are shown at the end of this section.

	Instrument	Compt	T_o	T_g	Damping	Magnification
AFI	AFIAMALU					
	World-Wide Standard Station.					
	Foundation: Basaltic lava flows.					
	Benioff	ZNE	1.0	0.75		12500 at 1.0s
	Press-Ewing	ZNE	15	100		750 at 15s
API	APIA					
	Foundation: Coral sand on Recent and Pleistocene basalt.					
	Johnson-Matheson (photo-cell amplifier used with heated stylus recorder).					
		Z	1.2	0.20		
AUC	AUCKLAND					
	Foundation: Volcanic beds on Tertiary sandstone and mudstone.					
	Willmore I (photo-cell amplifier used with pen-and-ink recorder).					
		Z	1.0	1.0		7600 at 0.8s
BRZ	BORLAND LODGE					
	Foundation: Quaternary gravels.					
	Willmore II	Z	1.0	0.25		29100 at 0.25s
	Wood-Anderson	N	0.80		crit.	2800
	This station began operating on August 22.					
CAZ	CASTLEPOINT					
	Foundation: Quaternary mudstone.					
	Willmore II (with Kinemetrics pen-and-ink recorder).					
		Z	1.0			Variable
	This station is on an exposed coast. The magnification is reduced when high seas are running.					
CBZ	CAMPBELL ISLAND					
	Foundation: Basalt.					
	Willmore II	Z	1.0	0.25		5000 at 0.25s
CIZ	CHATHAM ISLANDS					
	Foundation: Clay over basalt.					
	Willmore II	Z	1.0	0.25		4440 at 0.20s
		N	1.0	0.25		5110 at 0.20s
		E	1.0	0.25		4400 at 0.25s

	Instrument	Compt	T_o	T_g	Damping	Magnification
CMZ	CASHMERE					
	Foundation: Rhyolite.					
	Mark Products L – 4C (Output telemetered to Kinemetrics VR – 1 recorder at Canterbury Museum).					
		Z	1.0			24000 at 0.20s
CNZ	CHATEAU					
	Foundation: Volcanic ash and lava.					
	Mark Products L – 4C (Output telemetered to Kinemetrics VR – 1 pen-and-ink recorder).					
		Z	1.0			Variable
	This station is operated by the Geophysical Survey, D.S.I.R., for volcanological research. The magnification is changed frequently.					
COB	COBB RIVER					
	Foundation: Schist.					
	Willmore II	Z	1.0	0.25		27300 at 0.20s
CRZ	CAPE REINGA					
	Foundation: Cretaceous basic volcanics.					
	Willmore II	Z	1.0	0.25		9350 at 0.25s
		N	1.0	0.25		10200 at 0.20s
		E	1.0	0.25		9790 at 0.20s
DNZ	DUNEDIN					
	Foundation: Basaltic lava flow.					
	Willmore I (with Kinemetrics pen-and-ink recorder).					
		Z	1.0			12000 approx.
	This station is operated by the Geology Department of Otago University.					
ECZ	EAST CAPE					
	Foundation: Mudstone and sandstone.					
	Willmore II	Z	1.0	0.25		4800 at 0.33s
GBZ	GREAT BARRIER					
	Foundation: Tertiary volcanics.					
	Willmore II	Z	1.0	0.25		23800 at 0.25s
GNZ	GISBORNE					
	Foundation: Alluvium on Tertiary mudstone.					
	Willmore II	Z	1.0	0.25		27000 at 0.25s
		N	1.0	0.25		26700 at 0.25s
		E	1.0	0.25		25100 at 0.25s
	Magnifications of the instruments were changed on August 2 to:					
		N	1.0	0.25		29500 at 0.20s
		E	1.0	0.25		25200 at 0.20s
GSZ	GLACIER SHELTER					
	Foundation: Recent andesite.					
	Mark Products L – 4C (Output telemetered to Kinemetrics VR – 1 pen-and-ink recorder).					
		Z	1.0			Variable
	This station is operated by the Geophysical Survey, D.S.I.R., for volcanological research. The magnification is changed frequently.					
KAI	KAIMATA					
	Foundation: Moraine and river gravels over Tertiary mudstone and sandstone.					
	Wood-Anderson	X	0.80		crit.	2800
	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	0.20		40000 at 0.20s
	35mm film recorder. Magnification as seen on 8 × viewer.					

	Instrument	Compt	T_o	T_g	Damping	Magnification
KRP	KARAPIRO					
	Foundation: Greywacke.					
	Benioff	Z	1.0	0.20		46700 at 0.25s
		N	1.0	0.20		approx. 40000 unstable
		E	1.0	0.20		41000 at 0.50s
	Press-Ewing	ZNE	15	100		1000 approx. at 15s
MJZ	MOUNT JOHN					
	Foundation: Greywacke.					
	Willmore II	Z	1.0	0.25		30500 at 0.25s
		N				43600 at 0.25s
		E				41100 at 0.25s
MNG	MANGAHAO					
	Foundation: Greywacke.					
	Willmore II	Z	1.0	0.25		52000 at 0.33s
MSZ	MILFORD SOUND					
	Foundation: Gneiss.					
	Willmore II	Z	1.0	0.25		49800 at 0.25s
NDF	NADI					
	Foundation: Recent clays.					
	Willmore II (photo-cell amplifier used with heated stylus recorder).					
		Z	1.25	0.20		6000 approx.
NGZ	NGAURUHOE					
	Foundation: Recent volcanic flows.					
	Mark Products L−4C (Output telemetered to Kinemetrics pen-and-ink recorder).					
		Z	1.0			Variable
	This station is operated by the Geophysical Survey, D.S.I.R. for volcanological research. The magnification is changed frequently.					
NUE	NIUE					
	Foundation: Hard coral.					
	Willmore II (with Kinemetrics VR−1 pen-and-ink recorder).					
		Z	1.0			17200 at 0.10s
OBZ	OBAN					
	Foundation: Weathered granite.					
	Mark Products L−4C (with Kinemetrics VR−1 pen-and-ink recorder).					
		Z	1.0			12000 at 1.0s
OMZ	OAMARU					
	Foundation: Recent deposits overlying Tertiary limestone.					
	Willmore II	Z	1.0	0.20		11500 at 0.20s
ONE	ONERAHI					
	Foundation: Basalt.					
	Wood-Anderson	E	0.80		crit.	2800
RAO	RAOUL ISLAND					
	Foundation: Volcanic rock.					
	Willmore II	Z	1.0	0.25		4800 at 0.25s
RAR	RAROTONGA					
	World-Wide Standard Station.					
	Foundation: Basalt.					
	Benioff	ZNE	1.0	0.75		6250 at 1s
	Press-Ewing	ZNE	15	100		375 at 15s

	Instrument	Compt	T_o	T_g	Damping	Magnification
ROX	ROXBURGH					
	Foundation: chlorite schist.					
	Willmore I	Z	1.0	0.25		11500 at 0.25s
	Galitzin	Z	12	12		200 approx.
		NE	24	24		300 approx.
SBA	SCOTT BASE					
	World-Wide Standard Station.					
	Foundation: Frozen basaltic debris resting on lava flows.					
	Benioff	ZNE	1.0	0.75		6250 (summer) at 1.0s
						25000 (winter)
	Press-Ewing	ZNE	15	100		750 (summer) at 15s
						1500 (winter)
TNZ	TARATA					
	Foundation: Pleistocene mudstone.					
	Willmore II	Z	1.0	0.25		4570 at 0.20s
TRZ	TARADALE					
	Foundation: Quaternary sands and silts, overlying Quaternary limestone.					
	Willmore II	Z	1.0	0.25		5550 at 0.25s
TUA	TUAI					
	Foundation: Thick Tertiary sandstone and mudstone.					
	Willmore II	Z	1.0	0.25		7080 at 0.25s
WEL	WELLINGTON					
	World-Wide Standard Station.					
	Foundation: Greywacke.					
	Benioff	ZNE	1.0	0.75		6250 at 1.0s
	Press-Ewing	ZNE	15	100		750 at 15s
	Wood-Anderson	NE	0.80		crit.	1400
		E	0.80		crit.	280
	Imamura	Z	1		5:1	2
		NE	4		5:1	2

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.

WIZ WHITE ISLAND

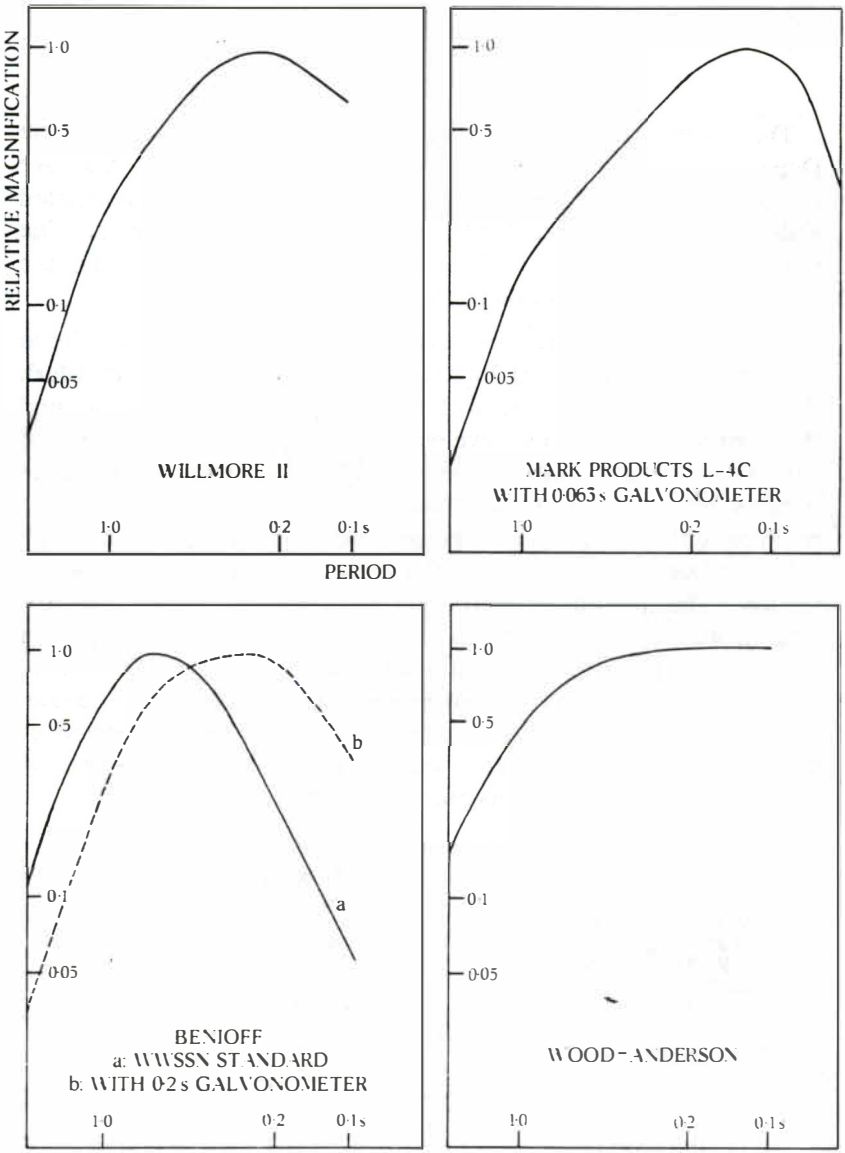
Foundation: Recent andesite.

Mark Products L–4C (Output telemetered to Kinemetrics VR–1 pen-and-ink recorder).

		Z	1.0			Variable

This station is operated by the Geology Department of Victoria University of Wellington for volcanological research.

WNZ	WAIRAKEI					
	Foundation: Pumice breccia.					
	Willmore I	Z	1.0	0.25		200 (nominal)
WTZ	WHAKATANE					
	Foundation: Weathered Jurassic greywacke.					
	Willmore II	Z	1.0	0.20		24000 at 0.20s



PERIOD RESPONSE CURVES
SHORT PERIOD SEISMOGRAPHS

'Response curves'

PUKAKI NETWORK

The stations of the Pukaki network are operated by the Department of Energy Resources, Electricity Division 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 nine permanent stations linked by radio to a common film recorder at Twizel. The seismometers used are Mark Products L−4C instruments with a natural period of one second, and the recorder is a Teledyne Develocorder with galvanometers having a natural period of 0·063s (frequency 16Hz). The outputs from some stations are recorded on two traces after electrical modification to produce different period response and magnification. The high magnification response curve is shown in the diagram preceding this section. The period of maximum response is 0·10s. The low magnification response curve is similar to that of a Willmore II and reaches a peak magnification at 0·20s. The low magnification traces are set to give one fifth of the magnification of the high magnification trace at 1·0s. 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	750 000 at 0.10s
DMP	Diadem	Z	750 000 at 0.10s
HGP	Huxley Gorge	Z	750 000 at 0.10s
HHP	Hogget Hill	Z	750 000 at 0.10s
MJP	Mt John Pukaki	Z	750 000 at 0.10s
MMP	Mount Mary	Z	750 000 at 0.10s
RHP	Rhoboro Hills	Z	750 000 at 0.10s
THP	Tara Hills	Z	750 000 at 0.10s
TMP	Tomahawk Gully	Z	750 000 at 0.10s
		N	100 000 at 0.20s
		E	100 000 at 0.20s

The equipment at Twizel includes a conventional pen-and-ink recorder, which can be connected to the output of any of several stations. It is normally used to record the output of the Rhoboro Hills (RHP) seismometer, providing a magnification of 275,000 at 0·10s. 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 L – 4C instruments with a natural period of 1·0 second, except in the case of WEL, where the vertical component signal is derived from the Benioff short-period instrument of the World-Wide Standard Station. The recorder used is a Teledyne Develocorder with galvanometers having a period of 0·063s (frequency 16Hz). Magnifications quoted refer to the most sensitive channel, as projected on the screen of the Develocorder, which magnifies the film trace ten times. In some cases a second channel operating at a lower gain is also recorded. Magnifications in parentheses have been empirically determined by comparing magnitudes determined at these stations with magnitudes determined at calibrated stations.

	Station	Component	Magnification at 0.10s
BHW	Baring Head	Z	350 000
BLW	Big Hill	Z	400 000
	Station installed on June 29.		
CAW	Cannon Point	Z	480 000
KIW	Kapiti Island	Z	(320 000)
MOW	Moikau	Z	210 000
MRW	Makara Radio	Z	400 000
MTW	Mount Morrison	Z	400 000
	Station installed on June 29.		
TCW	Tory Channel	Z	(1 000 000)
WDW	Wainui Dam	Z	630 000
WEL	Wellington	Z	(1 500)
		Z	110 000
WHW	Wright's Hill	N	280 000

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

N. B. The films from both the Wellington and Pukaki networks are normally read on a viewer which has a magnification twice that of the Develocorder.

SEISMIC RESEARCH OBSERVATORY

This station is sponsored by the United States Geological Survey. A three-component seismometer sealed in a gas-filled capsule is placed in a borehole 165mm in diameter and about 100m 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 88m above and the seismometer 10m below sea-level.

Station	Component	Magnification
SNZOSouth Karori	ZNE	20 000 at 25s
	Z	6 250 at 1.0s

The lithological foundation is Jurassic-Permian Greywacke.

TIMING ARRANGEMENTS

Unless stated otherwise, times in this Report are given in Universal Time. For seismological and civil purposes this may be regarded as the Mean Solar Time of the Greenwich meridian.

All permanent stations of the New Zealand networks have minute marks derived from reliable quartz crystal clocks of high stability. These are related to Universal Time by means of radio time-signals impressed directly on the records. In most cases these are the signals of the New Zealand Time Service, for which the Observatory is administratively responsible, and which are transmitted hourly through the stations of Radio New Zealand. Their error seldom exceeds two milliseconds. Details appear elsewhere in this Report. In areas of bad reception the Australian station VNG is used.

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 at the Observatory or from VNG are used. 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 a continuous record of the signals from VNG

It is sometimes desirable to know the local civil time at which an earthquake occurred. The times now used for civil purposes in New Zealand (except the Chatham Islands) are New Zealand Standard Time, and New Zealand Daylight Time, which are defined in the Time Act, 1974. New Zealand Standard Time is 12^h, and New Zealand Daylight Time is 13^h ahead of U.T. The period of Daylight Time is specified periodically by Order in Council, as provided by the Act, and normally extends from 02^h NZST on the last Sunday in October until 02^h NZST on the first Sunday in March of the following year.

The time observed in the Chatham Islands is 45 minutes in advance of that currently in use in New Zealand. New Zealand Standard Time is observed at Scott Base, in Fiji and on Raoul Island. Times observed elsewhere in the South Pacific are decided by the governments of the respective countries. Those affecting stations of the New Zealand network are:

Western Samoa	$11^h\ 00^m$	behind U.T.
Niue	$11^h\ 00^m$	behind U.T.
Rarotonga	$10^h\ 30^m$	behind U.T.
Tonga	$13^h\ 00^m$	ahead of U.T.

Note that Western Samoa, Niue, and Rarotonga are on the opposite side of the International Date Line from New Zealand.

INSTRUMENTAL DATA

INTRODUCTION

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 shocks of magnitude 4·0 and greater within 10° of Wellington, together with those shocks of lower magnitude or at greater distances, that have been reported felt. A summary of the origins and magnitudes is given later in this section. The calculations are carried out by a PDP 11/34 digital computer using a FORTRAN programme developed by W. D. Smith, E. G. C. Smith and A. J. Haines. 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 weighted residuals (observed minus computed arrival-times).

DETERMINATION OF ORIGINS

The earthquake origins are determined using the phases P,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/s respectively (Pg and Sg) and below it they are 6·5 and 3·7 km/s (P* and S*). Travel times for Pn and Sn waves, which travel in the mantle, are calculated using mantle velocities of 8·1 km/s for Pn and 4·65 km/s for Sn. Several studies have shown that these values are close to the average velocities for Pn and Sn in New Zealand. Travel times for P and S, used in sub-crustal earthquakes, are derived from the Jeffreys-Bullen *Seismological Tables* (British Association for the Advancement of Science, 1958), and, at the base of the crust, correspond to a velocity of 7·8 km/sec for P and 4·4 km/sec for S. It is known that the mantle in New Zealand is not laterally homogeneous, but until such time as more accurate travel times can be routinely calculated, the Jeffreys-Bullen approximation will continue to be used in the interest of consistency with earlier reports.

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 some chosen depth. This is most commonly done for crustal earthquakes. Unless there is a station within 25 km of a shock in the upper crust, or within 50 km of a shock in the lower crust, a nominal depth of either 12 or 33 km is assigned, according to the crustal phases present, and to the goodness of fit of the resultant solutions. The letter R (for 'restricted') after the depth indicates that the depth has been fixed at the given value.

In routine epicentre determinations sufficient stations are read to yield a satisfactory solution. The fact that no readings from a station have been reported is not necessarily an indication that the station did not record the shock.

In using the results in this section, it is essential to keep in mind that the positions 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). The solutions presented are in all cases based upon uniform procedures and a laterally homogeneous model approximating average conditions in the New Zealand region. In fact, the structure beneath New Zealand is known to be asymmetrical, and in consequence of the associated 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, without further investigation of the solution.

MAGNITUDES

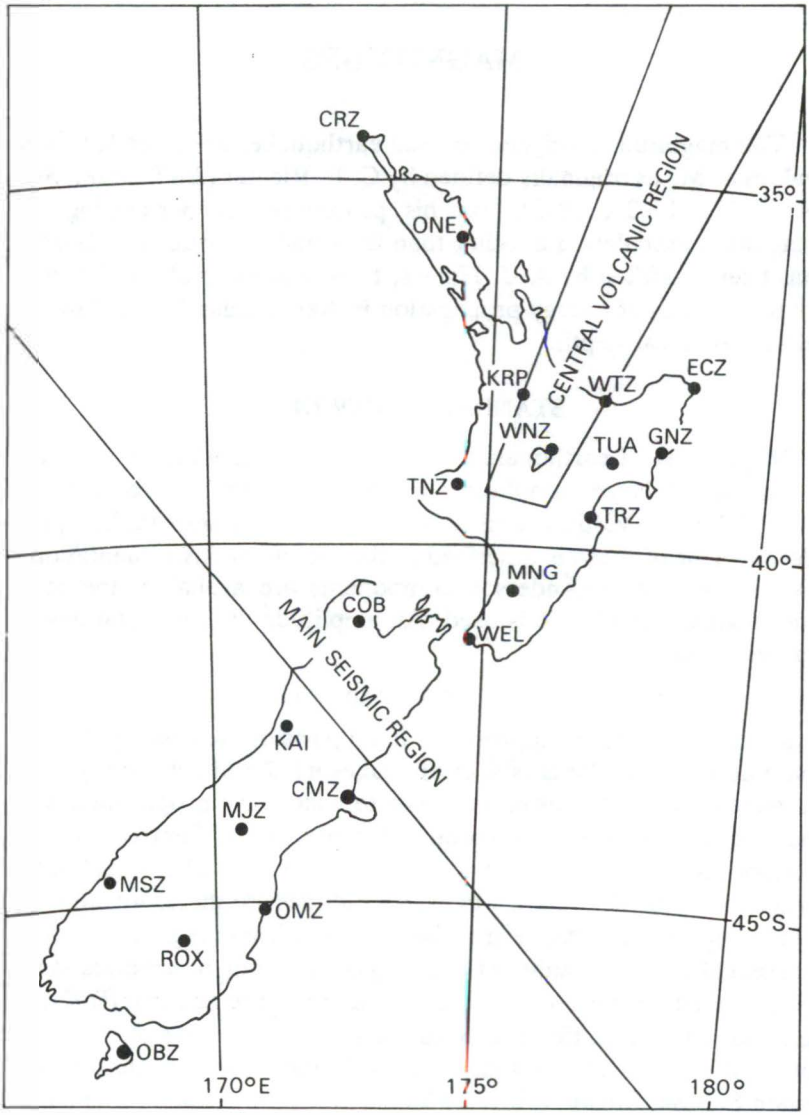
The magnitudes assigned to local earthquakes are intended to be values of M_L as originally defined by C. F. Richter (*Bull. Seism. Soc. Am. 25*: 1–32, 1935), but his procedure for performing the magnitude calculation at other than the standard distance of 100 km has been modified by A. J. Haines, to take account of the observed characteristics of energy propagation in New Zealand, including the effects of focal depth.

STANDARD NETWORK

Magnitudes of earthquakes recorded by the standard network are based on the largest amplitudes in the P and S groups, recorded by the Willmore vertical and Wood-Anderson seismographs. (The deployment of these is described in the section on instrumentation.) Where two Wood-Anderson components are available, the root-mean-square amplitude is used. An amplitude-distance relationship of the form

$$A = A_o R^{-n} \exp(-\alpha R)$$

has been found to be appropriate in all parts of the country, but the parameters vary. For crustal earthquakes n is 2 and α generally takes a value close to 0. This corresponds to head-wave propagation with no attenuation. R is the epicentral distance. In the Central Volcanic Region, however, (see Map, p.28) α takes values of 0.8 deg^{-1} for P waves and 1.05 deg^{-1} for S waves. Amplitudes are therefore adjusted according to the distance travelled in the volcanic region. For deep earthquakes in the Main Seismic Region the same parameters as for crustal earthquakes apply (*i.e.* $n = 2, \alpha = 0$) provided that (i) R now measures the slant distance from the focus to the base of the crust, and (ii) stations to the west of the volcanic region or south of the Main Seismic Region are not used, because the structure demands different spreading and attenuation terms there. For deep earthquakes in Fiordland the amplitude formula can also be used, provided that (i) n takes the value 1 (*i.e.* body wave propagation), (ii) α increases with focal depth, and (iii) stations MNW and MSZ and those in the Main Seismic Region (apart from COB) are not used, because of the variation of coefficients n and α there.



'Magnitude map'

TABLE 1

MAGNITUDE CORRECTIONS FOR THE TWO CLASSES OF FOCAL DEPTH, FOR P AND S PHASES RECORDED ON WILLMORE AND WOOD-ANDERSON INSTRUMENTS.

Station	Wilmore P		Willmore S		Wood-Anderson	
	≤33 km	>33 km	≤33 km	>33 km	≤33 km	>33 km
CMZ	0.05		−0.15			
COB	0.15		−0.40			
CRZ	0.25		0.20			
ECZ	0.60	0.40	0.50	0.40		
GNZ	0.00	0.00	−0.20	−0.20		
KAI					0.30	
KRP	−0.25		−0.30			
MJZ	−0.25	−0.35				
MNG	−0.35	−0.40	−0.45	−0.50		
MSZ	−0.25		−0.50			
OBZ	0.00		−0.40			
OMZ	0.15		−0.15			
ONE					0.15	
ROX	0.15		−0.25			
TNZ	0.40		0.25			
TRZ	0.30	0.45	0.15	0.10		
TUA	0.40	0.40	0.35	0.40		
WEL					0.30	0.30
WNZ	0.95	1.20	0.75	1.35		
WTZ	−0.10	0.05	−0.05	0.00		

Corrections are applied to allow for station characteristics. These include the differences in site effects, frequency response and magnification of the instruments. They are determined empirically in such a manner as to give the most consistent estimates of magnitude from the different stations. The absolute level is adjusted to give a standard Wood-Anderson instrument at Wellington a zero correction, a procedure that can be justified on *a priori* grounds and provides a smooth connection with New Zealand magnitudes published before 1977. Station corrections (Table 1) are added to the individual estimates of magnitude, which are then averaged. For deep earthquakes in Fiordland estimates obtained from MNW and MSZ, by taking $n = 2$, $\alpha = 0$ and applying a -0.1 correction, are assigned half-weight. Particular values not used in determining the mean for any of the above reasons, or if the station corrections are not known, are marked with an asterisk.

The trace amplitudes (mm) on which the individual estimates of magnitude are based are given, but not the actual ground motion. This is because (i) the magnifications listed in the instrumentation section of this report are at a variety of frequencies, (ii) Wood-Anderson and Willmore magnitude calculations use not the actual instrument magnifications but empirical station constants, selected for consistency among stations.

PUKAKI NETWORK

The maximum amplitude on the viewing screen is used, together with a formula developed by Eaton (*Open File Report*, U.S. Geological Survey, 1970) which has been modified for consistency among stations and calibrated against available stations of the national network (*e.g.* MJZ) using a few selected shocks. This procedure is being refined and the formula may be further modified in subsequent years. Magnitudes presented here must therefore be regarded as provisional. There is no evidence that station corrections are required. Individual estimates of magnitude are averaged to produce the value presented in the list of origins.

WELLINGTON NETWORK

Magnitudes are calculated using both the maximum amplitude on the viewing screen and the duration of the signal. The formulae are empirical, developed by R. Robinson for maximum consistency among stations. Both scales were calibrated against the Wood-Anderson determination at Wellington, for a selection of shocks that were large enough to record there. The formulae are

$$M_T = -0.81 + 2.30 \log_{10} T_i + C_i$$

$$M_A = \log_{10} A_i - 1.71 + 1.56 \log_{10} R_i + K_i$$

where T_i is the duration in seconds at station i, A_i is the amplitude (mm) on the viewing screen, R_i is the slant distance from the focus (km), and C_i and K_i are the station corrections for determinations from durations and amplitudes respectively. In the light of experience, the constants in these equations have been changed from those used in previous years, and the corrections listed in Table 2 have been altered accordingly. Individual estimates of magnitude are averaged to give the final values which appear in the list of origins.

TABLE 2

MAGNITUDE CORRECTIONS USING AMPLITUDES AND DURATIONS FOR STATIONS OF THE WELLINGTON NETWORK.

Station	Amplitudes	Durations
BHW	0.27	0.22
BLW	0.06	0.09
CAW	−0.33	0.00
KIW	−0.32	0.03
MOW	0.13	0.19
MRW	−0.09	0.13
MTW	−0.05	0.15
TCW	−0.42	−0.03
WDW	−0.10	0.11
WEL	0.00	0.24
WELA†	1.59	
WELO†	1.71	
WHW	−0.22	0.02

† WELA is a Wood-Anderson instrument and WELO is a low gain vertical instrument, both at Wellington.

DATA FROM THE STANDARD NETWORK

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

$$\text{S.E.} = \sqrt{\frac{\sum_{i=1}^{n} (w_i r_i / 100)^2}{n - m}}$$

where r_i is the i th residual, w_i is its weight, 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° = 111km), 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 southeast quadrant.

Residuals are listed for all readings used in calculating the origin and in certain other cases. A weight, in the range 0 to 100, is assigned to each residual by Jeffreys' method (Jeffreys H.,1939: *Probability Theory*, Cambridge University Press), which severely diminishes the weight given to residuals greater than three standard errors. The absence of a weight indicates that that reading was suppressed by the seismologist who processed the earthquake, and was not used in determining the origin.

79/ 001

JAN 01 $02^h43^m02^s.9$ 34°.81S 179°.24E 212 km M = 4.9

± 1.0 0.07 0.10 15 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(P)	02	43	54		1.1	99	2.93	191			
	e		44	24								
	e(S)			31		−0.6	100					
WIZ	P	02	43	56.5		0.7	100	3.19	211			
	S		44	37.5		0.8	100					
GBZ								3.37	244			
WTZ	iP	02	44	01.4	D	0.0	100	3.65	209		5.2	4.9
	S			47		0.2	100					
GNZ	iP	02	44	04.4	D	−0.7	100	3.95	194		4.8	5.1
	S			52		−1.3	99					
ONE	P	02	44	06		−1.0	99	4.11	255			
KRP	P	02	44	10		0.4	100	4.32	223		3.7*	
TUA	eS	02	45	03		1.3		4.33	202		4.7	4.9
TRZ	P?	02	44	19		−0.8		5.12	201		4.5	5.2
	e			55.5								
	e		45	02.5								
	S			20		0.5	100					
NGZ	P	02	44	21.5		−0.0	100	5.25	213			
	(S)		45	22		−0.4						
TNZ	P	02	44	29.5		0.3		5.85	220		3.2*	
MNG	P	02	44	34.4	D	−3.4		6.52	206			
WEL	S	02	46	05		−6.4		7.37	207	4.5		
COB	e(P)	02	44	54		−4.3		8.11	217		3.1*	3.3*
	S		46	24.5		−4.1						
CIZ	P	02	45	24		5.2		9.70	162			
	S		47	09		3.6						
KAI								9.85	216	3.3*		
MJZ	iP?	02	45	36.5	D	−4.3		11.40	214		3.9*	3.1*
	S		47	37		−7.9						

AMPLITUDES:										
GBZ	1.8	WTZ	7.5	4.2	GNZ	2.8	9.5
KRP	1.8	TUA	0.7	1.3	TRZ	0.3	4.0
TNZ	0.1	WEL	0.2		COB	0.1	0.6
CIZ	0.3	0.8 KAI	0.1		MJZ	1.5	0.4

79/ 002

JAN 01 $14^h51^m01^s.3$ 31°.79S 179°.52W 573 km M = 5.1

± 1.2 0.19 0.44 38 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ								6.07	222			
ECZ	e(P)	14	52	44		1.4	99	6.11	195			
WIZ	P?	14	52	45.5		0.8	100	6.34	204			
WTZ	P	14	52	48		−1.2	100	6.82	204		5.4	4.9
	S		54	13.5		−1.5	99					
GNZ	P	14	52	51		−1.1	100	7.14	196		5.9	5.1
	S		54	20		−0.3	100					
KRP	P	14	52	55		0.9	100	7.35	212		3.5*	
TUA	P	14	52	56		0.3	100	7.52	200		5.2	5.0
	S		54	28		1.0	100					
TRZ	P	14	53	02		−1.3	100	8.31	200		5.0	4.9
	S		54	41.5		0.7	100					
NGZ	eP	14	53	04		0.0	100	8.39	207			
MNG	P	14	53	16		−1.0		9.70	203		4.8	4.6

	S		55	05		−0.8						
WEL	e(S)	14	55	23		2.0		10.54	204			
COB	eP	14	53	31.5		−0.4		11.19	212		3.3*	2.7*
	S		55	31.5		−1.3						

AMPLITUDES:

GBZ	1.8		WTZ	2.5	1.0	GNZ	9.5	2.3
KRP	0.6		TUA	0.6	0.4	TRZ	0.3	0.5
MNG	1.0	0.9	COB	0.1	0.1			

79/ 003

JAN 02 $19^h11^m50^s.0$ 40°.89S 175°.64E 7 km M = 3.7

± 0.4 0.01 0.02 2 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iPg	19	11	56.2		0.1	100	0.30	336			
CAZ	P*	19	11	59.7		0.4	100	0.45	92			
	Sg		12	09		3.8						
CAW	P*	19	12	00.1		0.1	100	0.49	243			
KIW	P*	19	12	01.3		0.2	100	0.55	272			
MOW	P*	19	12	02.1		0.1	100	0.60	209			
WDW	P*	19	12	02.4		0.2	100	0.62	232			
WEL	P*	19	12	04.8		0.0	100	0.76	239	3.2		
	S*			16		0.6	100					
	Sg			18		2.1						
BHW	P*	19	12	04.8		−0.2	100	0.77	228			
MRW	P*	19	12	05.1		0.0	100	0.78	244			
WHW	P*	19	12	05.2		−0.0		0.79	239			
TRZ	Sn	19	12	39		−0.3	100	1.61	35		3.4	3.6
NGZ	Pn	19	12	18.8		−0.7	99	1.71	359			
	P*			21.5		0.7						
	Sn			42.5		1.0	99					
TNZ	Pn	19	12	23		0.1	100	1.95	330		3.7	3.9
	Pg			29.5		−0.1						
	e(Sn)			47		−0.5						
	eS*			50.5		−0.6						
	Sg			54		−1.9						
COB	Pn	19	12	24.9		−1.5	86	2.20	264		3.7	3.7
	P*			29		−0.4						
	Sn			53.5		−0.1	100					
	S*		13	01		2.4						
KRP	e(Pn)	19	12	41		4.3		2.96	358		4.1	4.4
	P*			45		2.7						
	S*		13	20.5		−0.8						
	Sg			27		−2.8						
MJZ	Sn	19	13	54.5		−4.4		4.92	229			2.9*

AMPLITUDES:

WEL	1.0		TRZ	0.4	0.9	TNZ	0.4	0.9
COB	0.6	2.2	KRP	0.7	1.0	MJZ		0.1

79/ 004

JAN 02 $20^h04^m28^s.9$ 40°.96S 175°.50E 10 km M = 3.7

± 0.2 0.01 0.02 2 S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iPg	20	04	36.1		−0.0	100	0.34	358			
CAW	Pg	20	04	36.7		0.3	100	0.36	246			
KIW	P*	20	04	38.5		0.4	100	0.46	282			
WDW	P*	20	04	38.7		0.0	100	0.49	231			
MOW	P*	20	04	38.7		−0.1	100	0.49	202			
CAZ	P*	20	04	40.0	D	0.2	100	0.55	84			
	Sg			50.5		2.7						

WEL	P*	20	04	41.2	U	−0.0	100	0.64	240	3.4		
	S*			50.5		0.4	100					
	Sg			51.5		0.8						
BHW	P*	20	04	41.1		−0.3	100	0.65	227			
MRW	P*	20	04	41.4		−0.2	100	0.66	246			
WHW	P*	20	04	41.6		−0.1		0.67	240			
NGZ	Pn	20	04	58.8		−0.2	100	1.78	3			
	Pg		05	05.5		0.5						
	S*			24		−0.3						
TNZ	Pn	20	05	02		0.3	100	1.97	334		3.4	3.6
	Pg			09		0.1						
	S*			30		−0.1						
	Sg			34		−1.5						
	e			43								
COB	Pn?	20	05	02		−1.4		2.10	266		4.1	3.4
	P*			05		−1.1	76					
	Sn			32		2.8	0					
KRP	e(P*)	20	05	23		0.8		3.04	1		4.1	4.3
	Pg			25.5		−4.8						
	S*		06	01.5		−0.4						
	Sg			08		−3.3						
WTZ	Sn?	20	05	52		−3.5		3.19	22			3.5
MJZ	Sn	20	06	30		−4.0		4.80	229			2.8*

AMPLITUDES: WEL 2.5 TNZ 0.2 0.5 COB 1.5 1.3
KRP 0.7 0.8 WTZ 0.3 MJZ 0.1

79/ 005

JAN 04 $09^h27^m36^s.7$ 32°.09S 179°.03E 510 km M = 4.5
± 1.3 0.13 0.33 30 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	eP?	09	29	06		0.4	100	5.07	215			
ONE	eP	09	29	07.5		−0.6	100	5.35	225			
CRZ								5.81	245		3.2*	
WTZ	P	09	29	15		−0.5	100	6.12	195		4.6	
KRP	P	09	29	20.6		1.5	97	6.49	205		3.9*	2.9*
	S		30	40.5		0.1	100					
CNZ	P	09	29	30		−0.7	100	7.64	201			
TRZ	P	09	29	31		0.0	100	7.67	193		4.4	4.1
TNZ	P	09	29	35		0.3	100	8.04	207		4.1*	
MNG	P	09	29	40		−4.7		8.98	198		4.8	
WEL	P	09	29	49		−4.2		9.80	199			
COB	P	09	29	52		−6.5		10.31	208		3.7*	
MJZ	P	09	30	24.5		−8.7		13.66	207		3.2*	

AMPLITUDES: CRZ 0.1 WTZ 0.5 KRP 1.5 0.2
TRZ 0.1 0.1 TNZ 0.5 MNG 1.3
COB 0.3 MJZ 0.2

79/ 006

JAN 04 $12^h22^m26^s.0$ 31°.59S 179°.02W 529 km M = 4.6
± 1.5 0.16 0.49 36 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	eP?	12	24	06.5		−2.8		6.51	223			
WTZ	P	12	24	15.8		−0.1	100	7.18	206		5.2	
GNZ	eP?	12	24	19.5		1.0		7.45	198		4.3	4.6
	S		25	48		−0.1	100					
KRP	P	12	24	22		0.4	100	7.76	214		3.4*	
TUA	P	12	24	23		0.3	100	7.87	202		4.4	4.4

	S		25	55		−0.4	100				
TRZ	eP	12	24	31		0.3		8.65	202	4.5	4.2
	S		26	10.5		0.5	100				
NGZ	P	12	24	31		−0.8	99	8.76	209		
CNZ	P	12	24	32.5		0.2		8.80	209		
TNZ	eP	12	24	38.5		1.0		9.31	214	3.5*	
MNG	P	12	24	44.5		−0.6		10.05	205	5.3	4.4
	S		26	34		−2.3					
COB	S	12	27	08		2.8		11.58	213		2.7*

AMPLITUDES: WTZ 1.5 GNZ 0.2 0.7 KRP 0.5
TUA 0.1 0.1 TRZ 0.1 0.1 TNZ 0.1
MNG 3.3 0.5 COB 0.1

79/ 007

JAN 05 $15^h42^m25^s.5$ 38°.89S 177°.37E 33 km M = 3.2
± 0.4 0.03 0.03 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	S*-P*			04.3		−0.3	100	0.19	295			
GNZ	P*	15	42	36.0		−1.0	100	0.57	65		2.8	3.7
	S*			45.3		−0.1	100					
TRZ	P*	15	42	40.5		−0.1	100	0.79	213		3.0	3.2
	S*			55.5		3.9						
WTZ	P*	15	42	44.2		0.9	100	0.95	342		3.1	3.7
	S*			56.8		0.4	100					
NGZ	Pn	15	42	49.0		0.8	100	1.40	257			
	iP*			51.5		0.7	100					
	S*		43	07.5		−2.0	98					
GSZ	eP*	15	42	51.9		0.4		1.44	254			
CNZ	ePn	15	42	49.8		0.9	100	1.46	257			
	iP*			52.5		0.8	100					
KRP	eP*	15	42	55		−1.4	99	1.74	303		3.4	
MNG	ePn	15	42	58.0		−1.9		2.26	220		2.7	2.9
	e		43	16								
COB	eP*	15	43	52		13.9		4.18	237			3.2

AMPLITUDES: TUA 3.0 7.6 GNZ 1.8 19 TRZ 0.7 1.4
WTZ 1.5 5.5 KRP 0.5 MNG 0.2 0.4
COB 0.2

79/ 008

JAN 06 $08^h33^m21^s.0$ 44°.63S 168°.66E 33 km M = 3.2
± 1.5 0.09 0.13 R S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	S-P			07.2		−0.7	100	0.53	265		2.7	3.0
ROX	S-P			09.2		−3.3	99	0.97	151		3.1	3.2
HHP	P	08	33	39.8		−1.7	100	1.24	77			
	S			55.8		−1.1	100					
	i		34	04.5								
MJZ	eP	08	33	43		−1.3	100	1.45	64		3.1	3.1
	S		34	04.3		2.6	99					
OMZ	eP	08	33	46.7		−0.6	100	1.66	106		3.2	3.1
	eS		34	08.3		1.3	100					
OBZ	P	08	33	55.0		−1.1	100	2.31	189		4.0	3.4
	S		34	24.5		2.0	100					

AMPLITUDES: MSZ 2.6 10 ROX 0.8 2.6 MJZ 0.8 1.0
OMZ 0.3 0.5 OBZ 1.5 1.0

79/ 009

JAN 06 $08^h56^m25^s.9$ 43°.15S 170°.63E 33 km M = 3.1
± 1.0 0.04 0.08 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MJZ	P*	08	56	41.8		−0.1	100	0.84	188		2.9	
	S*			51.2		−2.3	99					
KAI	eP*	08	56	42.0		−0.1	100	0.85	43	3.2		
	S*			53.8		−0.1	100					
HHP	P*	08	56	47.4		−0.3	100	1.19	190			
	S*		57	06.1		2.3	99					
CMZ	eP*	08	56	54.3		0.9	100	1.53	107			
	eS*		57	13.5		−0.3	100					
MSZ								2.47	231		3.1	3.0
COB	eSn	08	57	37		2.8		2.59	38			3.0
	eS*			53.5		8.0						

AMPLITUDES: MJZ 1.8 KAI 1.0 MSZ 0.3 0.4
COB 0.3

FELT: Evans Creek (98) MM IV

79/ 010

JAN 06 $10^h25^m29^s.5$ 38°.72S 176°.03E 0 km M = 3.0
± 0.7 0.04 0.05 R S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	10	25	29.0		−2.5	99	0.10	34			
NGZ	e	10	25	46				0.57	215			
	eSg			48.5		−0.0	100					
CNZ	eSg	10	25	49.0		−1.0	100	0.61	218			
TUA	e(Pg)	10	25	51		3.7		0.88	96		3.0	
KRP	Pg	10	25	45.8		−1.5	100	0.88	334		2.8	2.9
	eSg		26	01.5		2.4	100					
WTZ	Pg	10	25	51.5		0.8	100	1.05	46		2.9	
GNZ	Pg	10	25	59.0		−2.0	100	1.57	88		3.3	
	e		26	20.5								
	eSg			24		1.9	100					
	e			25.5								
MNG	Pg	10	26	10.8		2.0	100	1.94	192		3.0	
	e			15.5								

AMPLITUDES: WNZ 22 TUA 0.3 KRP 0.6 0.7
WTZ 0.4 GNZ 0.5 MNG 0.3

79/ 011

JAN 06 $15^h46^m58^s.1$ 39°.74S 174°.30E 173 km M = 3.8
± 0.8 0.04 0.05 6 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	eP	15	47	22.5		0.0	100	0.56	6		2.9*	3.1*
	e			39.5								
	eS			41.5		0.2	100					
GSZ	eP	15	47	27.0		0.9	100	1.10	65			
CNZ	iP	15	47	27.2		1.1	100	1.11	61			
NGZ	iP	15	47	27.1		0.5	100	1.16	62			
	eS			46.0		−2.6	98					
MNG	P	15	47	29.3		1.8	99	1.26	135		4.4	4.1
	S			49.2		−0.9	100					
WEL	eP	15	47	32.5		1.9	99	1.58	167	3.6		
	eS			57		1.3	100					

COB	P	15 47 34.4		1.5	100	1.80	221		3.7*	3.4*	
	e	53.8									
	S	59.6		−0.1	100						
CAZ	S	15 48 01.7		0.6	100	1.87	129				
TRZ	eP	15 47 35.0		0.5	100	1.95	85		3.6	3.7	
	S	48 01.8		−0.8	100						
KRP	eP	15 47 35.9		0.2	100	2.05	28		2.7*		
TUA	eP	15 47 39.7		0.0	100	2.40	68		3.8		
WTZ	eP	15 47 42.2		−1.6	100	2.74	51		3.4		
GNZ	P	15 47 48.0		−0.2	100	3.10	70		4.2	3.8	
	S	48 26.2		−0.5	100						
KAI	eS	15 48 35		−1.7	99	3.54	217	3.5*			
CMZ	S	15 48 45.8		−2.4	99	4.04	197			3.3*	

AMPLITUDES:

TNZ	0.2	0.5	MNG	16	10	WEL	0.4		
COB	1.4	2.5	TRZ	0.2	0.6	KRP	0.3		
TUA	0.3		WTZ	0.2		GNZ	1.2	0.7	
KAI	0.4		CMZ	0.8					

79/ 012

JAN 06 $20^h02^m14^s.7$ 37°.09S 177°.22E 33 km M = 4.0

± 1.9 0.13 0.08 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	P*	20	02	23.0		−1.3	100	0.44	183			
	S*			31.7		0.4	100					
WTZ	P*	20	02	30.8		−1.0	100	0.92	191		3.6	3.8
	eS*			47.3		2.9						
ECZ	eP*	20	02	35.8		−1.1	100	1.22	120			
KRP	P*	20	02	41.6		−1.3	100	1.57	237		4.3	4.4
	S*		03	02.5		−1.4	100					
NGZ	P*	20	02	58.5		0.8	100	2.45	211			
	i		03	10.0								
MNG	ePn	20	03	11.8		2.0	100	3.78	200		3.7	
COB	ePn	20	03	33.5		2.9	99	5.31	220		4.3	

AMPLITUDES:

WTZ	3.0	4.5	KRP	3.3	3.0	MNG	0.4		
COB	0.3								

79/ 013

JAN 07 $03^h04^m08^s.4$ 37°.00S 177°.15E 12 km M = 3.9

± 1.5 0.07 0.06 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	P*	03	04	17.3		−1.2	100	0.53	177			
	S*			26.1		0.2	100					
WTZ	P*	03	04	25.0		−1.5	100	0.99	187		3.6	3.8
	i			29.9								
	S*			41.2		1.4	100					
GBZ	S*-P*			18		−2.6		1.56	300			
KRP	P*	03	04	35.8		−0.7	100	1.58	234		4.2	3.9
	S*			57.0		−0.4	100					
GNZ	P*	03	04	41.5		1.5	100	1.78	157		4.2	4.1
	S*		05	02		−1.4	100					
TUA	eP*	03	04	36		−4.4		1.81	180		3.7	
NGZ	ePn	03	04	49.5		1.5	100	2.49	209			
MNG	ePn	03	05	06.8		0.5	100	3.84	199		3.6	

AMPLITUDES:

WTZ	2.2	2.7	GBZ	1.3	2.5	KRP	2.7	0.9	
GNZ	2.6	3.5	TUA	0.3		MNG	0.3		

79/ 014

JAN 07 $04^h01^m32^s.7$ 41°.56S 173°.14E 33 km M = 4.8

± 0.5 0.04 0.06 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	P	04	01	45.3		1.4	100	0.56	327			
WEL	eP	04	01	54.0		0.6	100	1.25	78	4.8		
	i			57.0								
	S		02	11.0		2.2	99					
	i			14.5								
KAI	eP	04	01	59.3		1.0	100	1.61	232	4.8		
	eS		02	18		0.6						
MNG	iP	04	02	03.1		−0.5	100	2.01	63			
CMZ	eP	04	02	04.0		−0.4	100	2.06	190			
	e			07.0								
	S			28.0		−0.2	100					
TNZ	P	04	02	10.1		−0.9	100	2.55	22			
	S			41.5		1.6	100					
GSZ	P	04	02	17.5		1.1	100	2.94	40			
CNZ	P	04	02	17.7		0.7	100	2.99	39			
	e		03	03.0								
NGZ	P	04	02	18.0		0.4	100	3.03	39			
HHP	P	04	02	22.0		−1.3		3.45	216			
TRZ	eP	04	02	21.0		−2.3	99	3.45	56		4.2	4.6
	e			33.0								
	S		03	04.0		2.5	99					
KRP	P	04	02	32.0		0.2	100	4.07	28		5.1	
	eS		03	16.2		−0.3	100					
TUA	P	04	02	31.0		−1.5	100	4.12	50		4.9	4.8
	e			39.8								
	S		03	16.0		−1.7	100					
WTZ	P	04	02	36.0		−3.6	96	4.64	41		4.7	5.6
	S		03	29		−1.1	100					
GNZ	S	04	03	33		0.4	100	4.74	54			

AMPLITUDES: WEL 15 KAI 10 TRZ 0.5 1.8
KRP 10 TUA 1.7 1.3 WTZ 0.6 2.5

FELT: Wellington (68) MM III and Waitaria Bay (78)

79/ 015

JAN 07 $10^h37^m13^s.2$ 38°.88S 175°.68E 131 km M = 3.9

± 1.0 0.03 0.05 9 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P	10	37	32.7		0.9	100	0.34	198			
GSZ	P	10	37	33.2		1.1	100	0.40	190			
KRP	P	10	37	36.3		0.3	100	0.95	353		2.8*	2.9*
	S			52.2		−1.2	100					
TNZ	P	10	37	39.0		2.1	99	1.06	253		3.8*	
TRZ	P	10	37	39.0		1.5	100	1.12	128		4.3	4.2
	S			58.0		1.9	99					
TUA	P	10	37	38.4		0.5	100	1.15	87		3.9	3.9
	eS			57.0		0.3	100					
WTZ	eP	10	37	39.5		−0.6	100	1.36	50		3.0	3.7
	e			57								
	S			59.5		−1.2	100					
MNG	P	10	37	45.3		0.8	100	1.75	185		3.7	4.4
	S		38	06.2		−2.2	99					
GNZ	P	10	37	46.0		0.3	100	1.84	84		3.6	4.7

	S		38 08.3		−2.1	99					
WEL	eP	10	37 54		−0.2	100	2.51	196	4.0		
	eS		38 24		−1.2	100					
COB	P	10	38 02.2		−0.7	100	3.17	225		3.7*	3.3*
	S		39.7		−0.9	100					

AMPLITUDES:

KRP	0.8	1.1	TNZ	1.8		TRZ	2.8	4.6
TUA	1.3	1.3	WTZ	0.3	1.6	MNG	2.7	16
GNZ	0.7	16	WEL	0.6		COB	1.0	1.5

79/ 016

JAN 07 $11^h29^m42^s.8$ 32°.96S 178°.83W 328 km M = 5.2

± 2.0 0.23 0.49 37 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	11	31	12.0		−2.3	99	6.07	213		5.0	5.3
	e		32	13								
	eS			23		−3.1						
GNZ	eP	11	31	18.8		2.7	99	6.23	203		4.6	5.6
	S		32	29		−0.5	100					
TUA	eS	11	32	39		−0.4	100	6.59	208			5.6
KRP	eP	11	31	23.5		1.0	100	6.76	221		3.1*	
	e(S)		32	45		4.1						
TRZ	eP	11	31	30		−1.0	100	7.46	207		4.8	5.5
	e			34.5								
	S		32	57		1.1	100					
MNG	eP	11	31	46		−2.3	99	8.91	209		4.3	5.6
	e		33	20								
	eS			27.2		−0.1	100					
WEL	eS	11	33	46		−0.1	100	9.76	210	5.5		
COB	eP	11	32	10		1.7	100	10.55	217		3.5*	4.1*
	eS		34	03		−0.4	100					
KAI	eS	11	34	39		−2.2		12.28	216	3.9*		

AMPLITUDES:

WTZ	1.8	3.7	GNZ	0.7	12	TUA	2.7			
KRP	0.3		TRZ	0.3	3.1	MNG	0.5	13		
WEL	1.3		COB	0.2	2.5	KAI	0.3			

79/ 017

JAN 07 $15^h02^m43^s.5$ 39°.23S 175°.16E 12 km M = 4.1

± 0.3 0.02 0.02 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P*	15	02	49.9		0.1	100	0.30	84			
GSZ	P*	15	02	50.0		−0.3	100	0.33	98			
	eS*			54.8		−0.3	100					
NGZ	P*	15	02	50.3		−0.4	100	0.35	82			
TNZ	P*	15	02	56.0		0.9	100	0.61	274			
	e		03	07.8								
WNZ	P*	15	03	01.3		0.5	100	0.94	51			
	S*			14.2		0.6	100					
TRZ	eP*	15	03	07.8		0.5	100	1.32	105		4.1	4.2
	i			13.8								
	(S*)			29.0		4.1						
KRP	P*	15	03	06.2		−1.3	99	1.34	13			
	eS*			25		−0.3	100					
MNG	P*	15	03	07.2		−1.5	98	1.40	170		4.5	
TUA	P*	15	03	13.0		0.9	100	1.60	75		4.0	
WTZ	eP*	15	03	17.2		0.2	100	1.90	50		3.7	
	e			21.2								
WEL	P*	15	03	19.3		−0.8	100	2.08	188			

	e			45.5								
	S*			48.5		1.1	99					
GNZ	eP*	15	03	25		1.0		2.30	76		3.9	3.9
	e			30								
	e		04	08								
COB	Pn	15	03	24.8		−0.1	100	2.63	224		4.1	4.0
	eS*		04	02		−2.0						
KAI	e(Sn)	15	04	45		7.5		4.36	220	4.2		

AMPLITUDES: TRZ 1.5 2.3 MNG 25 TUA 0.6
WTZ 0.5 WEL 0.9 1.3 GNZ 0.6 0.7
COB 1.1 2.5 KAI 0.3

FELT: Ohakune (49) MM IV and Turoa Skifield (50)

79/ 018

JAN 08 $09^h43^m39^s.2$ 38°.63S 176°.08E 0 km M = 3.4
± 0.3 0.02 0.03 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	09	43	38.8		−0.8	100	0.02	84			
NGZ	Pg	09	43	52.7		0.2	100	0.66	213			
	i			55.0								
	e			58.3								
CNZ	ePg	09	43	53.2		−0.1	100	0.70	216			
	i			59.9								
KRP	Pg	09	43	54.2		−1.7	99	0.83	329		3.3	3.2
	eSg		44	08.5		1.5	99					
TUA	ePg	09	43	57.0		0.5	100	0.85	102		3.5	
	e			59								
WTZ	Pg	09	43	58.6		−0.1	100	0.97	48		3.6	
	e		44	00.3								
TRZ	ePg	09	44	01.8		0.6	100	1.09	148		3.3	3.3
	e			04.4								
	e			22.2								
TNZ	ePg	09	44	07.8		−0.4	100	1.43	247		3.6	
	e			09.8								
GNZ	ePg	09	44	13.5		3.5		1.53	91			
	e			19								
MNG	P*	09	44	14.8		−1.5		2.03	193		3.9	
	iPg			16.5		−3.8						
	e			55								

AMPLITUDES: KRP 2.0 1.5 TUA 1.0 WTZ 2.3
TRZ 0.5 0.6 TNZ 0.3 MNG 1.8

FELT: Taupo (41) MM IV and Wairakei (41)

79/ 019

JAN 08 $09^h44^m32^s.0$ 38°.63S 176°.08E 0 km
± R R R R S.E. of RES. ND

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	09	44	32.0		0.0	100	0.00	0			

FELT: Wairakei (41) Magnitude less than two and a half

79/ 020

JAN 08 $09^h51^m12^s.2$ 38°.63S 176°.08E 0 km
± R R R R S.E. of RES. ND

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	09	51	12.2		0.0	100	0.00	0			

FELT: Wairakei (41) Magnitude less than two and a half

79/ 021

JAN 08 $16^h45^m57^s.6$ 34°.01S 178°.58W 273 km M = 4.5

± 1.8 0.22 0.47 32 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	16	47	17		−2.0	99	5.35	221		4.6	4.7
	S		48	23		0.4	100					
TUA	P	16	47	25.3		−0.3	100	5.90	214		4.9	4.8
	eS		48	33		−1.5	100					
KRP	eP	16	47	29.5		0.6	100	6.17	229		3.2*	
TRZ	eP	16	47	35		0.1	100	6.65	212		4.5	4.4
	eS		48	53		1.8	99					
MNG	eP	16	47	54		0.8	100	8.12	214		4.0	4.3
	S		49	24		0.0	100					
WEL	eS	16	49	42		−1.3	100	8.98	214	4.8		
MJZ	eS	16	51	18		2.2		13.10	217		3.3*	

AMPLITUDES: WTZ 0.8 1.2 TUA 0.6 0.5 KRP 0.4
TRZ 0.2 0.3 MNG 0.3 0.8 WEL 0.3
MJZ 0.3

79/ 022

JAN 08 $23^h36^m15^s.4$ 38°.63S 176°.08E 0 km

± R R R R S.E. of RES. ND

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	23	36	15.4		0.0	100	0.00	0			

FELT: Wairakei (41). Magnitude less than two and a half.

79/ 023

JAN 09 $02^h19^m54^s.0$ 36°.42S 177°.41E 66 km M = 3.7

± 4.7 0.33 0.16 61 S.E. of RES. 2.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	S	02	20	30		0.4	100	1.13	189			
GBZ	S-P			18.5		−1.4	99	1.57	277			
KRP	P	02	20	29.0		1.1	100	2.12	224		3.0*	3.3*
	S			52.8		−0.2	100					
GNZ	P	02	20	28.8		−1.3	100	2.28	168		3.7	

AMPLITUDES: GBZ 4.5 4.5 KRP 0.7 1.5 GNZ 0.8

79/ 024

JAN 09 $16^h23^m28^s.8$ 33°.52S 177°.71W 199 km M = 5.4

± 1.9 0.13 0.13 21 S.E. of RES. 2.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	eP	16	24	59.5		0.5	100	6.17	213		4.9	
	S		26	10		0.8	100					
WTZ	P	16	24	56.0		−3.3	99	6.20	223		5.0	5.5
	eS		26	13.5		3.7	99					
TUA	P	16	25	05.0		−1.1	100	6.71	217		5.0	6.0
	S		26	22.5		0.5	100					
KRP	P	16	25	09.0		−1.2	100	7.04	229		3.8*	3.9*
	S		26	31.9		2.5	100					
TRZ	eP	16	25	13		−2.8	100	7.46	215		4.9	5.9
	S		26	39		−0.3	100					
CNZ	eP	16	25	21		0.0	100	7.86	222			
	eS		26	49.0		0.3	100					

MNG	P	16	25	32	−3.0	100	8.94	216		4.8	5.7
	i		27	07.3							
	S			14.0	0.3	100					
WEL	S	16	27	30.8	−2.9	100	9.79	215	5.7		
CIZ	eP	16	25	59.0	4.2	99	10.47	175			
	S		27	48	−1.3	100					
COB	eS	16	27	54	−1.3	100	10.72	222			
KAI	eS	16	28	32	−2.6	100	12.42	220	4.1*		
CMZ	eP	16	26	22	0.4	100	12.56	214			
	S		28	36.3	−1.6	100					
MJZ	P	16	26	41.0	2.2	100	13.93	218		4.1*	4.2*
	S		29	07.0	−1.9	100					
RHP	P	16	26	45.3	3.1	99	14.21	218			
	S		29	20	4.8	98					

AMPLITUDES:

GNZ		1.6		WTZ		1.8	7.0	TUA		0.7	7.5
KRP		1.5	2.2	TRZ		0.4	9.0	MNG		1.6	16
WEL	2.1			CIZ		0.9	5.0	KAI	0.5		
MJZ		1.8	3.7								

79/ 025

JAN 09 $23^h27^m07^s.2$ 38°.50S 176°.09E 117 km M = 4.0

± 2.2 0.07 0.09 20 S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	23	27	26.0		−0.5	100	0.72	323		2.6*	2.7*
	S			40.5		−0.9	100					
NGZ	P	23	27	28.5		1.4	100	0.78	208			
WTZ	P	23	27	26.5		−1.4	100	0.87	54		3.8	
GSZ	P	23	27	29.7		1.8	100	0.87	206			
TUA	P	23	27	28.8		0.7	100	0.89	111		3.9	3.9
	iS			48.2		4.2						
TRZ	iP	23	27	34.2		2.8	99	1.20	152		4.1	3.8
	eS			51.8		2.1	100					
TNZ	P	23	27	36.9		2.1	100	1.50	242		3.1*	
GNZ	eS	23	27	54.5		−1.9	100	1.52	96			
MNG	P	23	27	41.9		−1.2	100	2.17	192		4.1	3.8
	S		28	07.8		−2.3	100					
	e			10.5								
WEL	eS	23	28	27		−2.2	100	2.97	200	4.3		

AMPLITUDES:

KRP		0.6	0.8	NGZ		10		WTZ		3.7	
GSZ		5.8		TUA		1.8	2.0	TRZ		1.8	2.0
TNZ		0.3		MNG		4.5	3.0	WEL	0.9		

79/ 026

JAN 10 $10^h02^m33^s.2$ 41°.54S 175°.03E 33 km M = 4.3

± 0.6 0.03 0.06 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WEL	P*	10	02	42.0		0.9	100	0.32	322	4.1		
	S*			46.8		−0.1	100					
MNG	iP*	10	02	51.2		−0.3	100	0.98	21			
	S*		03	03.0		−1.9	99					
CAZ	P*	10	02	53.8		0.3	100	1.11	55			
KKY	P*	10	02	58.5		1.2	100	1.33	228			
	S*		03	14.3		−0.9	100					
	e			17.5								
COB	P*	10	03	04.5		−0.5	100	1.79	284			
NGZ	Pn	10	03	12.1		2.6	99	2.39	11			
	iP*			16.0		0.6	100					

	i			19.1							
TNZ	eP*	10	03	13.5	−1.9	99	2.40	348		4.2	4.4
	e			20.5							
	S*			48.8	1.8	100					
TRZ	eP*	10	03	20	4.4		2.41	35		3.9	
	e			25							
	e			30							
CMZ	eP*	10	03	21	0.4	100	2.70	220			
	e			25							
	e(Sn)			49	4.9						
TUA	eP*	10	03	32	3.4		3.18	31			
KRP	Pn	10	03	28.2	1.8	100	3.64	6		4.9	5.1
	iP*			36.8	0.4	100					
	S*		04	21.5	−2.3	99					
GNZ	eSn	10	04	07	−0.9	100	3.70	39		4.6	
WTZ	ePn	10	03	30	0.6		3.86	24		3.5	4.2
	Sn		04	11.8	−0.1						
RHP	(Pn)	10	03	42.8	5.3		4.45	233			
	iP*			48.0	−2.3	99					

AMPLITUDES: WEL 51 TNZ 0.8 1.8 TRZ 0.5
KRP 2.7 3.3 GNZ 2.2 WTZ 0.2 0.9

FELT: Wellington (68), Paraparaumu (65) MM IV

79/ 027

JAN 11 $11^h51^m11^s.8$ 39°.23S 176°.34E 90 km M = 3.6
± 0.5 0.02 0.03 5 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	P	11	51	27.8		1.0	100	0.49	131		3.8	3.4
	S			38.5		0.2	100					
NGZ	P	11	51	28.6		1.1	100	0.57	275			
	i			33.1								
	iS			38.6		−0.6	100					
GSZ	P	11	51	28.9		1.2	100	0.58	265			
	eS			39.5		−0.1	100					
CNZ	P	11	51	28.9		0.9	100	0.62	273			
	S			39.8		−0.2	100					
WNZ	e(P)	11	51	35		6.9		0.63	343		3.5	
TUA	P	11	51	29.0		−0.2	100	0.76	56		3.8	
WTZ	P	11	51	35.9		−0.2	100	1.35	22		3.2	3.8
	S			52.5		−2.0	98					
GNZ	P	11	51	37.8		0.6	100	1.44	66		3.9	3.6
	S			56.2		−0.3	100					
KRP	P	11	51	38.0		0.6	100	1.45	334		2.9*	2.8*
	S			56.3		−0.5	100					
TNZ	P	11	51	40.5		2.1	98	1.52	271		3.1*	
MNG	P	11	51	38.5		0.1	100	1.53	205		3.5	3.7
	i			50								
	S			58.0		−0.6	100					
WEL	S	11	52	17		−0.9	100	2.38	210	3.7		
COB	eS	11	52	40		−1.6	99	3.33	235			2.6*

AMPLITUDES: TRZ 3.5 3.6 WNZ 0.2 TUA 2.3
WTZ 0.6 2.6 GNZ 2.6 2.2 KRP 0.8 0.7
TNZ 0.3 MNG 2.3 4.6 WEL 0.3
COB 0.3

79/ 028

JAN 12 $04^h45^m46^s.5$ 36°.38S 179°.99W 33 km M = 4.3

± 1.4 0.10 0.17 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP*	04	46	18		0.2	100	1.75	221			
WTZ	Pn	04	46	30.1		0.5	100	2.90	236		4.3	
TUA	Pn	04	46	35.0		−0.4	100	3.32	222		4.4	4.3
	eP*			44.0		−0.4						
	eSn		47	10		−2.3						
KRP	Pn	04	46	43.0		−0.2	100	3.90	245		4.4	
	e(P*)			58.5		4.4						
TRZ	ePn	04	46	44.0		−1.3	99	4.05	218		4.1	4.1
	e(P*)		47	03.0		6.2						
	eSn			30.5		0.7	100					
NGZ	Pn	04	46	52.2		1.1	99	4.47	230			
	eP*		47	06.7		2.8						
	eSn			39		−0.9	100					
TNZ	e	04	47	10.5				5.27	236		5.0	
	eP*			13		−4.5						
MNG	ePn	04	47	04		−1.5		5.53	219		3.9	
	e			12								

AMPLITUDES: WTZ 2.6 TUA 0.7 0.7 KRP 0.7
TRZ 0.3 0.4 TNZ 0.3 MNG 0.5

79/ 029

JAN 13 $00^h12^m25^s.3$ 37°.50S 177°.32E 151 km M = 3.9

± 1.6 0.07 0.10 12 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	00	12	45.8		−1.3	100	0.56	208		4.0	
ECZ	P	00	12	49.0		−1.2	100	1.00	102			
TUA	eP	00	12	53.8		0.6	100	1.32	186		3.7	4.0
	S		13	15.3		0.6	100					
KRP	P	00	12	55.0		−0.0	100	1.48	253		3.4*	2.9*
	S		13	17.0		−0.7	100					
TRZ	S	00	13	31.8		1.9	100	2.10	191			4.1
NGZ	P	00	13	04.8		2.1	99	2.16	218			
GSZ	P	00	13	06.0		2.3	99	2.24	217			
TNZ	e(P)	00	13	15.3		3.7		2.86	233		3.2*	
MNG	eP	00	13	19		−0.1	100	3.44	204		3.6	3.9
	S			58.5		−1.6	100					
WEL	eS	00	14	17		−2.7	99	4.27	207	4.2		
COB	eS	00	14	39		0.7	100	5.06	223			2.8*

AMPLITUDES: WTZ 4.5 TUA 0.6 1.2 KRP 2.3 0.8
TRZ 1.6 TNZ 0.2 MNG 0.7 1.6
WEL 0.3 COB 0.3

79/ 030

JAN 13 $06^h14^m35^s.1$ 41°.44S 174°.23E 33 km M = 4.9

± 0.3 0.02 0.03 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	iP*	06	14	41.8		−0.1	100	0.22	9			
WHW	iP*	06	14	44.7		0.5	100	0.40	70			
MRW	iP*	06	14	44.6		0.3	100	0.41	60			
WEL	P*	06	14	45.0		0.4	100	0.43	69			
	S*			53.0		1.5	99					

BHW	iP*	06	14	46.2	0.8	100	0.49	87			
WDW	iP*	06	14	47.7	0.6	100	0.60	74			
CAW	iP*	06	14	49.0	0.0	100	0.71	63			
MOW	iP*	06	14	49.8	−0.1	100	0.76	89			
KIW	iP*	06	14	49.3	−0.6	100	0.77	42			
KKY	Pn	06	14	53.9	0.8	100	1.06	202			
	iP*			54.5	−0.1	100					
	i			56.3							
COB	Pn	06	14	54.2	−0.6	100	1.18	287			
MNG	Pn	06	14	55.7	−0.1	100	1.25	50			
CAZ	Pn	06	15	00.0	−0.5	100	1.60	71			
TNZ	Pn	06	15	09.3	−0.1	100	2.26	3		4.7	5.2
	eSn			40.5	5.3						
KAI	ePn	06	15	12.0	1.0	100	2.37	242	4.7		
	eSn			38.5	0.5						
GSZ	Pn	06	15	12.8	1.4	100	2.39	26			
	iP*			16.3	−0.9						
CMZ	Pn	06	15	11.0	−1.0	100	2.45	208			
CNZ	Pn	06	15	13.0	0.8	100	2.46	25			
	eP*			17.9	−0.3						
	e			22.6							
NGZ	Pn	06	15	13.2	0.5	100	2.49	26			
TRZ	Pn	06	15	14.0	−1.9	99	2.74	47		4.5	4.7
	eP*			25.2	2.3						
	i			34.2							
TUA	Pn	06	15	23.0	−2.8	94	3.46	41		4.9	
	eP*			33.8	−1.4						
	i			39.0							
KRP	Pn	06	15	28.5	−0.0	100	3.65	16		5.2	5.9
	e			31.0							
	i			45.5							
	Sn		16	11.0	2.1	99					
RHP	Pn	06	15	34.6	0.7	100	4.05	228			
	iP*			41.7	−3.6						
WTZ	Pn	06	15	31.5	−2.5	97	4.06	33		4.8	
	iP*			44.0	−1.4						
OMZ	Pn	06	15	37.0	−1.2		4.36	213		4.7	4.5
	P*			47.2	−3.5						
	Sn		16	24.8	−1.1						
CIZ	Pn	06	16	18.0	0.6	100	7.24	113			
	i			27.8							
	Sn		17	34.5	−0.4	100					

AMPLITUDES: TNZ 3.6 15 KAI 3.8 TRZ 1.6 3.6
TUA 2.2 KRP 5.2 20 WTZ 2.7
OMZ 1.7 2.0 CIZ 1.0 3.1

FELT: Widely about Cook Strait. Maximum intensity MM V at Tawa (68)

79/ 031

JAN 13 $14^h27^m37^s.1$ 41°.39S 174°.17E 33 km M = 3.7
± R R R R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	P*	14	27	43.6		0.1	100	0.19	24			
MRW	P*	14	27	46.4		−0.2	100	0.43	69			
WHW	eP*	14	27	46.8		0.1	100	0.44	78			
WEL	P*	14	27	47.1		0.1	100	0.46	77	3.8		
	S*			54.5		0.3	100					

BHW	P*	14 27 48.1	0.1	100	0.53	92					
WDW	P*	14 27 49.4	−0.2	100	0.63	79					
CAW	P*	14 27 51.1	−0.2	100	0.73	68					
MOW	P*	14 27 51.6	−1.0	100	0.82	93					
COB	Pn	14 27 56.2	0.2	100	1.13	285					
MNG	Pn	14 27 57.8	0.0	100	1.26	53				4.1	3.8
	S*	28 18.3	1.4								
TNZ	ePn	14 28 13.5	2.7	82	2.20	4				3.7	3.6
	eSn	39.0	2.9								
	eS*	42.0	−3.1								
KAI	eSn	14 28 39.5	−0.1	100	2.35	240	3.7				
	e	44.5									
NGZ	Pn	14 28 15.8	1.5	99	2.47	27					
CMZ	eSn	14 28 41	−1.4	99	2.47	207					
TRZ	e	14 28 31			2.74	49					3.4
RHP	eP*	14 28 46	−1.3	99	4.05	227					
	e	53.6									

AMPLITUDES: WEL 13 MNG 13 9.3 TNZ 0.3 0.4
KAI 0.4 TRZ 0.2

FELT: Eastbourne (68) MM IV

79/ 032

JAN 15 $10^h21^m49^s.2$ 38°.40S 175°.78E 191 km M = 4.2
± 0.9 0.04 0.06 7 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	10	22	15.1		−0.3	100	0.51	338		3.9*	2.8*
	S			34.2		−1.5	100					
NGZ	P	10	22	18.1		1.3	100	0.79	189			
CNZ	P	10	22	18.0		1.1	100	0.82	193			
	eS			40		1.6	100					
GSZ	P	10	22	19.7		2.3	99	0.89	190			
WTZ	P	10	22	18.0		−0.4	100	1.03	67		3.4	3.7
	eS			41.2		0.1	100					
TUA	eP	10	22	20		0.7	100	1.15	111		4.1	4.2
	S			42		−0.5	100					
TNZ	P	10	22	22.2		1.3	100	1.35	234		3.5*	
TRZ	P	10	22	23.0		1.5	100	1.41	145		4.2	4.2
	eS			47.2		0.8	100					
GNZ	eS	10	22	52		−0.7	100	1.77	99			4.4
GBZ	P	10	22	28.0		−1.4	100	2.20	354			
MNG	P	10	22	29.7		−0.1	100	2.23	186		4.6	4.9
	S			58.7		−2.5	99					
ECZ	P	10	22	30.8		0.2	100	2.29	73			
WEL	P	10	22	38.3		−0.5	100	2.99	195	4.5		
	S		23	15		−2.0	99					
KKY	P	10	22	54.5		−0.9		4.32	201			
CMZ	eS	10	24	14.5		−4.0		5.71	204			

AMPLITUDES: KRP 9.3 0.7 WTZ 0.6 1.3 TUA 1.1 1.6
TNZ 0.6 TRZ 1.2 2.6 GNZ 6.3
GBZ 0.7 MNG 12 28 WEL 1.1

79/ 033

JAN 15 $15^h51^m03^s.2$ 37°.33S 176°.96E 12 km M = 4.2
± 0.6 0.05 0.07 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P*	15	51	13.9		−1.6	100	0.66	178		3.7	

KRP	P*	15	51	27.2		1.0	100	1.28	242	4.0	
	i			30.0							
ECZ	ePn	15	51	26.0		−0.6	100	1.31	107		
	eP*			28.5		1.7	100				
TUA	ePn	15	51	26.8		−2.1	99	1.48	174	4.5	
	iP*			28.8		−0.9	100				
	e			48.5							
GNZ	P*	15	51	30.8		−0.2	100	1.56	148	4.6	4.4
	i			35.0							
	i			37.0							
	S*		52	00.0		8.4					
GBZ	P*	15	51	33.1		1.0	100	1.63	313		
	e			40.5							
CNZ	eP*	15	51	42		0.5		2.18	210		
	e			54							
	i		52	00							
TRZ	ePn	15	51	40		0.9	100	2.22	183	4.3	
	iP*			44.5		2.2	99				
ONE	eP*	15	51	47		−1.8	100	2.61	306		
	e			52							
MNG	ePn	15	51	57		0.8	100	3.48	199	4.1	
	eP*		52	08		4.2					

AMPLITUDES: WTZ 7.2 KRP 3.5 TUA 2.9
GNZ 9.2 9.7 GBZ 3.2 TRZ 0.9
MNG 1.2

79/ 034

JAN 15 $19^h36^m17^s.1$ 40°.14S 174°.92E 12 km M = 3.7
± 0.5 0.02 0.04 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	P*	19	36	28.5		−0.7	100	0.64	138		3.7	3.8
	S*			37.2		−0.8	100					
GSZ	P*	19	36	34.8		−0.7	100	1.01	31			
TNZ	P*	19	36	36.8		0.7	100	1.04	336		3.7	3.8
	S*			52.0		2.0	99					
CNZ	P*	19	36	35.5		−0.9	100	1.06	28			
	S*			51.6		1.0	100					
NGZ	P*	19	36	36.1		−1.0	100	1.10	29			
	S*			51.8		0.0	100					
TRZ	P*	19	36	47.8		2.5	99	1.58	69		3.5	3.6
	eS*		37	08.5		2.3	99					
	e			11.2								
COB	P*	19	36	51		0.1	100	1.91	240			
	eS*		37	16.5		0.4	100					
TUA	eP*	19	36	55		−0.6	100	2.19	53			
KRP	P*	19	36	56.0		−1.0	100	2.27	12			
	eSn		37	20.5		−0.5	100					
	S*			23.8		−3.0	98					

AMPLITUDES: MNG 21 32 TNZ 1.5 2.6 TRZ 0.5 0.9

FELT: Wanganui (57)

79/ 035

JAN 17 $13^h53^m20^s.8$ 37°.68S 176°.34E 12 km M = 4.1
± 0.8 0.06 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pg	13	53	31.6		−1.4	100	0.59	121			

KRP	Pg	13	53	34.2		−0.6	100	0.68	249		4.3	4.4
	Sg			43.3		−0.8	100					
WIZ	Pg	13	53	34.5		−0.4	100	0.69	77			
WNZ	Pg	13	53	38.9		−1.5	99	0.96	191		4.0	
NGZ	ePn	13	53	49.0		0.8	100	1.60	201			
	i			50.8								
	iPg			52.8		−0.5	100					
GNZ	Pg	13	53	54.0		0.1	100	1.64	126		4.3	
	i			57.2								
CNZ	ePn	13	53	50.5		1.8	99	1.64	202			
	iPg			54.4		0.4	100					
TRZ	ePn	13	53	53		0.7	100	1.91	169		3.6	
	ePg		54	00		0.6	100					
TNZ	ePn	13	53	58.0		2.3	98	2.15	225		4.3	
	ePg		54	03.0		−1.4	100					
ONE	ePg	13	54	12.8		1.8		2.48	320	3.8		
	eSg			44.3		−0.2						
	e			49.2								
MNG	ePn	13	54	08.8		1.4		3.01	193		4.0	
	iPg			18.0		−3.6						

AMPLITUDES: KRP 34 46 WNZ 0.5 NGZ 3.6
GNZ 4.2 CNZ 2.6 TRZ 0.2
TNZ 0.6 ONE 0.3 MNG 0.7

FELT: Western Bay of Plenty. Maximum intensity MM IV at Maketu (26)

79/ 036

JAN 17 $23^h09^m36^s.4$ 38°.22S 176°.54E 12 km M = 3.4
± 0.7 0.05 0.01 R S.E. of RES. 0.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pg	23	09	45.0		−0.2	100	0.42	56		2.8	
KRP	Pg	23	09	53.8		0.1	100	0.85	290		3.4	4.1
	Sg		10	05.0		−0.2	100					
WIZ	Pg	23	09	54.0		0.1	100	0.86	37			

AMPLITUDES: WTZ 2.6 KRP 2.7 12 WIZ 1.1

79/ 037

JAN 18 $08^h12^m07^s.5$ 36°.85S 178°.71E 12 km M = 4.5
± 1.0 0.05 0.10 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	Pn	08	12	30.7		−1.3	100	1.39	241			
WTZ	Pn	08	12	36.8		−0.5	100	1.78	230		4.2	
	eP*			40		1.0	100					
GNZ	Pn	08	12	40.5		2.0	99	1.87	197			
TUA	Pn	08	12	44.7		0.1	100	2.31	212		4.4	4.5
	iP*			47.4		−0.7	100					
	eS*		13	19.5		1.1	100					
WNZ	ePn	08	12	51		0.8	100	2.73	229			
KRP	Pn	08	12	49.9		−0.6	100	2.74	246		4.9	
	eSn		13	24		1.1	100					
TRZ	ePn	08	12	56		0.9	100	3.08	208		4.2	4.4
	eP*		13	00.0		−1.2	100					
	eS*			41		−0.5	100					
NGZ	Pn	08	13	01.0		1.9	99	3.37	226			
	iP*			05.0		−1.3	100					
CNZ	Pn	08	13	01.2		1.4	100	3.43	226			

	iP*			05.2		−1.9	99					
ONE	ePn	08	13	01		−2.2		3.67	286			
TNZ	ePn	08	13	09.5		−0.0	100	4.14	234		5.2	
	e			14.0								
MNG	ePn	08	13	13.0		−1.8	99	4.53	213		4.5	
	e			16.1								
	eP*			26.2		0.2						
WEL	eSn	08	14	26		−0.3	100	5.39	214	4.5		
COB	ePn	08	13	38		−0.9		6.29	226		4.3	
	e			46								
	eP*			52		−4.1						

AMPLITUDES:									
	WIZ	2.6	WTZ	5.5		TUA	1.6	2.2
	KRP	4.2	TRZ	0.7	1.6	NGZ	5.8	
	CNZ	2.6	TNZ	0.7		MNG	2.8	
	WEL	0.4	COB	0.3				

79/ 038

JAN 18 $10^h10^m19^s.3$ 40°.26S 176°.65E 33 km M = 4.3

± 0.4 0.02 0.04 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	P	10	10	32.8		0.1	100	0.72	11		4.0	
CAZ	P	10	10	34.9		2.2	99	0.72	207			
MNG	iP	10	10	36.7		0.7	100	0.96	248		4.3	4.3
	eS			49.7		1.3	100					
NGZ	P	10	10	41.8		0.6	100	1.34	323			
	iS			58.0		0.5	100					
CNZ	P	10	10	42.0		0.6	100	1.36	321			
	S			58.5		0.6	100					
TUA	P	10	10	43.0		−0.3	100	1.50	15		4.0	4.6
	S		11	00.3		−1.0	100					
WNZ	P	10	10	45.8		0.0	100	1.68	345		4.1	
	e			50.0								
WEL	iP	10	10	46.5		−0.4	100	1.76	234			
	i			55.5								
	S		11	08.0		0.4	100					
GNZ	P	10	10	51		1.8	99	1.93	34		3.7	4.7
	e		11	10.3								
	S			14.0		2.3	98					
TNZ	P	10	10	51.8		0.9	100	2.05	301		4.2	
	e		11	00.0								
WTZ	P	10	10	53.1		−1.0	100	2.29	7		4.0	4.5
	S		11	19.0		−1.2	100					
WIZ	P	10	10	59.0		−1.5	99	2.76	9			
	S		11	29.4		−2.2	99					
COB	P	10	11	04.8		−0.3	100	3.10	253			
	e			17.2								
	eS			39.8		0.2	100					
KKY	P	10	11	05.1		−0.1	100	3.10	225			
	S			39.9		0.1	100					
CMZ	e	10	12	09				4.47	221			4.9
	eS			11.5		−1.3	100					
KAI	S	10	12	14.0		−0.6	100	4.54	238	4.7		
RHP	P	10	11	46.3		−1.3	100	6.21	230			
	i			56.0								
	S		12	53.2		−1.3	100					

AMPLITUDES:								
	TRZ	7.5	CAZ	9.3		MNG	36	47
	NGZ	31	CNZ	12	29	TUA	1.4	7.0

WNZ	0.3		GNZ	1.1	16	TNZ	1.1		
WTZ	2.1	5.7	CMZ	4.1		KAI	1.1		

FELT: Waipawa (60), Mount Vernon (60) MM IV

79/ 039

JAN 19 $04^h32^m55^s.8$ 43°.25S 171°.88E 12 km M = 4.2

± 0.1 0.01 0.01 R S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CMZ	P*	04	33	08.2		0.2	100	0.65	122			
	Sg			18.0		0.1	100					
KAI	P*	04	33	11.2		0.5	100	0.80	334	3.7		
	(Pg)			15.0		2.8						
	S*			21.8		0.3	100					
	Sg			23.0		−0.1	100					
MJZ	Pn	04	33	18.0		−0.6	100	1.27	234		4.1	4.3
	Pg			21.3		−0.1	100					
	Sn			36.0		0.4	100					
	Sg			38.0		−0.5	100					
RHP	Pn	04	33	21.6		−0.9	99	1.56	236			
	P*			24.3		0.8	100					
	Sg			49.0		0.6	100					
OMZ	Pn	04	33	27.0		−0.9	99	1.95	201			
	P*			30.5		0.3	100					
COB	Pn	04	33	32.2		0.1	100	2.25	17		4.4	
	P*			36.3		0.9	99					
	Pg			41.8		0.4	100					
	Sn			59.0		−0.3	100					
	S*		34	04.0		−1.0	99					
	Sg			11.0		−0.8	100					
ROX	Pn	04	33	40.0		−0.7	100	2.89	219		4.3	4.4
	P*			47.0		0.8	99					
	Pg			54.2		0.0	100					
	S*		34	23.9		−0.1	100					

AMPLITUDES:	KAI	2.9		MJZ	11	23	RHP	46	51
	COB		2.9	ROX	1.3	4.9			

79/ 040

JAN 19 $15^h03^m35^s.5$ 37°.62S 176°.33E 12 km M = 3.3

± 0.3 0.03 0.01 R S.E. of RES. 0.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP*	15	03	47.5		−0.0	100	0.64	125		3.2	2.9
	S*			56.3		0.1	100					
KRP	iPn	15	03	50.5	U	−0.0	100	0.70	244		3.3	3.7
	iSn		04	01.5		−0.1	100					

AMPLITUDES:	WTZ	2.2	0.9	KRP	3.1	9.0

FELT: Maketu (26) MM IV

79/ 041

JAN 19 $18^h38^m45^s.4$ 38°.48S 177°.79E 12 km M = 3.3

± 1.5 0.03 0.11 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	P*	18	38	55.0		−1.8	99	0.60	237		3.7	3.7
	Pg			56.3		−1.4	100					
	S*		39	06.0		0.9	100					
WTZ	iP*	18	38	59.6		−0.7	100	0.80	308		3.3	3.4

	Pg		39 01.3		−0.5	100					
	Pn		03.6		1.7	100					
	Sn		13.6		−0.5	100					
TRZ	ePn	18	39 09.5		0.7	100	1.31	215		3.4	3.0
	e		21.0								
	Sg		31.0		1.2	100					
	e		38.5								
KRP	eP*	18	39 20.5		2.1	99	1.86	287		3.0	
	eSn		39.0		−0.5	100					
MNG	eP*	18	39 35.0		0.9	100	2.79	219		2.9	3.0
	Pg		39.5		−2.2	99					
	e		55.8								

AMPLITUDES: TUA 4.3 4.9 WTZ 3.0 3.7 TRZ 0.6 0.3
KRP 0.2 MNG 0.2 0.3

FELT: Gisborne (45) MM III

79/ 042

JAN 20 $08^h30^m38^s.8$ 39°.49S 175°.67E 21 km M = 3.7
± 1.0 0.02 0.03 8 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	Pn	08	30	56.0		0.3	100	0.89	94			
	eSn		31	08.0		−0.2	100					
TNZ	Pn	08	30	57.2		−0.5	100	1.04	286		3.5	3.8
	Sn		31	12.0		0.2	100					
MNG	Pn	08	30	57.5	U	−1.5	99	1.13	187		3.5	3.9
	Sn		31	12.7		−1.3	99					
TUA	Pn	08	31	01.4		−0.3	100	1.34	60		3.7	3.7
	eSn			19.0		0.1	100					
KRP	ePn	08	31	04.3		−0.6	100	1.57	356		4.0	3.9
	Sn			24.2		−0.1	100					
WTZ	Pn	08	31	09.4		1.0	100	1.83	35		3.6	
WEL	ePn	08	31	11.0		1.3	99	1.93	201	3.5		
	Sn			34.0		1.1	100					

AMPLITUDES: TNZ 0.9 2.4 MNG 4.0 15 TUA 0.8 0.8
KRP 1.9 1.2 WTZ 0.8 WEL 0.3

FELT: Parapara Okeore (57), Moawhango (58) MM IV

79/ 043

JAN 20 $11^h20^m51^s.7$ 34°.30S 178°.63W 304 km M = 4.4
± 1.2 0.14 0.26 23 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	eP	11	22	12.0		0.8	100	5.11	211			
	S		23	13.0		−0.6	100					
WTZ	eP	11	22	09.5		−1.7	99	5.12	223		4.5	4.4
	eS		23	13.0		−0.6	100					
TUA	P	11	22	17.5		0.0	100	5.64	216		4.8	4.4
	eS		23	25.0		0.2	100					
KRP	eP	11	22	22.5		1.3	99	5.96	231		3.1*	
TRZ	eP	11	22	27.0		0.6	100	6.39	213		4.5	4.2
	eS		23	41.5		0.7	100					
MNG	eP	11	22	43.0		−1.4	99	7.87	215		4.2	4.0
	S		24	12.8		−0.2	100					

AMPLITUDES: WTZ 0.8 0.6 TUA 0.6 0.2 KRP 0.3
TRZ 0.2 0.2 MNG 0.5 0.4

79/ 044

JAN 20 $17^h43^m07^s.4$ 33°.31S 179°.75W 33 km M = 4.5

± 1.7 0.12 0.31 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pn	17	44	22.8		−1.4	100	5.37	209		4.5	4.5
	Sn		45	21.3		−1.1	100					
GNZ	ePn	17	44	29.0		1.3	100	5.62	198			
	Sn		45	28.0		−0.5	100					
KRP	ePn	17	44	34.0		1.2	100	5.99	218		4.4	
TUA	ePn	17	44	33.0		−0.3	100	6.04	204		4.5	4.9
	eSn		45	40.0		1.6	99					
TRZ	ePn	17	44	43.0		−1.0	100	6.82	203		4.1	4.7
	eSn		45	57.0		−0.2	100					
MNG	e(Pn)	17	44	58.0		−5.3		8.23	206		4.0	4.4
	e(Sn)		46	23.0		−8.3						

AMPLITUDES: WTZ 1.2 0.9 KRP 0.2 TUA 0.3 0.8
TRZ 0.1 0.7 MNG 0.3 0.9

79/ 045

JAN 21 $00^h45^m03^s.1$ 33°.66S 177°.37W 33 km M = 4.5

± 1.4 0.14 0.17 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	ePn	00	46	32.0		−0.6	100	6.30	225		4.6	4.5
	eSn		47	41.5		1.0	99					
KRP	ePn	00	46	44.5		0.0	100	7.17	232		4.8	4.8
	eSn		48	01.0		−0.3	100					
MNG	ePn	00	47	10.0		0.6	100	9.00	217		3.6	4.5
	eSn		48	44.5		−0.7	100					

AMPLITUDES: WTZ 1.0 0.7 KRP 0.3 0.2 MNG 0.1 1.0

79/ 046

JAN 21 $06^h59^m48^s.4$ 38°.37S 175°.73E 205 km M = 4.1

± 0.9 0.04 0.05 6 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	07	00	16.4	U	0.3	100	0.47	341		3.5*	2.7*
	S			38.1		0.7	100					
WTZ	eP	07	00	19.0		−0.2	100	1.06	69			
	eS			41.8		−1.3	99					
TUA	eP	07	00	20.5		0.3	100	1.20	112		3.9	4.1
	eS			44.0		−0.9	100					
TNZ	P	07	00	22.0		0.7	100	1.33	232		3.1*	
TRZ	P	07	00	24.0		1.6	99	1.46	145		4.1	4.1
	S			49.5		0.8	100					
MNG	P	07	00	31.0		0.8	100	2.26	185		4.4	4.0
	S		01	02.2		−0.4	100					
WEL	eP	07	00	38.8		−0.1	100	3.01	194	4.2		
	eS		01	18.0		0.1	100					
COB	eP	07	00	44.0		−1.6	99	3.56	219		3.1*	3.3*
	eS		01	29.5		−0.3	100					

AMPLITUDES: KRP 3.1 0.5 TUA 0.7 1.0 TNZ 0.2
TRZ 0.9 2.0 MNG 6.2 3.2 WEL 0.5
COB 0.2 1.1

79/ 047

JAN 21 $11^h29^m33^s.8$ 38°.73S 175°.65E 127 km M = 3.8

± 1.2 0.04 0.06 10 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	11	29	55.0		0.1	100	0.81	353		2.9*	2.3*
	S		30	11.0		−0.0	100					
TUA	P	11	29	59.5		1.2	100	1.17	94		3.8	3.7
	S		30	16.8		−0.3	100					
TRZ	P	11	30	00.4		1.4	99	1.22	132		3.8	3.7
	S			19.5		1.4	100					
WTZ	P	11	29	58.6		−1.0	100	1.29	55		3.5	3.2
	eS		30	20.0		0.7	100					
GNZ	P	11	30	06.0		−0.2	100	1.85	88			
	S			29.0		−1.7	99					
MNG	iP	11	30	07.0	U	0.3	100	1.89	184		4.0	4.3
	iS			29.8		−1.6	99					

AMPLITUDES: KRP 1.2 0.3 TUA 1.1 0.8 TRZ 0.8 1.6
WTZ 0.9 0.5 MNG 5.1 11

79/ 048

JAN 22 $00^h20^m38^s.0$ 45°.08S 170°.33E 12 km M = 4.1

± 0.4 0.02 0.03 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OMZ	iP*	00	20	45.2		−1.0	100	0.41	89			
ROX	iPg	00	20	54.6	D	−0.0	100	0.82	241		4.3	4.1
	iS*		21	04.5		0.4	100					
RHP	iP*	00	20	56.1	U	−0.1	100	1.00	350			
	iSn		21	11.0		−0.3	100					
MJZ	P*	00	20	57.2		−0.7	100	1.10	5		4.5	3.9
	Pg		21	00		−0.3	100					
	S*			12.0		−0.6	100					
	Sg			15.0		−0.1	100					
CMZ	P*	00	21	18.5		1.2	99	2.23	49		4.1	4.5
	Pg			21.5		−1.6	99					
	S*			48.0		1.4	99					
KAI	P*	00	21	26.0		1.2	99	2.67	17	3.5		
	Pg			32		−0.0	100					
	e(S*)		22	03.0		3.3						
	(Sg)			10.5		2.5						
COB	ePn	00	21	42.5		−0.6	100	4.36	25		3.8	

AMPLITUDES: ROX 15 27 RHP 64 62 MJZ 42 12
CMZ 2.0 8.1 KAI 0.2 COB 0.2

79/ 049

JAN 23 $14^h52^m51^s.5$ 39°.20S 174°.98E 12 km M = 3.7

± 0.3 0.02 0.03 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	Sg-P*			09.5		2.5	98	0.47	271		2.8	3.3
KRP	Pn	14	53	15.0		−0.4	100	1.35	19		4.2	4.4
	eP*			16.0		0.3	100					
	ePg			18.8		0.0	100					
	S*			32.0		−1.5	99					
TRZ	ePn	14	53	16.0		−1.1	100	1.47	104		3.5	3.8
	Pg			20.3		−1.0	100					
	eSn			35.5		−0.7	100					

	S*		38.7	1.4	100						
	eSg		41.0	−0.2	100						
TUA	ePn	14 53	21.0	0.3	100	1.74	78			3.8	3.7
	eS*		45.5	0.3	100						
WTZ	ePn	14 53	26.5	2.4	98	1.99	53				
WEL	ePn	14 53	27.0	1.4	100	2.09	184	3.5			
	Sn		51.2	0.1	100						
COB	Pn	14 53	32.8	0.9	100	2.56	222			3.8	3.5
	P*		35.2	−1.1	100						
	eSn	54	02.3	0.0	100						
	S*		08.8	−0.9	100						

AMPLITUDES: TNZ 1.0 3.9 KRP 4.3 5.8 TRZ 0.3 0.7
TUA 0.3 0.2 WEL 0.2 COB 0.6 1.0

FELT: Ohakune (49) MM IV

79/ 050

JAN 24 $17^h30^m05^s.6$ 38°.52S 176°.03E 11 km M = 3.4
± 0.4 0.02 0.02 3 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	iPg	17	30	06.0		−2.8	92	0.13	153			
KRP	P*	17	30	18.9		−0.1	100	0.71	327		3.5	3.2
	S*			29.0		0.3	100					
WTZ	P*	17	30	23.0		0.3	100	0.93	55		3.2	3.0
	ePg			25.3		0.9	100					
	e			28.8								
	e			45.8								
TUA	P*	17	30	22.0		−0.6	100	0.93	109		3.6	3.5
	e			26.8								
	eS*			35.0		−0.1	100					
	e			40								
TRZ	ePn	17	30	27.0		−0.6	100	1.21	149		3.6	3.5
	ePg			31.0		1.0	100					
	eSg			48.0		1.8	99					
	e			52.0								
TNZ	ePn	17	30	31.0		−0.0	100	1.45	242		3.4	3.5
	ePg			35.0		0.0	100					
	e			38.5								
	eSg			55.0		0.4	100					
	e			59.4								
MNG	Pn	17	30	39.0		−1.4	99	2.14	191		3.8	3.6
	eP*			42.0		−1.4	100					
	e			46.0								
	eS*		31	12.5		1.0	100					
	eSg			18.0		0.3	100					

AMPLITUDES: KRP 5.3 2.7 WTZ 0.9 0.4 TUA 1.0 0.9
TRZ 0.8 0.7 TNZ 0.2 0.3 MNG 1.2 0.8

FELT: Taupo and Wairakei (41), maximum intensity MM V

79/ 051

JAN 24 $19^h42^m59^s.0$ 39°.11S 178°.02E 12 km M = 4.1
± 0.4 0.02 0.03 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iP*	19	43	07.1		−1.0	100	0.47	0			
TUA	Pn	19	43	14.1		−0.5	100	0.74	294		4.0	4.5
	e			17.1								
	e			19.0								

	Sg			23.6		−0.6	100					
TRZ	Pg	19	43	20.5		0.6	100	1.03	244		3.7	
	e			27.0								
	S*			31.5		−0.0	100					
	e			38.0								
	e			47.0								
CAZ	S*	19	44	06.8		−1.7	99	2.26	217			
MNG	iPn	19	43	38.2	D	0.0	100	2.47	232		4.0	4.2
	e			52								
	e		44	02.5								
	eSn			08.0		0.3	100					
TNZ	Pn	19	43	44.5		1.3	99	2.83	267		4.0	4.2
	eSn		44	18.0		1.6	99					
WEL	Sn	19	44	29.0		1.1	100	3.31	228	4.3		
GBZ	ePn	19	43	49.0		−3.6		3.52	324			
COB	ePn	19	44	05.5		−0.6	100	4.51	242		4.0	4.0
	eSn			57.0		0.2	100					
CIZ	ePn	19	44	32.5		1.7	99	6.33	142			
	Sn		45	39.5		−0.8	100					
MJZ	Pn	19	44	46.0		−0.5	100	7.48	227			4.5
	Sn		46	07.0		−1.0	100					
RHP	ePn	19	44	50.5		0.0	100	7.77	227			
	eSn		46	15		0.1	100					

AMPLITUDES:											
	TUA	5.9	19	TRZ	1.9		CAZ			2.3	
	MNG	3.1	6.0	TNZ	0.2	0.3	WEL	0.7			
	GBZ	0.6		COB	0.3	1.1	CIZ		1.0	3.9	
	MJZ		1.1	RHP	0.4	2.2					

79/ 052

JAN 26 $16^h 54^m 45^s.6$ 40°.23S 173°.52E 183 km M = 4.2

± 0.8 0.04 0.06 6 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	iP	16	55	15.0		0.9	100	1.04	215		4.7*	3.9*
	S			35.9		−0.1	100					
TNZ	P	16	55	16.8		1.2	100	1.23	33		3.3*	3.6*
	eS			37.8		−0.9	100					
WEL	eP	16	55	19.0		1.7	99	1.42	138	4.2		
	S			41.2		−0.6	100					
MNG	P	16	55	19.9		1.4	100	1.55	105		3.9	4.4
	S			43.5		−0.3	100					
GSZ	P	16	55	23.0		1.4	100	1.85	60			
	e			48.5								
	iS			51.3		1.8	99					
CNZ	P	16	55	22.9		1.1	100	1.87	57			
	eS			49.2		−0.4	100					
NGZ	P	16	55	23.2		0.8	100	1.93	58			
	S			50.8		0.0	100					
KKY	P	16	55	26.6		1.3	100	2.20	177			
	i			27.5								
	e			50.0								
	iS			55.7		−0.3	100					
TRZ	eP	16	55	30.8		0.4	100	2.63	76		4.1	4.0
	e			33								
	eS		56	05.0		−0.1	100					
KRP	P	16	55	32.0		−0.2	100	2.79	35			
	e			41.0								
	S		56	08.0		−0.2	100					
KAI	eS	16	56	05		−3.4	93	2.79	214	3.7*		

KRP								2.79	35		3.1*		
CMZ	P	16	55	39.8		−0.3	100	3.42	191		3.7*	4.5*	
	e		56	14.8									
	eS			19.0		−3.1							
WTZ	eP	16	55	39.7		−1.4	100	3.51	51		4.0	4.0	
	eS		56	22.0		−2.0	99						
GNZ	P	16	55	45.9		0.6	100	3.83	67		4.7	4.7	
	S		56	28.8		−2.5	99						

AMPLITUDES:

COB	21	10	TNZ	0.4	1.2	WEL	1.6					
MNG	4.0	14	GSZ	2.5	4.0	CNZ		6.2	9.7			
NGZ	33	15	TRZ	0.4	0.7	KAI	0.7					
KRP	0.6		CMZ	1.2	10	WTZ		0.5	0.6			
GNZ	2.5	3.6										

79/ 053

JAN 26 $19^h20^m23^s.2$ 37°.54S 176°.45E 311 km M = 4.0

± 1.6 0.09 0.19 13 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	19	21	03.0		−0.5	100	0.62	137		3.4	3.5
	eS			33.0		−2.1	99					
KRP	P	19	21	05.0		0.8	100	0.82	242		3.1*	
TUA	eP	19	21	05.5		−1.5	100	1.39	157		4.1	4.2
	e(S)			46		4.8						
NGZ	P	19	21	10.9		1.4	100	1.77	202			
CNZ	P	19	21	10.9		1.1	100	1.81	203			
GSZ	P	19	21	12.0		1.8	99	1.87	201			
TRZ	eS	19	21	50		0.7	100	2.03	172			4.0
	e			55								
TNZ	eP	19	21	15		1.2	100	2.32	224		3.3*	
MNG	P	19	21	21.5		−0.3	100	3.17	193		4.5	4.1
	S		22	07.8		0.3	100					
WEL	eS	19	22	23		0.5	100	3.97	199	4.1		
COB	eP	19	21	34.2		−2.7	98	4.57	218		3.6*	3.1*
	eS		22	33		−1.5	100					
KKY	P	19	21	45.1		−0.3	100	5.32	203			

AMPLITUDES:

WTZ	0.3	0.4	KRP	0.7		TUA		0.5	0.6			
NGZ	1.5		CNZ	0.4		GSZ		0.7				
TRZ		0.6	TNZ	0.2		MNG		4.0	2.2			
WEL	0.2		COB	0.5	0.6							

79/ 054

JAN 26 $19^h33^m47^s.8$ 39°.48S 175°.01E 30 km M = 3.6

± 0.2 0.01 0.02 2 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	P*	19	33	58.6		0.6	100	0.49	66			
	eS*		34	04.5		−0.8	100					
CNZ	P*	19	33	58.3		0.2	100	0.50	56			
	S*		34	06.0		0.4	100					
NGZ	P*	19	33	59.1		0.2	100	0.56	58			
	S*		34	07.3		0.2	100					
TNZ	P*	19	33	59.0		−0.2	100	0.57	301			
	eS*		34	07.3		−0.1	100					
MNG	P*	19	34	09.5		−0.0	100	1.20	162		3.3	3.5
	S*			25.3		−0.3	100					
KRP	Pn	19	34	12.8		−0.8	100	1.61	15		3.7	3.9
	e			18.5								
	Sn			32.0		-0.9	99					

WEL	eP*	19	34	21		1.0	99	1.82	186	3.5		
	eS*			43		−1.0	99					
WTZ	ePn	19	34	18		−3.0		2.15	47		3.4	
	eP*			24		−1.8						
COB	Pn	19	34	25.0		1.0	99	2.37	227		3.8	3.5
	eSn			51.8		0.6	100					
	eS*		35	00		−0.6	100					

AMPLITUDES: CNZ 31 41 MNG 2.7 4.6 KRP 1.0 1.2
WEL 0.3 WTZ 0.2 COB 0.7 1.1

FELT: Ohakune (49) MM IV, Turoa (50)

79/ 055

JAN 27 $05^h10^m18^s.4$ 39°.28S 175°.32E 33 km M = 3.7
± 0.2 0.02 0.02 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	P*	05	10	26.0		1.0	100	0.21	89			
	iS*			30.5		0.8	100					
NGZ	P*	05	10	26.0		0.6	100	0.24	67			
	iS*			30.0		−0.5	100					
TNZ	P*	05	10	32.8		0.2	100	0.74	277		3.3	3.5
	S*			43.2		0.1	100					
MNG	P*	05	10	43.0		0.3	100	1.34	175		4.0	3.6
	S*		11	00.5		−0.2	100					
KRP	P*	05	10	42.8		−0.3	100	1.37	7		4.1	4.3
	S*		11	00.4		−1.0	100					
WEL	eP*	05	10	54		−0.6	100	2.05	192	3.3		
	eS*		11	20		−1.7	98					
COB	Pn	05	11	00		1.4	99	2.68	227		3.7	3.4
	eSn			29		0.2	100					
	eS*			37.8		−2.8						

AMPLITUDES: TNZ 1.0 1.8 MNG 9.5 4.6 KRP 3.1 3.8
WEL 0.2 COB 0.4 0.7

FELT: Ohakune (49) MM IV, Turoa (50)

79/ 056

JAN 27 $08^h54^m02^s.4$ 47°.71S 165°.09E 33 km M = 4.5
± 1.5 0.05 0.18 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P	08	54	34.3		−1.8	100	2.21	70			
ROX	eP	08	54	54.3		−1.8	100	3.67	54		4.6	4.7
	eS		55	37.5		0.8	100					
OMZ	eP	08	55	11.0		−0.7	100	4.82	59			4.6
	eS		56	03		−1.1	100					
	e			13								
RHP	P	08	55	15.7		1.3	100	5.02	46			
MJZ	eP	08	55	20		1.9	99	5.29	47		4.4	4.6
	e			39								
	eS		56	17		1.5	100					
CBZ	P	08	55	22		0.8	100	5.51	153			
	S		56	21		0.2	100					
KAI	eS	08	56	55		2.1	99	6.85	43	4.5		
COB	eP	08	56	02		−1.2	100	8.59	42		4.6	4.4
	eS		57	33		−1.8	100					
MNG	eP	08	56	26		−0.4	100	10.30	50		4.2	

AMPLITUDES: ROX 1.6 6.0 OMZ 2.2 MJZ 1.2 2.5

		CBZ	0.2	0.3	KAI	0.3		COB		0.3	0.7
		MNG	0.3								

79/ 057

JAN 27 $18^h43^m04^s.7$ 45°.05S 167°.38E 33 km M = 3.4

± 1.4 0.05 0.11 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ROX	eS	18	43	46		0.8	100	1.44	108			2.9
OBZ	P	18	43	34.5		−0.0	100	1.93	165		3.9	3.6
	S			57.5		0.6	100					
RHP	P	18	43	37.7		0.0	100	2.15	65			
	S		44	04.3		1.9	99					
MJZ	P	18	43	40.8		−0.9	100	2.45	65		3.4	3.7
	S		44	09.8		0.2	100					
OMZ	eS	18	44	09		−1.9	99	2.51	92			3.0

AMPLITUDES:	ROX		0.6	OBZ		1.6	2.2	MJZ		0.6	1.5
	OMZ		0.2								

79/ 058

JAN 28 $05^h11^m40^s.3$ 38°.31S 176°.09E 167 km M = 4.2

± 1.7 0.06 0.10 12 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	05	12	04.8		0.7	100	0.58	311		3.0*	2.5*
	S			22.8		0.2	100					
WTZ	P	05	12	04.0		−1.3	100	0.77	65		3.7	3.7
	e			19.8								
	S			22.0		−2.5	99					
CNZ	P	05	12	08.1		1.4	100	0.98	206			
GSZ	P	05	12	09.0		1.8	100	1.04	202			
TRZ	P	05	12	11.3		1.2	100	1.37	156		4.3	4.2
	S			35.1		2.1	99					
TNZ	eP	05	12	14		1.5	100	1.60	236			
MNG	iP	05	12	21.2		0.2	100	2.36	191		4.8	4.2
	S			51.5		−0.7	100					
WEL	eP	05	12	30		−0.8	100	3.14	199	4.4		
	eS		13	08		−1.6	100					
COB	S	05	13	23.0		−1.5	100	3.80	222			3.7*

AMPLITUDES:	KRP		1.1	0.4	WTZ		1.7	2.0	CNZ		2.1
	GSZ		3.7		TRZ		1.7	3.2	MNG	18	6.0
	WEL	0.8			COB			3.0			

79/ 059

JAN 28 $09^h07^m02^s.9$ 37°.31S 177°.17E 148 km M = 3.8

± 1.9 0.09 0.10 11 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	09	07	24.9		−0.3	100	0.68	192		3.3	3.5
	S			41.2		−1.2	100					
KRP	P	09	07	33.6		1.7	99	1.43	244		3.3*	
GNZ	P	09	07	32.9		0.4	100	1.49	153		3.7	4.0
	S			56.0		0.8	100					
TRZ	(S)	09	08	15.5		4.8		2.25	187			3.9
GSZ	(P)	09	07	46.0		3.8		2.32	212			
MNG	P	09	07	55.8		−2.3	98	3.55	201		4.1	3.9
	S		08	41		0.6	100					
WEL	eS	09	09	00		0.1	100	4.38	204	4.0		
COB	eS	09	09	17		−0.1	100	5.11	221			3.0*

AMPLITUDES:									
	WTZ	1.0	1.6	KRP	1.7	GNZ	1.3	4.2
	TRZ		0.8	GSZ	0.3	MNG	1.7	1.5
	WEL	0.2		COB	0.4			

79/ 060

JAN 28 $19^h12^m38^s.5$ 40°.74S 174°.72E 12 km M = 3.9

± 0.2 0.01 0.02 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KIW	Pg	19	12	44.7		1.8	96	0.19	130			
CAW	Pg	19	12	48.2		0.3	100	0.45	145			
MRW	Pg	19	12	48.8		0.1	100	0.49	182			
WEL	Pg	19	12	49.6		−0.1	100	0.55	176	3.9		
	Sg			56.0		−1.2	99					
WHW	Pg	19	12	49.8		−0.1	100	0.56	179			
WDW	Pg	19	12	50.0		−0.1	100	0.57	159			
TCW	Pg	19	12	50.5		0.1	100	0.58	216			
MNG	iPg	19	12	51.2		0.6	100	0.59	78		3.4	3.7
	Sg			58.8		0.1	100					
BHW	Pg	19	12	51.9		−0.4	100	0.67	171			
MOW	Pg	19	12	54.2		−0.4	100	0.79	150			
CAZ	Pg	19	13	05.2		3.3		1.15	99			
	Sg			17.4		−0.1	100					
	e			20.3								
COB	ePn	19	13	07.0		1.9	95	1.55	256		4.2	3.7
	i			19.0								
	e			39.4								
TNZ	Pg	19	13	10.0		−0.4	100	1.57	350		3.5	
	eSg			35		3.3						
CNZ	Pg	19	13	11.2		−1.0	99	1.66	23			
	Sg			34.8		0.1	100					
KKY	eP*	19	13	13.9		2.7		1.84	204			
	ePg			15.5		−0.4	100					
TRZ	ePn	19	13	11		−0.3		2.00	54			
KRP	P*	19	13	28.2		−0.7	100	2.89	13		4.2	4.4
	e			35.0								
	e			38.0								
	S*		14	10.0		3.4						
	eSg			18.0		2.3						
KAI	ePg	19	13	39		−1.4		3.06	233			
	e		14	13								
	eSg			19		−2.6						
WTZ	eP*	19	13	40		4.6		3.27	33			

AMPLITUDES:								
	WEL	11	MNG	13 30	COB	4.0	4.5
	TNZ	0.4	CNZ	3.1 7.5	KRP	1.0	1.1

FELT: Titahi Bay (68) MM IV

79/ 061

JAN 28 $22^h44^m41^s.4$ 32°.93S 179°.91E 438 km M = 4.8

± 1.7 0.18 0.40 16 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	22	46	11.8		0.0	100	5.58	204		5.3	4.4
	eS		47	22		−0.9	100					
KRP	eP	22	46	18		0.4	100	6.14	214		3.1*	
MNG	P	22	46	41.8		−1.3	99	8.46	204		4.8	4.7
	eS		48	19.8		0.5	100					
WEL	eS	22	48	36		−0.3	100	9.30	205	4.7		
COB	eS	22	48	49		−0.8	100	9.96	213			3.1*

AMPLITUDES: WTZ 3.0 0.5 KRP 0.3 MNG 1.6 1.6
WEL 0.2 COB 0.3

79/ 062

JAN 29 $02^h12^m09^s.1$ 38°.81S 176°.55E 108 km M = 3.2
± 0.5 0.03 0.07 5 S.E. of RES. 0.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P	02	12	29.0		0.0	100	0.87	243			
WTZ	P	02	12	29.5		0.2	100	0.90	23		2.8	2.8
	S			44.5		−0.1	100					
MNG	iP	02	12	42.0		−0.2	100	1.98	204		4.0	3.0
	eS		13	07		0.1	100					

AMPLITUDES: CNZ 0.9 WTZ 0.4 0.4 MNG 4.5 0.6

79/ 063

JAN 29 $03^h48^m30^s.8$ 38°.74S 175°.91E 12 km M = 3.1
± 0.6 0.05 0.08 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	03	48	36.0		0.8	100	0.19	55			
	i			37.8								
	i			39.2								
GSZ	eP*	03	48	44.5		2.4	99	0.59	205			
	eS*			48.2		−2.0	99					
	e		49	05								
KRP	P*	03	48	46.8		0.1	100	0.86	340		3.6	
	iPg			48.0		−0.4	100					
TUA								0.97	94		3.1	
WTZ	eP*	03	48	51		−0.4	100	1.13	49		2.9	3.0
	ePg			55		1.1	100					
	eS*		49	05		−1.5	100					

AMPLITUDES: WNZ 5.2 KRP 3.6 TUA 0.3
WTZ 0.3 0.3

FELT: Wairakei (41). Accompanied by several smaller events.

79/ 064

JAN 30 $09^h39^m53^s.4$ 30°.92S 178°.52W 499 km M = 5.6
± 1.8 0.16 0.36 25 S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	P	09	41	42.8		−0.7	100	7.29	222			
ONE	eP	09	41	48		0.4	100	7.69	229			
WTZ	eP	09	41	48.0		−2.6	99	7.97	207		5.5	5.4
	i			51.3								
	eS		43	20		−3.8	98					
GNZ	P	09	41	56		2.8	99	8.23	199		5.3	5.9
	S		43	28		−0.4	100					
KRP	P	09	41	57.8		1.1	100	8.55	213		4.4*	
	S		43	37		2.4	100					
TUA								8.65	203		5.7	5.8
TRZ	eP	09	42	05.8		−0.2	100	9.42	203		5.3	5.8
	i			07.7								
	S		43	54		2.5	99					
TNZ	eP	09	42	14		1.0	100	10.10	213		4.0*	
MNG	eP	09	42	18.0		−2.8	99	10.84	205		6.0	5.9
	i			22.3								
	S		44	18		-0.8	100					
WEL	eP	09	42	31		1.4	100	11.69	206	5.3		

	S		44	35.5		0.4	100					
COB	eP	09	42	36		−0.8	100	12.37	212		3.9*	3.9*
	S		44	47		−1.2	100					
MJZ	e(S)	09	45	57		6.6		15.70	211			3.7*

AMPLITUDES:

GBZ	3.8		WTZ	2.8	2.6	GNZ		1.9	13
KRP	4.0		TUA	1.6	2.2	TRZ		0.6	4.0
TNZ	0.3		MNG	14	15	WEL	0.5		
COB	0.4	1.5	MJZ		0.6				

79/ 065

JAN 30 $10^h02^m46^s.2$ 39°.58S 173°.73E 33 km M = 3.6

± 0.3 0.02 0.03 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P*	10	02	58.3		−0.6	100	0.64	52		3.4	3.4
	i		03	06.8								
	iS*			09.0		0.9	100					
CNZ	P*	10	03	11.3		−1.2	99	1.46	75			
	i			12.0								
	S*			31.8		−0.1	100					
GSZ	P*	10	03	12.2		−0.5	100	1.47	79			
	S*			32.2		−0.1	100					
COB	Pn	10	03	13.5		0.7	100	1.69	207		3.6	3.4
	iP*			15.9		−0.4	100					
	i			18.8								
	eS*			38		−0.8	100					
MNG	ePn	10	03	15.3		2.4	76	1.70	128		3.8	4.2
	iP*			16.7		0.2	100					
	S*			39.2		0.1	100					
WEL	eP*	10	03	20.0		0.4	100	1.88	155	3.8		
	S*			44.5		0.0	100					
KRP	Pn	10	03	19.8		0.3	100	2.18	41		3.4	3.5
	eP*			27		2.4						
	Sn			45.0		0.6	100					

AMPLITUDES:

TNZ	2.2	3.0	CNZ	2.6	14	GSZ		5.0	8.8
COB	0.9	2.0	MNG	3.6	12	WEL	0.6		
KRP	0.7	1.1							

79/ 066

JAN 30 $13^h37^m44^s.7$ 31°.79S 179°.62W 436 km M = 5.7

± 2.1 0.16 0.38 15 S.E. of RES. 2.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	P	13	39	20.0		0.6	100	6.01	221			
ONE	eP	13	39	22		−1.6	100	6.40	230			
WTZ	eP	13	39	25.3		−2.5	100	6.79	203		5.8	5.8
	i			28.8								
	S		40	48		−1.1	100					
GNZ	P	13	39	33		1.7	100	7.11	195		5.3	
	S		40	57		1.4	100					
KRP	P	13	39	35.0		1.6	100	7.31	212		3.9*	
	S		41	03		3.5	99					
TUA								7.49	200		5.4	5.9
TRZ	P	13	39	45.3		1.1	100	8.27	199		5.6	6.1
	e		41	15.0								
	S			21.0		2.2	100					
TNZ	eP	13	39	53		2.2	100	8.86	212		3.9*	
MNG	eP	13	39	56		−3.8	99	9.67	203		5.8	5.8
	i			59.3								

	e		41 39								
	S			45.2	−1.7	100					
WEL	eP	13	40	07	−2.3	100	10.50	204	5.5		
	S		42	02	−2.1	100					
COB	eP	13	40	13	−3.4	99	11.14	211		4.0*	4.2*
	S		42	13	−4.1	99					
CMZ	S	13	42	58.0	−1.9	100	13.27	205			4.1*
MJZ	eP	13	40	54	1.9	100	14.47	210		3.4*	3.9*
	eS		43	24	0.9	100					
RHP	eP	13	40	58	3.2	100	14.72	210			
	S		43	32	4.1	99					

AMPLITUDES:										
GBZ	3.5	WTZ	7.0	8.0	GNZ	2.7				
KRP	1.6	TUA	1.1	3.5	TRZ	1.3	9.0			
TNZ	0.3	MNG	12	14	WEL	1.1				
COB	0.5	2.8	CMZ	1.3	MJZ	0.3	1.1			
RHP	0.7	1.4								

79/ 067

JAN 30 $19^h52^m37^s.0$ 45°.01S 167°.69E 112 km M = 4.0

± 0.8 0.04 0.05 4 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	19	52	53.5		−0.1	100	0.38	26		4.0	3.6
	S		53	06.3		−0.0	100					
ROX	P	19	53	02.0		0.7	100	1.24	112		4.5	4.1
	S			20.0		0.2	100					
RHP	P	19	53	10.0		0.3	100	1.94	63			
	S			35.0		0.7	100					
MJZ	eP	19	53	13		−0.7	100	2.24	64		3.4	4.4
	S			40.5		−0.7	100					
OMZ	eP	19	53	14		−0.4	100	2.29	93		3.8	4.2
	S			41.7		−0.7	100					
CMZ	S	19	54	20.6		0.9	99	3.83	70			4.1

AMPLITUDES:										
MSZ	30	19	ROX	7.2	7.1	MJZ	0.6	6.0		
OMZ	0.6	2.4	CMZ	0.5						

79/ 068

JAN 31 $02^h05^m08^s.5$ 45°.02S 167°.67E 120 km M = 3.8

± 0.8 0.03 0.05 5 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	02	05	26.3		0.3	100	0.39	27		3.5	3.9
	S			39.3		−0.1	100					
ROX	P	02	05	34.7		1.3	99	1.25	112		4.1	3.8
	S			53.2		0.8	100					
OBZ	eP	02	05	41.2		0.0	100	1.91	171		3.6	3.9
	S		06	04.5		−1.4	99					
RHP	P	02	05	41.8		0.0	100	1.95	63			
MJZ	P	02	05	45.0		−0.6	100	2.25	64		3.8	3.9
	S		06	12.5		−1.0	99					
OMZ	eP	02	05	47.0		0.7	100	2.30	92		3.7	3.8
	S		06	14.5		−0.1	100					
CMZ	eS	02	06	51.5		−0.1	100	3.84	70			

AMPLITUDES:										
MSZ	6.8	35	ROX	3.0	2.5	OBZ	0.7	2.6		
RHP	37		MJZ	1.5	1.6	OMZ	0.4	0.7		

79/ 069

JAN 31 $12^h42^m02^s.8$ 44°.19S 168°.62E 12 km M = 3.5

± 0.5 0.03 0.03 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	12	42	16.0		0.1	100	0.69	226		3.5	3.3
	iS*			26.0		0.7	100					
RHP	P*	12	42	21.8		−0.2	100	1.05	86			
	S*			35.0		−1.1	100					
MJZ	P*	12	42	26.5		−0.4	100	1.34	82		3.3	3.4
	e			42.5								
	eS*			46		1.2	100					
ROX	P*	12	42	29.2		1.7	99	1.38	159		3.9	3.8
	S*			47		1.3	100					
OMZ	eP*	12	42	36.0		0.3	100	1.85	119		3.3	3.4
	S*			59.8		−0.4	100					
KAI	eS*	12	43	23		−0.3	100	2.63	52	3.7		
OBZ	eP*	12	42	49		−1.7	99	2.74	187		3.6	3.2
	S*		43	25		−1.5	99					
COB	ePn	12	43	08		0.4	100	4.34	46		3.8	

AMPLITUDES: MSZ 9.8 10 MJZ 1.5 2.5 ROX 2.5 4.6
OMZ 0.3 0.8 KAI 0.3 OBZ 0.4 0.4
COB 0.2

79/ 070

JAN 31 $22^h45^m46^s.2$ 39°.70S 174°.30E 219 km M = 4.5

± 0.7 0.04 0.05 5 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	22	46	15.2		−0.5	100	0.51	7		3.6*	3.4*
	eS			38		−0.4	100					
GSZ	P	22	46	19.0		0.4	100	1.08	67			
CNZ	P	22	46	18.2		−0.5	100	1.09	63			
	i			41.8								
	iS			45.5		1.7	99					
MNG	iP	22	46	21.1		1.0	100	1.29	136		4.7	4.8
	i			41.1								
	S			46.0		−0.5	100					
WEL	eP	22	46	23		0.1	100	1.63	167	4.1		
	S			52.5		1.2	99					
COB	iP	22	46	25.5		0.7	100	1.84	220		4.4*	3.6*
	S			55.0		0.3	100					
TRZ	P	22	46	25.8		−0.3	100	1.95	87		4.3	4.4
	S			55.2		−1.5	99					
TUA								2.38	69		4.5	4.4
KAI	eS	22	47	27		−1.8	98	3.57	217	3.8*		
CMZ	P	22	46	51.0		0.8	100	4.08	197		3.7*	4.1*
	S		47	39.3		−0.6	100					
RHP	P	22	47	07.5		0.5	100	5.41	214			
	i			10.4								
	eS		48	10		0.3	100					

AMPLITUDES: TNZ 0.9 0.7 GSZ 0.2 CNZ 7.5 7.5
MNG 25 35 WEL 0.9 COB 7.2 3.6
TRZ 0.8 2.5 TUA 1.2 1.0 KAI 0.7
CMZ 1.0 3.6 RHP 2.6

79/ 071

FEB 01 $02^h11^m58^s.3$ 40°.77S 174°.67E 71 km M = 3.7

± 0.3 0.02 0.03 4 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KIW	iP	02	12	07.8		−1.6	97	0.20	116			
CAW	iP	02	12	11.0		−0.2	100	0.45	138			
MRW	iP	02	12	11.4		0.2	100	0.46	177			
WEL	iP	02	12	12.1		0.4	100	0.51	172	4.0		
	S			21.8		−0.1	100					
WHW	iP	02	12	12.4		0.6	100	0.52	175			
TCW	iP	02	12	12.1		0.2	100	0.53	214			
WDW	iP	02	12	12.4		0.3	100	0.55	154			
MNG	iP	02	12	12.1		−0.8	100	0.63	76			
BHW	P	02	12	13.6		0.5	100	0.65	167			
MOW	P	02	12	14.9		0.3	100	0.78	146			
COB	P	02	12	24.5		0.6	100	1.50	257		4.4*	3.8*
	i			26.5								
	S			44.0		0.8	100					
TNZ	P	02	12	25.0		−0.2	100	1.60	352		3.7*	4.0*
	eS			45		−0.4	100					
GSZ	P	02	12	26.8		1.0	99	1.66	25			
	e			33.0								
CNZ	P	02	12	26.2		−0.5	100	1.71	23			
KKY	eP	02	12	29.5		1.6	98	1.80	204			
	e			33.6								
TRZ	eS	02	12	56		0.4	100	2.05	54			3.4
KAI								3.01	233	3.4*		
CMZ	e(P)	02	12	52		4.6		3.19	208			
	e		13	20								
	eS			24		−0.4	100					
MJZ	eP	02	13	05		−0.2	100	4.48	223		2.9*	3.2*
	e			13								
	S			55		−1.6	97					
RHP	P	02	13	09.0		−0.1	100	4.75	224			
	i			15.2								

AMPLITUDES: WEL 11 COB 11 9.5 TNZ 1.2 3.2
TRZ 0.4 KAI 0.4 MJZ 0.3 0.8

FELT: Kelburn (68) MM III

79/ 072

FEB 01 $20^h41^m22^s.4$ 31°.36S 179°.70E 237 km M = 5.0

± 3.2 0.15 0.22 38 S.E. of RES. 2.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	20	43	06.0		2.6	99	6.98	198		5.0	4.8
	eS		44	20		−2.3	99					
GNZ	S	20	44	32		0.0	100	7.41	190			5.3
TRZ	eS	20	45	00		2.6	99	8.51	195			5.0
MNG	eP	20	43	37.8		−2.3	100	9.85	199		4.9	4.8
	i			40.0								
	S		45	27		−1.0	100					
WEL	eS	20	45	46		−1.0	100	10.68	200	4.9		
COB	eP	20	43	57		−0.4	100	11.22	208		3.6*	3.4*
	eS		46	01		1.5	100					
CIZ	eS	20	46	38		−0.1	100	12.92	168			

AMPLITUDES: WTZ 1.5 1.1 GNZ 4.0 TRZ 0.8

MNG 1.6 1.6 WEL 0.3 COB 0.2 0.5

79/ 073

FEB 01 $21^h08^m25^s.5$ 32°.14S 179°.50W 589 km M = 5.2

± 2.6 0.17 0.18 23 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	S	21	11	39		−1.0	100	6.80	197			5.5
TRZ	eS	21	12	01		0.9	100	7.98	201			5.3
MNG	eP	21	10	38.0		−0.3	100	9.39	204		5.0	5.2
	i			39.8								
	e		12	18.8								
	S			26		1.2	100					
WEL	eS	21	12	41		1.2	100	10.22	205	5.0		
COB	eP	21	10	54		0.8	100	10.90	213		3.6*	3.3*
	eS		12	50		−1.9	99					
CIZ	eS	21	13	12		−0.1	100	12.02	170			

AMPLITUDES: GNZ 6.0 TRZ 1.6 MNG 1.7 3.6
WEL 0.3 COB 0.2 0.4

79/ 074

FEB 02 $08^h55^m42^s.0$ 38°.52S 177°.98E 12 km M = 3.5

± 0.7 0.03 0.05 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iPg	08	55	46.3	E	1.0	100	0.13	163			
TUA	P*	08	55	55.3	D	0.1	100	0.70	246		3.9	3.8
	Sg		56	06.5		0.4	100					
WTZ	iP*	08	55	59.6	U	0.3	100	0.94	304		3.3	3.9
	iPg		56	01		−0.3						
	Sg			14		−0.1	100					
	e			17.5								
WIZ	Pg	08	56	06		0.2	100	1.17	328			
TRZ	Pn	08	56	04		−2.1	96	1.37	221		3.6	3.5
	Pg			10		0.3	100					
	Sg			36		7.8						
WNZ	e(Pg)	08	56	19.5		7.6		1.48	265		3.5	
NGZ	eP	08	56	16.5		2.2		1.96	250			
	P*			18.5		1.9						
	e(Sg)			52.5		4.4						
KRP	ePn	08	56	15.5		0.5		2.02	287			
	Pg			20.5		−2.2						
	Sg			50		0.1						
MNG	Pn	08	56	22		−4.3		2.84	222		3.2	3.1
	Pg			40		0.4						
	Sg		57	28		10.1						
TNZ	e(Pg)	08	56	48		7.6		2.89	256			
WEL	Pn	08	56	42		4.0		3.70	221			
COB	P*	08	57	05.5		0.7		4.79	236			
CIZ	Sn	08	58	33		−2.0		6.81	145			
MJZ	Sn	08	58	55.5		−4.8		7.87	224			3.3*

AMPLITUDES: TUA 5.3 4.4 WTZ 2.2 9.0 TRZ 0.8 1.1
WNZ 0.1 MNG 0.4 0.4 CIZ 0.3
MJZ 0.1

FELT: Gisborne (45) MM III

79/ 075

FEB 02 $23^h03^m43^s.9$ 32°.31S 178°.31W 33 km M = 4.6

± 1.8 0.19 0.43 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pn	23	05	22		1.0	100	6.85	213		4.8	4.4
	Sn		06	34		−0.5	100					
	e			40								
KRP	Pn	23	05	31		0.6	100	7.54	220		4.6	
TRZ	Pn	23	05	39.5		−0.4	100	8.24	207		4.7	4.8
	Sn		07	08.5		0.6	100					
NGZ	Pn	23	05	41.7		−1.2	99	8.46	214			
	e(Sn)		07	12		−1.1						
MNG	Pn	23	05	54		−5.7		9.68	209		4.7	4.8
	Sn		07	33		−9.6						
WEL	Sn	23	07	53		−10.2		10.54	210	4.4		
COB	Sn	23	08	06		−16.2		11.33	217			4.1
MJZ	Sn	23	09	20		−21.1		14.62	214			4.1*

AMPLITUDES: WTZ 1.3 0.5 KRP 0.2 TRZ 0.3 0.6
MNG 1.0 1.6 WEL 0.1 COB 0.2
MJZ 0.2

79/ 076

FEB 03 $04^h20^m55^s.4$ 45°.28S 166°.78E 12 km M = 3.8

± 0.7 0.02 0.07 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	04	21	13		−0.8	99	1.01	53		3.8	3.9
	Pg			16		0.0						
	Sg			30		0.3	100					
ROX	Pn	04	21	25.3		−0.2	100	1.80	97		4.2	3.8
	Sn			48		−0.1	100					
OBZ	P*	04	21	29		0.5	100	1.87	151			
	Sn			49.5		−0.3	100					
RHP	Pn	04	21	37.5		0.6	100	2.64	65			
	e(P*)			39		−2.5						
	S*		22	13		−3.1						
OMZ	Pn	04	21	40		−0.9	99	2.93	87		3.8	3.5
	e(P*)			49		2.4						
	e(Sn)		22	19.5		4.2						
	e(S*)			31		6.0						
	(Sg)			40		5.7						
MJZ	Pn	04	21	41.5		0.6	100	2.93	65		4.0	3.8
	(P*)			50.5		3.9						
	Sn		22	18.5		3.2						
	e(Sg)			32		−2.3						
COB	ePn	04	22	23		−0.4		6.05	48		3.8	3.6
	Sn		23	34		4.0						
MNG								7.90	57		3.5	

AMPLITUDES: MSZ 10 18 ROX 2.7 2.7 OMZ 0.4 0.4
MJZ 1.6 1.5 COB 0.1 0.2 MNG 0.1

79/ 077

FEB 03 $09^h07^m17^s.3$ 45°.89S 166°.06E 12 km M = 3.7

± 1.1 0.04 0.09 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	09	07	47 6		0.9	100	1 75	126			

	Sn		08	07		−1.7	99					
MSZ	ePn	09	07	45.5		−1.8	99	1.79	48		3.7	3.8
	P*			48		−1.0	100					
	(Pg)			51.5		−2.1						
	S*		08	13		0.3	100					
ROX	Pn	09	07	55.5		1.0	100	2.32	81		4.3	3.7
	i(Pg)		08	04.6	D	0.3						
	Sn			21.5		−1.0	100					
RHP	Pn	09	08	10.4		1.6	100	3.37	59			
	P*			18		2.0						
	Sn			47		−0.7	100					
OMZ	ePn	09	08	10		−0.8	100	3.51	78		3.6	3.3
	eP*			20		1.6	100					
	Pg			27		−1.3						
	e(S*)		09	07		2.7						
	Sg			17		1.3	100					
MJZ	Pn	09	08	14		1.2	100	3.66	60		3.8	3.6
	P*			23		2.0						
	(Pg)			30		−1.4						
	Sn			53.5		−1.2	100					
	e(S*)		09	13		4.2						
COB	e(Sn)	09	10	09		−1.8		6.83	48			3.4

AMPLITUDES: MSZ 2.2 5.3 ROX 2.2 1.4 OMZ 0.2 0.2
MJZ 0.7 0.6 COB 0.1

79/ 078

FEB 03 $23^h13^m46^s.3$ 37°.94S 177°.19E 33 km M = 3.9
± 0.5 0.03 0.05 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP*	23	13	53.6		1.1	100	0.16	254			
	(S*)			57		0.0						
	e		14	01								
WIZ	Pn	23	13	54.6		−0.8	100	0.41	360			
	Sn		14	03		0.9	100					
TUA	Pn	23	14	00.9		−0.8	100	0.86	182		3.7	3.9
	i			07.5								
	iSn			14.3		1.2	100					
GNZ	Pn	23	14	01.0	D	−2.0	99	0.96	137			
	Sn			15.5		0.1	100					
KRP	iPn	23	14	07.0	D	−0.7	100	1.30	270		4.3	3.5
	Sn			24		0.3	100					
TRZ	(P)	23	14	14.8	U	2.6	98	1.64	190		3.7	3.8
	S*			43		5.7						
CNZ	Pn	23	14	14.3		−0.1	100	1.80	225			
	e(Sn)			38.5		3.0						
	S*			41		−1.2	100					
TNZ	Pn	23	14	25		0.6		2.53	240		3.9	4.2
	e(Sn)			58		4.9						
	S*		15	01		−3.0						
MNG	ePn	23	14	27.5		−3.1		2.99	206		3.6	4.0
	eP*			34		−4.5						
	Sn		15	01.5		−2.5						
	eS*			17		−0.6						
WEL	S*	23	15	40		−2.8		3.83	208	4.0		
COB	ePn	23	14	50		−3.5		4.67	226		3.9	3.8
	eSn		15	48		3.6						
MJZ	Sn	23	16	59		−3.1		7.90	218			3.6*

AMPLITUDES:										
	TUA	2.2	4.2	KRP	6.8	0.8	TRZ	0.8	1.3
	TNZ	0.1	0.2	MNG	0.9	2.6	WEL	0.2	
	COB	0.2	0.6	MJZ		0.2			

79/ 079

FEB 04 $22^h03^m02^s.9$ 33°.91S 179°.93W 33 km M = 4.8

± 1.0 0.07 0.16 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pn	22	04	11		−0.6	100	4.78	211		5.2	5.0
	Sn		05	03		−0.6	100					
GNZ	Pn	22	04	15.5		0.7	100	5.01	199		4.7	5.1
	Sn		05	10		0.8	100					
TUA	Pn	22	04	21		0.4	100	5.43	205		4.8	4.9
	Sn		05	19		−0.3	100					
KRP	Pn	22	04	21.5		0.8	100	5.44	221		5.0	
	e(Sn)		05	20		0.4						
TRZ	(Pn)	22	04	30.5		−0.7	100	6.21	204		4.6	5.0
	Sn		05	37		−1.1	99					
NGZ	Pn	22	04	32.5		−0.9	100	6.37	213			
	e(Sn)		05	43		1.0	100					
MNG	Pn	22	04	45.5		−5.1		7.63	207		4.6	4.9
	e(Sn)		06	06		−6.3						
WEL	Sn	22	06	24		−8.7		8.49	208	4.5		
COB	Sn	22	06	42		−8.9		9.24	217			4.3
CIZ	Pn	22	05	36		8.0		10.38	166			
	Sn		07	23		4.9						
MJZ	Sn	22	07	56.5		−13.5		12.54	214			4.2*

AMPLITUDES:									
	WTZ	8.0	4.0	GNZ	1.6	6.5	TUA	0.7	1.1
	KRP	0.8		TRZ	0.4	1.6	MNG	1.3	3.5
	WEL	0.2		COB		0.5	CIZ	0.6	0.9
	MJZ		0.3						

79/ 080

FEB 05 $07^h25^m33^s.1$ 38°.76S 176°.49E 102 km M = 3.5

± 0.9 0.03 0.05 7 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	e(P)	07	25	48		−0.3	100	0.32	292			3.6
	S		26	01.5		1.7	99					
	e			13								
TUA	P	07	25	49		−0.3	100	0.52	96		3.5	3.6
	S		26	01		−0.8	100					
NGZ	iP	07	25	52.1		0.3	100	0.80	238			
	S		26	04		−2.1	98					
TRZ	P	07	25	52		−0.1	100	0.84	162		3.9	3.7
	e			54								
	S		26	08		1.4	99					
	e			12								
CNZ	P	07	25	52.8		0.5	100	0.85	239			
	eS		26	06		−1.0						
WTZ	P	07	25	52.9	D	0.5	100	0.86	27		3.2	3.6
	S		26	06		−1.1	100					
KRP	iP	07	25	56.5	DSE	1.3	100	1.12	318		3.6*	
	S		26	11.5		−0.5	100					
MNG	P	07	26	05.5		−0.9	100	2.02	202		3.1	3.7
	e			15								
	e			19.5								
	S			30		−1.1						

	e			37.5									
GBZ	P	07	26	18	U	2.8		2.66	342				
WEL	e(S)	07	26	49		−2.5		2.85	207	3.3			
	e		27	03									
COB	S	07	27	19.5		7.0		3.71	230				2.7*
MJZ	S	07	28	24		−7.2		6.92	219				

AMPLITUDES:

WNZ		0.3	TUA		1.4	2.2	TRZ		2.0	2.7
WTZ	1.1	3.0	KRP		5.2		MNG		0.6	2.6
GBZ	0.6		WEL	0.1			COB			0.3

79/ 081

FEB 06 $17^h29^m04^s.0$ 37°.69S 179°.53E 12 km M = 4.1

± 1.2 0.05 0.10 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	Pn	17	29	30		−0.3	100	1.52	231		4.0	4.2
	(P*)			31.5		0.3						
	Sn			51		1.0	100					
WTZ	Pn	17	29	37.7	U	0.4	100	2.03	261		4.0	4.2
	e(Pg)			45		−0.2						
	eSn		30	01		−1.2						
TUA	Pn	17	29	39		−0.3	100	2.18	238		3.8	4.4
	iSn		30	06.5		0.7	100					
TRZ	Pn	17	29	46.5		−1.5	99	2.83	228		4.1	4.4
	Sn		30	21		−0.2	100					
	S*			25		−5.3						
KRP	Pn	17	29	53		0.2	100	3.18	265		3.7	3.8
	(Pg)		30	08		−0.1						
	Sn			28		−1.6	99					
NGZ	ePn	17	29	54		−2.2		3.42	243			
	Sn		30	35		−0.5						
GBZ	Pn	17	29	59		0.9	100	3.56	293			
MNG	Pn	17	30	04.5		−3.7		4.30	226		4.3	4.3
	Sn			53.5		−3.1						
TNZ	Sn	17	31	00.5		3.5		4.31	248			4.2
ONE	e(Pn)	17	30	16		4.1		4.57	293			
WEL	Sn	17	31	13		−4.0		5.15	224	4.3		
COB	ePn	17	30	31.5		−3.5		6.26	235		4.1	4.1
	Sn		31	42		−1.9						
CIZ	Pn	17	30	43		−1.0		6.93	156			
	(Sn)		31	53		−6.8						
	e		32	00.5								
MJZ	ePn	17	31	12.5		−4.1		9.31	225		4.2*	4.0*
	Sn		32	51		−6.2						

AMPLITUDES:

GNZ	3.4	9.0	WTZ		2.5	3.2	TUA		0.4	2.1
TRZ	0.6	1.7	KRP		0.3	0.3	GBZ		0.6	
MNG	2.2	2.5	TNZ			0.1	WEL	0.3		
COB	0.2	0.6	CIZ		1.7	1.7	MJZ		0.3	0.4

79/ 082

FEB 07 $09^h58^m01^s.3$ 38°.22S 175°.94E 190 km M = 3.8

± 0.8 0.04 0.04 5 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	09	58	27.3	D	0.2	100	0.43	313		2.9*	2.4*
	S			47.5		0.5	100					
WTZ	iP	09	58	28.4	D	−0.8	99	0.86	74		4.1	2.8
	e(S)			49.5		−1.2						
NGZ	P	09	58	30.4		0.3	100	1.00	195			

	S		52			−0.4	100					
TUA	S	09	58	53		−1.0	99	1.12	122			4.0
TRZ	e(P)	09	58	34.5		0.1		1.50	153		3.2	4.2
	S		59	00.5		0.6	100					
TNZ	P	09	58	35		0.1	100	1.56	231		2.8*	
GNZ	P	09	58	36		−0.2	100	1.69	105		3.6	4.1
	S		59	04		0.9	99					
ECZ	e(P)	09	58	39		−1.8		2.12	76		3.6	
MNG	iP	09	58	42.5	U	−1.6		2.42	188		4.4	3.9
	S		59	13.5		−3.6						
WEL	S	09	59	29		−4.5		3.19	196	3.5		
COB	P	09	58	58		−2.7		3.79	220		3.1*	2.7*
	S		59	43		−3.6						
CMZ	e(P)	09	59	23.5		−4.6		5.92	204			
MJZ	P	09	59	39		−4.5		7.09	214		2.6*	2.3*
	S	10	00	55		−8.3						

AMPLITUDES:											
KRP	0.8	0.3	WTZ	3.5	0.2	TUA	0.9				
TRZ	0.1	2.2	TNZ	0.1		GNZ	0.7	3.2			
ECZ	0.2		MNG	6.8	2.8	WEL	0.1				
COB	0.2	0.3	MJZ	0.1	0.1						

79/ 083

FEB 07 $11^h33^m18^s.4$ 33°.77S 178°.11W 12 km M = 4.7

± 2.7 0.14 0.26 R S.E. of RES. 2.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(Pn)	11	34	34		5.0		4.77	214		4.9	5.0
	e(P*)			42		1.1						
WIZ	P*	11	34	48		−3.0	99	5.36	224			
GNZ	e(Pn)	11	34	45		2.2	100	5.79	212		4.9	4.8
	Sn		35	49		2.3	100					
WTZ	Pn	11	34	42		−0.9	100	5.80	222		4.7	4.7
	(Pg)		35	12		−3.4						
	Sn			46		−0.9	100					
TUA	ePn	11	34	48		−2.1	100	6.32	216		4.8	4.8
	e(Sn)		36	01		1.4	100					
KRP	Pn	11	34	54		−0.2	100	6.62	229		5.1	5.2
	P*		35	14		1.5						
	Sn		36	06		−0.9	100					
TRZ	e(Pn)	11	35	01		0.7		7.06	214		4.1	4.6
	e(Sn)		36	18		0.4						
CNZ	e(Pn)	11	35	05		−0.6		7.45	222			
	e(Sn)		36	30		3.2						
CRZ	(Pn)	11	35	11		2.3	100	7.68	263		4.8	
	e(P*)			30		−0.5						
TNZ								8.12	226		4.9	
MNG	ePn	11	35	18		−2.4		8.54	215		4.1	4.7
	e(Sn)		36	47		−5.9						
WEL	Sn	11	37	06		−7.5		9.40	215	4.7		
CIZ	(Pn)	11	35	49		5.3		10.24	174			
	eSn		37	33		−0.9						
COB	eP*	11	36	19		3.5		10.31	222		4.3	4.2
	(Sn)		37	31		−4.6						
MJZ	Sn	11	38	41.5		−11.4		13.53	218			4.2*

AMPLITUDES:										
ECZ	0.8	1.2	GNZ	1.8	2.2	WTZ	1.4	1.3		
TUA	0.5	0.6	KRP	0.8	0.6	TRZ	0.1	0.5		
CRZ	0.1		TNZ	0.1		MNG	0.3	1.5		
WEL	0.2		CIZ	0.4	1.1	COB	0.1	0.3		

MJZ 0.3

79/ 084

FEB 08 $05^h45^m52^s.3$ 30°.79S 177°.65E 33 km M = 5.8

± 6.0 0.28 0.91 R S.E. of RES. 3.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(Sn)	05	48	42		−2.8	100	6.93	174			5.9
WTZ	Pn	05	47	38.5		4.3	99	7.20	184		5.8	6.1
	Sn		48	55		3.6	100					
GNZ	Sn?	05	49	08		1.2		7.85	178			
NGZ	ePn	05	47	51		−1.5	100	8.54	191			
TRZ	Sn	05	49	30		0.9	100	8.77	184			6.5
MNG	Pn	05	48	09		−2.9	100	9.97	190		6.0	6.3
	Sn		49	55.5		−2.4	100					
WEL	Sn	05	50	14		−2.3		10.74	192			
COB	Sn	05	50	28		4.8		11.02	200			3.8

AMPLITUDES: ECZ 0.1 WTZ 0.3 0.2 TRZ 0.2
MNG 0.5 0.4 COB 0.1

79/ 085

FEB 08 $15^h24^m24^s.0$ 33°.59S 178°.07W 12 km M = 4.5

± 0.9 0.07 0.10 R S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	15	25	40.5		3.6		4.94	213		4.7	4.7
	(P*)			55		5.5						
	Sn		26	37		4.9						
GBZ	e(Pn)	15	25	58		7.8		5.91	242			
WTZ	Pn	15	25	50		−0.7	99	5.95	221		4.4	4.4
	Sn		26	56		−0.3	100					
GNZ	ePn	15	25	53		2.2		5.96	211		4.8	4.7
	P*		26	09		2.2						
	(Sn)			57		0.5	100					
	e		27	02								
TUA	Pn	15	25	58		−0.0	100	6.49	215		4.6	4.4
	Sn		27	09		−0.3	100					
KRP	Pn	15	26	02.5		0.7	99	6.77	228		4.7	
	eP*			24		3.4						
	ePg			44		3.3						
	Sn		27	16		0.1	100					
NGZ	Pn	15	26	13		0.3		7.56	221			
CRZ	e(Pn)	15	26	19		4.0		7.73	261		4.8	
MNG	Pn	15	26	25.5		−2.8		8.71	214		4.1	4.4
	Sn		27	57		−5.6						
WEL	Sn	15	28	16		−7.2		9.57	214	4.3		
CIZ	ePn	15	26	57		5.2		10.42	174			
	Sn		28	45		1.1						
COB	Sn	15	28	39		−6.0		10.48	222			4.0

AMPLITUDES: ECZ 0.4 0.5 GBZ 0.6 WTZ 0.8 0.6
GNZ 1.3 1.8 TUA 0.3 0.2 KRP 0.3
CRZ 0.1 MNG 0.3 0.8 WEL 0.1
CIZ 0.1 0.2 COB 0.2

79/ 086

FEB 09 $04^h42^m27^s.0$ 38°.03S 176°.90E 12 km M = 4.2

± 0.2 0.01 0.02 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iPg	04	42	29.8		0.0	100	0.08	56			
WIZ	Pg	04	42	39		0.6	100	0.55	25			
	S*			45		−0.2	100					
	Sg			46.5		0.5	100					
TUA	iP*	04	42	40.1	U	−1.7	94	0.80	166		4.6	4.3
	Sg			54.5		0.3	100					
WNZ	P*	04	42	43		0.0	100	0.86	226		4.3	4.1
GNZ	Pg	04	42	49.5		0.7	100	1.07	125			
KRP	Pn	04	42	46.5		−0.8	100	1.08	275		4.3	4.2
	(P*)			47.5		0.8						
	(Pg)			49		0.0						
	Sg		43	04		0.3	100					
ECZ	Pg	04	42	53.5	U	−0.8	100	1.35	76		4.7	4.4
	(Sg)		43	19		6.5						
TRZ	Pn	04	42	53.5		0.2	100	1.52	182		4.6	4.1
	P*			55.5		1.4						
	Sg		43	19		0.6	100					
	e			43								
NGZ	Pn	04	42	53		−0.4	100	1.53	221			
	P*			55		0.7						
GBZ	eP*	04	43	07		2.3		2.14	328			
	Pg			11		0.7						
	(Sg)			51.5		12.4						
TNZ	P*	04	43	07.5		0.3	100	2.29	239		4.5	
	Pg			11		−2.3						
MNG	ePn	04	43	09.5		−1.3		2.81	203		4.3	4.0
	P*			18		1.9						
	e(Sg)			59		−2.6						
CAZ	(Pg)	04	43	27.5		1.5		2.92	190			
	Sg		44	16		10.7						
WEL	ePg	04	43	40		−0.7		3.64	206	3.5		
	Sg		44	28		−1.8						
COB	Pn	04	43	36		2.9		4.44	225		4.2	3.6
	e(Pg)			58		1.3						
	e(Sn)		44	22		−1.0						
CIZ	(Sn)	04	45	47		5.3		7.71	142			

AMPLITUDES:										
TUA	19	11	WNZ	1.5	1.3	KRP	9.5	6.5		
ECZ	5.8	3.5	TRZ	7.0	3.2	GBZ	2.1	1.6		
TNZ	0.6		MNG	4.5	2.5	WEL	0.1			
COB	0.4	0.4								

FELT: Whakatane (27) MM IV

79/ 087

FEB 09 $18^h58^m23^s.6$ 45°.11S 167°.67E 105 km M = 4.3

± 0.7 0.03 0.05 8 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	18	58	39.3	U	−0.7	100	0.48	22			
ROX	iP	18	58	48.1	D	0.9	100	1.22	108		4.7	4.3
	S		59	05		0.0	100					
OBZ	P	18	58	54.5	D	0.0	100	1.82	170			
	S		59	17.5		−0.2	100					
RHP	P	18	58	57		0.2	100	2.00	60			
	S		59	22.5		0.9	100					
MJZ	P	18	59	00		−0.9	100	2.29	62		3.2*	3.6*
	e			05								
	S			28		−0.6	100					

OMZ	iP	18	59	01.4	D	0.5	100	2.30	90		4.2	4.1
	S			28.5		−0.2	100					
KAI	eS	19	00	05		1.0	99	3.74	48	4.1		
CMZ	S	19	00	06		−1.3	99	3.88	69			
COB	eP	18	59	43		−1.2		5.47	44		4.2	4.4
	S	19	00	46		−0.4						

AMPLITUDES: ROX 13 11 MJZ 1.5 6.0 OMZ 1.6 1.8
KAI 0.2 COB 0.2 0.6

79/ 088

FEB 09 $20^h00^m17^s.4$ 39°.29S 174°.87E 12 km M = 3.8
± 0.3 0.02 0.02 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	iPg	20	00	26.4	U	0.7	100	0.40	285		3.4	3.4
	Sg			33		1.8	99					
NGZ	iPg	20	00	29.8		0.3	100	0.58	80			
	Sg			38		0.5	100					
MNG	Pn	20	00	42.0	U	−0.1	100	1.41	161		3.9	3.9
	(P*)			43.5		0.9						
	S*		01	02.5		1.2	100					
KRP	iPn	20	00	42.2	DSW	−0.6	100	1.46	21		3.8	4.0
	Sn		01	01		−0.8	100					
TRZ	Pg	20	00	53		4.5		1.54	100		3.4	3.3
	Sg		01	18		8.8						
TUA								1.84	76		3.7	4.0
WEL	P*	20	00	52.5		−0.1	100	2.00	182	3.9		
	Sn		01	15.5		0.8	100					
	S*			18.5		−0.4	100					
COB	Pn	20	00	55		−1.1	100	2.43	222		4.0	3.9
	(Pg)		01	04		−2.5						
	Sn			25		−0.2	100					
KAI	Sn	20	02	05		−1.8	99	4.17	218	4.1		
MJZ	ePn	20	01	43		1.8		5.74	214		3.8	4.0
	Sn		02	45		0.3						
MSZ	Pn	20	02	04.5		−0.3		7.47	222		3.9	3.8
	(Sn)		03	22.5		−3.7						

AMPLITUDES: TNZ 5.0 8.0 MNG 7.0 8.5 KRP 4.0 7.5
TRZ 0.4 0.5 TUA 0.2 0.3 WEL 0.7
COB 0.9 2.6 KAI 0.3 MJZ 0.3 0.6
MSZ 0.2 0.3

79/ 089

FEB 10 $06^h37^m26^s.1$ 37°.66S 176°.30E 195 km M = 4.4
± 0.6 0.03 0.03 4 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	06	37	52.0		−1.2	99	0.63	121		3.7	4.0
	S		38	13.5		−0.6	100					
KRP	iP	06	37	53.3	U	−0.1	100	0.66	246		3.3*	2.8*
	S		38	15		0.6	100					
TUA	e(P)	06	37	57		−0.9		1.32	150		4.3	4.5
	e		38	20								
	S			22.5		−0.1	100					
GBZ	iP	06	38	00.4	D	0.1	100	1.58	335			
NGZ	P	06	38	00.3		−0.2	100	1.61	199			
GNZ	P	06	38	01.5		0.3	100	1.67	126		4.2	4.3
	S			27.5		−0.7	100					
ECZ	P	06	38	03		0.7	100	1.78	92		4.1	4.3

	e		06									
	S		31			0.8	100					
	e		39									
TRZ	P	06 38	03.1	D	−0.6	100	1.93	168		4.8	4.4	
	e		08									
	e		28									
	e(S)		34		1.1	99						
TNZ	P	06 38	06		0.0	100	2.14	224		3.9*		
MNG	iP	06 38	13.5	U	−2.6		3.02	192		5.1	4.8	
	S		50.5		−4.3							
WEL	e(P)	06 38	22.5		−3.3		3.81	198	4.3			
	S		39 06.5		−5.7							
COB	P	06 38	30		−3.3		4.40	218		3.6*	3.7*	
	S		39 22		−3.4							
KAI	S	06 39	57		−8.6		6.14	216	3.4*			
MJZ	eP	06 39	13		−3.4		7.71	213		3.0*	3.5*	
	S		40 33		−9.6							
CIZ	S	06 40	59		2.7		8.30	142				
OMZ	S	06 40	54		−5.5		8.44	207			2.8*	
MSZ	S	06 41	12.5		−10.1		9.43	219			3.2*	

AMPLITUDES:

WTZ		1.5	3.1	KRP		2.0	0.7	TUA		1.8	2.9
GBZ		2.4		GNZ		2.5	5.0	ECZ		0.8	1.1
TRZ		2.8	3.0	TNZ		1.1		MNG		23	13
WEL	0.5			COB		0.6	2.7	KAI	0.2		
MJZ		0.2	0.9	OMZ			0.1	MSZ			0.5

79/ 090

FEB 11 $21^h48^m34^s.2$ 36°.86S 177°.81E 291 km M = 4.0

± 0.6 0.04 0.06 4 S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e	21	49	24				1.02	145		3.8	4.0
	eS			45		−0.0	100					
	e			53.5								
GNZ	eS?	21	49	57		3.5		1.79	175			
	e?		50	05								
KRP	P	21	49	21		−0.3	99	2.11	239		2.3*	
NGZ	eP	21	49	29		0.3	100	2.90	216			
	S		50	11.5		0.3	100					
MNG	P	21	49	42.5		0.1	100	4.18	205		4.4	4.0
	S		50	35.5		−0.2	100					
WEL	eS	21	50	53		−0.1		5.02	207			
COB	S	21	51	04		−5.7		5.79	222			2.7*

AMPLITUDES:

ECZ		0.3	0.5	KRP		0.1		MNG		2.2	1.1
COB			0.2								

79/ 091

FEB 12 $01^h13^m57^s.0$ 38°.26S 176°.20E 150 km M = 4.0

± 0.6 0.03 0.03 4 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	01	14	19.1	DSE	0.0	100	0.62	302		3.8*	2.9*
	S			36.5		0.4	100					
WTZ	P	01	14	18.5		−0.9	99	0.68	66		3.2	3.5
	S			36		−0.7	99					
TUA	P	01	14	21		−0.2	100	0.93	127		3.8	4.1
	S			40		0.1	100					
CNZ	P	01	14	22.5		0.0	100	1.07	208			
	e(S)			43		0.9						

TRZ	P	01 14 25.6	D	0.0	100	1.38	160					
	eS	47		−0.4								
ECZ	P	01 14 31.8		0.1	100	1.94	74			3.7	3.9	
	S	59		0.7	99							
GBZ	P	01 14 33.5		−0.3		2.12	344					
	e(S)	15 02		−0.1								
MNG	iP	01 14 35.9	U	−1.7		2.42	193			4.9	4.4	
	S	15 05.5		−3.2								
CAZ	iP	01 14 38.8	U	−1.7		2.65	180					
	S	15 13		−0.6								
WEL	P	01 14 44.7	D	−3.2		3.22	200	4.4				
	S	15 23		−3.8								
COB	P	01 14 53		−3.7		3.89	222			3.3*	3.6*	
	S	15 37.5		−5.0								
KAI	S	01 16 17		−6.4		5.62	219	3.4*				
MJZ	S	01 16 51		−9.9		7.18	215				3.3*	

AMPLITUDES:

KRP	7.5	1.3	WTZ	0.7	1.7	TUA	1.0	2.3		
ECZ	0.3	0.5	GBZ	0.5	0.4	MNG	24	9.5		
WEL	0.8		COB	0.3	2.0	KAI	0.2			
MJZ		0.6								

79/ 092

FEB 12 $12^h25^m17^s.1$ 45°.84S 168°.45E 12 km M = 3.6

± 0.6 0.03 0.06 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ROX	P*	12	25	30.5		0.1	100	0.71	60		3.5	3.5
	Pg			33.5		1.9	100					
	S*			40		−0.1	100					
OBZ	P*	12	25	37		0.1	100	1.09	192			
	S*			52		0.5	100					
MSZ	P*	12	25	39		−0.2	100	1.22	342		3.4	3.6
	Pg			41		−0.9						
	S*			56		0.5	100					
OMZ	P*	12	25	49.5		−1.2	100	1.90	67		3.4	3.6
	Pg			54		−1.5	100					
	Sg		26	21.5		0.3	100					
RHP	P*	12	25	51		−2.9	99	2.09	34			
	Pg			58		−1.4	100					
	Sg		26	26		−1.6	100					
MJZ	P*	12	26	00		1.8	100	2.34	39		3.8	4.0
	eS*			32.5		3.5	97					
CMZ	Pg	12	26	29		−3.7		3.74	55			
	Sg		27	21		−2.2						

AMPLITUDES:

ROX	3.5	8.5	MSZ	2.7	7.0	OMZ	0.4	1.3		
MJZ	1.8	3.6								

79/ 093

FEB 12 $18^h12^m41^s.1$ 31°.15S 176°.50E 33 km M = 5.1

± 3.2 0.16 0.32 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn?	18	14	13		−3.7		6.75	166			5.7
	e(Sn)		15	29		−0.2	100					
WTZ	Pn?	18	14	17		−0.9		6.83	177		5.5	
TUA	Sn	18	15	52		0.8	99	7.67	176			6.1
NGZ	Pn	18	14	34.5		−0.1	100	8.05	185			
	e(Sn)		16	09.5		8.9						
	e			22								

TRZ	Sn	18	16	08	−0.8	99	8.40	178			6.2
MNG	Pn	18	14	47	−7.2		9.49	185		5.3	5.9
	Sn		16	30	−5.1						
	e			32.5							
CAZ	eSn	18	16	36.5	−4.7		9.75	181			
WEL	Sn	18	16	49	−3.6		10.21	187			
COB	e(Pn)	18	15	02	−4.3		10.38	196		4.3	4.0
	Sn		17	02	5.5						
CMZ	Sn	18	17	48	−6.5		12.80	193			4.2
MJZ	e(Sn)	18	18	15	−0.8		13.68	199			4.0

AMPLITUDES: ECZ 0.2 WTZ 0.7 TUA 0.4
TRZ 0.6 MNG 0.6 1.7 COB 0.1 0.2
CMZ 0.1 MJZ 0.1

79/ 094

FEB 14 $19^h32^m45^s.6$ 37°.02S 177°.19E 166 km M = 4.1
± 0.5 0.03 0.03 5 S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	19	33	11.6	U	−0.2	100	0.98	189		3.6	3.8
	S			32		−0.1	100					
ECZ	P	19	33	14		−0.4	99	1.28	122		3.5	3.9
	S			37		0.3	100					
GBZ	iP	19	33	17.8	D	0.1	100	1.59	300			
CNZ	P	19	33	28.7		0.3	100	2.54	210			
MNG	iP	19	33	40.6	U	−4.4		3.83	200		4.9	4.5
	S		34	26		−4.6						
CAZ	P	19	33	42.5		−3.9		3.95	191			
	S		34	31		−2.3						
WEL	P	19	33	51		−4.6		4.66	203	4.4		
	S		34	43		−6.7						
COB	P	19	33	58.5		−6.2		5.35	219		3.8*	3.5*
	S		35	01		−4.8						
MJZ	P	19	34	42		−6.3		8.64	214		3.3*	3.3*
	S		36	14		−10.3						

AMPLITUDES: WTZ 1.3 2.3 ECZ 0.3 0.8 GBZ 4.4
MNG 10 5.5 WEL 0.4 COB 0.7 1.2
MJZ 0.4 0.5

79/ 095

FEB 14 $23^h39^m59^s.5$ 34°.41S 178°.57W 12 km M = 4.3
± 1.9 0.16 0.22 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP*	23	41	09		−0.4	100	4.02	215		4.4	4.6
	(S*)			57		−4.9						
	Sg		42	09		−6.1						
WTZ	Pn	23	41	14		−0.1	100	5.07	224		4.2	4.1
	(Sn)		42	14		3.4						
	S*			32		−1.0	100					
GBZ	Pn	23	41	14.5		−1.3	100	5.19	248			
KRP	Pn	23	41	27		1.2	100	5.92	232		4.9	5.0
	(P*)			33		−8.7						
	Sn		42	32.5		1.3	100					
	(S*)		43	07		8.3						
CNZ	e(Pn)	23	41	42		5.3		6.72	223			
	(P*)			49		−6.3						
	e(S*)		43	12.5		−10.1						
MNG	ePn?	23	41	48		−3.4		7.79	216		4.0	4.0

	P*		42	09		−4.7						
	e(Sn)		43	12		−4.2						
	S*			46		−8.9						
COB	e(Sn)	23	43	56.5		−2.7		9.59	223			3.7
	e			59								
CIZ	(Sn)	23	44	09		7.9		9.67	171			
MJZ	Sn	23	45	08		−8.3		12.80	218			

AMPLITUDES: ECZ 0.3 0.6 WTZ 0.6 0.5 GBZ 0.4
KRP 0.6 0.5 MNG 0.3 0.4 COB 0.1
CIZ 0.2

79/ 096

FEB 15 $14^h21^m57^s.7$ 37°.14S 176°.81E 270 km M = 3.8
± 0.7 0.04 0.05 4 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	14	22	33.5		−0.8	99	0.85	170		3.3	3.3
	e			58								
	(S)		23	03		0.1	100					
KRP	P	14	22	37		0.3	100	1.28	232		2.5*	
	e(S)		23	10		3.0						
ECZ	e(S)	14	23	10		0.5		1.49	112			3.8
GNZ	P	14	22	41.0		0.7	99	1.78	148		3.8	4.5
	S		23	13		−0.4	100					
TRZ	S?	14	23	28		4.6		2.41	180			3.9
MNG	iP	14	22	58.6	U	0.0	100	3.63	196		4.1	4.0
	S		23	46.5		0.4	100					
WEL	S	14	24	02.5		−0.4	100	4.44	200			
COB	P	14	23	15		−0.4	100	5.06	218		3.2*	2.9*
	S		24	16		−0.1	100					

AMPLITUDES: WTZ 0.3 0.3 KRP 0.2 ECZ 0.3
GNZ 0.6 5.0 TRZ 0.5 MNG 1.6 1.3
COB 0.2 0.3

79/ 097

FEB 16 $04^h55^m38^s.2$ 31°.67S 179°.72W 515 km M = 5.4
± 1.7 0.12 0.22 22 S.E. of RES. 2.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	P	04	57	16.3	U	−0.1	100	6.05	220			
	eS		58	35		0.7	100					
ECZ	P	04	57	20.5		2.7	100	6.18	193		5.2	5.5
	eS		58	35		−1.8	100					
ONE	eP	04	57	20		−0.1	100	6.42	229	4.5*		
	eS		58	41		0.2	100					
WTZ	e?	04	57	24.5				6.86	202		5.5	5.5
	iP			25.8	D	1.3	100					
	eS		58	46		−2.8	99					
CRZ	eP	04	57	23		−2.4	100	6.96	245			
GNZ	eP	04	57	28		0.1	100	7.21	194		5.3	5.4
	eS		58	56		1.0	100					
KRP	iP	04	57	31.8	UNE	2.3	100	7.36	211		4.0*	3.6*
	e(S)		59	02		4.0						
TRZ	eP	04	57	36		−3.7	99	8.36	199		5.4	5.5
	e		59	13								
	eS			18		1.6	100					
CNZ	eP	04	57	41.5		0.8	100	8.45	206			
	eS		59	16		−2.1	100					
TNZ	eP	04	57	48		2.5	100	8.92	211		4.2*	3.8*

	eS		59	29		2.1	100					
MNG	eP	04	57	49		−5.1	95	9.74	202		5.6	5.6
	e			55								
	e		59	35								
	eS			42.5		0.0	100					
WEL	eP	04	58	04		1.2	100	10.57	203	5.2		
	eS		59	58		−0.4	100					

AMPLITUDES:											
GBZ	2.3	2.0	ECZ	0.9	2.0	ONE	2.7				
WTZ	3.8	3.5	GNZ	2.5	4.5	KRP	2.1	0.8			
TRZ	0.8	2.2	CNZ	0.6	1.0	TNZ	0.6	0.3			
MNG	7.5	8.5	WEL	0.5							

79/ 098

FEB 17 $03^h29^m39^s.1$ 37°.51S 177°.10E 12 km M = 3.8

± 0.5 0.03 0.04 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	iPg	03	29	40.0	D	−1.7	99	0.08	105			
	e			41.5								
	Sg			44.2		0.7	100					
WTZ	iPg!	03	29	47.7		−1.4	100	0.49	190			
ECZ	Pg	03	30	03.9		1.2	100	1.17	100		4.2	3.9
	e(Sg)			23		4.5						
KRP	ePg	03	30	07		1.5	100	1.30	251			
	e(Sg)			27		3.8						
GNZ	ePg	03	30	06		−0.4	100	1.35	147		4.0	
GBZ	ePg	03	30	15		−1.0	100	1.83	314			
	eSg			41		0.3	100					
NGZ	ePg	03	30	20.8		0.5	100	2.04	214			
TRZ	eP*	03	30	17		1.7	99	2.05	186		3.8	
MNG	eP*	03	30	36		−1.4	100	3.36	202		3.6	3.3
	e(Sg)		31	37		5.0						

AMPLITUDES:									
WIZ	13	51	ECZ	2.2	1.4	GNZ	4.0		
GBZ	0.6	0.9	NGZ	0.7		TRZ	0.5		
MNG	0.5	0.3							

79/ 099

FEB 17 $22^h32^m58^s.6$ 40°.05S 175°.09E 12 km M = 4.2

± 0.3 0.01 0.03 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iP*	22	33	11.1	U	0.4	100	0.64	152		4.0	
	eS*			19		−0.5	100					
NGZ	iP*	22	33	14.9	U	−1.2	100	0.95	25			
	eS*			28		−0.9	100					
TNZ	iPn	22	33	17.8	U	−0.2	100	1.03	327		4.0	4.2
	eSn			32		−0.5	100					
CAZ	iP*	22	33	21.3	U	0.8	100	1.21	135			
	eSg			40.5		0.8	100					
WEL	Pn	22	33	20.5		−0.8	100	1.26	191	4.5		
	eSn			37		−1.2	99					
TRZ	iPn	22	33	23.8	D	0.3	100	1.42	70		4.2	4.0
	e(Sg)			50		3.3						
COB	Pn	22	33	32.7		0.3	100	2.07	239		4.7	4.2
	e			34.7								
	eSn			59		1.2	100					
KRP	ePn	22	33	33		−0.5	100	2.15	9			
	eSn		34	02		2.3	95					
GNZ	ePg	22	33	53		0.3	100	2.67	59			4.0

AMPLITUDES:											
	MNG	42		NGZ		64		TNZ	3.0	6.5
	CAZ	20	32	WEL	8.3			TRZ	3.0	3.0
	COB	7.0	7.5	GNZ		2.0				

FELT: Parapara Okeore (57) MM IV and Wanganui (57)

79/ 100

FEB 18 $14^h16^m21^s.5$ 39°.38S 174°.43E 262 km M = 4.4

± 1.3 0.06 0.08 8 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	14	16	56.3		1.0	100	0.20	349			
	eS		17	23		1.5	100					
CNZ	eP	14	16	59		1.7	100	0.88	79			
	e		17	20								
	eS			26		0.6	100					
MNG	P	14	17	02.0		1.0	100	1.48	147		3.9	4.4
	e			05.5								
	e			25								
	eS			31		−0.6	100					
KRP	eS	14	17	34		−0.5	100	1.69	31			
TRZ	P	14	17	05.2		1.2	100	1.86	96		4.3	4.5
	e			32								
	eS			38.5		1.6	100					
WEL	eS	14	17	37		−0.9	100	1.92	172	4.0		
CAZ	eS	14	17	41		1.1	100	2.05	138			
COB	iP	14	17	06.3	D	−0.2	100	2.14	217		4.0*	3.7*
	e			33								
	eS			38.5		−3.0	98					
WTZ	iP	14	17	08.5	U	−0.8	100	2.44	56		4.3	4.3
	eS			44		−2.5	99					
GNZ	eP	14	17	14		0.0	100	2.90	76		4.5	4.8
	eS			52		−2.8	99					
ECZ	P	14	17	23.0		0.9	100	3.64	64		4.8	

AMPLITUDES:										
	TNZ	1.0	0.4	CNZ	0.7	2.2	MNG	2.5	10
	TRZ	0.7	2.6	WEL	0.5		CAZ		1.7
	COB	2.1	3.6	WTZ	1.5	1.6	GNZ	2.0	6.0
	ECZ	1.2							

79/ 101

FEB 18 $14^h31^m18^s.3$ 39°.12S 176°.36E 99 km M = 3.8

± 0.8 0.03 0.04 9 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	eP	14	31	36		1.3	100	0.56	141			3.3
	e			38.5								
	e			42.3								
	S			46.1		−1.0	100					
	e			48.3								
CNZ	P	14	31	35.8		0.6	100	0.64	263			
WTZ	iP	14	31	42.3	U	0.6	100	1.23	24		3.6	4.2
	eS			58		−1.4	100					
KRP	eP	14	31	43		−0.1	100	1.36	331			
	eS		32	01		−1.0	100					
GNZ	P	14	31	44.4		1.0	100	1.39	70		3.3	4.1
	e			57								
	eS		32	02		−0.6	100					
TNZ	P	14	31	47.2		1.8	99	1.54	267		3.5*	3.4*
	eS		32	08		2.0	99					
MNG	iP	14	31	47.0	U	0.3	100	1.65	204		4.2	3.9

	eS		32	07.5		−0.5	100				
CAZ	P	14	31	49.3		0.3	100	1.78	183		
	eS		32	12.5		1.4	100				
WEL	eS	14	32	26		−1.5	100	2.48	209	4.1	
COB	eP	14	32	08.5		−2.1	99	3.41	234		3.4* 3.3*
	e			22							
	eS			49		−1.2	100				

AMPLITUDES:

TRZ		2.0	CNZ	33		WTZ		1.7	7.0
GNZ	0.8	7.0	TNZ		0.7	0.7	MNG	9.7	7.0
CAZ	3.0	2.4	WEL	0.7			COB	0.5	1.3

79/ 102

FEB 18 $17^h35^m09^s.0$ 40°.22S 173°.53E 194 km M = 4.8

± 0.9 0.04 0.06 6 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	iP	17	35	39.7	U	1.0	100	1.06	215		4.7*	4.4*
	eS			59		−2.7	97					
TNZ	P	17	35	41.0		1.0	100	1.22	33		3.7*	4.0*
	eS		36	04.5		0.6	100					
WEL	iP	17	35	43.0	D	1.3	100	1.42	139	5.3		
	e		36	00.7								
	eS			06.5		−0.5	100					
MNG	iP	17	35	43.2	U	0.4	100	1.54	106		4.7	
	e		36	03								
CNZ	iP	17	35	46.7	U	0.8	100	1.85	57			
	e		36	10.5								
	eS			15		0.6	100					
CAZ	iP	17	35	49.3	D	0.1	100	2.16	109			
	e		36	15								
	eS			21		0.8	100					
TRZ	eP	17	35	55		0.7	100	2.62	76		4.3	4.8
	e		36	11								
	e			23.5								
	eS			30		0.7	100					
KRP	P	17	35	56.8		0.7	100	2.77	35		3.5*	3.8*
	eS		36	32		−0.5	100					
WTZ	P	17	36	03.9		−0.9	100	3.49	51		4.2	4.9
	eS			49		0.9	100					
GNZ	eP	17	36	09		0.1	100	3.82	67		4.7	
	eS			52		−3.2	90					
ECZ	P	17	36	18.3		−1.2	100	4.65	59		5.2	4.8
	eS		37	13		−1.1	100					

AMPLITUDES:

COB	17	28	TNZ	1.0	2.8	WEL	20		
MNG	23		CNZ	21	35	CAZ		7.0	44
TRZ	0.7	4.5	KRP	1.5	3.7	WTZ		0.8	5.0
GNZ	2.2		ECZ	2.0	0.9				

FELT: Eastbourne (68) MM IV and Wellington (68)

79/ 103

FEB 19 $04^h11^m14^s.6$ 32°.36S 179°.19E 489 km M = 5.2

± 2.0 0.13 0.39 24 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	iP	04	12	40.9	D	−0.2	100	4.92	218			
ECZ	P	04	12	47.0		1.8	100	5.35	185		4.8	5.3
	eS		13	57		0.3	100					
WTZ	iP	04	12	47.2	U	−3.2	98	5.89	197		5.3	5.3

	e			49.7									
	eS		14	05		−1.2	100						
KRP	eP	04	12	56		1.4	100	6.31	207			3.7*	3.2*
	e(S)		14	22		8.3							
GNZ	eP	04	12	56		1.1	100	6.34	188			5.2	5.4
	eS		14	13		−1.3	100						
TRZ	e	04	12	56.2				7.43	194			5.2	5.5
	eS		14	36		1.5	100						
CNZ	eP	04	13	06		−0.1	100	7.44	202				
	e		14	44									
TNZ	eP	04	13	12		1.5	100	7.86	208				
MNG	P	04	13	17.2		−2.9	99	8.77	199			5.4	5.2
	e			19.8									
	e		14	52									
	eS		15	00		0.1	100						
WEL	eS	04	15	16		0.2	100	9.59	200	5.1			

AMPLITUDES:

GBZ	2.2		ECZ	0.5	1.3	WTZ	2.8	3.0
KRP	1.0	0.4	GNZ	2.5	5.8	TRZ	0.6	3.0
CNZ	0.3	0.5	MNG	5.0	4.0	WEL	0.4	

79/ 104

FEB 19 $19^h06^m46^s.8$ 43°.34S 171°.43E 12 km M = 3.6

± 0.4 0.03 0.04 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	eP*	19	07	03		1.1	100	0.81	359	3.2		
	eS*			14		1.1	100					
	e			20								
CMZ	P*	19	07	04.0		0.4	100	0.92	106		3.8	3.8
	eS*			16		0.1	100					
MJZ	iP*	19	07	03.1	USE	−1.1	100	0.95	227		3.9	3.6
	ePg			04.7		−1.5	100					
	eS*			18		1.0	100					
RHP	Pn	19	07	07.9		−1.3	100	1.24	232			
	P*			09.2		0.1	100					
	eSn			27		1.1	100					
OMZ	Sn-Pn			22		−0.2	100	1.77	192			
COB	Pn	19	07	26.9		1.1	100	2.45	24		3.6	3.2
	eSg		08	07		−2.4	98					
MSZ	Sn-Pn			32		−1.6	100	2.86	241		3.8	3.3

AMPLITUDES:

KAI	1.0			CMZ	6.0	9.0	MJZ	11	7.5
RHP	43	16		COB	0.4	0.5	MSZ	1.0	0.6

79/ 105

FEB 20 $00^h54^m22^s.3$ 37°.73S 178°.52E 33 km M = 4.4

± 0.7 0.04 0.06 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP*	00	54	26.2	D	−1.6	100	0.04	30			
	eS*			34		2.3	100					
GNZ	eP*	00	54	42		1.2	100	0.99	203			
	eSn			50.5		−1.6	100					
WIZ	ePn	00	54	40		−0.5	100	1.08	280			
	eS*			57		0.2	100					
WTZ	iPn	00	54	41.2	D	−1.6	100	1.24	258			
TUA	ePn	00	54	46		−0.6	100	1.52	225		4.3	4.2
	e			54.7								
	eSn		55	06.2		1.3	100					
	e			15								

TRZ	eP*	00 55 05		2.9	99	2.26	216		4.2	3.7
	e	12								
	e	57								
KRP	Pn	00 54 56.7		−1.5	100	2.37	264		4.5	4.5
	eSn	55 26		0.3	100					
NGZ	Pn	00 55 02.3		−0.5	100	2.71	237			
GBZ	ePn	00 55 02.5		−2.5	99	2.86	301			
	e	10.5								
	e(Sn)	42.5		5.4						
TNZ	ePn	00 55 15		0.5	100	3.56	245		4.7	4.6
	e	56 05								
MNG	ePn	00 55 13		−3.7	98	3.73	218		4.2	4.2
	e	39								
	eSn	59.5		1.6	100					
ONE	ePn	00 55 22.5		3.8	98	3.87	299	4.7		
	eSn	56 02		0.8	100					
WEL	eSn	00 56 17		−1.5	100	4.59	218	4.3		
CRZ	Pn	00 55 43.3		−1.2	100	5.77	303		5.0	
CIZ	ePn	00 56 06		1.2	100	7.25	151			
	eSn	57 22		−0.5	100					

AMPLITUDES:										
	ECZ	27 43	WIZ	11 12 11	TUA	2.5 2.5
	TRZ	1.3 0.6	KRP	3.0 2.5	NGZ	5.7
	GBZ	2.3 3.0	TNZ	0.4 0.3	MNG	2.0 2.5
	ONE	0.5	WEL	0.4	CRZ	0.5

79/ 106

FEB 20 $00^h58^m01^s.6$ 37°.50S 178°.65E 33 km M = 3.8

± 1.4 0.05 0.10 R S.E. of RES. 1.8

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP*	00 58 08.0	D	−0.2	100	0.21	203			
	eS*	15		2.0	100					
WIZ	ePn	00 58 23		2.0	100	1.16	268			
GNZ	eP*	00 58 27.0		2.7	99	1.24	203		3.5	3.7
	eSn	37.5		0.0	100					
WTZ	ePn	00 58 23		−1.3	100	1.40	249		4.1	4.1
	Sn	40.0		−1.3	100					
TUA	ePn	00 58 29		−0.2	100	1.76	222		3.8	3.8
	eSn	52		2.1	100					
KRP	ePn	00 58 39		−0.3	100	2.50	259		3.9	
	eSn	59 07		−0.8	100					
GBZ	ePn	00 58 44		−0.0	100	2.84	296			
	eS*	59 30		1.3	100					
NGZ	iPn	00 58 44.7	U	−0.3	100	2.92	234			
	eSn	59 18.5		0.7	100					
MNG	ePn	00 58 55		−4.4	92	3.98	217		3.5	3.8
	e	59 22								
	eSn	42		−1.1	100					

AMPLITUDES:										
	ECZ	6.5 16	WIZ	2.5	GNZ	1.6 4.0
	WTZ	7.2 6.0	TUA	0.7 0.8	KRP	0.6
	GBZ	0.6 0.5	NGZ	2.5 2.0	MNG	0.4 0.9

79/ 107

FEB 21 $04^h56^m31^s.4$ 37°.76S 178°.69E 12 km M = 3.8

± 1.9 0.06 0.15 R S.E. of RES. 1.7

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	e	04 57 01				1.03	211			
	eSn	04.5		−1.1	100					

WTZ	iP	04	56	56.1	D	0.5	100	1.37	260			
TUA	ePg	04	57	03		−1.0	100	1.60	229		3.7	3.9
	eSn			21		1.6	100					
	e(Sg)			34		8.3						
TRZ	e	04	57	25				2.32	219			3.7
	eS*			41		−1.6	100					
KRP	ePn	04	57	10		−1.1	100	2.50	265		3.8	3.8
	eSn			40		−1.0	100					
NGZ	Pn	04	57	16.0		0.7	100	2.81	239			
	eSn			49		0.7	100					
GBZ	ePn	04	57	17		−0.8	100	3.00	300			
TNZ	ePn	04	57	30		2.9	99	3.68	246			
MNG	ePn	04	57	27.5		−1.3	100	3.80	220		3.5	3.8
	eSn		58	15		3.0	99					
WEL	eSn	04	58	31		−1.6	100	4.65	220	4.3		

AMPLITUDES: TUA 0.7 1.1 TRZ 0.5 KRP 0.6 0.5
NGZ 3.8 2.2 GBZ 0.5 MNG 0.4 1.1
WEL 0.3

79/ 108

FEB 21 $06^h19^m55^s.7$ 32°.29S 178°.69E 363 km M = 4.8
± 2.4 0.18 0.51 44 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	06	21	25.2		−0.8	100	5.86	193		4.6	4.5
	eS		22	38		1.2	100					
KRP	eP	06	21	32		2.3	99	6.19	204		3.1*	
GNZ	e(P)	06	21	45		13.2		6.37	185			5.1
	eS		22	48		0.7	100					
TUA	eP	06	21	33		−1.8	100	6.63	191			4.9
	eS		22	51		−1.7	100					
NGZ	eS	06	23	05		−2.3	99	7.33	199			
TRZ	eS	06	23	11		1.9	100	7.42	191			4.9
MNG	P	06	21	59.3		0.1	100	8.71	196		4.8	4.7
	eS		23	36		−0.7	100					
WEL	eS	06	23	55		0.9	100	9.52	198	4.8		

AMPLITUDES: WTZ 0.7 0.6 KRP 0.3 GNZ 3.3
TUA 0.5 NGZ 0.4 TRZ 0.8
MNG 1.5 1.5 WEL 0.2

79/ 109

FEB 22 $10^h41^m29^s.6$ 47°.66S 165°.41E 33 km M = 4.2
± 2.9 0.33 0.40 R S.E. of RES. 2.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	Sn-Pn			39		0.6	100	3.46	31		4.3	4.2
ROX	Pn	10	42	19.2		−1.4	100	3.47	52		4.5	4.2
	eSn			57		−2.0	100					
OMZ	eS*	10	43	49		−0.3	100	4.61	58			4.0
RHP	ePn	10	42	37		−2.1	100	4.83	44			
	e			48								
	e		43	43								
MJZ	ePn	10	42	47		4.2	99	5.10	46		4.4	4.2
	e(Sn)		43	45		6.9						
CMZ	eP*	10	43	25		3.3	99	6.51	54			
	e			51								
COB	ePn	10	43	25		−2.9	100	8.41	41			4.0
	eSn		44	58		0.3	100					

AMPLITUDES:									
	MSZ	2.2	3.6	ROX	1.5	2.1	OMZ	0.5
	RHP	3.0	2.5	MJZ	1.5	1.0	COB	0.3

79/ 110

FEB 23 $19^h30^m44^s.6$ 37°.42S 176°.52E 203 km M = 5.2

± 0.9 0.04 0.07 7 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	eP	19	31	11		−1.3	100	0.54	101			
	eS			35		1.3	100					
WTZ	iP	19	31	13.0	D	0.1	100	0.67	147			
TUA	iP	19	31	19.3	U	0.8	100	1.47	160			
	e			29.0								
	eS			43		−1.7	100					
GBZ								1.47	325			
TUA								1.47	160		5.1	5.4
ECZ	P	19	31	17.7		−2.3	99	1.63	100		5.0	5.3
	e			50								
GNZ	iP	19	31	20.9	U	0.2	100	1.70	136			
CNZ	iP	19	31	24.9	U	1.9	100	1.93	203			
	eS			53		0.4	100					
TRZ	iP	19	31	26.0	U	0.9	100	2.14	174			
	e(S)			53		−3.4						
ONE	eP	19	31	29		1.1	100	2.39	313	3.6*		
TNZ	P	19	31	31.0		2.6	99	2.44	223		4.0*	3.8*
	e			41.5								
	e		32	10								
MNG	iP	19	31	37.1	D	−1.3	100	3.29	194		5.3	5.3
	eS		32	19		−0.9	100					
CAZ	P	19	31	40.6		0.0	100	3.48	184			
	e		32	18								
	eS			26		1.9	100					
WEL	eP	19	31	47		−1.3	100	4.09	199	5.2		
	eS		32	35		−2.5	99					
CRZ	P	19	31	50.0		−1.2	100	4.32	313		3.6*	
CIZ	e	19	32	54				8.38	143			
	eS		34	18		1.4	100					

AMPLITUDES:											
	WIZ	8.0	7.5	GBZ	22		TUA	9.0	18		
	ECZ	7.0	12	CNZ	7.0	8.5	ONE	1.0			
	TNZ	1.3	1.1	MNG	32	42	CAZ	8.0	24		
	WEL	3.6		CRZ	0.4		CIZ		0.9		

FELT: Gisborne (45) MM III

79/ 111

FEB 24 $12^h25^m03^s.7$ 37°.90S 179°.92W 12 km M = 3.8

± 0.9 0.05 0.05 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	12	25	26.5		0.4	100	1.23	279		3.6	3.7
	eSn			42		−0.7	100					
GNZ	ePn	12	25	34.5		1.0	100	1.78	245		3.5	4.0
	ePg			40		0.2	100					
	eS*			59		0.2	100					
WTZ	iPn	12	25	41.1	D	−1.5	100	2.45	267		3.7	4.0
	ePg			53		−0.2	100					
	eSn		26	12.5		0.6	100					
TUA	ePn	12	25	42.5		−0.5	100	2.47	248		3.6	3.9
	eSn		26	15		2.4	99					
TRZ	e(S*)	12	26	32		−4.4		3.03	236			3.8

KRP	ePn	12	26	00		1.7	100	3.59	268		3.8	
	eSn			37		−2.5	99					
NGZ	ePn	12	26	01		0.9	100	3.73	249			
	eSn			44		1.3	100					
MNG	ePn	12	26	08		−2.4	99	4.48	231		3.7	4.0
	eSn		27	00		−0.8	100					
WEL	eSn	12	27	20		−0.8	100	5.32	229	4.3		
CIZ	ePn	12	26	40		1.2	100	6.56	158			
	eSn		27	50		−0.7	100					

AMPLITUDES:

ECZ	0.6	0.8	GNZ	0.9	3.8	WTZ	0.9	1.4		
TUA	0.2	0.5	TRZ		0.4	KRP	0.3			
NGZ	0.6	1.0	MNG	0.5	1.2	WEL	0.3			
CIZ	0.4	0.9								

79/ 112

FEB 24 $22^h14^m39^s.7$ 43°.19S 170°.74E 12 km M = 3.6

± 0.5 0.03 0.06 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MJZ	iP*	22	14	54.3	U	−0.6	100	0.82	194		3.7	3.4
	e(Sg)		15	12		4.4						
KAI	eP*	22	14	56		1.0	100	0.83	37	3.5		
	S*		15	05.8		−0.3	100					
RHP	iP*	22	14	58.0	U	−0.4	100	1.03	207			
	ePg		15	02.5		1.9	99					
	eS*			13		0.8	100					
CMZ	Pn	22	15	04.1		−0.8	100	1.44	107		3.6	3.4
	ePg			11		2.1	99					
	eSn			22		−1.7	100					
OMZ	iPn	22	15	11.2	D	0.3	100	1.89	176		3.7	3.3
	eS*			40		2.1	99					
ROX	ePg	22	15	28		−2.3	99	2.50	204		3.9	3.5
	eSg		16	03		−1.1	100					
MSZ	Sn-Pn			32		2.0	99	2.52	233		3.5	3.7
COB	ePn	22	15	20		−0.3	100	2.57	36		3.8	3.4
	eSn			51		0.1	100					
	eS*			59		0.5	100					

AMPLITUDES:

MJZ	11	7.5	KAI	2.0		RHP	24	29		
CMZ	1.5	1.5	OMZ	0.8	0.6	ROX	0.8	0.8		
MSZ	0.7	2.2	COB	0.6	0.8					

79/ 113

FEB 25 $13^h04^m04^s.6$ 44°.93S 167°.72E 108 km M = 3.6

± 0.7 0.03 0.07 5 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	S-P			11.8		−0.1	100	0.29	29			
ROX	iP	13	04	29.2	D	0.4	100	1.26	117		3.6	3.6
	eS			47		−0.3	100					
RHP	iP	13	04	36.3	U	−0.2	100	1.88	65			
	e			41.3								
	e			49								
	eS		05	01		0.7	99					
MJZ	iP	13	04	39.6	U	−0.8	99	2.18	65		3.2	3.9
	eS		05	07		0.0	100					
OMZ	eP	13	04	42		0.4	100	2.28	95			3.6
	eS		05	09		−0.2	100					

AMPLITUDES:

MSZ	10	13	ROX	1.1	2.2	RHP	10	7.8		

MJZ 0.4 2.0 OMZ 0.6

79/ 114

FEB 26 $11^h16^m05^s.8$ 37°.36S 178°.05E 12 km M = 4.1

± 0.8 0.04 0.06 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	11	16	16.6		0.8	100	0.51	130		3.9	4.2
	e			31								
WIZ	iP*	11	16	20.0	D	1.0	100	0.70	256			
	eS*			29		0.4	100					
WTZ	iPn	11	16	25.8	U	0.2	100	1.04	233		3.7	3.9
	e(Sg)			46		4.7						
GNZ	Pn	11	16	28.0		−0.8	100	1.29	181		3.9	
	e			41								
	eSg			50		0.9	100					
TUA	ePn	11	16	33.5		0.2	100	1.61	206		3.9	4.0
	e(Pg)			42		3.6						
	eSn			56.5		2.6	99					
	e		17	09								
KRP	iPn	11	16	39.5	USW	−0.1	100	2.07	253		4.3	4.0
	eSn		17	07		2.0	100					
GBZ	Pn	11	16	42.3		−1.1	100	2.36	298			
	eSn		17	11		−0.8	100					
NGZ	Pn	11	16	48.8		1.4	100	2.65	226			
	e(Sn)		17	23		4.3						
ONE	ePn	11	16	59		1.8	100	3.37	297			
	e(Sn)		17	40		4.0						
TNZ	e(Pn)	11	17	02		4.1		3.42	237		4.7	4.7
	ePg			12.5		−2.4	99					
	e			46								
MNG	ePn	11	17	00		−3.4	98	3.82	211		3.9	3.9
	eSn			45		−2.0	100					
WEL	eSn	11	18	06		−1.5	100	4.68	212	4.3		
CRZ	ePn	11	17	23		0.1	100	5.25	302		4.7	

AMPLITUDES:											
ECZ	5.6	14	WIZ	7.5	6.0	WTZ	4.8	6.6
GNZ	3.7		TUA	1.1	1.3	KRP	2.4	0.9
GBZ	3.3	1.2	NGZ	5.0	2.7	ONE		0.4
TNZ	0.3	0.3	MNG	1.0	1.3	WEL	0.3	
CRZ	0.3							

79/ 115

FEB 26 $13^h43^m14^s.2$ 38°.44S 175°.77E 237 km M = 3.6

± 1.5 0.06 0.09 9 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	13	43	45.7		−0.2	100	0.55	340		2.6*	
	eS		44	10		−0.4	100					
NGZ	P	13	43	47.9		1.2	100	0.75	189			
	eS		44	14		2.0	99					
WTZ	P	13	43	47.7		−0.7	100	1.06	65		3.1	3.0
	eS		44	13		−2.0	99					
TUA	eP	13	43	50.5		1.6	99	1.14	109			3.8
	eS		44	16		0.1	100					
TRZ	e(S)	13	44	22.5		3.7		1.38	144			3.5
GNZ	eS	13	44	25		0.4	100	1.78	97			3.7
MNG	iP	13	43	57.3	U	−0.3	100	2.19	186		3.9	3.8
	eS		44	30		−1.3	100					
WEL	eS	13	44	45		-0.7	100	2.94	195	3.8		

AMPLITUDES:											
	KRP	0.3		NGZ	1.8	0.5	WTZ	0.2	0.2		
	TUA		0.4	TRZ		0.4	GNZ		0.9		
	MNG	2.2	1.9	WEL	0.2						

79/ 116

FEB 26 $14^h42^m30^s.4$ 40°.37S 177°.08E 12 km M = 3.8

± 0.8 0.03 0.06 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CAZ	P*	14	42	47.5		1.6	100	0.84	230			
	S*			56.0		−1.2	100					
	eSg		43	01		2.1	99					
TRZ	P*	14	42	47.9		1.9	99	0.85	346			
	eS*			58.5		1.2	100					
	eSg		43	01		2.0	99					
MNG	iP*	14	42	53.1	U	0.3	100	1.24	258		3.5	3.8
	e		43	02								
	eS*			08		−1.3	100					
TUA	iPn	14	42	56.9	D	−0.4	100	1.57	2		3.8	4.0
	eSn		43	15.7		−1.7	100					
	eS*			16.6		−2.4	99					
NGZ	iPn	14	43	00.0	U	1.7	100	1.64	316			
	eSn			19.5		0.3	100					
GNZ	iPn	14	43	01.1	U	−0.4	100	1.87	23		3.4	3.8
	eSn			25		0.1	100					
WEL	Sn	14	43	25.8		−1.5	100	1.98	242	4.2		
KRP	ePn	14	43	13		−0.1	100	2.73	333		3.6	
	eSn			44		−1.2	100					
COB	ePn	14	43	22		−0.1	100	3.38	256		3.8	3.6
	eSn		44	00		−1.0	100					

AMPLITUDES:											
	CAZ	0.9	7.5	MNG	3.6	10	TUA	0.8	1.5		
	NGZ	1.8	6.0	GNZ	0.6	2.5	WEL	1.5			
	KRP	0.3		COB	0.3	0.8					

79/ 117

FEB 27 $19^h20^m09^s.5$ 35°.31S 178°.13W 228 km M = 5.3

± 1.2 0.06 0.10 17 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	19	21	06		−1.9	99	3.59	227		5.4	5.7
	eS			55		1.8	99					
WIZ	e	19	21	27				4.38	238			
	eS		22	11		0.6	100					
WTZ	iP	19	21	22.0	U	−0.1	100	4.75	234		5.1	
	eS		22	16		−2.7	98					
TUA	iP	19	21	28.1	U	1.0	100	5.15	226		5.1	5.5
	eS		22	27		−0.6	100					
KRP	eP	19	21	33		−1.5	100	5.73	241		4.0*	4.0*
	eS		22	39		−1.7	100					
TRZ	e	19	21	55				5.84	222		5.0	
	eS		22	45		1.7	100					
ONE	eP	19	21	39		−0.8	100	6.15	263	3.8*		
	e			49								
	e		23	03								
CNZ	eP	19	21	44		1.3	100	6.37	231			
	eS		22	57		1.7	100					
TNZ	e(P)	19	21	56		3.8		7.13	235		3.9*	3.9*
	e		23	03								
CAZ	e(P)	19	21	57		4.5		7.15	217			

	eS		23	13		−0.1	100					
MNG	eP	19	21	55		0.2	100	7.33	222		5.0	5.3
	e		23	00								
	eS			17		−0.2	100					
CRZ	eP	19	22	00		1.5	100	7.61	274		3.9*	
	e			16								
	e		23	05								
WEL	eS	19	23	36		−0.8	100	8.18	221	5.3		
CIZ	e(P)	19	22	18		5.1		8.73	173			
	eS		23	49		−0.4	100					

AMPLITUDES:											
ECZ		5.0	10	WIZ		3.0	6.7	WTZ		3.8	
TUA		1.5	3.5	KRP		2.5	3.3	TRZ		0.8	
ONE	0.7			CNZ		1.3	3.0	TNZ		0.4	0.6
CAZ		0.5	4.0	MNG		3.5	10	CRZ		0.5	
WEL	1.1										

79/ 118

FEB 27 $20^h55^m22^s.1$ 38°.33S 176°.15E 164 km M = 3.7

± 1.6 0.06 0.06 12 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	20	55	45.7	U	−0.2	100	0.63	310		2.6*	2.3*
	eS		56	04		−0.1	100					
WTZ	iP	20	55	45.8	U	−0.7	100	0.75	63		3.2	
CNZ	iP	20	55	49.8	U	1.6	97	0.99	208			
GNZ	S	20	56	17.2		0.3	100	1.50	103			3.8
MNG	iP	20	56	02.3	U	−0.2	100	2.35	193		4.4	3.6
	eS			33		−0.6	100					
COB	e	20	57	05				3.82	223			2.7*

AMPLITUDES:											
KRP		0.5	0.3	WTZ		0.6		CNZ		0.6	
GNZ			2.0	MNG		7.5	1.4	COB			0.3

79/ 119

FEB 28 $10^h44^m16^s.4$ 38°.61S 175°.48E 249 km M = 4.0

± 1.6 0.06 0.08 10 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	eP	10	44	50.3		0.8	100	0.58	170			
	e(S)		45	13		−2.2						
KRP	iP	10	44	49.3	DNE	−0.6	100	0.68	4		3.5*	
	eS		45	15		−1.0	100					
TNZ	eP	10	44	52		0.4	100	1.03	236		3.1*	
	eS		45	21		1.9	99					
TUA	eP	10	44	54.5		1.0	100	1.32	99		3.5	4.1
	e		45	19								
	eS			24		1.7	100					
WTZ	eP	10	44	52		−1.6	100	1.34	63		3.4	3.7
	eS		45	21		−1.6	100					
TRZ	P	10	44	55.9		1.8	99	1.40	132		3.9	3.9
	(S)		45	26.8		3.5						
GNZ	eS	10	45	32		0.1	100	1.99	92			4.3
MNG	iP	10	44	59.0	U	−0.1	100	2.01	180		4.4	4.4
	e		45	20								
	eS			31		−1.1	100					
WEL	eS	10	45	43		−2.0	99	2.73	191	4.2		

AMPLITUDES:											
NGZ		2.6	3.0	KRP		2.7		TNZ		0.2	
TUA		0.2	0.8	WTZ		0.3	0.7	TRZ		0.4	0.9
GNZ			3.2	MNG		6.8	8.5	WEL	0.6		

79/ 120

FEB 28 $23^h36^m34^s.0$ 43°.85S 176°.62E 33 km M = 4.2

± 0.8 0.05 0.06 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CMZ	iPn	23	37	16.9	U	−0.2	100	2.90	274		4.8	4.1
	eSn			48		−1.6	100					
WEL	eSn	23	37	47		−2.8	99	2.91	331	4.1		
MNG	iPn	23	37	23.2	U	0.0	100	3.34	345		4.6	4.6
	e			25.1								
	P*			29.1		−3.1	99					
	eSn			59		−1.3	100					
COB	Pn	23	37	33		1.0	100	3.99	313		3.9	3.8
	eSn		38	15.5		−0.3	100					
OMZ	Sn-Pn			45		−1.7	100	4.27	251			
MJZ	iPn	23	37	39.0	U	0.7	100	4.45	266		4.2	3.6
	eSn		38	26		−0.9	100					
NGZ	Pn	23	37	44.0		1.9	100	4.72	350			
	eSn		38	34		0.4	100					
RHP	iPn	23	37	42.8	U	0.7	100	4.72	265			
	eSn		38	35		1.4	100					
CIZ	eSn	23	38	37		−1.4	100	4.93	94			
TNZ	Pn	23	37	47.9		2.7	99	4.96	339		4.4	4.3
	eSn		38	42		2.9	99					

AMPLITUDES:											
CMZ	5.8	1.9	WEL	0.5		MNG	6.7	7.5
COB	0.3	0.8	MJZ	1.1	0.4	NGZ	4.7	5.0
RHP	4.2	1.2	CIZ		0.8	TNZ	0.3	0.4

79/ 121

MAR 01 $03^h35^m50^s.8$ 38°.88S 175°.02E 222 km M = 5.3

± 0.6 0.02 0.05 5 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	iP	03	36	21.7	U	1.0	100	0.55	123			
	eS			44		0.2	100					
KRP	iP	03	36	24.1	SW	0.9	100	1.04	23		4.3*	4.2*
	eS			49		0.6	100					
TUA	P	03	36	28.8		0.6	100	1.66	88		5.2	5.6
	eS			57		−0.0	100					
MNG	iP	03	36	30.3	U	1.2	100	1.77	169			
WTZ	iP!	03	36	28.8		−0.5	100	1.79	60		4.8	
	e(S)			54		−5.0						
WIZ	iP	03	36	32.2	U	−0.9	100	2.18	52			
	eS		37	03		−2.7	97					
CAZ	iP	03	36	34.7	U	1.2	100	2.22	156			
	e		37	04								
	eS			09		2.5	98					
GNZ	iP!	03	36	35.2		0.3	100	2.36	85			
WEL	iP	03	36	35.7	USE	0.3	100	2.41	185	5.2		
	eS		37	09		−1.0	100					
GBZ	iP	03	36	38.7	D	0.2	100	2.69	8			
	eS		37	15		−0.4	100					
COB	iP!	03	36	39.2		−0.7	100	2.82	218			
	eS		37	15		−3.0	96					
ECZ	iP	03	36	42.8	D	0.6	100	3.02	68		5.6	5.5
	eS		37	20.5		−1.6	100					
ONE	P	03	36	44.0		0.3	100	3.15	350	3.7*		
	S		37	26.8		2.0	99					

CRZ	iP	03	37	04.0	D	−0.3	100	4.82	336		3.8*
CIZ	eP	03	37	46		−0.2	100	8.11	131		
	e(S)		39	24		7.6					

AMPLITUDES: KRP 16 13 TUA 9.6 24 WTZ 7.5
WIZ 12 4.3 CAZ 23 WEL 7.5
GBZ 9.0 2.2 ECZ 9.6 9.0 ONE 0.9
CRZ 0.6 CIZ 0.8 1.4

FELT: Patoka (53) MM IV and Moawhango (58) MM III

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MAR 01 $03^h44^m47^s.1$ 40°.08S 175°.02E 12 km M = 3.8
± 0.4 0.02 0.03 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iP*	03	44	58.3	U	−0.9	100	0.64	147			
	eS*		45	07		−1.0	100					
NGZ	iP*	03	45	03.0	U	−2.4	99	1.01	27			
	eS*			16		−2.8	98					
TNZ	iP*	03	45	05.5	U	−0.1	100	1.02	331		3.5	3.7
	eS*			21		1.7	100					
WEL	eP*	03	45	09		−0.1	100	1.22	189	3.7		
	eS*			25		−0.3	100					
CAZ	ePn	03	45	10		0.6	100	1.23	132			
	eSg			30		1.2	100					
TRZ	ePn	03	45	13		0.2	100	1.48	70		3.5	3.4
	eSg			39		1.9	99					
COB	Pn	03	45	20.5		0.4	100	2.02	239		4.2	3.7
	eS*			49		−0.1	100					
KRP	iPn	03	45	23.3	U	0.8	100	2.19	11		4.4	4.4
	eSn			50		1.0	100					

AMPLITUDES: NGZ 14 48 TNZ 1.1 2.0 WEL 1.2
CAZ 1.4 3.0 TRZ 0.6 0.6 COB 2.5 2.3
KRP 2.3 2.0

79/ 123

MAR 01 $11^h17^m04^s.7$ 38°.73S 177°.77E 33 km M = 3.5
± 0.6 0.03 0.04 3 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iP*!	11	17	11.6		0.3	100	0.21	67			
TUA	iPn	11	17	14.3	U	−0.7	100	0.49	260		3.8	3.8
	eSn			22.5		−0.0	100					
WTZ	iPn	11	17	20.6	U	−0.8	100	0.96	320		3.7	3.8
	eSn			34		0.2	100					
TRZ	ePn	11	17	24		0.6	100	1.11	222		3.4	3.4
	e		18	21								
ECZ	ePn	11	17	24		−0.6	100	1.20	31		3.1	3.3
	eSn			41		1.6	99					
WIZ	iPn	11	17	23.6	U	−2.1	98	1.28	339			
	eSn			41		−0.4	100					
KRP	P*	11	17	40.0		1.0	100	1.93	294		3.7	3.3
	eS*		18	05		0.5	100					
MNG	Pn	11	17	41.7		−1.9	99	2.59	222		3.4	3.5
	e			43.5								
	e		18	01.2								
	e			03.4								
	eSn			14		1.1	100					

AMPLITUDES: TUA 7.6 10 WTZ 5.7 7.0 TRZ 0.8 1.1

ECZ	0.2	0.4	WIZ	2.5	3.5	KRP	0.8	0.3
MNG	0.7	1.0						

79/ 124

MAR 01 $13^h16^m38^s.2$ 45°.02S 167°.68E 99 km M = 3.5

± 1.1 0.06 0.12 11 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	S-P			11		−0.5	100	0.39	26		3.5	3.6
ROX	iP	13	17	02.0	D	0.4	100	1.24	112		3.6	3.8
	S			19.3		−0.1	100					
RHP	iP	13	17	10.0	D	−0.5	100	1.94	63			
	eS			36		1.6	98					
MJZ	P	13	17	13.7		−0.8	100	2.24	64		3.0	3.5
	eS			41		−0.5	100					
OMZ	S-P			27		−0.4	100	2.29	92		3.7	3.0

AMPLITUDES:									
MSZ	10	24	ROX	1.2	3.6	RHP	6.8	3.5
MJZ	0.3	1.0	OMZ	0.6	0.2			

79/ 125

MAR 02 $14^h15^m07^s.1$ 41°.48S 175°.66E 22 km M = 3.8

± 0.8 0.04 0.06 7 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MOW	iP*	14	15	14.8		0.8	100	0.31	281			
WDW	iP*	14	15	18.2		0.4	100	0.54	293			
CAW	P*	14	15	18.3		−0.1	100	0.58	310			
BHW	iP*	14	15	19.1		0.5	100	0.59	277			
WEL	P*	14	15	20.8		0.5	100	0.70	286	3.8		
	S*			31.0		1.1	100					
CAZ	P*	14	15	19.0		−1.7	100	0.72	37			
MRW	P*	14	15	21.5		0.1	100	0.76	289			
KIW	eP*	14	15	22.1		−0.6	100	0.84	318			
MNG	P*	14	15	21.0		−2.3	99	0.87	351		3.9	3.9
	S*			34.0		−1.2	100					
TCW	eP*	14	15	26.1		−0.6	100	1.08	284			
KKY	Pn	14	15	35.7		0.2	100	1.74	237			
	e			50.5								
	eS*			58.3		−2.7	99					
TRZ	eP*	14	15	48		3.4	96	2.12	25			
	e			52								
	eS*		16	13		0.5	100					
COB	eP*	14	15	49.5		3.0	98	2.24	279		4.0	
	e		16	10.0								
NGZ	Pn	14	15	43.0		−0.1	100	2.30	359			
	i(P*)			53.0		5.5						
TNZ	eP*	14	15	50		−0.9	100	2.49	337			
	e			56								
	eS*		16	23		−0.6	100					
CMZ	eSn	14	16	28.5		−0.0	100	3.07	226			3.4
KRP	eP*	14	16	11.5		2.5		3.55	358		3.9	
	eS*			56.5		1.1						
WTZ	eP*	14	16	14		3.5		3.64	17			
	e			19								
	e			38								

AMPLITUDES:								
WEL	5.6		CAZ	22		MNG	19	22
COB		1.1	NGZ	2.7		CMZ		0.3
KRP	0.3							

79/ 126

MAR 02 $19^h58^m26^s.4$ 32°.23S 179°.05W 426 km M = 5.4

± 1.5 0.10 0.18 12 S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	20	00	01		2.5	100	5.80	199		4.9	5.5
	S		01	11		0.1	100					
GBZ	eP	20	00	01		0.1	100	6.03	227			
ONE	eP	20	00	05		−1.2	100	6.52	235	3.8*		
	eS		01	27		2.0	100					
WTZ	P	20	00	06.2		−0.9	100	6.60	208		5.5	5.5
	i			08.2								
	e		01	20								
	eS			24		−2.6	100					
KRP	P	20	00	14.9		0.9	100	7.21	216		4.1*	3.3*
	i			41.5								
	eS		01	41.5		2.6	100					
TUA	eP	20	00	15		0.6	100	7.26	204		5.0	5.6
	eS		01	39		−0.8	100					
CRZ	eP	20	00	12.2		−2.3	100	7.26	250		3.7*	
TRZ	eP	20	00	23		−0.2	100	8.05	203		5.1	5.7
	eS		01	58		2.5	100					
NGZ	P	20	00	24.4		−0.4	100	8.19	211			
	eS		02	00		1.6	100					
TNZ	eP	20	00	33.8		2.5	100	8.77	216		4.3*	
MNG	P	20	00	37.0		−2.2	100	9.46	206		5.6	5.5
	e		02	16								
	S			22.7		−1.7	100					
WEL	eP	20	00	48		−1.0	100	10.31	207	5.5		
	eS		02	40		−1.9	100					
COB	eP	20	00	55.5		−1.6	100	11.03	214		4.3*	4.2*
	eS		02	53		−3.8	99					
MJZ	eP	20	01	36		3.0	99	14.35	212		3.9*	4.0*
	eS		04	06		3.0	99					

AMPLITUDES:									
	ECZ	0.6	2.2	GBZ	1.7		ONE	0.6	
	WTZ	4.5	5.0	KRP	2.3	0.5	TUA	0.5	2.0
	CRZ	0.3		TRZ	0.5	4.0	NGZ	5.1	4.1
	TNZ	0.7		MNG	8.0	8.5	WEL	1.0	
	COB	1.0	2.8	MJZ	0.8	1.5			

79/ 127

MAR 03 $20^h46^m27^s.8$ 40°.52S 173°.34E 167 km M = 4.2

± 0.9 0.04 0.06 8 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	P	20	46	54.1		1.7	100	0.73	219		4.4*	3.4*
	S		47	13.0		1.6	100					
WEL	S	20	47	19.7		−0.1	100	1.32	126	4.3		
TNZ	P	20	46	59.5		0.1	100	1.56	31		3.3*	3.5*
	S		47	22.5		−1.4	100					
MNG	P	20	47	01.2		0.9	100	1.63	94		4.3	4.3
	S			24.2		−1.1	100					
KKY	P	20	47	05.6		2.2	99	1.92	172			
	e			25.9								
	iS			31.3		0.5	100					
	i			34.0								
CNZ	P	20	47	05.6		−0.4	100	2.15	53			
NGZ	P	20	47	06.0		−0.6	100	2.20	53			

	S			35.0		−1.5	100				
CAZ	P	20	47	08.4		1.5	100	2.22	101		
	S			36.7		−0.3	100				
KAI	eS	20	47	42		−0.3	100	2.47	215	3.3*	
TRZ	eP	20	47	15.9		1.4	100	2.84	71		4.0
CMZ	P	20	47	18.8		0.9	100	3.11	189		4.0* 3.8*
	eS			54.5		−1.8	100				
MJZ	eS	20	48	15		−3.3	97	4.08	211		3.3*

AMPLITUDES:

COB		11	3.7	WEL	2.7				TNZ		0.4 0.8
MNG		9.2	13	CNZ		1.6			NGZ		8.8 5.6
CAZ		6.0		KAI	0.3				TRZ		0.3
CMZ		2.6	2.6	MJZ		0.8					

79/ 128

MAR 04 $08^h00^m52^s.7$ 41°.44S 175°.81E 21 km M = 3.8

± 0.5 0.03 0.03 3 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MOW	iP*	08	01	02.0		0.7	100	0.42	273			
CAZ	P*	08	01	06.1		1.5	98	0.62	31			
WDW	iP*	08	01	05.4		0.5	100	0.64	286			
CAW	iP*	08	01	05.5		0.4	100	0.65	301			
BHW	iP*	08	01	06.4		0.4	100	0.70	272			
WEL	P*	08	01	08.0		0.4	100	0.80	281	3.9		
	S*			18.5		0.0	100					
MNG	P*	08	01	08.0		−0.6	100	0.85	343		3.9	3.9
	S*			19.5		−0.7	100					
MRW	P*	08	01	08.9		0.3	100	0.85	284			
TCW	iP*	08	01	13.3		−0.7	100	1.18	281			
KKY	Pn	08	01	22.4		−0.3	100	1.85	238			
	eS*			48.9		−1.2	99					
TRZ	eP*	08	01	27.5		−1.2	99	2.04	23			
	e			39								
CNZ	Pn	08	01	30.2		2.1		2.25	355			
	i			38.2								
	e		02	09.7								
COB	ePn	08	01	29.2		−0.1	100	2.35	278		3.8	3.3
	e			37.0								
	Sn			57.5		0.6	100					
TNZ	e(P*)	08	01	38.0		1.4		2.50	334		3.6	
KRP	eP*	08	01	57		3.1		3.52	357		3.7	4.0
	eS*		02	45		5.1						

AMPLITUDES:

CAZ		11		WEL	5.2				MNG		21 23
COB		0.6	0.8	TNZ		0.2			KRP		0.2 0.3

79/ 129

MAR 04 $16^h54^m58^s.5$ 35°.23S 178°.80W 229 km M = 4.6

± 1.8 0.09 0.19 22 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	16	55	54.2		1.1	100	3.26	220		4.5	
GNZ	eP	16	56	06.5		1.5	100	4.26	216		4.4	5.0
	S			57		0.3	100					
WTZ	P	16	56	04.8		−1.6	100	4.36	230		4.9	4.7
	S			58		−1.1	100					
GBZ	P	16	56	08.5		−2.8	99	4.76	256			
TUA	P	16	56	12.0		−0.1	100	4.82	221		4.8	4.6
	S		57	09		−0.3	100					
KRP	eP	16	56	16.8		−1.1	100	5.29	238		3.4*	

TRZ	eP	16	56	21.0	−0.2	100	5.54	218		4.5	4.7
	S		57	28.5	2.9	99					
ONE	eP	16	56	21	−0.9	100	5.61	262			
MNG	eP	16	56	39.0	−0.9	100	7.03	218		4.3	4.4
	e			44.5							
	S		57	59.0	−0.3	100					
CRZ	eP	16	56	45	4.7	88	7.06	274		3.6*	
WEL	S	16	58	18	−1.0	100	7.88	218	4.8		
COB	e(P)	16	57	09	5.3		8.87	226			3.3*
	S		58	42.0	0.3	100					

AMPLITUDES:										
ECZ	0.8		GNZ	1.0	6.0	WTZ	2.7	1.7
GBZ	0.9		TUA	0.8	0.5	KRP	0.7	
TRZ	0.3	1.0	MNG	0.8	1.3	CRZ	0.3	
WEL	0.4		COB		0.5			

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MAR 05 $05^h56^m29^s.1$ 34°.47s 179°.67w 216 km M = 5.2

± 2.6 0.15 0.16 40 S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	05	57	26.5		0.2	100	3.53	204		5.2	5.4
	e		58	04.8								
	e			27.2								
WIZ	P	05	57	31.4		−0.3	100	3.98	219			
GBZ	P	05	57	36.2		0.1	100	4.33	245			
WTZ	P	05	57	36.2		−1.2	100	4.43	217		5.2	
	i			38.0								
TUA	P	05	57	45.0		0.1	100	5.03	210		5.1	5.2
	e		58	36								
ONE	P	05	57	46.3		1.0	100	5.07	253			
KRP	P	05	57	47.8		0.9	100	5.19	227		4.3*	
	i			49.8								
TRZ	P	05	57	54.0		−0.8	100	5.80	208		5.3	5.0
	i		58	05.0								
	e			57.5								
	eS		59	04.5		3.1						
CRZ	P	05	58	02.8		1.4	100	6.33	268		4.3*	4.0*
	S		59	12		−1.5	100					
TNZ	eP	05	58	08.0		1.7	100	6.70	224		4.1*	3.7*
	e			17.0								
	e		59	45								
MNG	eP	05	58	10.0		−3.4	99	7.24	211		5.2	5.3
	i			28.7								
	eS		59	32		−2.8						
	e	06	00	05								
WEL	eS	05	59	58		3.3	99	8.11	211	4.7		
COB	eP	05	58	32		−3.3	99	8.94	220		3.6*	
CIZ	P	05	58	50		3.9	99	9.78	167			
	S	06	00	31		−2.4	100					

AMPLITUDES:										
ECZ	3.5	5.7	WIZ	8.5		GBZ	5.5	
WTZ	5.0		TUA	1.6	1.8	KRP	5.6	
TRZ	1.6	1.7	CRZ	1.5	0.8	TNZ	0.7	0.4
MNG	6.0	9.0	WEL	0.3		COB	0.3	
CIZ	0.6	1.2						

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MAR 06 $11^h51^m30^s.8$ 33°.24s 179°.00w 480 km M = 4.6

± 2.8 0.25 0.61 31 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	11	53	02.7		−2.0	99	5.76	213		4.6	4.4
	eS		54	15		−4.1						
GNZ	S	11	54	22.0		0.1	100	5.91	203			4.9
KRP	eP	11	53	12.7		0.8	100	6.46	222		3.2*	
TRZ	eP	11	53	22		3.0		7.15	207			4.7
	eS		54	46		1.3	100					
MNG	eP	11	53	35.5		1.2	100	8.59	209		4.5	4.7
	S		55	11.4		−1.0	100					
WEL	eS	11	55	28		−1.0	100	9.45	210	4.7		
COB	eS	11	55	45		0.4	100	10.24	218			3.2*

AMPLITUDES: WTZ 0.6 0.4 GNZ 1.9 KRP 0.3
TRZ 0.5 MNG 0.7 1.3 WEL 0.2
COB 0.3

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MAR 06 $11^h51^m51^s.9$ 37°.57S 178°.21E 33 km M = 3.2
± 1.0 0.08 0.04 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	11	51	59.0		−0.5	100	0.30	115			
	S		52	05.7		0.7	100					
WTZ	P	11	52	09.0		−0.9	100	1.05	246		3.1	3.3
	S			24.2		1.0	100					
GNZ	S	11	52	23.5		−0.4	100	1.08	188		3.2	

AMPLITUDES: ECZ 3.0 1.9 WTZ 1.3 1.6 GNZ 1.0

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MAR 06 $22^h48^m10^s.6$ 44°.37S 167°.88E 12 km M = 3.3
± 1.8 0.09 0.11 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	22	48	16.0		−0.9	100	0.31	175			
ROX	P*	22	48	38.0		0.5	100	1.51	138		3.2	3.6
	S*			59.0		1.5	100					
MJZ	P*	22	48	44.4		0.2	100	1.90	79			
OMZ	eP*	22	48	52.5		1.9	99	2.28	109		3.3	3.3
	eS*		49	18.0		−2.5	99					
	e			27.5								
OBZ	ePn	22	48	50		−0.8	100	2.55	176			

AMPLITUDES: ROX `0.4 2.4 OMZ 0.2 0.4

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MAR 07 $11^h06^m38^s.3$ 39°.37S 175°.22E 103 km M = 3.9
± 1.2 0.04 0.06 13 S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	11	06	52		−1.6	100	0.36	58			
TNZ	P	11	06	56.9		0.9	100	0.67	286		3.4*	3.6*
	eS		07	10		0.6	100					
TRZ	P	11	07	02.0		−0.1	100	1.25	99		4.1	4.2
	S			24.0		3.8	98					
MNG	P	11	07	01.0		−1.1	100	1.26	171		3.9	4.1
	i			02.5								
	i			16.8								
	iS			19.8		−0.4	100					
KRP	P	11	07	04.4		−0.2	100	1.47	10		3.7*	3.1*
	S			23.8		−0.9	100					

TUA	P	11 07 06.0		−0.3	100	1.61	70		4.6	4.3
	S	29.0		1.3	100					
WEL	eS	11 07 31.5		−3.3	99	1.94	190	3.6		
WTZ	P	11 07 09.2		−1.6	100	1.96	46		3.5	3.7
	eS	34.8		−0.3	100					
	e	39.2								
GNZ	eP	11 07 18.3		2.7	99	2.30	72		3.6	4.0
	S	40.8		−2.5	99					
COB	P	11 07 20.4		1.2	100	2.56	227		3.8*	3.5*
	S	51.2		1.6	100					
ECZ	e(P)	11 07 30.2		3.7		3.10	58		3.8	

AMPLITUDES:									
TNZ	1.0	2.2	TRZ	1.8	5.0	MNG		7.8	17
KRP	5.0	1.5	TUA	4.0	2.0	WEL	0.4		
WTZ	0.5	1.0	GNZ	0.6	2.2	COB		1.4	2.5
ECZ	0.2								

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MAR 07 $19^h04^m43^s.6$ 49°.83S 164°.65E 33 km M = 4.7

± 1.3 0.18 0.35 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P	19	05	38.2		0.1	100	3.73	40			
	eS		06	17.7		−1.5	99					
ROX	P	19	05	59.2		−1.4	99	5.38	38		5.1	5.0
	S		07	00.2		1.3	99					
MSZ	P	19	06	04.2		0.3	100	5.62	25			
OMZ	P	19	06	15.0		0.7	100	6.38	44		4.6	4.5
	eS		07	18.5		−4.5						
CMZ	eP	19	06	42.5		1.8		8.32	44		4.9	4.7
	e		07	59								
	eS		08	14		4.6						
COB	eP	19	07	08.8		−0.6	100	10.42	36		4.9	4.2
	eS		09	00		−0.1	100					
WEL	P	19	07	20		1.3		11.11	43			
MNG	eP	19	07	31		0.6	100	11.96	44		4.4	
CIZ	e(P)	19	08	08		8.1		14.12	73			

AMPLITUDES:									
ROX	2.8	5.4	OMZ	0.6	0.8	CMZ		0.9	0.8
COB	0.4	0.3	MNG	0.3		CIZ		0.4	

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MAR 09 $13^h09^m39^s.5$ 40°.12S 174°.83E 12 km M = 3.6

± 0.4 0.02 0.03 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	Pg	13	09	53.5		−0.5	100	0.71	135		3.6	3.4
	i			55.1								
	Sg		10	02.3		−1.3	100					
TNZ	Pg	13	10	01.0		1.4	100	0.99	339		3.0	3.2
	Sg			16.0		3.0	99					
CNZ	Pg	13	10	00.2		−1.0	100	1.07	32			
	i			00.9								
	eSg			14.2		−1.5	100					
NGZ	Pg	13	10	00.2		−1.8	100	1.12	33			
	Sg			16.0		−1.1	100					
WEL	ePg	13	10	02.0		−1.2	100	1.17	182	3.7		
	Sg			22.8		3.7	98					
CAZ	Pg	13	10	07.0		0.6	100	1.32	127			
	Sg			26.4		2.1	100					
TRZ	ePg	13	10	11.3		−1.3	100	1.64	71			

	eSg			36.0		1.3	100				
	e			52							
COB	eP*	13	10	13.8		1.3	100	1.87	238	4.0	3.7
	iPg			15.3		−2.0	100				
	Sg			41.0		−1.5	100				
KRP	eP*	13	10	20.2		1.0	100	2.26	14	3.7	4.0
	iPg			23.8		−1.3	100				
	S*			48.0		−0.8	100				
	Sg			57.9		2.3	99				
KKY	Pg	13	10	27.8		−1.4	100	2.46	200		

AMPLITUDES:

MNG	13	11	TNZ	0.3	0.8	CNZ	6.7	3.0
NGZ	11	11	WEL	1.4		CAZ	1.1	1.8
COB	1.6	2.7	KRP	0.5	0.7			

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MAR 10 $05^h36^m06^s.1$ 39°.66S 174°.30E 205 km M = 4.3

± 0.9 0.05 0.07 7 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	05	36	34.3		0.4	100	0.48	8		3.1*	3.4*
	S			55.8		0.4	100					
CNZ	P	05	36	38.7		1.6	100	1.07	65			
	S		37	01.2		0.1	100					
NGZ	P	05	36	39.0		1.5	100	1.13	66			
	eS		37	00		−1.7	100					
MNG	iP	05	36	40.9		1.8	100	1.32	137		4.6	4.6
	S		37	04.0		−0.4	100					
WEL	eP	05	36	44		1.9	99	1.66	168	3.8		
	S		37	10.0		0.1	100					
COB	iP	05	36	44.8		0.7	100	1.86	219		4.3*	3.8*
	S		37	12.0		−1.1	100					
TRZ	P	05	36	46.7		1.8	100	1.95	88		4.2	4.3
	S		37	16		1.1	100					
KRP	P	05	36	43.0		−2.2	99	1.99	30		3.3*	
TUA	P	05	36	49.7		0.3	100	2.38	70		4.2	4.2
	S		37	20.8		−1.9	99					
GNZ	e(P)	05	37	01.2		3.8		3.07	72			4.4
	S			35.7		−1.3	100					
ECZ	P	05	37	06.2		−0.7	100	3.86	61		4.6	
CMZ	eP	05	37	10.0		−0.2	100	4.12	197		3.2*	4.2*
	S			57.2		−2.6	99					

AMPLITUDES:

TNZ	0.3	0.8	CNZ	1.5	4.7	NGZ	10	7.5
MNG	20	23	WEL	0.4		COB	5.0	6.3
TRZ	0.8	2.0	KRP	1.2		TUA	0.7	0.7
GNZ		2.7	ECZ	0.7		CMZ	0.3	4.9

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MAR 10 $10^h58^m09^s.9$ 36°.00S 179°.66W 188 km M = 4.3

± 1.5 0.09 0.17 15 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	10	58	51.8		1.5	100	2.22	220		4.2	
WIZ	P	10	58	56.3		−2.7	97	2.95	238			
GNZ	eP	10	59	04		1.8	99	3.22	214		4.1	4.5
	e			09.0								
	e			49								
WTZ	P	10	59	01.9		−1.7	99	3.34	233		4.5	
TUA	P	10	59	08.3		−0.9	100	3.78	221		4.7	
	eS			55		0.0	100					

GBZ	P	10	59	13.0		1.8	99	3.94	265		
KRP	P	10	59	15.0		−0.8	100	4.30	242		3.3*
	e			21.5							
TRZ	eP	10	59	18		−0.5	100	4.51	217		4.4
	e(S)	11	00	18		6.5					
NGZ	P	10	59	24		0.3	100	4.92	228		
CNZ	eP	10	59	25		0.7	100	4.97	229		
MNG	P	10	59	37.5		−0.1	100	5.99	218		3.7
WEL	eS	11	01	06		0.0	100	6.85	218	4.5	
COB	eP	11	00	02		0.2	100	7.83	227		3.4* 3.1*
	eS		01	30		0.7	100				
MJZ	eS	11	02	43		−0.2	100	11.00	220		3.3*

AMPLITUDES: ECZ 0.7 WIZ 0.6 GNZ 0.9 3.2
WTZ 1.6 TUA 0.9 GBZ 0.8
KRP 0.7 TRZ 0.3 NGZ 0.8
CNZ 0.3 MNG 0.3 WEL 0.2
COB 0.2 0.4 MJZ 0.3

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MAR 10 $12^h00^m01^s.4$ 35°.77S 179°.24W 33 km M = 4.1
± 1.4 0.13 0.18 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	eP	12	00	52.5		1.6	99	3.37	238			
	e		01	19								
WTZ	P	12	00	55.2		−0.9	100	3.74	233		4.0	3.8
	e		01	05.0								
	eS			38		0.6	100					
TUA	P	12	01	02.7		0.6	100	4.18	222		4.4	
KRP	eP	12	01	08		−1.2	99	4.71	241		4.3	
TRZ	e(S)	12	02	11		5.8		4.90	218			
MNG	eP	12	01	32		−0.1	100	6.38	219		3.8	
	e			57								
WEL	eS	12	03	01		−0.3	100	7.24	219	4.4		
COB	eS	12	03	25		−0.4	100	8.23	227			3.8

AMPLITUDES: WIZ 0.3 WTZ 0.8 0.4 TUA 0.5
KRP 0.3 MNG 0.3 WEL 0.2
COB 0.2

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MAR 11 $15^h27^m30^s.7$ 45°.53S 166°.06E 33 km M = 3.8
± 1.3 0.04 0.11 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	15	27	54.3		−1.4	99	1.57	58		3.7	4.0
	e			59								
	S		28	16		1.6	99					
OBZ	P	15	28	02.3		1.0	100	1.99	135		3.8	3.8
	S			24.2		−0.2	100					
ROX	P	15	28	06.2		0.6	100	2.29	90		4.1	4.1
	S			31.2		−0.6	100					
OMZ	eP	15	28	20.8		−0.7	100	3.46	84		3.6	
MJZ	eP	15	28	22		0.0	100	3.50	65		3.5	4.0
	e			32.2								
	S		29	00.5		−0.2	100					

AMPLITUDES: MSZ 2.7 10 OBZ 1.2 3.2 ROX 1.3 3.5
OMZ 0.2 MJZ 0.4 1.5

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MAR 12 $18^h32^m39^s.2$ 37°.14S 176°.86E 297 km M = 4.2

± 1.4 0.08 0.11 9 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	18	33	17.5		−1.3	100	0.85	173		4.0	4.0
	S			47.0		−2.8	98					
KRP	P	18	33	21.2		0.0	100	1.31	233		2.8*	
	eS			56		2.1	99					
ECZ	P	18	33	22.0		−0.1	100	1.46	113		4.2	4.2
	e			48.6								
	eS			57.4		2.0						
TUA	P	18	33	24.0		0.4	100	1.68	172		4.5	4.3
	eS			57.8		−0.4	100					
GNZ	iP	18	33	24.2		0.0	100	1.76	149		4.1	4.6
	S			58.7		−0.5	100					
NGZ	P	18	33	29.5		1.3	100	2.27	205			
TRZ	eP	18	33	30.2		0.6	100	2.41	181			
	eS		34	11.5		2.8	98					
MNG	P	18	33	41.8		0.1	100	3.64	197		4.5	4.0
	eS		34	31		0.4	100					
WEL	eS	18	34	46		−0.8	100	4.45	201	4.1		
COB	eS	18	34	58		−1.9	99	5.08	218			2.7*

AMPLITUDES:											
WTZ	1.1	1.3	KRP	0.4		E/Z	0.7	0.7
TUA	1.1	0.8	GNZ	1.3	6.0	NGZ	1.6	
MNG	3.5	1.5	WEL	0.2		COB		0.2

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MAR 13 $03^h33^m12^s.0$ 40°.31S 173°.42E 156 km M = 4.5

± 1.1 0.05 0.08 11 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	iP	03	33	40.2		3.3	99	0.94	214		4.2*	3.6*
	eS			55.5		−0.6	100					
	e		34	00.2								
TNZ	eP	03	33	42.8		2.1	100	1.34	34		3.0*	3.4*
	S		34	02.5		−0.2	100					
WEL	P	03	33	43.0		1.6	100	1.41	134	4.2		
	S		34	04.8		0.9	100					
MNG	P	03	33	44.4		1.0	100	1.60	102		4.6	4.7
	S		34	07.0		−0.5	100					
CNZ	P	03	33	48.0		0.4	100	1.98	57			
NGZ	P	03	33	48.5		0.3	100	2.03	57			
	eS		34	14		−2.0	100					
KKY	P	03	33	50.7		1.5	100	2.12	175			
	e		34	11.8								
CAZ	S	03	34	20.0		0.0	100	2.22	106			
KAI	eS	03	34	29		−1.1	100	2.68	214	3.9*		
KRP	eP	03	33	59.0		0.0	100	2.90	35		2.8*	2.9*
	e		34	29								
	eS			32		−2.9	99					
CMZ	P	03	34	03.4		−1.1	100	3.33	190		3.7*	4.2*
	eS			41		−3.7	98					

AMPLITUDES:											
COB	7.2	6.5	TNZ	0.2	0.8	WEL	1.9				
MNG	21	33	NGZ	8.0	11	CAZ		8.0			
KAI	1.2		KRP	0.3	0.5	CMZ	1.2	5.6			

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MAR 13 $03^h41^m31^s.5$ 42°.06S 173°.50E 33 km M = 3.6

± 0.3 0.02 0.03 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	P*	03	41	40.1		−0.2	100	0.39	158			
	S*			46.9		0.1	100					
COB	P*	03	41	52.6		0.3	100	1.13	329			
	eS*		42	07.5		−0.1	100					
WEL	eP*	03	41	52		−1.9	99	1.22	51	3.4		
	eS*		42	12.4		2.0	98					
	e			14.1								
KAI	ePn	03	41	57		−0.2	100	1.62	253	3.9		
	S*		42	22		−0.0	100					
CMZ	Pn	03	41	56.5		−1.1	100	1.65	202		3.7	3.7
	eSn		42	17.3		0.1	100					
MNG	Pn	03	42	02.5		−0.9	100	2.08	47		3.6	
	eP*			11		2.8						
MJZ	ePn	03	42	16.0		0.7	100	2.94	228		3.6	3.5
	e(P*)			26.8		3.9						
	Sn			49		0.8	100					
TNZ	eP*	03	42	22		−1.0	100	2.95	13			
	e			27								
	eS*			58		−3.7						
NGZ	Pn	03	42	21.5		1.4	99	3.29	30			
	iP*			31.3		2.3						
	e		43	08.0								

AMPLITUDES: WEL 0.7 KAI 1.2 CMZ 1.4 2.2
MNG 1.6 MJZ 0.6 0.6 NGZ 0.7

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MAR 13 $06^h06^m41^s.5$ 35°.71S 179°.56W 182 km M = 4.3

± 1.5 0.08 0.09 22 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	06	07	35.8		−2.2	99	3.58	230		4.4	4.4
	eS		08	22		0.4	100					
TUA	eP	06	07	48		3.9	96	4.06	219		4.7	
KRP	eP	06	07	49.5		−0.5	100	4.51	239		3.1*	
TRZ	eS	06	08	54		4.7		4.79	216			
NGZ	eP	06	07	58		−0.5	100	5.17	227			
	eS		09	01		2.9						
MNG	P	06	08	11		−1.8	100	6.26	217		3.8	4.0
	e			28								
	S		09	23.5		−0.3	100					
CRZ	eP	06	08	15.3		−0.6	100	6.50	279		3.6*	
WEL	eS	06	09	43		−1.1	100	7.13	217	4.6		
COB	eS	06	10	09		2.0	100	8.09	226			3.2*
CIZ	eP	06	08	45.0		2.1	100	8.55	165			
	S		10	16.3		−1.4	100					
CMZ	eS	06	10	49.6		0.3	100	9.90	215			3.4*
MJZ	eS	06	11	21		−0.4	100	11.27	220			

AMPLITUDES: WTZ 1.2 1.5 TUA 0.8 KRP 0.4
NGZ 0.4 0.7 MNG 0.3 0.7 CRZ 0.3
WEL 0.3 COB 0.4 CIZ 0.7 0.8
CMZ 0.3

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MAR 15 $22^h59^m34^s.3$ 42°.82S 172°.34E 12 km M = 4.3

± 0.4 0.02 0.04 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	ePg	22	59	49.0		−0.6	100	0.75	293	3.8		
	eSg	23	00	00.5		0.8	100					
CMZ	Pg	22	59	50.5		−0.0	100	0.80	164			
	Sg	23	00	01.2		−0.2	100					
KKY	Pg	22	59	56.9		0.8	100	1.08	69			
	e	23	00	15.3								
COB	ePn	23	00	05.8		2.0	99	1.75	10		4.7	4.4
	iP*			07.5		2.0						
	iPg			09.7		−0.1						
	Sg			31.4		−2.2	99					
MJZ	Pn	23	00	04.7		0.4	100	1.80	229		4.8	
	iPg			07.5		−3.2						
	eSg			34.5		−0.4						
WEL	ePg	23	00	19.4		−2.9		2.38	51	3.6		
	eSg			52		−2.3						
OMZ	ePn	23	00	12.3		−1.3	100	2.47	204		4.6	
	iPg			21.2		−3.2						
MNG	ePn	23	00	24.5		0.7	100	3.22	48		4.5	
	e			27.8								
	i			32.8								
MSZ	e	23	00	39.3				3.70	238		4.4	
	iP*			43.8		5.2						
	i			45.3								
	iPg			48.2		−0.9						
TNZ								3.95	24		4.2	
CNZ	Pn	23	00	45.5		6.2		4.36	35			
NGZ	ePn	23	00	45.5		5.7		4.40	35			
	iP*			51.5		1.0						
	i			56.0								
KRP	ePn	23	00	58		3.6		5.47	28		4.2	
	eP*		01	04.0		−4.8						
	e		02	05								

AMPLITUDES: KAI 5.0 COB 10 17 MJZ 26
WEL 0.3 OMZ 3.5 MNG 5.8
MSZ 2.4 TNZ 0.3 CNZ 0.5
NGZ 2.5 KRP 0.8

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MAR 16 $05^h50^m50^s.3$ 36°.86S 179°.84W 12 km M = 4.0

± 1.0 0.06 0.07 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	05	51	18.5		0.8	100	1.53	237		4.1	4.2
	(Pg)			20.5		−0.9						
	Sg			42		−0.1	100					
GNZ	Sn	05	51	58.5		−0.3	100	2.46	223			4.1
	S*		52	08.5		2.8						
WTZ	Pn	05	51	34		0.5	100	2.76	245		4.0	4.2
	Pg			44		−2.2						
	Sn		52	07		0.9	100					
TUA	ePn	05	51	36.5		−1.3	99	3.08	230		3.9	4.1
	(Pg)			57		4.5						
	Sn		52	13.5		−0.1	100					

TRZ	Sn	05	52	31		0.9	100	3.76	223			4.1
KRP	Pn	05	51	48.5		0.4	100	3.83	253		4.1	
	e(P*)			59		2.1						
	e(Pg)		52	10		2.2						
	eSn			31		−0.8	100					
MNG	ePn	05	52	05		−2.3		5.25	223		3.5	3.9
	Sn		53	01		−4.7						
WEL	Sn	05	53	21.5		−4.7		6.09	222	4.0		
COB	Sn	05	53	49.5		−2.3		7.16	232			3.7
CIZ	Sn	05	53	56		−4.3		7.51	162			

AMPLITUDES:

ECZ	1.0	1.6	GNZ	2.5	WTZ	1.4	2.0		
TUA	0.3	0.5	TRZ	0.5	KRP	0.4			
MNG	0.2	0.6	WEL	0.1	COB	0.2			
CIZ	0.3								

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MAR 17 $03^h53^m00^s.3$ 38°.97S 175°.07E 233 km M = 3.6

± 1.9 0.07 0.14 15 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	03	53	32.2		1.0	100	0.48	117			
	S			55.5		0.2	100					
TNZ	P	03	53	32		0.4	100	0.58	248		2.7*	
KRP	P	03	53	34		−0.3	100	1.11	20		2.6*	
TRZ	S	03	54	07		1.4	99	1.48	114			3.4
MNG	iP	03	53	38.6	U	−0.2	100	1.67	169		4.1	3.9
	S		54	07		−1.5	99					
WTZ	S	03	54	09		−1.3	99	1.80	57			3.2
WEL	S	03	54	18		−1.4		2.33	186	3.3		
COB	iP	03	53	47.9	U	−1.7		2.77	220		3.8*	2.2*
	eS		54	26		−1.9						
MJZ	eS	03	55	33		−6.8		6.09	213			2.5*

AMPLITUDES:

TNZ	0.1		KRP	0.3	TRZ	0.3			
MNG	4.4	3.4	WTZ	0.2	WEL	0.1			
COB	1.1	0.1	MJZ	0.1					

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MAR 17 $19^h06^m59^s.1$ 37°.32S 176°.87E 271 km M = 4.1

± 1.7 0.11 0.15 13 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	19	07	34.5	U	−0.5	100	0.67	172		4.2	3.7
	S		08	01		−2.1	99					
KRP	P	19	07	38		0.2	100	1.22	240		2.7*	
ECZ	P	19	07	39		0.1	100	1.39	106		4.1	
GNZ	P	19	07	41		0.6	100	1.61	146		4.5	4.4
	S		08	13		0.6	100					
NGZ	eP	19	07	46		1.4	100	2.12	208			
	S		08	22		2.1	99					
TRZ	S	19	08	23		1.1	100	2.23	181			3.9
MNG	P	19	07	57		−1.3	100	3.47	198		3.9	4.1
	S		08	42.5		−2.0	99					
WEL	S	19	08	58.5		−2.8		4.29	202	3.7		
COB	eP	19	08	13		−2.5		4.96	219		2.9*	2.7*
	S		09	12		−3.3						
MJZ	e(S)	19	10	24		−4.5		8.25	214			

AMPLITUDES:

WTZ	2.5	0.8	KRP	0.3	ECZ	0.7			
GNZ	3.4	4.4	TRZ	0.6	MNG	0.9	2.0		

WEL 0.1 COB 0.1 0.2

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MAR 17 $20^h37^m52^s.3$ 38°.18S 176°.01E 184 km M = 4.1

± 0.9 0.04 0.04 5 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	20	38	17.6	D	0.1	100	0.45	304		3.0*	2.9*
	S			37.5		0.6	100					
WTZ	iP	20	38	18.9	D	−0.3	100	0.79	76		4.1	3.8
	S			38.5		−1.4	99					
NGZ	iP	20	38	20.9		0.0	100	1.05	197			
	eS			44		0.9	100					
TUA	P	20	38	21.5		0.3	100	1.10	126		3.7	4.1
	e			39								
	S			43		−0.7	100					
TRZ	P	20	38	24.5		−0.5	100	1.51	156		3.9	4.2
	S			49.5		−0.7	100					
TNZ	P	20	38	25.3		−0.8	100	1.63	231		3.2*	
GNZ	P	20	38	27		0.7	100	1.65	107		3.7	4.5
	S			54		1.4	99					
ECZ	P	20	38	31.4		0.7		2.06	77		4.3	3.8
	e(S)		39	03		2.7						
MNG	iP	20	38	32.5	U	−2.8		2.47	189		4.8	4.3
	S		39	03		−5.6						
CAZ	S	20	39	11		−3.0		2.74	177			
WEL	P	20	38	41		−3.8		3.25	197	3.8		
	e		39	18.5								
	S			19.5		−5.8						
COB	P	20	38	47		−5.3		3.85	220		3.5*	3.3*
	S		39	33		−5.8						
CMZ	e(P)	20	39	14		−5.9		5.98	204		3.2*	3.5*
	S		40	18.5		−9.5						
MJZ	P	20	39	30		−5.4		7.16	214		3.0*	3.3*
	S		40	45		−10.8						
OMZ	P?	20	39	39.5		−5.3		7.87	207		3.1*	
CIZ	S	20	41	00		−16.8		8.05	138			
MSZ								8.89	221			3.0*

AMPLITUDES:											
KRP	1.1	0.9	WTZ	3.4	2.2	TUA	0.5	1.5			
TRZ	0.5	2.5	TNZ	0.3		GNZ	1.0	9.0			
ECZ	1.1	0.3	MNG	17	7.0	WEL	0.2	0.3			
COB	0.5	1.0	CMZ	0.2	0.6	MJZ	0.2	0.5			
OMZ	0.1		CIZ		0.2	MSZ		0.3			

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MAR 18 $05^h14^m50^s.1$ 31°.16S 179°.84W 470 km M = 5.0

± 2.9 0.37 0.83 106 S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	05	16	34		1.1	100	6.66	191		5.1	
WTZ	e?	05	16	36				7.30	200		5.6	4.7
	i(P)			38.7	U	−0.9	100					
	S		18	05.5		−0.9	100					
GNZ	S	05	18	12		−1.6	100	7.68	193			5.1
KRP	P	05	16	45		0.5	100	7.76	208		3.7*	
TUA	eP?	05	16	49		1.6		8.03	197		5.1	5.0
	S		18	23		2.5	99					
NGZ	P	05	16	55.5		−0.7	100	8.84	204			
MNG	P	05	17	07.5	U	−3.3		10.18	201		5.0	4.7

	e		18	54							
	S		19	01.5		−1.2					
WEL	S	05	19	14		−5.1		11.01	202		
COB	eP	05	17	21.5		−4.4		11.59	209		3.3* 2.7*
	eS		19	29		−1.6					

AMPLITUDES: ECZ 0.7 WTZ 4.3 0.6 GNZ 2.0
KRP 0.9 TUA 0.5 0.4 MNG 1.7 1.1
COB 0.1 0.1

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MAR 18 $14^h55^m03^s.3$ 36°.60S 177°.25E 263 km M = 4.1
± 0.8 0.09 0.09 9 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	14	55	42		−0.3	100	1.39	188		3.9	3.9
	e			50								
	S		56	12.5		−0.1	100					
ECZ	eP	14	55	43		−0.1	100	1.50	137		4.0	4.2
	e			47.5								
	e(S)		56	15		0.9						
	e			31								
KRP	P	14	55	47		0.7	99	1.90	225		2.7*	
GNZ	P	14	55	48.5		0.2	100	2.13	163		4.1	4.8
	S		56	24		0.7	99					
	e			25.5								
TUA	P	14	55	48.5		−0.4	100	2.20	182		3.9	4.3
	S		56	24		−0.4	100					
NGZ	e(P)	14	55	57		1.2		2.88	206			
	e(S)		56	35		−1.5						
MNG	P	14	56	09		−2.0		4.25	198		4.4	4.2
	e		57	00.5								
	S			04		0.1						
WEL	S	14	57	19		−2.3		5.07	202	3.9		
	e			22								
COB	eP	14	56	29		0.3		5.70	217		3.0*	3.0*
	S		57	35		−0.3						
MJZ	S	14	58	46		−3.8		9.02	213			3.0*

AMPLITUDES: WTZ 1.0 1.1 ECZ 0.5 0.7 KRP 0.3
GNZ 1.1 8.5 TUA 0.3 0.7 MNG 2.5 1.8
WEL 0.1 COB 0.1 0.4 MJZ 0.2

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MAR 18 $20^h22^m18^s.9$ 45°.97S 165°.93E 12 km M = 4.0
± 2.3 0.18 0.17 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	Pn	20	22	49.5		−1.0	100	1.92	48		4.1	4.2
	(P*)			52		−0.7						
	e(Sn)		23	13		−1.2						
	e(S*)			20		2.1						
ROX	Pn	20	22	58.5		1.0	100	2.43	79		4.4	4.1
	eP*		23	04		2.5						
	Sn			25.5		−1.1	100					
	S*			30		−3.3						
OMZ	(Pn)	20	23	18.5		4.7		3.62	77		3.8	3.8
	(Pg)			34		1.9						
	e(Sg)		24	18		−2.8						
MJZ	ePn	20	23	16		−0.0	100	3.78	60		4.2	4.0
	P*			29		4.4						

	ePg			34		−1.4							
	Sn		24	00		0.8	100						
CMZ	eSn?	20	24	35		−1.6		5.35	66				3.4

AMPLITUDES: MSZ 5.0 11 ROX 2.7 2.8 OMZ 0.3 0.5
MJZ 1.6 1.3 CMZ 0.1

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MAR 19 $02^h56^m13^s.3$ 36°.30S 177°.74E 293 km M = 3.9
± 0.9 0.07 0.10 6 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(S)	02	57	29		−0.6	100	1.53	155			4.2
WTZ	P?	02	56	58.5		0.5	100	1.78	199		3.6	3.6
	e?		57	02								
	eS?			33		0.2	100					
MNG	P	02	57	27		−0.1	100	4.66	202		4.0	3.9
	S		58	25		0.0	100					
WEL	S	02	58	43		0.5	100	5.49	204	3.9		
COB	eP	02	57	45		−0.1	100	6.18	218		3.0*	2.8*
	S		58	56.5		−0.7	99					
MJZ	S	03	00	10		−0.3		9.49	214			

AMPLITUDES: ECZ 0.6 WTZ 0.3 0.4 MNG 0.7 0.8
WEL 0.1 COB 0.1 0.2

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MAR 19 $12^h57^m15^s.1$ 38°.01S 178°.03E 82 km M = 4.6
± 0.4 0.02 0.02 4 S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP	12	57	29.5	D	0.0	100	0.51	52		4.2	4.5
	S			40.5		0.1	100					
GNZ	iP	12	57	30.2	DN	−0.4	100	0.63	181			
WIZ	P	12	57	32.5	U	−0.1	100	0.82	305			
	e			36								
	(S)			43		−2.7						
	e			45.5								
WTZ	iP	12	57	32.6		0.0	100	0.83	271			
TUA	iP	12	57	34.7	D	−0.7	98	1.05	221		4.6	4.8
	S			51		0.4	100					
WNZ	P	12	57	43		0.1	100	1.64	247		4.8	
	e			47.5								
	e			54								
TRZ	P	12	57	45		0.0	100	1.81	211			
KRP	iP	12	57	47.7	DE	0.4	100	1.97	272		3.5*	3.5*
	e			58								
	S		58	10.5		−0.5	99					
CNZ	iP	12	57	52.0		0.4	100	2.29	238			
	S		58	19		0.5						
TNZ	P	12	58	04.5	D	1.6		3.10	247		4.1*	
MNG	iP	12	58	02.7	D	−2.7		3.28	216		4.6	4.5
	S			41		−2.3						
WEL	P	12	58	13		−4.3		4.13	217	4.6		
	S		59	01		−3.7						
COB	P	12	58	27		−4.0		5.12	231		3.9*	3.8*
	S		59	27		−2.4						
KAI	S	13	00	04		−6.4		6.79	226	3.8*		
CMZ	P	12	58	51		−4.7		6.91	215		3.8*	4.1*
	S	13	00	05		−8.5						
CIZ	P	12	59	00		0.2		7.22	147			

	S	13	00	14		−6.9						
MJZ	eP?	12	59	07		−7.3		8.27	221		4.1*	3.8*
	e			10								
	S	13	00	38		−9.0						
MSZ								10.11	226		3.4*	3.7*

AMPLITUDES:

ECZ		12	20	TUA		10	17	WNZ		0.8	
KRP		2.6	2.8	TNZ		1.6		MNG		7.6	7.5
WEL	0.9		1.1	COB		1.1	3.0	KAI	0.4		
CMZ		0.7	2.4	CIZ		0.6	2.3	MJZ		2.2	1.4
MSZ		0.4	1.4								

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MAR 19 $15^h28^m24^s.0$ 37°.59S 176°.67E 186 km M = 4.2

± 1.3 0.11 0.06 8 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	15	28	47.7	D	−1.7	99	0.47	148		3.6	4.0
	S		29	09		0.0	100					
KRP	P	15	28	51.4	U	−0.7	100	0.96	249		3.0*	2.7*
	S		29	14.5		0.6	100					
TUA	P	15	28	54		−0.6	100	1.27	163		3.9	4.3
	e		29	16								
	(S)			19		0.8						
	i			25								
ECZ	P	15	28	58.4	U	1.8	99	1.49	94		4.0	3.9
	(S)		29	21.5		−0.2	100					
GNZ	P	15	28	56		−0.7	100	1.49	135		4.0	4.7
	S		29	22		0.2	100					
NGZ	P	15	29	00.5		0.9	100	1.80	207			
TRZ	eP?	15	29	01.5		0.2		1.96	177			
	e			06.5								
	eS?			30		−0.3						
TNZ	P	15	29	08		1.7		2.40	228		3.2*	
MNG	P	15	29	13.8		−1.7		3.17	197		4.8	4.5
	S			55		−0.1						
WEL	P	15	29	23.5		−2.2		3.98	201	4.2		
	S		30	12		−1.3						
COB	P	15	29	31		−3.2		4.64	220		3.4*	3.3*
	S		30	27.5		−0.9						
KAI								6.37	218	3.2*		
CMZ	eS	15	31	14		−3.4		6.73	206			3.5*
MJZ	P	15	30	14		−3.3		7.94	214		2.7*	3.4*
	S		31	42		−3.9						
CIZ	S	15	31	53		1.7		8.17	143			
MSZ								9.68	220			3.0*

AMPLITUDES:

WTZ		1.5	3.5	KRP		0.9	0.5	TUA		0.8	1.9
ECZ		0.8	0.7	GNZ		2.0	15	TNZ		0.2	
MNG		10	6.7	WEL	0.3			COB		0.3	0.9
KAI	0.1			CMZ			0.6	MJZ		0.1	0.6
CIZ			0.1	MSZ			0.3				

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MAR 19 $17^h00^m44^s.8$ 34°.35S 179°.17E 33 km M = 4.8

± 2.1 0.10 0.14 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	17	01	35.7		1.2	100	3.38	188		5.0	
	eP*			46.9		3.3	99					
WTZ	Pn	17	01	41		−2.5	100	4.04	205		4.6	4.5

	i			44.7								
	eSn		02	28		0.1	100					
GNZ	ePn?	17	01	50		1.7	100	4.39	192			
KRP	Pn	17	01	50.3		−1.2	100	4.63	218		5.2	
	e			55								
TUA	ePn	17	01	52.8		−0.3	100	4.74	199		4.8	4.3
	eP*		02	05		−1.8	100					
	eSn			48		3.3	99					
	e		03	01								
CRZ	Pn	17	02	02.0	U	0.3	100	5.37	267		5.8	5.5
	e			07								
	eSn		03	01		1.2	100					
TNZ	ePn	17	02	18		5.3		6.18	217		5.3	
MNG	ePn	17	02	19		−3.7	99	6.92	204		4.5	4.3
WEL	eSn	17	03	54		−3.2	99	7.76	205	5.0		
COB	ePn	17	02	45		1.4	100	8.45	215		4.4	3.9
	eSn		04	14		0.2	100					
CIZ	ePn	17	03	04		−2.9		10.15	162			
	eSn		04	46		−8.8						

AMPLITUDES:										
	ECZ	1.8		WTZ	2.2	1.8	KRP	2.0		
	TUA	0.8	0.3	CRZ	2.2	0.8	TNZ	0.4		
	MNG	1.1	1.0	WEL	0.6		COB	0.2	0.2	
	CIZ	0.8	0.8							

USGS EPICENTRE:17 00 53.2 35.02S 178.52E 65 KM MB 4.8

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MAR 19 $17^h07^m50^s.7$ 34°.45S 179°.07E 33 km M = 4.6

± 3.0 0.12 0.21 R S.E. of RES. 3.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	ePn	17	08	45.5		−2.1	100	3.91	205		4.4	4.3
	e			49.3								
	eSn		09	34		3.4	100					
GNZ	ePn?	17	08	54		1.4	100	4.27	191			
	eSn?		09	42		2.7	100					
KRP	ePn	17	08	55		−0.6	100	4.49	218		4.9	
	e		09	00								
TUA	ePn	17	08	58		0.7	100	4.62	199		4.5	4.1
	eP*		09	11		0.4	100					
	eSn			50		2.4	100					
	e			54								
CRZ	Pn	17	09	07.0		0.7	100	5.28	268		5.4	5.3
	e			11.5								
	eSn		10	04		0.4	100					
TNZ	ePn	17	09	22		5.3		6.04	217		4.7	
MNG	ePn	17	09	25		−1.9	100	6.79	204		4.1	4.4
	eSn		10	36		−3.7	99					
WEL	eSn	17	10	53		−6.9	95	7.63	205	5.1		
COB	eSn	17	11	19		2.6	100	8.32	215			3.6

AMPLITUDES:										
	WTZ	1.6	1.0	KRP	1.0		TUA	0.5	0.2	
	CRZ	1.0	0.6	TNZ	0.1		MNG	0.5	1.2	
	WEL	0.8		COB		0.1				

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MAR 19 $17^h13^m44^s.7$ 34°.58S 178°.89E 33 km M = 4.3

± 2.2 0.09 0.15 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	ePn?	17	14	39		−0.2	100	3.73	204		3.5	
GNZ	eP*?	17	14	57		0.8	100	4.12	190			
KRP	ePn	17	14	50		3.0	98	4.30	218		4.5	
	e			56								
TUA	ePn	17	14	47		−2.0	99	4.45	198		4.2	4.1
	eP*		15	01		−0.7	100					
	eSn			44		6.4						
	eS*			59		−0.6	100					
CRZ	ePn	17	14	57		−1.3	100	5.13	270		5.0	4.9
	e		15	02								
	eSn			54		0.0	100					
MNG	ePn	17	15	13		−5.5		6.61	203		3.8	

AMPLITUDES: WTZ 0.2 KRP 0.4 TUA 0.2 0.2
CRZ 0.5 0.3 MNG 0.2

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MAR 19 $17^h21^m10^s.4$ 34°.69S 178°.79E 33 km M = 4.5
± 2.2 0.10 0.16 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	ePn	17	22	01		−2.0	100	3.60	203		4.2	4.3
	e			04								
KRP	Pn	17	22	10		−0.8	100	4.17	218		4.9	4.4
	e			15								
TUA	ePn	17	22	12.7		−0.2	100	4.32	197		4.3	4.1
	eP*			25		−0.2	100					
	e		23	10								
	eS*			21		−0.4	100					
CRZ	Pn	17	22	21.7		−1.2	100	5.05	271		5.4	5.0
	e			26.3								
	Sn		23	18		0.2	100					
TNZ	ePn	17	22	36		4.0	95	5.71	217			
MNG	ePn	17	22	44		1.6	100	6.48	203		4.3	4.1
COB	ePn	17	23	02		−0.9	100	7.98	215		4.4	

AMPLITUDES: WTZ 1.1 1.0 KRP 1.0 0.2 TUA 0.3 0.2
CRZ 1.2 0.4 MNG 0.7 0.5 COB 0.2

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MAR 19 $18^h30^m03^s.8$ 38°.05S 176°.30E 162 km M = 3.8
± 0.8 0.05 0.04 5 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	18	30	26		−0.9	99	0.55	83		3.1	3.5
	e			41.5								
	S			44.5		−0.1	100					
KRP	P	18	30	28		0.8	99	0.61	281		2.7*	2.5*
	S			45		−0.3	100					
TUA	P	18	30	30.4	D	0.5	100	1.01	139		3.5	3.8
	S			50		−0.1	100					
NGZ	P	18	30	32.2		0.1	100	1.25	205			
GNZ	e	18	30	56				1.48	114			4.4
	S			58		0.2	100					
TRZ	P	18	30	34.5		−0.7	99	1.56	165			
TNZ	P	18	30	38.5		−0.2	100	1.89	232		3.1*	
MNG	iP	18	30	45.2	U	−2.6		2.65	194		4.5	3.8
	S		31	16.5		−5.1						
WEL	P	18	30	54.5		−3.5		3.45	200	3.7		

	S		31	33		−6.5					
COB	P	18	31	02.5		−4.0		4.10	221		3.3* 3.3*
	S			47.5		−7.3					
CMZ	eS	18	32	34.5		−9.6		6.19	205		2.9* 3.6*
MJZ	S	18	33	01		−11.9		7.40	215		3.0*
CIZ	S?	18	33	24		−3.2		8.00	140		
MSZ	eS	18	33	40		−14.2		9.13	221		2.8*

AMPLITUDES:

WTZ		0.5	1.5	KRP		0.6	0.4	TUA		0.4	0.9
GNZ			10	TNZ		0.2		MNG		7.5	1.8
WEL	0.1			COB		0.3	1.0	CMZ		0.1	0.9
MJZ			0.3	MSZ			0.2				

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MAR 20 $02^h42^m43^s.1$ 38°.13S 178°.46E 59 km M = 4.3

± 0.2 0.01 0.01 1 S.E. of RES. 0.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP	02	42	55.0	U	0.1	100	0.44	9			
GNZ	iP	02	42	56.6	U	−0.2	100	0.62	214			
	S		43	07		0.0	100					
WIZ	iP	02	43	04.0	D	0.1	100	1.17	300			
	(S)			10		−9.4						
WTZ	iP	02	43	03.7	U	−0.1	100	1.17	277			
TUA	P	02	43	04.5		−0.1	100	1.23	236		4.2	4.5
	e			09								
	(S)			21		0.1						
	e			31								
WNZ	(P)	02	43	22.5		8.4		1.92	254		4.6	4.8
	(S)			47.5		10.4						
	e			54.5								
KRP	iP	02	43	19.6	D	−0.1	100	2.32	274		3.4*	3.3*
	i			27.5								
	S			47		−0.1	100					
NGZ	P	02	43	22		0.2	100	2.47	244			
	e			35								
TNZ	eP	02	43	34.5		−0.1	100	3.37	250		3.3*	
	e			45								
MNG	P	02	43	31		−3.9		3.39	222		4.0	4.0
	e			57								
	e(S)		44	11		−3.2						
WEL	S	02	44	29.5		−6.3		4.25	221	4.1		
COB	eP	02	43	57.5		−4.4		5.32	234		3.4*	3.0*
	e		44	14								
	e(S)			58		−4.6						
CRZ	P	02	44	14		3.3		5.96	307		3.1*	
KAI								6.96	229	3.5*		
MJZ	eP	02	44	40		−4.8		8.41	223		3.0*	3.4*
	S		46	07		−12.3						

AMPLITUDES:

TUA	3.5	6.3	WNZ	0.4	0.6	KRP		1.9	1.7		
TNZ	0.2		MNG	1.9	2.4	WEL	0.3				
COB	0.3	0.4	CRZ	0.1		KAI	0.2				
MJZ	0.2	0.6									

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MAR 20 $02^h52^m42^s.8$ 39°.99S 176°.36E 12 km M = 4.4

± 0.4 0.02 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	e(Pg)	02	52	57		2.6	98	0.57	39			

CAZ	iPg	02	53	02.2	D	0.7	100	0.92	186				
	Sg			16		2.0	99						
MNG	iPg	02	53	01.2	U	−0.3	100	0.92	227				4.1
	Sg			13		−1.0	100						
NGZ	iPg	02	53	03.6		0.6		0.99	324				
	e(Sg)			18		1.6							
CNZ	iPg	02	53	03.6		0.3	100	1.01	321				
	Sg			18.5		1.5	100						
TUA	P*	02	53	06.5		−0.2	100	1.33	28			3.9	4.1
	e			16									
	S*			24		−0.3	100						
WNZ	(Pg)	02	53	10		−0.6		1.37	352			4.3	4.4
	e			18.5									
	(S*)			25		−0.6							
TNZ	P*	02	53	13.5	D	0.0	100	1.73	297			3.8	4.2
	S*			36.5		0.2	100						
WEL	iPn	02	53	11.5	U	−1.0	100	1.77	223	4.6			
	Pg			22.5		3.8							
	Sn			33.5		−1.3	100						
GNZ	P*	02	53	17.5		1.7		1.86	44			4.1	4.3
	(S*)			39		−1.3	100						
WTZ	Pn	02	53	15.6		−0.8	100	2.06	14			3.8	4.5
	Pg			24		−0.5							
	e			28									
	Sn			40		−1.7	99						
KRP	Pn	02	53	18		0.2		2.16	342			4.3	4.6
	Pg			27		0.5							
	e			35.5									
	Sn			43		−1.1							
	Sg			57		1.3							
ECZ	ePn	02	53	25		−2.3		2.86	37			4.2	4.2
	e(Sn)		54	01		0.1							
COB	Pn	02	53	27.9	U	−1.0		2.98	247			4.3	4.3
	Pg			43		0.1							
	Sn		54	03		−0.6							
KAI	Sn	02	54	38		−2.6		4.52	234	4.8			
CMZ	Pn	02	53	48		−2.3		4.54	217			4.2	5.1
	Sn		54	37.5		−3.9							
MJZ	Pn	02	54	07.5		−1.8		5.94	226			4.9	4.7
	Sn		55	12		−2.9							
MSZ								7.81	230			4.9	4.4

AMPLITUDES:											
MNG			34	TUA		1.4	2.7	WNZ		0.6	1.0
TNZ	0.7	2.3		WEL	5.5			GNZ		3.0	7.3
WTZ	1.7	6.5		KRP		1.8	2.9	ECZ		0.4	0.5
COB	1.2	5.0		KAI	1.4			CMZ		0.6	7.2
MJZ	3.0	2.7		MSZ		1.8	1.0				

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MAR 20 $04^h12^m32^s.5$ 31°.26S 179°.80W 589 km M = 5.8

± 2.4 0.29 0.41 85 S.E. of RES. 2.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	04	14	20		1.4	100	6.57	192		5.8	5.6
	S		15	45.5		2.4	100					
ONE	eP	04	14	19.5		0.2	100	6.64	226			
WIZ	P	04	14	20		−0.1	100	6.73	201			
CRZ	eP?	04	14	22		−1.3	100	7.08	241		3.2*	
WTZ	P	04	14	22		−2.6	100	7.22	201		6.2	5.7
	i			25								

	S		15	50		−3.9	99						
GNZ	P	04	14	29		0.9	100	7.59	193		5.9	5.8	
	(S)		15	59		−1.3	100						
KRP	P	04	14	30		1.0	100	7.69	209		4.8*	3.5*	
	S		16	07		5.1	96						
TUA	P	04	14	32		0.6	100	7.94	198		5.5	5.7	
	e		16	02									
	S			05		−1.3	100						
	e			08									
WNZ	P	04	14	33.5		0.7	100	8.09	203		6.0		
NGZ	P	04	14	40.5		1.4		8.76	204				
	(S)		16	17		−3.5							
TNZ	P	04	14	47		3.1		9.23	209		3.9*		
MNG	P	04	14	50		−2.3		10.10	201		5.7	5.9	
	eS		16	40		−4.4							
	i			45.5									
	i			48									
WEL	eP	04	15	03.5		3.0		10.93	202	5.3			
	S		17	01		1.6							
COB	eP	04	15	08		1.7		11.52	209		3.9*	4.0*	
	S		17	14.5		4.5							
KAI								13.27	210	3.8*			
CMZ								13.69	204			3.8*	
MJZ	S	04	18	27		17.4		14.86	208			3.5*	

AMPLITUDES:

ECZ		3.0	1.7	CRZ		0.1		WTZ		16	5.5	
GNZ		7.0	11	KRP		11	0.6	TUA		1.3	2.0	
WNZ		0.5		TNZ		0.3		MNG		8.5	14	
WEL	0.6			COB		0.4	1.7	KAI	0.2			
CMZ			0.6	MJZ			0.4					

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MAR 20 $12^h19^m12^s.8$ 36°.13S 179°.79W 12 km M = 4.3

± 1.0 0.07 0.08 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(P*)	12	19	50.5		1.5		2.05	220		4.5	4.5
	(Pg)		20	01		6.7						
	(Sg)			24		2.1						
WIZ	eP*?	12	20	05		3.3		2.80	239			
	Pg?			10		0.7						
	e(Sn)			27		−2.3						
GNZ	ePn	12	19	59		−1.0	99	3.05	214		4.1	4.4
	Sn		20	36		0.5	100					
WTZ	Pn	12	20	01.9	D	0.3	100	3.17	233		4.6	4.4
	P*			06		−2.1						
	Sn			38.5		0.1	100					
	(Sg)			55		−4.7						
TUA	ePn	12	20	07.5		−0.1	100	3.62	221		4.5	4.3
	Sn			49		0.0	100					
KRP	iPn	12	20	15.7	D	0.8	100	4.15	243		4.7	
	Sn		21	01.5		−0.3	100					
NGZ	Pn	12	20	24		0.8	100	4.75	229			
TNZ	e(Pn)	12	20	37		3.1		5.54	235		4.6	
	P*			47		−1.5	98					
MNG	ePn	12	20	34		−3.7		5.82	218		4.0	4.1
	e(P*)			57		3.7						
	Sn		21	38		−4.0						
	e(Sg)		22	29		0.2						
CRZ	ePn	12	20	49		3.4		6.39	283		4.5	

WEL	Sn	12	21	57		−5.6		6.68	218	4.0	
COB	ePn	12	21	01		−1.9		7.67	228		3.8
	e			08							
	Sn		22	25		−1.4					

AMPLITUDES:

ECZ	1.4	1.9	GNZ	1.1	3.3	WTZ		4.0	2.1
TUA	0.8	0.5	KRP	1.2		TNZ		0.1	
MNG	0.6	0.8	CRZ	0.1		WEL	0.1		
COB		0.2							

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MAR 20 $19^h01^m11^s.8$ 34°.32S 179°.07E 33 km M = 4.8

± 1.7 0.08 0.11 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	19	02	10.5		−0.5	100	3.40	187		5.3	4.7
WTZ	ePn	19	02	09.7		−0.7	100	4.03	204		4.6	4.3
	e			11.2								
	eSn?			56		1.3	100					
GNZ	e(P*)	19	02	27		−1.1	100	4.40	191			
	eSn		03	03		−0.6	100					
	e(S*)			20		−5.4						
KRP	Pn	19	02	18		−0.2	100	4.60	217		5.0	5.1
	e			23								
	eSn?		03	06		−2.4	100					
TUA	ePn	19	02	20		−0.1	100	4.74	198		4.8	4.5
	e			25								
	eP*			33		−0.9	100					
	eSn		03	15		3.2	99					
	e			28								
CRZ	Pn	19	02	29.2		1.6	100	5.29	267		5.4	5.1
	e			34.7								
	eSn		03	24		−0.9	100					
TNZ	ePn	19	02	41		1.6	100	6.16	216		5.3	5.2
	eSn?		03	42		−3.6	98					
MNG	ePn	19	02	47		−2.7	99	6.91	203		4.5	4.4
	eSn		04	04		0.1	100					
COB	ePn	19	03	11		0.6	100	8.42	215		4.6	3.6
	eP*			39		2.5	99					
	eSn		04	43		2.8	99					

AMPLITUDES:

ECZ	3.0	1.0	WTZ	2.0	1.0	KRP		1.1	0.9
TUA	0.8	0.4	CRZ	1.0	0.4	TNZ		0.3	0.2
MNG	1.1	0.9	COB	0.3	0.1				

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MAR 20 $20^h20^m47^s.6$ 39°.59S 174°.30E 215 km M = 3.7

± 0.7 0.02 0.04 4 S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	20	21	16		−0.2	100	0.41	9		3.0*	2.8*
	eS			39		0.7	99					
NGZ	P	20	21	19.8		0.2	100	1.10	69			
	e			42								
	S			44		−0.6	99					
MNG	iP	20	21	22.2	U	0.5	100	1.37	139		4.1	3.9
	S			48		−0.1	100					
WEL	S	20	21	54		0.3	100	1.73	168	3.1		
COB	P	20	21	26.6	U	−0.1	100	1.92	218		3.7*	3.0*
	e			51								
	S			56.5		−0.3	100					

CMZ	S	20	22	40.5		−2.7		4.18	197				3.1*

AMPLITUDES: TNZ 0.2 0.2 MNG 5.5 4.6 WEL 0.1
COB 1.4 0.9 CMZ 0.4

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MAR 21 $12^h23^m04^s.6$ 38°.68S 175°.78E 140 km M = 4.1
± 0.6 0.03 0.03 4 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	12	23	24.9		−0.1	100	0.52	194			
	S			41		0.3	100					
KRP	P	12	23	26.9	D	0.3	100	0.77	346		2.8*	2.8*
	S			44		0.4	100					
TUA	P	12	23	29.4	D	0.1	100	1.08	97		3.7	4.1
	e			43								
	S			47.5		−0.7	100					
WTZ	iP	12	23	29.6	D	−0.7	100	1.18	54		4.0	3.5
	S			50		0.1	100					
TRZ	P	12	23	31.5		1.1	98	1.20	137			
	(S)			51		0.8						
TNZ	P	12	23	30.1	U	−0.4	100	1.21	245		3.2*	2.8*
	S			50		−0.4	100					
	e			52.5								
GNZ	P	12	23	36.4	D	−0.2		1.75	90		4.1	4.5
	S		24	00		−1.1						
MNG	iP	12	23	36.7	U	−2.2		1.95	187		4.3	4.3
	S		24	00.5		−4.5						
ECZ	P	12	23	44		−0.5		2.39	67		4.2	
WEL	S	12	24	18		−4.3		2.72	196	4.3		
COB	P	12	23	53.5		−3.6		3.37	223		3.3*	3.4*
	S		24	31.5		−5.6						
MJZ	eP	12	24	34.5		−6.4		6.65	215		2.6*	3.2*
	S		25	45		−10.7						
CIZ	S	12	26	22		−1.9		7.81	135			
MSZ								8.40	222			2.8*

AMPLITUDES: KRP 0.8 1.0 TUA 0.8 2.1 WTZ 3.5 1.2
TNZ 0.4 0.2 GNZ 2.4 9.5 MNG 8.0 11
ECZ 0.7 WEL 0.9 COB 0.4 1.8
MJZ 0.1 0.5 CIZ 0.1 MSZ 0.2

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MAR 22 $16^h09^m43^s.1$ 34°.16S 178°.28W 12 km M = 4.3
± 2.6 0.16 0.26 R S.E. of RES. 2.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	16	10	49.5		1.3	100	4.36	215		4.4	4.6
	Sn		11	40.5		3.0	99					
GNZ	Pn	16	11	03		1.0	100	5.38	213		4.3	4.4
	P*			14		−2.1						
	Sn		12	01		−0.8	100					
WTZ	Pn	16	11	01.7		−0.7	100	5.41	224		4.1	4.4
	Sn		12	00		−2.5	100					
GBZ	Pn	16	11	04		0.2	100	5.51	246			
TUA	ePn	16	11	09		−0.5	100	5.92	217		4.3	4.5
	Sn		12	12.5		−2.3	100					
KRP	P*	16	11	29		−2.2	100	6.26	231		4.7	4.4
	(Pg)			41		−8.7						
	Sn		12	26		3.0	99					
MNG	Sn	16	13	03		−5.1		8.14	216		3.9	4.1

WEL	Sn	16 13 21.5	−7.2	9.00	216	4.5			
CIZ	Sn	16 13 47	−2.8	9.88	173				
COB	e(Pn)	16 12 06	1.8	9.94	223				3.7
	eSn	13 43.5	−7.6						
MJZ	Sn	16 14 57	−11.2	13.14	218				4.0

AMPLITUDES: ECZ 0.3 0.6 GNZ 0.6 1.1 WTZ 0.4 0.8
GBZ 1.0 TUA 0.2 0.3 KRP 0.3 0.1
MNG 0.2 0.4 WEL 0.1 COB 0.1
MJZ 0.1

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MAR 22 $19^h44^m54^s.7$ 38°.58S 176°.16E 71 km M = 3.7
± 1.0 0.03 0.03 11 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	P	19	45	06.3		1.1	99	0.06	221			
	e(S)			15.5		2.4						
NGZ	P	19	45	10		−0.5	100	0.74	215			
	S			22		−0.4	100					
TUA	P	19	45	10.7		−0.6	100	0.81	107		3.5	3.8
	i			18.5								
	S			24		0.2	100					
KRP	P	19	45	12		0.6	100	0.82	323		2.5*	2.7*
	i			13.5								
	S			23		−1.0	99					
	i			28								
WTZ	iP	19	45	13.2	D	1.0	99	0.88	48		3.6	3.4
	S			25		−0.4	100					
	e			29.5								
GNZ	S	19	45	38		−0.6	100	1.46	93			3.9
TNZ	P	19	45	20		−0.4		1.52	246		3.5*	3.0*
	e			24								
	e(S)			42		2.1						
ECZ	P	19	45	28.5		0.4		2.08	66		4.0	3.7
	e(S)			55.5		2.7						
MNG	P	19	45	23.8	D	−4.6		2.11	194		3.6	3.8
	e			27.5								
	S			47		−6.4						
GBZ	P	19	45	34.6	D	1.7		2.42	347			
WEL	S	19	46	05		−8.7		2.91	201	3.5		
COB	e(P)	19	45	44.5		−5.5		3.64	225		3.2*	2.7*
	e		46	15								
	(S)			26		−6.1						
MJZ	S	19	47	37.5		−15.6		6.90	217			2.5*
CIZ	S	19	47	55		−17.2		7.68	137			

AMPLITUDES: WNZ 0.5 0.5 TUA 1.2 2.6 KRP 0.6 1.1
WTZ 3.2 2.5 GNZ 5.0 TNZ 0.7 0.3
ECZ 0.7 0.4 MNG 1.7 3.5 GBZ 1.0
WEL 0.1 COB 0.3 0.3 MJZ 0.1
CIZ 0.2

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MAR 23 $00^h23^m32^s.7$ 41°.88S 171°.58E 12 km M = 3.9
± 0.5 0.03 0.05 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	P*	00	23	45		−0.1	100	0.66	191			
COB	P*	00	23	53.7	D	−0.2	100	1.18	48		4.0	3.8
	S*		24	10		0.4	100					

KKY	Pn	00 24 00.4		−0.5	100	1.66	110				4.6	4.1
	P*	02.5		0.3	100							
	Pg	06.4		0.1	100							
CMZ	ePn	00 24 02		−1.8	94	1.88	156				3.9	4.0
	P*	07		1.1	99							
	(Sn)	23		−4.2								
	S*	31		0.4								
MJZ	Pn	00 24 09.2	D	0.1	100	2.26	201				3.9	4.0
	e(Pg)	16		−2.4								
	Sn	37		0.6	100							
WEL	eP*	00 24 16		0.1	100	2.47	77	3.5				
	Pg	21		−1.6								
	Sn	44		2.7								
	S*	49.5		1.2								
	Sg	54		−1.8								
MNG	Pn	00 24 23		1.1		3.20	68				4.2	3.9
	P*	30.5		2.0								
	Pg	36		−1.4								
	S*	25 15		4.6								
OMZ						3.23	188					3.3
MSZ	Pn	00 24 30		−1.0		3.87	223				3.5	3.9
	P*	41		1.1								
	e(Pg)	52		1.1								
	Sn	25 13		−2.0								
	Sg	42		−0.9								
ROX	Pg	00 24 57		4.4		3.95	204				3.9	3.7
	eSn	25 15		−2.0								
	eSg	52		6.1								
NGZ	eP*	00 24 45		1.4		4.09	50					
	S*	25 38.5		1.5								
KRP	ePn	00 24 48		1.7		4.99	39				3.7	3.7
	Sn	25 41		−0.9								

AMPLITUDES:

COB		4.3	10	CMZ	7.5	4.5	MJZ	2.2	3.7
WEL	0.2			MNG	2.9	1.6	OMZ		0.2
MSZ		0.3	1.5	ROX	0.3	0.5	KRP	0.3	0.3

FELT: Westport (79) MM IV

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MAR 23 $17^h 59^m 10^s.1$ 33°.76S 179°.26E 33 km $M_L = 4.6$

± 2.7 0.15 0.16 R S.E. of RES. 1.9

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	18 00 08.5		0.7		3.97	188		5.0	
	e(P*)	19		0.1						
	(Sn)	50		−1.4						
ONE	(P*)	18 00 23		−5.1		4.51	242	5.0		
	Sn	01 03		−1.4	100					
WTZ	Pn	18 00 14.8	U	−1.6	100	4.60	203		4.5	4.4
	i	18.4	D							
	Sn	01 06		−0.6	100					
GNZ	e(Pn)	18 00 22		0.4		4.98	191		4.4	4.4
	P*	31		−5.1						
	e(Sn)	01 07		−8.6						
KRP	Pn	18 00 24.5		0.7	100	5.14	215		5.0	
	e	29.5								
	P*	43		4.1						
	Sn	01 22.5		2.9	99					
TUA	Pn	18 00 26		−0.2	100	5.32	198		4.9	4.4

	P*			39		−2.9						
	Sn		01	22.5		−1.4	100					
CRZ	Pn	18	00	36		7.2		5.51	261		5.3	4.6
	(Sn)		01	35		6.6						
NGZ	Pn	18	00	39.5		1.8	100	6.16	207			
TNZ	e(Pn)	18	00	49.5		4.5		6.70	215		4.9	
MNG	e(Pn)	18	00	56.5		0.7		7.48	203		4.1	4.2
	Sn		02	13		−2.8						
WEL	Sn	18	02	27		−9.0		8.32	204			
COB	e(Pn)	18	01	18.5		2.4		8.97	213		4.6	3.8
	e(Sn)		02	54		2.4						

AMPLITUDES:											
	ECZ	0.9		ONE	0.3			WTZ	1.2	0.8
	GNZ	0.6	0.9	KRP		0.8		TUA	0.6	0.2
	CRZ	0.7	0.1	TNZ		0.1		MNG	0.3	0.4
	COB	0.2	0.1							

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MAR 24 $02^h31^m27^s.9$ 34°.02S 178°.86E 33 km M = 4.5

± 2.4 0.12 0.27 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	02	32	21.5		−0.1	100	3.68	184		4.6	4.7
	(P*)			27.5		−4.3						
	(Sn)		33	02		−0.2	100					
	e			06								
WTZ	Pn	02	32	28.3		−1.0	100	4.24	200		4.4	4.4
	Sn		33	14		−1.7	99					
KRP	Pn	02	32	37		0.8	100	4.74	214		4.7	
TUA	Sn	02	33	35		1.5	99	4.98	196			4.7
MNG	Pn	02	33	00.5		−8.1		7.12	201		4.6	4.7
	Sn		34	10.5		−14.4						
WEL	Sn?	02	34	31		−13.9		7.95	203			
COB	Sn	02	34	48		−11.9		8.58	213			4.2
CIZ	Sn	02	35	39		−8.3		10.55	162			
MJZ	Sn	02	36	00		−19.9		11.91	211			4.2

AMPLITUDES:											
	ECZ	0.3	0.4	WTZ	0.7	0.6	KRP	0.3			
	TUA		0.3	MNG	0.7	0.9	COB		0.2		
	CIZ		0.2	MJZ		0.1					

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MAR 24 $12^h09^m35^s.9$ 36°.44S 177°.63E 276 km M = 3.7

± 1.6 0.10 0.14 9 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	S	12	10	48.5		0.2	100	1.46	150			3.8
WTZ	P	12	10	18.5		0.6	100	1.63	198		3.6	3.4
	S			50		−0.4	100					
GNZ	S	12	10	59		−0.2	100	2.23	172			4.1
TUA	(S)	12	11	01.5		−0.6		2.40	189			3.5
MNG	P	12	10	46.5		−0.7	99	4.51	201		3.8	4.0
	S		11	43.5		0.5	100					
WEL	eS	12	12	03		2.3		5.34	204			
COB	P	12	11	06		0.6		6.02	218			2.5*
	S		12	15.5		0.0						
MJZ	S	12	13	26		−3.3		9.32	214			

AMPLITUDES:											
	ECZ		0.3	WTZ	0.4	0.3	GNZ		1.6		
	TUA		0.1	MNG	0.5	1.0	COB		0.1		

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MAR 24 $17^h31^m25^s.4$ 37°.40S 179°.16E 12 km M = 4.0

± 1.0 0.05 0.08 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	17	31	35.5	D	−0.8	100	0.58	239		4.0	4.4
	iPg			37.3	D	0.2	100					
	e			42.5								
	(Sg)			51		6.0						
	e			56								
GNZ	Pn	17	31	51		−0.8		1.54	216		3.6	4.1
	e		32	04								
	e(Sn)			10		−1.6						
	e(Sg)			16		−1.2						
WTZ	iPn	17	31	55.5	U	−0.2	100	1.83	251		4.3	4.1
	(Sn)		32	19		0.4	100					
TUA	Pn	17	31	59.5		−0.3	100	2.12	228		3.8	3.9
	Pg		32	10		1.7						
	Sn			27		1.2	99					
KRP	iPn	17	32	10.6	D	−0.2	100	2.92	259		4.4	4.0
	(P*)			19		2.5						
	Sn			44		−1.1	99					
	(S*)			51		−3.8						
GBZ	Pn	17	32	15.5		1.2	99	3.19	291			
NGZ	Pn	17	32	15.7		−0.4	100	3.31	236			
TNZ	Pn	17	32	27.5		−0.2		4.17	243		4.2	4.2
	P*			38		0.3						
ONE	Pn	17	32	34		5.9		4.19	291			
MNG	Pn	17	32	25		−4.7		4.31	221		3.7	3.7
	P*			33		−7.1						
	Sn		33	13		−5.3						
WEL	eSn	17	33	34.5		−4.4		5.17	220	3.8		
CRZ	Pn	17	32	56.5		3.2		6.04	297		4.4	
COB	ePn	17	32	51.5		−4.1		6.21	232		3.8	3.6
	eSn		34	06		2.1						
CIZ	Sn	17	34	28.5		−1.9		7.32	155			
MJZ	ePn	17	33	35		−3.1		9.32	222		3.8	4.0
	eSn		35	13		−5.8						

AMPLITUDES:										
ECZ	6.0	18	GNZ	1.3	7.0	WTZ	5.6	3.6		
TUA	0.5	0.6	KRP	1.5	0.5	GBZ	1.5			
TNZ	0.1	0.1	MNG	0.5	0.6	WEL	0.1			
CRZ	0.1		COB	0.1	0.2	CIZ	0.2	0.3		
MJZ	0.1	0.2								

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MAR 24 $21^h06^m50^s.5$ 41°.94S 171°.63E 12 km M = 5.6

± 0.4 0.04 0.05 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	P*	21	07	02.6	X	0.6	100	0.61	196			
COB	iP*	21	07	11.5	U	−0.4	100	1.19	45			
KKY	Pn	21	07	18.5	D	0.6	100	1.61	108			
CMZ	iPn	21	07	19.8	D	−0.8	100	1.81	156			
	Pg			25.5		−1.6						
MJZ	iPn	21	07	26.7	USN	0.4	100	2.22	202			
	eSn			54		0.8	100					
WEL	iPn	21	07	30.1	SNE	0.7	100	2.45	76			
	P*			34		0.6						

	Pg		41		1.1							
	eSn		58.5		−0.1	100						
OMZ	Pn	21 07	37.9		−1.4	98	3.18	189		5.4	5.4
	P*		46.5		0.7						
	Pg		53.5		−1.2						
	(Sn)	08	21		4.8						
MNG	iPn	21 07	39.3	U	−0.2	100	3.19	67			
TNZ	Pn	21 07	43.9	U	0.7	100	3.46	38			
	Pg		58		−2.4						
	e(Sg)	08	54		7.0						
MSZ	Pn	21 07	47.9		−0.6	100	3.85	224			
	P*		56		−1.3						
ROX	ePn	21 07	48.5		−0.9		3.91	205			
NGZ	Pn	21 07	53.1		1.1		4.10	49			
WNZ	ePn	21 08	03		2.0		4.76	47		6.0	
	eSg	09	27		−3.8						
KRP	iPn	21 08	04.4	UE	−0.0		5.01	38			
	Sn		59		−1.3						
	Sg	09	41		1.7						
TUA	ePn	21 08	06		−1.7		5.26	55		5.5	5.4
	e		14								
	(P*)		26		4.7						
	S*	09	32		2.4						
WTZ	ePn	21 08	12		−1.9		5.71	48		5.8	6.2
	Pg		44.5		−1.4						
	Sn	09	18.5		1.5						
GNZ	e(Sn)	21 09	22		0.4		5.89	58		5.3	5.6
GBZ	ePn	21 08	25		0.9		6.45	29			
	Pg	09	04		3.1						
	eSg	10	38		10.1						
ONE	Pn	21 08	26		1.0		6.52	20	5.5		
	e	09	37.5								
	Sn		39.5		3.0						
	S*	10	08		0.5						
	Sg		35		5.0						
ECZ	Pn	21 08	26.5		−2.4		6.81	54			5.6
	P*		49.5		1.6						
	Pg	09	18		9.9						
	Sn		47		3.5						
CIZ	Pn	21 08	56		−1.4		8.90	107			
	Sn	10	30		−3.6						

AMPLITUDES: OMZ 14 26 WNZ 1.9 TUA 3.6 3.7
WTZ 4.3 6.1 GNZ 5.0 14 GBZ 4.3 5.0
ONE 4.2 ECZ 1.4 1.6 CIZ 1.2 2.7

FELT: Collingwood (72) to Motueka (75) and Christchurch (110), maximum intensity MM VI.

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MAR 24 $21^h58^m39^s.0$ 42°.01S 171°.84E 12 km M = 2.8
± 0.4 0.03 0.07 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	Pg	21	58	51		−0.5	100	0.61	211	3.3		
	(S*)			58.5		−0.4						
	Sg			59.8		0.0	100					
COB	eP*	21	58	59.5		−0.1	100	1.13	37		2.7	3.1
	S*		59	15		0.2	100					
CMZ	ePn	21	59	07		−0.5		1.69	160		3.2	2.4

	Pg			13		−0.1	100					
	Sg			35.5		−0.4						
MJZ	Pn	21	59	14		−0.8	100	2.22	206		2.5	2.7
	Sn			43		1.3	98					
MNG	eP*	21	59	35		2.3		3.08	64		3.0	2.6
	e(Pg)			42		0.8						
	eS*	22	00	12.5		−0.4						
	e			14								

AMPLITUDES: KAI 2.0 COB 0.2 1.9 CMZ 0.4 0.1
MJZ 0.1 0.2 MNG 0.2 0.1

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MAR 24 $22^h47^m27^s.6$ 42°.03S 171°.85E 12 km M = 2.8
± 0.3 0.03 0.06 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	P*?	22	47	39.3		0.3		0.59	213	3.0		
	ePg			41		1.1	98					
	(S*)			46.5		−0.7						
	Sg			48		−0.1	100					
COB	P*	22	47	48		−0.4	100	1.15	36		2.8	2.9
	S*		48	04		0.2	100					
CMZ	Pg	22	48	01.5		0.1	100	1.66	160		2.9	
	e(S*)			19		−0.2						
MJZ	Pn	22	48	03		−0.3	100	2.20	207		2.5	2.7
	Sn			29.5		−0.6	100					
MNG	P*	22	48	23		1.7		3.08	64		3.0	2.6
	e(S*)		49	06		4.4						

AMPLITUDES: KAI 1.1 COB 0.3 1.3 CMZ 0.2
MJZ 0.1 0.2 MNG 0.2 0.1

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MAR 24 $23^h15^m20^s.1$ 42°.00S 171°.80E 12 km M = 2.4
± R R R R S.E. of RES. 0.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	Sg	23	15	40.5		−0.1	100	0.60	209	2.4		
COB	e(P*)	23	15	41.5		0.6		1.15	38			2.4
	S*			56.5		0.2	100					

AMPLITUDES: KAI 0.3 COB 0.4

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MAR 25 $02^h44^m11^s.2$ 38°.01S 179°.28E 33 km M = 3.7
± 1.0 0.04 0.07 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	02	44	24		0.2	100	0.67	299		3.4	3.3
	P*			24.6		0.4						
	S*			35		1.2	99					
GNZ	(S*)	02	44	49		0.5	100	1.17	237			
WTZ	iPn	02	44	39.2	U	−0.2	100	1.81	270		3.9	3.9
	iSn		45	00.1	D	−0.6	100					
TUA	Pn	02	44	40.8		0.8	100	1.85	244		3.8	3.7
	P*			43.5		−0.6						
	Sn		45	02.5		0.9	100					
KRP	ePn	02	44	54		−1.1	99	2.96	271		3.9	
	Sn		45	27		−1.3	99					
NGZ	Pn	02	44	57.3		0.2	100	3.10	247			
	Sn		45	31		−0.7	100					

MNG	Pn	02 45 07		−1.4		3.93	227			3.9	3.9
	Sn	50		−1.6							
WEL	Sn	02 46 10		−1.9		4.78	225	3.7			
COB	ePn	02 45 33.5		−2.0		5.92	237			3.8	3.5
	(Sn)	46 37		−2.4							
	e	39									
CIZ	Sn	02 47 03		4.4		6.72	153				

AMPLITUDES: ECZ 1.3 1.3 WTZ 2.8 2.1 TUA 0.6 0.6
KRP 0.5 MNG 0.9 1.1 WEL 0.1
COB 0.1 0.2 CIZ 0.1 0.3

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MAR 26 $10^h00^m37^s.9$ 34°.29S 179°.28E 12 km M = 4.4
± 1.1 0.05 0.08 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	10	01	31		0.5	100	3.45	190		4.5	4.4
	(Pg)			43.5		−4.1						
	(Sn)		02	16		5.9						
	e(S*)			27.5		4.6						
GBZ	Pg	10	01	53		1.1	100	3.66	237			
WTZ	Pn	10	01	37.5		−2.2	96	4.13	206		4.1	4.0
	i(P*)			41.5	D	−8.0						
	e(Pg)			58		−3.3						
	Sn		02	26		−0.5	100					
ONE	ePn	10	01	42		−0.1	100	4.30	248	4.8		
	e(S*)		02	42		−6.5						
GNZ	P*	10	01	56		0.8	100	4.46	193		4.2	
	Sn		02	35.5		1.0	100					
	S*			53		−0.3	100					
KRP	Pn	10	01	47.5		−0.4	100	4.72	219		4.7	
	e(Pg)		02	06.5		−6.9	0					
TUA	Pn	10	01	49		−0.2	100	4.82	200		4.2	
	P*		02	02		0.6						
CRZ	Pn	10	01	59		1.0	100	5.46	267		5.2	4.6
	Sn		02	58		−0.6	100					
NGZ	e(Pn)	10	02	03		1.7		5.71	210			
CNZ	e(Pn)	10	02	04.5		2.7		5.75	210			
TNZ	e(Pn)	10	02	12		2.9		6.28	217			
MNG	ePn	10	02	16		−3.0		7.00	204		3.9	3.8
	e(P*)			42		3.4						
	eSn		03	33		−2.6						
WEL	Sn	10	03	50		−5.8		7.85	206			
COB	e(Pn)	10	02	43		3.0		8.54	215		4.1	
CIZ	ePn	10	03	00		−2.3		10.18	163			
	Sn		04	46		−5.8						
	e			50								

AMPLITUDES: ECZ 0.6 0.6 WTZ 0.8 0.6 ONE 0.2
GNZ 0.6 KRP 0.6 TUA 0.2
CRZ 0.6 0.1 MNG 0.3 0.3 COB 0.1
CIZ 0.1 0.1

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MAR 26 $10^h06^m40^s.2$ 34°.36S 179°.09E 12 km M = 4.2
± 1.4 0.05 0.10 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(Pn)	10	07	32		0.5	100	3.36	187		4.3	4.2
	(Sg)		08	30.5		−2.8						

WTZ	ePn	10	07	39		−1.3	100	4.00	205		4.2	4.1
	i(P*)			42		−7.6						
	S*		08	40		−1.7	99					
GNZ	P*	10	07	57		1.2	100	4.36	191			
	Sg		09	08		0.8	100					
KRP	ePn	10	07	48		−0.1	100	4.58	218		4.7	4.6
	i(P*)			54		−5.5						
	e(S*)		08	55		−4.0						
TUA	e(Sn)	10	08	48		5.3		4.71	199			3.8
CRZ	ePn	10	07	57		−1.1	100	5.30	267		4.4	4.8
	e		08	00								
	Sn			58		1.0	100					
NGZ	ePn	10	08	03.5		1.8		5.57	209			
TNZ	e(Pn)	10	08	14		4.7		6.13	217			
MNG	ePn	10	08	16		−3.6		6.88	204		3.8	3.4
	eSn		09	35		0.1						

AMPLITUDES: ECZ 0.3 0.3 WTZ 1.0 0.6 KRP 0.6 0.3
TUA 0.1 CRZ 0.1 0.2 MNG 0.2 0.1

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MAR 27 $19^h48^m42^s.5$ 45°.31S 167°.02E 12 km M = 4.4
± 0.7 0.05 0.05 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP*	19	48	57.8		−1.2	99	0.90	45			
ROX	iPn	19	49	10.2	U	−0.0	100	1.63	97		4.8	
	e(Sn)			30		−1.0	99					
THP	Pn	19	49	18	U	0.3		2.18	70			
DMP	Pn	19	49	18.5	D	0.6	100	2.19	67			
RHP	Pn	19	49	22.5	D	0.4	100	2.50	62			
HHP	Pn	19	49	22.5	U	−0.5	100	2.56	69			
BSP	Pn	19	49	25	D	1.1	99	2.64	58			
OMZ	Pn	19	49	26		0.3	100	2.76	86		4.4	4.5
	P*			33		2.1						
	S*		50	07.5		0.4	100					
MJZ	Pn	19	49	25.5		−0.6	100	2.79	63		4.6	4.5
	P*			31		−0.3						
	Pg			37.5		−1.5						
	S*		50	08		0.1	100					
KAI	Pg	19	50	10		2.2		4.22	50	3.9		
	S*			57		6.3						
	eSg		51	06		1.4						
CMZ	ePn	19	49	50		2.2		4.38	69		4.4	4.4
	eP*			58		−0.4						
	(Pg)		50	05		−6.0						
	(Sn)			42.5		5.4						
	S*		51	00		4.6						
COB	Pn	19	50	10		1.0		5.94	47		4.4	4.0
	Sn		51	16.5		1.9						
	e			30								
MNG	e(Pn)	19	50	40		5.8		7.78	56		4.0	

AMPLITUDES: ROX 15 OMZ 2.1 4.8 MJZ 8.0 7.0
KAI 0.2 CMZ 0.9 1.5 COB 0.4 0.6
MNG 0.3

FELT: Lake Manapouri (138) MM IV

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MAR 28 $16^h28^m15^s.5$ 38°.89S 175°.97E 4 km M = 3.3

± 0.1 0.01 0.01 1 S.E. of RES. 0.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	iPg	16	28	21.1		−0.1	100	0.28	22			
	e(Sg)			25		0.1						
NGZ	iPg	16	28	23.8		0.1	100	0.40	223			
	e(S*)			27		−3.4						
	e(Sg)			34		4.8						
CNZ	iPg	16	28	24.4		−0.2	100	0.45	227			
	e(Sg)			30		−0.8						
TUA	Pg?	16	28	35.5		1.3		0.93	85		3.1	3.5
	S*			46		−0.0	100					
TRZ	Pg	16	28	34.6		0.2	100	0.94	135		3.3	3.2
	Sg			53.5		6.4						
KRP	P*	16	28	35		0.1	100	1.03	340		3.1	3.0
	Pg			38		1.8						
	S*			49		0.1	100					
	Sg			52.5		2.5						
WTZ	P*	16	28	37.3		−0.7		1.21	42		3.1	3.8
	Sg?		29	00		3.8						
TNZ	Pg	16	28	40		−1.2		1.28	256		3.0	2.9
	Sg			59		0.5						
GNZ	Pg?	16	28	53		4.7		1.62	82		3.2	3.5
	(Sg)		29	14		3.8						
	e			19								
MNG	P*	16	28	47.8		0.2		1.76	192		3.7	3.2
	e(S*)		29	11		−0.3						
	eSg			14		−1.0						
WEL	Sg	16	29	42		0.1		2.56	201			
COB	(P*)	16	29	11		−3.1		3.32	228		3.5	
	eS*			57		−0.7						

AMPLITUDES:										
	TUA	0.4	1.0	TRZ	0.8	0.7	KRP	0.8	0.5
	WTZ	0.5	2.0	TNZ	0.1	0.1	GNZ	0.4	1.0
	MNG	1.9	0.7	COB	0.1				

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MAR 28 $16^h44^m51^s.2$ 34°.72S 179°.97E 12 km M = 4.6

± 1.6 0.06 0.12 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	16	45	44		−2.7		3.19	201		4.7	4.7
	Pg			55.5		−0.0	100					
	Sn		46	18		1.0	100					
GBZ	Pn	16	45	52.5		1.7	99	3.96	247			
	eP*		46	00.5		0.5						
	e(Sn)			38		2.3						
WTZ	Pn	16	45	50.5		−1.5	99	4.05	216		4.6	4.6
	e(Pg)		46	08		−5.1						
	(Sn)			37		−0.9						
GNZ	e(P*)	16	46	03		−1.3		4.22	201		4.6	5.0
	Pg			18		1.5						
	Sn			42.5		0.6	100					
TUA	eP*	16	46	13		1.0		4.67	208		4.7	4.6
	(Sn)			54		1.3						
	(S*)		47	19		6.2						
ONE	ePn	16	46	01		−0.0	100	4.72	256	4.9		

	Sn			53		−0.8	100						
KRP	ePn	16	46	03.5		1.2	100	4.81	227		4.9	4.7	
	e			07									
	e(Pg)			30		1.7							
	e(S*)		47	21		4.2							
TRZ	ePn	16	46	10		−1.0	100	5.44	207		4.5	4.7	
	e(P*)			24		−1.2							
	Sn		47	10		−1.3	100						
	Sg			53		−1.5							
NGZ	ePn	16	46	13		−0.9	100	5.66	217				
	(P*)			23.5		−5.4							
	eSn		47	18		1.4							
CRZ	e(Pn)	16	46	24		5.0		6.03	271		5.0		
	(Sn)		47	23		−2.4							
TNZ	e(Pn)	16	46	26.5		3.5		6.32	224		5.0		
	e(P*)			42		1.8							
	e(Pg)		47	08		9.1							
MNG	ePn	16	46	27		−3.6		6.88	210		4.5	4.7	
	P*			51.5		1.7							
	Sn		47	41		−4.9							
WEL	Sn	16	47	58		−8.5		7.74	211	4.6			
COB	e(Pn)	16	46	57		3.6		8.55	220		4.1	4.4	
	Sn		48	20		−6.1							
CIZ	e(Pn)	16	47	09.5		1.7		9.60	165				
	Sn		48	52.5		1.1							
KAI								10.28	218	4.7			
CMZ								10.53	211			4.6	
MJZ	ePn	16	47	31		−7.0		11.82	216		4.3	4.7	
	Sn		49	32.5		−12.1							
MSZ								13.59	219		4.6	4.3	

AMPLITUDES:											
	ECZ	1.0	1.4	GBZ	0.8	1.1	WTZ		2.3	2.4
	GNZ	1.7	7.5	TUA	0.7	0.7	ONE	0.3		
	KRP	1.0	0.4	TRZ	0.4	0.9	CRZ		0.3	
	TNZ	0.2		MNG	1.1	2.6	WEL	0.2		
	COB	0.1	0.7	CIZ	0.2	0.6	KAI	0.2		
	CMZ		0.4	MJZ	0.2	0.6	MSZ		0.3	0.3

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MAR 29 $00^h54^m11^s.0$ 37°.94S 176°.60E 160 km M = 4.7

± 0.7 0.04 0.03 5 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	00	54	32.0		−0.9	100	0.31	98			
	S			48		−1.7	99					
WNZ	iP	00	54	35.7	U	0.4	100	0.79	210		4.4	
KRP	iP	00	54	35.6		−0.0	100	0.85	271		3.7*	3.3*
	S			55		0.4	100					
TUA	iP	00	54	36.2	U	−0.3	100	0.97	154		4.8	4.8
	S			56		−0.2	100					
GNZ	P	00	54	39.5	SW	−0.3	100	1.32	123			
	S		55	02.5		0.6	100					
NGZ	P	00	54	40.5		−0.7	100	1.47	212			
	S		55	04		−0.4	100					
ECZ	P	00	54	42.2	U	−0.0	100	1.56	81		3.8	4.3
	S		55	08.5		2.3	96					
TRZ	P	00	54	42		−0.8	100	1.62	174		4.8	5.2
	eS		55	07.5		0.2	100					
GBZ	iP	00	54	46.2	D	−0.1	100	1.94	332			
	e(S)		55	12		−1.6						

	e		37								
TNZ	P	00	54 48.5		−0.2	100	2.14	234		3.6*	3.3*
	S		55 20		2.2	97					
ONE	P	00	54 57		−0.0		2.81	320	3.0*		
	S		55 35		2.7						
MNG	P	00	54 54.0	D	−3.0		2.82	198		5.1	5.2
	S		55 28		−4.3						
WEL	P	00	55 04		−3.5		3.64	202	5.0		
	S		46		−5.0						
COB	P	00	55 12.5		−4.2		4.34	222		3.6*	3.9*
	S		56 02		−5.4						
KAI							6.07	219	3.7*		
CMZ	S	00	56 46		−10.1		6.40	207			3.0*
MJZ	eP	00	55 56		−4.3		7.62	216		2.7*	3.7*
	S		57 15		−10.5						
CIZ	S	00	57 29		−3.8		7.93	141			
ROX	S	00	57 55		−10.2		9.30	214			3.1*

AMPLITUDES:

WNZ		0.5		KRP		6.0	2.5	TUA		8.5	9.5
ECZ		0.6	1.8	TRZ		5.0	24	GBZ		6.0	0.8
TNZ		0.6	0.4	ONE	0.2			MNG		28	45
WEL	2.6			COB		0.6	3.6	KAI	0.4		
CMZ			0.2	MJZ		0.1	1.4	CIZ			0.5
ROX			0.2								

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MAR 29 $11^h31^m24^s.3$ 49°.75S 164°.12E 12 km M = 4.2

± 1.5 0.04 0.18 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	11	32	22.5		−0.6	100	3.91	45			
	Sn		33	08		0.6	100					
CBZ	Pn	11	32	28.3	U	0.7	100	4.24	133			
	e		33	13								
	(Sn)			15		−0.5	100					
	S*			33		0.0						
ROX	Pn	11	32	44		−1.4	99	5.53	41		4.3	4.2
	Pg		33	20		3.8						
	e			57								
	(S*)		34	15		3.0						
MSZ	ePn	11	32	48.5		0.8	100	5.71	28		4.2	3.9
	e(S*)		34	21		4.0						
MJZ	P*	11	33	26		−2.7		7.23	39		4.3	4.3
	e(S*)		34	54		−8.5						

AMPLITUDES:

CBZ		0.3	0.8	ROX		0.4	0.8	MSZ		0.7	0.6
MJZ		0.6	0.7								

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MAR 29 $13^h16^m22^s.3$ 39°.64S 175°.39E 12 km M = 3.8

± 0.2 0.01 0.02 R S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	Pg	13	16	30.7		0.1	100	0.40	23			
	Sg			37		0.9	99					
CNZ	Pg	13	16	31.7		−0.1	100	0.46	16			
	(Sg)			38		−0.2						
NGZ	iPg	13	16	32.0		−0.5	100	0.49	21			
	e(Sg)			39		−0.2						
TNZ	iPg	13	16	40.6	U	−0.1	100	0.90	300		3.6	3.5
	Sg			57		4.0						

MNG	P*	13 16 40.1	D	−0.1	100	0.98	176			4.1	4.0
	Sg	56		0.5	100						
TRZ	P*	13 16 41.5		−1.0	99	1.12	86			3.4	3.8
	Sg	17 00		0.1	100						
WNZ	P*	13 16 43		−0.2		1.15	29			3.8	3.8
	(S*)	58		−0.5							
TUA	Pn	13 16 47		−2.7		1.60	59			4.0	3.7
	(S*)	17 12.5		0.4							
WEL	P*	13 16 51.5		−1.1		1.71	196	3.5			
	S*	17 15		−0.2							
KRP	Pn	13 16 50		−1.3		1.72	4			4.1	4.2
	Pg	56.5		−0.6							
	(Sn)	17 12		−1.0							
	S*	14		−1.5							
	Sg	20		−0.3							
WTZ	iPn	13 16 55.5	U	−0.6		2.08	38			3.9	3.9
	Sn	17 20.5		−1.0							
GNZ	ePg	13 17 06.5		−1.9		2.28	65			3.6	3.5
	e	12.5									
	Sn	24.5		−2.0							
COB	Pn	13 17 03		1.2		2.49	234			4.3	3.6
	(Pg)	11.5		−1.2							
	S*	38		−0.6							
MJZ	e(Pn)	13 17 45.5		0.0		5.70	219			3.6	3.7
	Sn	18 49		0.5							
CIZ	Sn	13 19 24		−5.5		7.40	128				

AMPLITUDES:											
	TNZ	1.5	1.8	MNG	24	22	TRZ			0.9	3.1
	WNZ	0.2	0.3	TUA	1.1	0.5	WEL	0.4			
	KRP	2.0	2.2	WTZ	1.1	0.8	GNZ			0.6	0.8
	COB	1.7	1.4	MJZ	0.2	0.3	CIZ				0.1

FELT: Ohakune (49), Wanganui (57) MM IV

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MAR 29 $14^h51^m06^s.9$ 49°.59S 164°.70E 12 km M = 4.3

± 1.8 0.04 0.22 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	iPn	14	51	59.6	U	−0.9	100	3.53	42		4.8	5.1
	iSn		52	40		−1.0	100					
	i			42								
CBZ	Pn	14	52	09		0.8	100	4.09	138			
	Sn			54.5		0.0	100					
	e			56								
ROX	Sn	14	53	21		0.4	100	5.17	39			4.0
MSZ	Pn	14	52	25		−1.0	100	5.39	25		4.0	3.9
	(Sn)		53	28		2.2	99					
	e			32								
MJZ	(P*)	14	53	12		6.8		6.87	37			3.9
	e			54.5								
	Sn			57		−4.2						
	e(S*)		54	22		−12.3						

AMPLITUDES:											
	OBZ	4.5	19	CBZ	0.1	0.2	ROX				0.6
	MSZ	0.5	0.7	MJZ		0.3					

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MAR 29 $16^h33^m59^s.3$ 30°.40S 178°.91E 33 km M = 6.5

± 3.4 0.17 0.73 R S.E. of RES. 2.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	16	35	46		3.7	99	7.29	182		6.2	6.9
	Sn		37	02.5		2.1	100					
	e			06								
WTZ	ePn	16	35	47.5		−0.9	100	7.74	191		6.7	6.7
	e			49.5								
	Sn		37	12		0.8	100					
	e			16								
KRP	Pn	16	35	56.5		4.3	99	8.02	200		6.6	
GNZ	Pn	16	35	54.5		−1.1	100	8.26	185		6.2	7.2
	Sn		37	23		−0.8	100					
TUA	Pn	16	35	58		−1.1	100	8.51	189		6.2	6.7
	(Sn)		37	28		−1.9	100					
NGZ	Pn	16	36	08		−0.1	100	9.18	196			
	e(Sn)		37	45		−0.8						
TRZ	ePn	16	36	05		−4.7	99	9.30	190		6.3	7.1
	e(Sn)		37	41		−7.7						
	e			45.5								
TNZ	Pn	16	36	15		2.1		9.53	202		5.8	
MNG	Pn	16	36	21		−6.2		10.57	194		6.6	7.1
	eSn		38	11		−8.4						
WEL	Sn	16	38	28		−10.6		11.38	196	6.6		
COB	Sn	16	38	44.5		−4.0		11.79	203			5.7
MJZ	eSn	16	39	54		−15.0		15.14	204			5.2

AMPLITUDES:											
	ECZ	0.3	0.6	WTZ	4.0	1.4	KRP	0.7			
	GNZ	0.9	5.5	TUA	0.3	0.4	TRZ	0.4	1.4		
	TNZ	0.1		MNG	2.8	4.7	WEL	0.2			
	COB		0.4	MJZ		0.1					

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MAR 29 $18^h21^m10^s.2$ 49°.75S 164°.34E 12 km M = 5.2

± 1.9 0.04 0.22 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	iPn	18	22	07.0	U	−0.6	100	3.81	43		5.6	5.4
	Sn			50		−1.0	100					
CBZ	Pn	18	22	12.8		0.7	100	4.13	135			
	Sn			59		0.1	100					
ROX	Pn	18	22	28.8		−1.2	100	5.44	40		5.5	5.6
	e(P*)			39		−5.3						
	Sn		23	30		−0.4	100					
MSZ	Pn	18	22	32.0		−0.7	100	5.64	27		5.3	5.4
	Sn		23	38		2.9	97					
MJZ	Pn	18	22	49.5		−3.6		7.14	38		5.2	5.5
	Sn		24	09.5		−1.5						
CMZ	Pn	18	23	09		−1.4		8.41	46			5.4
	e(Sn)		24	40		−1.5						
	e(S*)		25	20		−3.8						
COB	Pn	18	23	37		−1.7		10.48	37		5.3	5.0
	Sn		25	30		−1.4						
WEL	e	18	25	46				11.19	45	4.7		
	Sn			50		1.6						
MNG	ePn	18	24	01		0.9		12.04	45		4.8	4.6
	Sn		26	10		1.0						
CIZ	Pn	18	24	33		2.3		14.29	73			
	eSn		27	08		5.1						

AMPLITUDES:											
	OBZ	21	40	CBZ	1.3	2.4	ROX	6.0	20		
	MSZ	10	22	MJZ	4.5	12	CMZ		4.5		

COB	1.0	1.7	WEL	0.1		MNG	0.8	0.7
CIZ	0.4	0.4						

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MAR 29 $23^h37^m08^s.5$ 36°.95S 179°.99E 12 km M = 4.3

± 0.9 0.06 0.08 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	23	37	32.5		−0.2	100	1.37	237		4.6	5.0
	Pg			34.5		−1.8	99					
	Sg			55		0.2	100					
GNZ	P*	23	37	48		−1.0	100	2.30	222		4.1	4.3
	e(Pg)			59		3.9						
	S*		38	20.5		1.3	99					
WTZ	Pn	23	37	49		−0.6	100	2.60	246		4.8	4.3
	eP*			56		1.9						
	eSn		38	23		2.5						
TUA	Pn	23	37	54.7		0.9	100	2.92	230		4.5	4.1
	eSn		38	32		4.0						
	eSg			48		1.2						
TRZ	Pn	23	38	02.5		−0.7	100	3.61	223		4.1	
KRP	Pn	23	38	05		0.8	100	3.68	253		4.4	
	Sn			45.5		−0.7	100					
GBZ	Pn	23	38	05.5		0.9	100	3.70	280			
	P*			13		0.1						
NGZ	Pn	23	38	11		0.8	100	4.11	236			
	(P*)			17		−2.9						
CNZ	Pn	23	38	12		1.1		4.17	236			
	e(P*)			26		5.2						
TNZ	e(Pn)	23	38	27		5.3		4.96	242		4.4	
MNG	Pn	23	38	22		−1.4		5.08	222		4.1	3.9
	ePg			53		1.7						
	Sn		39	19		−1.1						
COB	eSn	23	40	10		3.8		7.00	232			3.7

AMPLITUDES:											
ECZ	4.0	12	GNZ	2.1	5.0	WTZ	9.0	2.7
TUA	1.1	0.6	TRZ	0.4		KRP	0.8	
GBZ	0.6		TNZ	0.1		MNG	0.8	0.7
COB		0.2						

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MAR 30 $05^h23^m49^s.9$ 42°.42S 171°.88E 12 km M = 3.8

± 0.3 0.02 0.03 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CMZ	P*	05	24	14.0		0.9	100	1.30	155		3.6	3.4
	S*			30.2		−0.1	100					
KKY	P*	05	24	13.8		−0.2	100	1.34	91			
	S*			33.1		1.3	99					
COB	P*	05	24	17.2		0.9	100	1.48	26		4.1	4.1
	S*			36.6		0.7	100					
MJZ	P*	05	24	23.8		0.7	100	1.88	213		3.9	
	iPg			26.8		−1.1	100					
	S*			47.7		−0.1	100					
	e			56								
WEL	eP*	05	24	31		−1.7	99	2.44	63	3.6		
	eS*		25	04		−0.6	100					
	eSg			09.7		−2.4						
MNG	ePn	05	24	39.5		−0.3	100	3.25	58		4.0	3.8
	iP*			45.0		−1.5	99					

	S*	25 29.5	0.5	100					
TNZ	eP*	05 24 55	−0.0	100	3.74	31		3.9	
	e	25 01							
	ePg	07	1.3						
CNZ	eP*	05 25 08.8	5.1		4.26	42			
	e	13.5							
	eS*	26 02	2.9						
	e	06							
NGZ	ePn	05 24 56.3	2.2		4.30	42			
	iP*	25 07.3	2.8						
	iPg	13.0	−3.8						
	i	26 06.8							
KRP	ePn	05 25 09.2	1.5	99	5.29	33		3.8	
	eSn	26 10	3.5						

AMPLITUDES: CMZ 1.7 1.7 COB 3.5 11 MJZ 3.2
WEL 0.3 MNG 1.7 1.5 TNZ 0.2
CNZ 0.3 0.8 KRP 0.3

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MAR 31 $01^h33^m16^s.7$ 33°.71S 179°.30W 256 km M = 4.9
± 2.2 0.11 0.15 25 S.E. of RES. 2.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	01	34	24.8		−0.5	100	4.35	203		5.0	5.2
	S		35	20.5		1.7	100					
WTZ	eP	01	34	33.7		−2.3	100	5.23	214		5.2	4.8
	i			39.5								
	iS		35	35.7		−2.2	100					
KRP	P	01	34	46.0		1.2	100	5.94	223		3.5*	
	eS		35	55		1.2	100					
CRZ	P	01	34	54.8		0.5	100	6.70	262		4.1*	
MNG	eP	01	35	11		−0.5	100	8.05	210		4.3	4.6
	e			14								
	eS		36	39		−2.5	99					
WEL	eS	01	36	58.5		−2.3	100	8.91	210	4.9		
COB	eS	01	37	22		2.9	99	9.72	218			3.2*
CIZ	e(P)	01	35	49		7.2		10.46	169			
	eS		37	37		1.1	100					

AMPLITUDES: ECZ 1.5 2.1 WTZ 3.7 1.6 KRP 0.9
CRZ 0.9 MNG 0.6 1.6 WEL 0.3
COB 0.4 CIZ 0.3 1.0

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APR 01 $04^h10^m40^s.4$ 39°.15S 174°.78E 207 km M = 3.9
± 1.0 0.04 0.06 8 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR.	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	04	11	09.3		1.4	100	0.31	263		3.1*	
NGZ	iP	04	11	10.7		1.6	99	0.65	93			
	eS			31		−0.1	100					
KRP	P	04	11	13.8		0.1	100	1.36	26		2.6*	2.7*
	S			39.8		0.3	100					
MNG	iP	04	11	16.8		1.2	100	1.57	160		4.4	3.7
	S			42.5		−0.2	100					
TUA	P	04	11	19.3		0.8	100	1.88	80		4.0	4.0
	e			42.5								
	S			49.5		1.6	99					
WTZ	P	04	11	19.7		−0.9	100	2.09	57		3.8	3.5
	e			48								

	eS			49.2		−2.5	97						
WEL	eP	04	11	21		−0.1	100	2.13	180	3.7			
	eS			52.5		−0.1	100						
COB	P	04	11	24.8		−0.3	100	2.49	218			3.5*	3.2*
	S			58.0		−1.5	99						
GNZ	S	04	12	00.3		−0.9	100	2.58	80				4.3

AMPLITUDES:

TNZ		0.3		NGZ		10	2.2	KRP		0.3	0.4
MNG		10	2.7	TUA		0.6	0.5	WTZ		0.7	0.4
WEL	0.3			COB		0.7	1.2	GNZ			2.7

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APR 01 $14^h49^m07^s.5$ 35°.71S 179°.61W 200 km M = 4.4

± 1.3 0.08 0.13 14 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	14	49	50.3		−1.1	100	2.47	216		4.4	4.5
	eS		50	26		0.5	100					
GNZ	eP	14	50	03		−0.5	100	3.49	212		4.0	4.3
	S			48.2		1.4	100					
WTZ	P	14	50	02.7		−1.6	100	3.55	229		4.4	
GBZ	P	14	50	09.8		−0.3	100	4.01	261			
TUA	eP	14	50	09.3		−1.0	100	4.03	219		4.8	
	e			10.5								
KRP	P	14	50	16.0		0.0	100	4.48	239		3.4*	
	eS		51	07.5		−1.5	100					
	e			13								
TRZ	eP	14	50	21		1.3	100	4.77	215		4.4	4.4
	e(S)		51	21		5.4						
NGZ	eP	14	50	25.0		0.5	100	5.15	226			
	eS		51	25.5		1.3	100					
CNZ	eP	14	50	26		0.9	100	5.19	226			
MNG	eP	14	50	36		−2.7	99	6.25	217		4.0	
	e			56								
CRZ	eP	14	50	42.0		0.6	100	6.45	279		3.6*	
WEL	eS	14	52	08		−1.7	100	7.10	217	4.5		
COB	eP	14	51	05.7		3.4	96	8.06	226		3.4*	3.0*
	eS		52	32		−0.2	100					

AMPLITUDES:

ECZ		0.9	1.2	GNZ		0.6	1.9	WTZ		1.3	
GBZ		0.8		TUA		1.0		KRP		0.9	
TRZ		0.3	0.6	NGZ		0.7	0.8	MNG		0.5	
CRZ		0.3		WEL	0.2			COB		0.2	0.3

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APR 01 $17^h07^m38^s.6$ 36°.40S 178°.62E 231 km M = 3.9

± 1.1 0.07 0.11 7 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eS	17	08	40.3		−0.6	100	1.30	183			3.8
WTZ	P	17	08	19.0		−1.3	99	2.05	219		3.8	4.0
	eS			52.0		−0.5	100					
GNZ	P	17	08	23.2		0.6	100	2.29	192		3.7	4.7
	S			58.0		1.2	99					
TUA	eP	17	08	27		0.3	100	2.67	205		3.8	
KRP	eP	17	08	30		0.9	100	2.90	237		2.6*	
NGZ	eP	17	08	39		1.0	100	3.66	220			
	eS		09	24.7		0.6	100					
	e			31								
MNG	eP	17	08	52		−0.9	100	4.89	209		3.6	3.8
	eS		09	51		0.2	100					

WEL	eS	17	10	09		−1.0	100	5.73	210	4.2			

AMPLITUDES: ECZ 0.4 WTZ 0.6 1.0 GNZ 0.5 8.5
TUA 0.2 KRP 0.2 NGZ 0.3 0.4
MNG 0.3 0.6 WEL 0.2

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APR 02 $19^h46^m53^s.8$ 45°.06S 167°.67E 128 km M = 3.8
± 1.1 0.04 0.07 8 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	19	47	12.2		−0.1	100	0.42	24		3.9	3.4
	S			26.0		−0.5	100					
ROX	P	19	47	21.0		1.9	98	1.23	110		3.7	4.0
	S			39.3		0.9	100					
OBZ	P	19	47	26.1		−0.4	100	1.87	171		3.6	
	S			50.9		−0.3	100					
MJZ	P	19	47	31.7		0.2	100	2.27	63		3.3	4.2
	S		48	00.3		0.4	100					
OMZ	eP	19	47	31		−0.9	100	2.29	91		3.4	4.1
	S			59.2		−1.5	99					
COB	eS	19	49	14		−1.6		5.44	45			4.4

AMPLITUDES: MSZ 17 8.0 ROX 1.0 4.0 OBZ 0.6
MJZ 0.4 2.5 OMZ 0.2 1.3 COB 0.3

79/ 198

APR 02 $20^h30^m24^s.8$ 46°.21S 166°.90E 12 km M = 3.3
± 1.8 0.04 0.12 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pg	20	30	47.2		0.4	100	1.09	130		3.1	3.7
	Sg		31	01.8		0.3	100					
MSZ	ePg	20	30	58.3		−0.9	100	1.70	25		3.1	2.9
	eSg		31	24		1.8	99					
ROX	Pg	20	31	02.8		0.7	100	1.84	67		4.0	3.4
	Sg			26.2		−0.8	100					
MJZ	ePg	20	31	31		−1.8	99	3.37	50		3.2	

AMPLITUDES: OBZ 0.8 8.0 MSZ 0.6 0.7 ROX 1.6 1.1
MJZ 0.2

FELT: Puysegur Point (146) MM IV

79/ 199

APR 02 $22^h19^m55^s.2$ 35°.60S 179°.62W 33 km M = 4.1
± 1.1 0.06 0.07 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	eSn	22	21	27.5		0.4	100	3.58	211			
WTZ	Pn	22	20	47.0		−1.1	100	3.62	228		3.8	
KRP	Pn	22	20	59.5		−1.1	100	4.53	238		4.4	
MNG	Pn	22	21	26		0.9	100	6.33	216		3.8	4.0
	Sn		22	34.0		0.7	100					
CRZ	Pn	22	21	27.0		0.5	100	6.43	278			
WEL	Sn	22	22	51.7		−2.2	98	7.19	216	4.6		
COB	Sn	22	23	18.0		1.4	100	8.14	225			4.2
CIZ	Pn	22	21	57.0		−0.1	100	8.68	165			
	Sn		23	30		0.4	100					

AMPLITUDES: WTZ 0.5 KRP 0.4 MNG 0.3 0.6
WEL 0.3 COB 0.5 CIZ 0.6 0.6

79/ 200

APR 04 $21^h19^m01^s.1$ 40°.99S 176°.01E 18 km M = 3.2
± 0.8 0.05 0.05 6 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CAZ	P*	21	19	05.0		−0.8	100	0.19	62			
	S*			09.1		0.0	100					
MNG	P*	21	19	09.8		−1.9	99	0.55	313		3.1	3.5
	S*			18.2		−1.1	100					
WEL	eS*	21	19	33		0.6	100	0.98	252	2.9		
GSZ	eP*	21	19	34		1.9	99	1.75	349			
	eS*			59		3.9						
CNZ	ePn	21	19	30.2		−0.8	100	1.83	349			
	eSn			54.0		0.6						
NGZ	Pn	21	19	30.8		−0.3	100	1.84	350			
	eP*			34.5		0.9	100					
	eS*			58		0.2	100					
TNZ	eP*	21	19	41		1.2	100	2.20	325		3.5	3.3
	e(S*)		20	14		5.4						

AMPLITUDES: CAZ 5.5 22 MNG 8.5 21 WEL 0.3
GSZ 0.2 0.3 CNZ 0.3 0.6 NGZ 0.6 1.0
TNZ 0.2 0.2

This shock and a later one at 5d 12h 54m are the largest of a group of earthquakes very close to Castlepoint.

79/ 201

APR 05 $10^h39^m04^s.4$ 39°.25S 175°.29E 32 km M = 3.4
± 0.3 0.01 0.02 2 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P*	10	39	11.0		0.2	100	0.21	75			
	S*			15.2		−0.2	100					
GSZ	P*	10	39	11.2		0.1	100	0.23	96			
	S*			16.0		0.1	100					
NGZ	P*	10	39	12.0		0.6	100	0.26	75			
	S*			17.0		0.5	100					
TNZ	P*	10	39	18.0		−0.1	100	0.71	275		3.1	3.3
	S*			28.5		0.3	100					
TRZ	eP*	10	39	27		0.3	100	1.22	105		3.4	3.3
	e			31								
	e(S*)			47		3.9						
KRP	P*	10	39	28.0		−0.6	100	1.34	8		3.8	3.9
	S*			45.8		−0.8	99					
MNG	P*	10	39	29.0		−0.2	100	1.38	174		3.7	3.2
	eS*			46.5		−1.0	99					
WEL	eP*	10	39	40.5		−0.5	100	2.07	191			
COB	ePn	10	39	46		1.3	97	2.68	226		3.6	3.2
	eSn		40	16		0.9						
	e(S*)			22		−4.6						

AMPLITUDES: TNZ 0.6 1.5 TRZ 0.4 0.4 KRP 1.8 1.8
MNG 4.6 1.8 COB 0.3 0.4

FELT: Ohakune (49) MM IV

79/ 202

APR 05 $12^h54^m10^s.5$ 41°.02S 176°.19E 33 km M = 3.5
± 1.2 0.08 0.08 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CAZ	P*	12	54	16.1		−0.2	100	0.12	13			
	S*			20.3		−0.2	100					
MNG	iP*	12	54	23.2		−0.5	100	0.67	306		3.6	
	S*			31.2		−2.1	100					
WEL	eP*	12	54	30		−0.8	100	1.11	256	3.4		
	S*			46		0.1	100					
TRZ	P*	12	54	35.8		−2.4	99	1.55	18		3.2	3.2
	e		55	05								
GSZ	eP*	12	54	44.2		1.6		1.80	345			
	iS*		55	03.0		−3.4						
CNZ	P*	12	54	45.9		1.9	100	1.88	345			
	i			49.0								
	eS*		55	12		3.1						
NGZ	Pn	12	54	42.7		2.9	99	1.89	346			
	iP*			46.0		2.0	100					
	i			49.1								
	eS*		55	05.5		−3.5						
TNZ	eP*	12	54	55.5		4.5		2.29	322		3.5	3.5
	e		55	22								
	eS*			25		3.8						
TUA	ePn	12	54	44		−1.9	100	2.33	19		3.5	
COB	ePn	12	54	51		1.2	100	2.62	267		3.5	3.1
	eP*		55	00		3.6						
	eS*			33		2.3						
KRP	eP*	12	55	08		2.8		3.13	351		3.8	
	eS*			49		2.9						

AMPLITUDES: CAZ 13 35 MNG 17 WEL 0.8
TRZ 0.3 0.4 GSZ 1.5 3.3 CNZ 1.1 0.7
NGZ 2.1 1.6 TNZ 0.2 0.3 TUA 0.2
COB 0.3 0.4 KRP 0.3

79/ 203

APR 05 $23^h 18^m 15^s.6$ 37°.15S 177°.88E 100 km M = 3.7
± 1.5 0.08 0.07 9 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	P	23	18	32.0		−0.9	100	0.67	235			
	S			44.0		−2.1	99					
ECZ	P	23	18	32.7		−1.0	100	0.76	136		3.7	3.9
	i			35.8								
	S			48.0		0.5	100					
WTZ	P	23	18	37.0		−0.3	100	1.10	220		3.7	3.7
	eS			54.0		0.2	100					
GNZ	S	23	19	04		1.5	100	1.49	176			4.1
TUA	eP	23	18	47.0		1.6	100	1.75	199		3.5	3.9
	eS		19	08		0.2	100					
	e			13								
KRP	P	23	18	49.7		0.8	100	2.02	247		2.9*	2.8*
	S		19	15.3		1.7	100					
NGZ	P	23	19	00.6		2.2	99	2.71	221			
	e			04.5								
	i			36.5								
MNG	eP	23	19	13		−2.2	99	3.94	208		3.4	3.4
	e			46								
WEL	eS	23	20	19		−2.5	99	4.79	209	4.2		
COB	eS	23	20	42		0.1	100	5.62	224			2.9*

AMPLITUDES: WIZ 6.5 8.0 ECZ 1.9 2.5 WTZ 2.2 2.7

GNZ			6.5	TUA		0.3	0.7	KRP		0.6	0.6
NGZ		2.7	2.7	MNG		0.3	0.4	WEL	0.2		
COB			0.3								

79/ 204

APR 06 $14^h10^m55^s.0$ 29°.94S 179°.11W 281 km M = 4.8

± 2.6 0.19 0.61 42 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eS	14	14	19		0.6	100	7.98	194			5.1
	e			27.5								
WTZ	eP	14	12	57		−0.4	100	8.66	201		4.3	4.6
	eS		14	34		0.5	100					
GNZ	e	14	14	41				9.01	195			4.9
	eS			43		1.6	100					
TUA	eS	14	14	49		−0.6	100	9.38	198			4.9
TRZ	eS	14	15	08		0.7	100	10.16	198			4.9
	e			16								
MNG	eP	14	13	32		−1.2	100	11.54	201		4.3	4.7
	S		15	35		−3.2	98					
WEL	eS	14	15	54		−2.8	99	12.37	202	5.0		
COB	eP	14	13	52		1.4	100	12.96	209			3.6*
	eS		16	09		−0.7	100					
	e			13								
KAI	eS	14	16	50		2.0	100	14.71	209	3.8*		
CMZ	S	14	16	59		1.5	100	15.14	204			3.6*

AMPLITUDES:											
ECZ			0.6	WTZ		0.2	0.4	GNZ			1.2
TUA			0.3	TRZ			0.5	MNG		0.3	0.9
WEL	0.2			COB			0.7	KAI	0.2		
CMZ			0.3								

79/ 205

APR 06 $21^h58^m18^s.1$ 38°.40S 176°.20E 153 km M = 3.9

± 2.4 0.08 0.13 17 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	21	58	41.2		0.2	100	0.71	312		3.6*	
	S			59.0		0.3	100					
WTZ	P	21	58	41.1		−0.2	100	0.75	56		3.8	3.6
	S			57.2		−2.0	100					
NGZ	P	21	58	44.7		2.2	99	0.90	210			
GSZ	P	21	58	45.0		1.8	100	1.00	209			
TNZ	eP	21	58	50.0		0.5	100	1.63	241		3.0*	
MNG	iP	21	58	57.1		−0.0	100	2.29	194		4.3	4.1
	S		59	29.0		2.0	100					
WEL	S	21	59	43		−2.0	100	3.09	201	3.8		
COB	S	21	59	59		−2.3	99	3.79	224			3.3*
KAI	eS	22	00	36		−6.0		5.51	220	3.4*		
CMZ	eS	22	00	45		−4.9		5.84	206			3.4*

AMPLITUDES:											
KRP		5.0		WTZ		2.5	1.8	NGZ		8.0	
GSZ		3.6		TNZ		0.2		MNG		7.2	5.0
WEL	0.2			COB			1.2	KAI	0.2		
CMZ			0.6								

79/ 206

APR 07 $02^h16^m50^s.9$ 42°.02S 171°.90E 12 km M = 4.3

± 0.7 0.04 0.06 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	P*	02	17	02.3		−0.5	100	0.63	215			
COB	P*	02	17	10.9		−0.3	100	1.12	34		4.4	4.3
	S*			27.8		1.6	100					
KKY	P*	02	17	17.8		1.9	99	1.39	107			
	i			20.1								
	i			21.8								
	S*			35.6		1.2	100					
	i			42.0								
CMZ	P*	02	17	20.0		−0.5	100	1.66	161			
	i			25.2								
WEL	eP*	02	17	29		−1.9	99	2.28	72	4.1		
	e			34								
	eS*			59.5		−1.2	100					
	e		18	10.0								
MNG	Pn	02	17	37.9		−0.0	100	3.04	64		4.7	4.5
	iP*			41.8		−2.2	99					
	i			46.8								
	eS*		18	25.0		1.3						
TNZ	ePn	02	17	44		1.2	100	3.40	35		4.0	
GSZ	Pn	02	17	53.0		3.1		3.92	47			
	iP*			57.0		−2.0						
NGZ	ePn	02	17	54.0		2.9		4.00	46			
	e		18	11.5								
KRP	ePn	02	18	05.8		1.8	100	4.95	36		4.1	4.1
	e			09.0								
	Sn			58.0		−1.3	100					

AMPLITUDES: COB 12 34 WEL 0.9 MNG 9.2 7.2
TNZ 0.3 GSZ 3.6 NGZ 3.5 14
KRP 0.7 0.8

FELT: Maruia (87) MM III, Murchison (80)

79/ 207

APR 07 $13^h36^m18^s.3$ 38°.91S 177°.93E 33 km M = 4.7
± 0.6 0.03 0.05 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P*	13	36	28.0		2.3	99	0.28	15			
TUA	P*	13	36	31.0		0.4	100	0.62	279		4.3	4.5
	S*			39.0		−0.6	100					
TRZ	P*	13	36	37.0		−1.1	100	1.07	233		4.1	4.8
	i			40.8								
	S*			54.0		1.2	100					
WTZ	P*	13	36	38.2		−1.7	99	1.19	321			
ECZ	P*	13	36	41.0		−1.0	100	1.30	22		4.3	
	i			49.5								
	e			53.5								
WNZ	eP*	13	36	43		−1.5	100	1.46	280		4.8	
	e			52.2								
	i		37	06.0								
WIZ	Pn	13	36	42.1		−0.2	100	1.50	337			
	iP*			45.8		0.6	100					
NGZ	Pn	13	36	48.2		1.4	100	1.83	261			
	Sn		37	09.0		0.9	100					
GSZ	Pn	13	36	49.0		1.7	99	1.86	258			
	eSn		37	10.3		1.3	100					
KRP	ePn	13	36	51		0.2	100	2.12	297		4.4	
	e			58.0								

	i	37 05.5									
	iSn	14.8		−0.4	100						
MNG	Pn	13 36 57.8		1.2	100	2.55	227			4.5	4.8
	i	37 09.5									
	e	20.0									
	eSn	26.0		0.6	100						
TNZ	Pn	13 37 01.2		1.4		2.78	263			5.0	4.9
	(Sn)	35.3		4.2							
WEL	ePn	13 37 07		−1.2	100	3.39	225	4.9			
	Sn	44.0		−1.8	99						
COB	Pn	13 37 22.1		−1.8	99	4.54	240			5.1	4.7
	Sn	38 12.4		−1.1	100						
KAI	Sn	13 38 49		−2.7		6.14	232	5.0			
CMZ	ePn	13 37 43		−2.7		6.15	219			4.5	5.3
	e	38 48									
	iSn	49.5		−2.4							

AMPLITUDES:

TUA	19	33	TRZ	4.6	34	ECZ	2.5				
WNZ	2.3		WIZ	28		KRP	3.8				
MNG	9.8	23	TNZ	2.0	1.8	WEL	2.9				
COB	3.6	4.7	KAI	1.0		CMZ	0.6	6.7			

FELT: Ormond (44) MM IV, Gisborne (45), Mahia Beach (54)

79/ 208

APR 08 $07^h55^m28^s.7$ 36°.91S 179°.96W 171 km M = 4.3

± 1.5 0.10 0.14 13 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	07	55	57.2		−2.2	99	1.42	236		4.2	
	e		56	16								
GNZ	P	07	56	11.0		1.4	100	2.36	222		3.8	4.5
	S			41.2		0.1	100					
WTZ	P	07	56	12.1		−1.2	100	2.65	245		4.3	
TUA	eP	07	56	17		−0.2	100	2.97	229		4.1	4.7
	eS			54		−0.5	100					
TRZ	eP	07	56	26		0.1	100	3.66	223		4.5	4.7
	S		57	13.5		3.6	94					
KRP	P	07	56	27.0		0.2	100	3.73	253			
	e			39.8								
	S		57	12.0		0.5	100					
NGZ	eP	07	56	34.8		2.3	99	4.17	236			
ONE	eP	07	56	42		2.3		4.72	282			
MNG	eP	07	56	44.8		−0.3	100	5.14	222		4.0	4.4
	S		57	43		−1.3	100					
WEL	eS	07	58	03		−1.5	100	5.99	222	4.5		
CRZ	eP	07	57	05		2.2		6.49	290			
COB	eP	07	57	11		0.5	100	7.06	232		3.4*	3.3*
	eS		58	29		−0.7	100					

AMPLITUDES:

ECZ	1.6		GNZ	0.7	6.0	WTZ	1.6				
TUA	0.4	1.6	TRZ	0.6	2.2	KRP	1.3				
NGZ	1.0		MNG	0.7	2.2	WEL	0.3				
COB	0.2	0.7									

79/ 209

APR 08 $12^h55^m41^s.8$ 37°.07S 177°.32E 210 km M = 4.1

± 1.3 0.08 0.10 8 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	12	56	11.0		−1.4	100	0.94	196		4.0	3.9

	S			33.0		−3.1	98					
ECZ	eP	12	56	15.5		1.7	100	1.15	123		3.6	
KRP	P	12	56	19.0		1.0	100	1.66	239		3.2*	
	S			47.5		1.5	100					
GNZ	P	12	56	18.2		0.1	100	1.66	161		3.9	4.6
	S			45.5		−0.7	100					
TUA	eP	12	56	18.5		−0.3	100	1.74	184		3.7	4.1
	S			47.5		0.1	100					
NGZ	P	12	56	29.2		2.5	99	2.50	212			
TRZ	eP	12	56	27.7		0.9	100	2.51	189		4.1	4.5
	S		57	04.5		2.9	99					
MNG	P	12	56	41.7		−0.6	100	3.82	202		4.7	3.9
	S		57	29.3		0.1	100					
WEL	eP	12	56	51		−1.7	100	4.65	204	4.2		
	eS		57	47		−0.7	100					
COB	eP	12	57	00		−1.8	100	5.37	220		3.4*	2.9*
	eS		58	04		−0.0	100					

AMPLITUDES: WTZ 2.2 1.7 ECZ 0.3 KRP 1.0
GNZ 1.2 9.0 TUA 0.3 0.7 NGZ 2.5
TRZ 0.4 2.6 MNG 5.9 1.2 WEL 0.3
COB 0.3 0.3

79/ 210

APR 08 $14^h35^m50^s.8$ 41°.95S 173°.34E 12 km M = 3.5
± 0.4 0.02 0.03 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	Pg	14	36	00.8		−1.0	100	0.53	151			
	Sg			10.2		1.1	100					
COB	Pg	14	36	11.4		0.8	100	0.98	332		3.5	3.3
	Sg			24.9		1.0	100					
WEL	ePg	14	36	16.5		0.1	100	1.26	59	3.3		
	eSg			35.5		2.0	99					
	e			37								
KAI	ePg	14	36	24		2.0	99	1.54	248	3.6		
	Sg			41.5		−1.4	100					
CMZ	eP*	14	36	21		−0.1	100	1.71	197		3.6	3.6
	ePg			26.5		1.1	100					
	eS*			43		−0.7	100					
MNG	eP*	14	36	27.5		−0.2	100	2.10	51		3.8	3.5
	ePg			31.5		−1.7	100					
	eSg		37	02		0.6	100					
GSZ	e	14	36	50				3.18	33			
	iPg			52.0		−3.0	97					
NGZ	eP*	14	36	47		−0.7	100	3.27	33			
	e(Pg)			52		−4.8						

AMPLITUDES: COB 2.0 4.6 WEL 0.5 KAI 0.7
CMZ 0.9 1.5 MNG 2.5 1.6 GSZ 2.8
NGZ 1.5

FELT: Middlehurst (82)

79/ 211

APR 09 $00^h20^m56^s.8$ 33°.20S 177°.60W 33 km M = 5.0
± 2.5 0.15 0.30 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	00	22	17		1.8	100	5.48	214		4.9	
	e			40.5								

GBZ	eP	00	22	29		0.6	100	6.45	240			
	e			42								
GNZ	eS	00	23	45		6.1		6.50	212		5.1	
WTZ	P	00	22	27.7		−1.4	100	6.51	221		4.7	4.9
	S		23	41.8		2.7	100					
TUA	P	00	22	37		0.6	100	7.04	216		5.1	5.2
	eS		23	54		2.1	100					
KRP	eP	00	22	39		−1.3	100	7.32	228		5.4	
	i			51								
NGZ	P	00	22	51		−0.1	100	8.12	221			
	e		23	07								
CRZ	eP	00	22	51.5		−0.7	100	8.19	259		5.3	
MNG	eP	00	23	04		−2.6	100	9.25	215		5.2	
	e			28.5								
	e			43								
WEL	eS	00	25	02		−3.7	99	10.12	215	4.9		
COB	eP	00	23	34		3.1	99	11.02	222		4.6	4.6
	e			40								
	eS		25	26		−1.7	100					

AMPLITUDES:								
ECZ	0.6		GBZ	0.6		GNZ	2.5	
WTZ	1.2	1.8	TUA	0.9	1.3	KRP	1.2	
NGZ	1.1		CRZ	0.3		MNG	3.5	
WEL	0.3		COB	0.2	0.6			

79/ 212

APR 09 $00^h59^m33^s.7$ 33°.32S 178°.40W 33 km M = 4.8

± 1.5 0.09 0.18 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	01	00	46		0.1	100	5.03	209		4.9	
	e			50								
GBZ	e	01	01	05.0				5.81	238			
WTZ	eP	01	00	58.0		−0.9	100	5.98	218		4.4	4.8
	eS		01	58		−5.4	55					
GNZ	e(S)	01	02	16		10.8		6.06	208			5.0
TUA	eP	01	01	06		−0.8	100	6.56	212		5.0	4.8
	e(S)		02	24		6.7						
KRP	eP	01	01	10		0.6	100	6.75	225		5.0	
	e			21								
CRZ	eP	01	01	20		0.3	100	7.51	259		5.3	
NGZ	eP	01	01	21		0.1	100	7.60	218			
MNG	eP	01	01	37		−0.1	100	8.78	212		4.4	4.8
	S		03	13		2.3	99					
WEL	eS	01	03	31		−0.3	100	9.64	212	4.8		
COB	eS	01	03	53		1.1	100	10.49	220			4.5
KAI	eS	01	04	33		−0.1	100	12.21	218	4.9		

AMPLITUDES:								
ECZ	0.7		GBZ	0.8		WTZ	0.8	1.7
GNZ		3.5	TUA	0.8	0.6	KRP	0.6	
CRZ	0.3		NGZ	1.3		MNG	0.6	1.7
WEL	0.3		COB		0.6	KAI	0.2	

79/ 213

APR 09 $02^h47^m26^s.8$ 42°.47S 172°.93E 12 km M = 3.9

± 0.4 0.03 0.04 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	eP*	02	47	47		−0.2	100	1.13	267	4.0		
	S*		48	02.8		0.6	100					
CMZ	P*	02	47	46.0		−1.4	100	1.13	191		4.5	4.1

	S*		48	03.5		1.0	100					
COB	Pn	02	47	49.7		−1.6	100	1.39	354			3.8
	e		48	00.2								
	Sn			08.2		−1.4	100					
WEL	ePn	02	47	59		1.9	99	1.81	50	3.5		
	eSn		48	19		−0.7	100					
	e			22								
	eS*			24		1.2	100					
MJZ								2.36	229		3.7	3.7
MNG	Pn	02	48	06.5		−2.2	99	2.66	47		3.9	3.8
	iP*			11.7		−1.7	100					
	eS*			47.5		−0.8	100					
TNZ	ePn	02	48	21		1.5	100	3.46	19		3.9	
	eP*			27.5		0.5	100					
NGZ	Pn	02	48	25.5		0.4	100	3.87	33			
	iP*			34.8		0.9	100					
KRP	ePn	02	48	40.5		0.5	100	4.96	25		3.8	3.8
	eSn		49	38		2.6	99					

AMPLITUDES:									
KAI	3.2		CMZ	18	12	COB		6.0
WEL	0.4		MJZ	1.2	1.6	MNG	2.0	2.0
TNZ		0.2	NGZ	3.0		KRP	0.4	0.4

79/ 214

APR 09 $03^h27^m38^s.7$ 33°.14S 177°.91W 33 km M = 4.8

± 2.6 0.12 0.18 R S.E. of RES. 2.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	03	28	57		1.3	100	5.38	211		4.9	5.0
	e		30	08								
GBZ	e	03	29	16				6.25	239			
WTZ	P	03	29	08.4		−0.8	100	6.37	219		4.4	4.9
	S		30	23		5.2	96					
GNZ	eS	03	30	23		4.4		6.41	210			4.8
TUA	eS	03	30	32		0.9	100	6.93	214			5.0
KRP	eP	03	29	21		1.0	100	7.16	226		4.9	
CRZ	eP	03	29	31		0.4	100	7.94	258		5.1	
NGZ	eP	03	29	32		0.8	100	7.98	219			
MNG	eP	03	29	44		−3.1	99	9.14	213		4.3	4.9
	S		31	24		−0.5	100					
WEL	eS	03	31	43		−2.1	100	10.01	214	4.9		
CIZ	eS	03	32	06		0.6	100	10.85	175			
COB	eS	03	32	03		−3.4	99	10.89	221			4.4

AMPLITUDES:									
ECZ	0.6	0.8	GBZ	0.8		WTZ	0.6	1.6
GNZ		2.2	TUA		0.8	KRP	0.4	
CRZ	0.2		NGZ	0.6		MNG	0.4	2.0
WEL	0.3		CIZ		0.5	COB		0.4

79/ 215

APR 09 $08^h10^m30^s.4$ 32°.49S 179°.75W 33 km M = 4.4

± 5.2 0.46 0.80 R S.E. of RES. 3.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	08	11	50		2.6	100	5.38	195		4.6	
WTZ	eP	08	11	55		−2.2	100	6.10	205		4.0	4.4
	S		13	07.5		4.5	99					
GNZ	eS	08	13	13		2.7		6.41	196		4.5	
TRZ	eS	08	13	39		0.5	100	7.58	201		4.4	4.5
MNG	eP	08	12	36		−0.5	100	8.98	204		3.9	4.2
	S		14	09		−3.1	100					

WEL	eS	08	14	29		−3.3	100	9.82	205	4.7			
COB	eS	08	14	50		1.6	100	10.49	213				4.2
CIZ	e	08	14	49				11.73	169				

AMPLITUDES: ECZ 0.3 WTZ 0.3 0.6 GNZ 0.7
TRZ 0.2 0.3 MNG 0.2 0.5 WEL 0.2
COB 0.3

79/ 216

APR 09 $11^h02^m57^s.0$ 32°.61S 179°.16W 33 km M = 4.4
± 3.2 0.30 0.56 R S.E. of RES. 2.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	11	04	19		4.6		5.41	200		4.6	
WTZ	P	11	04	23		−2.5	100	6.22	209		4.2	4.4
	eS		05	36		3.5	99					
GNZ	eP	11	04	29		0.4	100	6.44	200		4.4	4.5
	eS		05	39		1.1	100					
TUA	eP	11	04	32		−2.4	100	6.88	205		4.6	4.6
	eS		05	49		0.8	100					
TRZ	eP	11	04	46		0.9	100	7.66	204		4.5	4.7
	eS		06	11		4.0						
MNG	eP	11	05	08		3.5	99	9.08	207		4.1	4.3
	e			21								
	eS		06	38		−3.2	99					
WEL	eS	11	06	59		−2.6	100	9.94	208	4.7		
COB	eS	11	07	20		0.7	100	10.66	215			4.2

AMPLITUDES: ECZ 0.3 WTZ 0.4 0.6 GNZ 0.5 0.9
TUA 0.3 0.3 TRZ 0.2 0.5 MNG 0.3 0.6
WEL 0.2 COB 0.3

79/ 217

APR 09 $19^h54^m19^s.9$ 33°.55S 178°.61W 331 km M = 4.6
± 1.3 0.15 0.27 16 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	19	55	48		0.9	99	5.70	218		5.0	4.6
	eS		56	55		−0.6	100					
KRP	P	19	55	56.0		−0.1	100	6.46	226		3.4*	
MNG	P	19	56	19.6	U	−0.7	100	8.49	212		4.7	4.5
	S		57	56.0		0.6	100					
WEL	S	19	58	14		−0.1	100	9.35	212	4.4		
COB	eS	19	58	33.0		0.1	100	10.21	220			3.1*

AMPLITUDES: WTZ 2.0 0.8 KRP 0.6 MNG 1.2 1.1
WEL 0.1 COB 0.3

79/ 218

APR 10 $05^h10^m57^s.0$ 37°.22S 178°.40E 131 km M = 5.1
± 0.8 0.03 0.07 7 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	05	11	15.0		−1.2	100	0.49	166			
WIZ	P	05	11	18.9		−1.3	100	1.01	252			
	S			37.0		−1.0	100					
WTZ	P	05	11	24.2		0.3	100	1.36	235			
GNZ	P	05	11	26		1.1	100	1.46	192			
TUA	P	05	11	29.4		−0.4	100	1.87	211		5.4	5.2
	S			55.0		0.3	100					
WNZ	P	05	11	37.6		2.4	99	2.30	231		5.4	
KRP	P	05	11	37.8		1.5	100	2.38	252			

	S		12	05.8		−0.2	100					
GBZ	P	05	11	38.0		−0.5	100	2.55	292			
TRZ	P	05	11	40.0		0.2	100	2.64	208		5.3	5.0
	eS		12	12.5		0.4	100					
	e			16.1								
NGZ	P	05	11	45.8		2.1	99	2.94	227			
	S		12	20.2		1.0	100					
GSZ	P	05	11	47.0		2.2	99	3.02	226			
ONE	S	05	12	33		−0.8	100	3.55	293			
TNZ	P	05	11	57.0		2.8		3.73	237		4.2*	
CAZ	P	05	11	58.0		−0.5	100	4.05	204			
	S		12	46.5		1.0	100					
MNG	P	05	11	57.7		−1.3	100	4.09	213		4.7	5.0
	S		12	46.3		−0.1	100					
WEL	eP	05	12	08		−2.5	99	4.95	214	5.0		
	S		13	05.0		−2.0	99					
CRZ	P	05	12	18		1.3	100	5.42	299		3.6*	
COB	eP	05	12	21.0		−1.7	100	5.86	227		4.0*	3.8*
	i			22.0								
	S		13	28.5		−0.7	100					
KAI	eS	05	14	06.0		−4.2		7.55	223			

AMPLITUDES:											
WIZ	44	28	TUA	18	12	WNZ	1.8				
GBZ	6.0		TRZ	8.0	9.0	GSZ	35				
ONE		0.6	TNZ	1.4		CAZ	4.5	8.0			
MNG	5.7	14	WEL	1.7	2.8	CRZ	0.4				
COB	1.1	2.5	KAI		0.4						

79/ 219

APR 10 $14^h25^m30^s.6$ 38°.34S 177°.17E 33 km M = 4.5

± 0.3 0.02 0.04 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P*	14	25	39.4		0.0	100	0.38	338			
TUA	P*	14	25	40.4		−0.2	100	0.47	182		4.2	4.4
	eS*			48.5		0.6	100					
GNZ	P*	14	25	44.7		−0.1	100	0.74	115			
WIZ	P*	14	25	44.6		−1.4	99	0.81	1			
WNZ	Pn	14	25	45.2		−1.1	100	0.89	250		4.5	
	iP*			48.2		0.8	100					
	e			54								
TRZ	iPn	14	25	50.4		−0.7	100	1.24	193		4.4	
	iP*			53.8		0.6	100					
	i		26	17								
ECZ	P*	14	25	53.8		0.2	100	1.26	60		3.9	
	e		26	04								
KRP	Pn	14	25	52.2		−0.4	100	1.36	287			
	Sn		26	08.5		−0.6	100					
NGZ	Pn	14	25	55.0		0.6	100	1.48	235			
GSZ	Pn	14	25	56.0		0.6	100	1.56	232			
TNZ	ePn	14	26	07.5		1.4	100	2.34	248		4.6	
	i			08.8								
GBZ	ePn	14	26	10		1.6	99	2.51	327			
MNG	ePn	14	26	08.0		−2.0	99	2.63	209		4.5	4.5
	iP*			16.0		−0.6	100					
	i			26.5								
	S*			50.5		−0.6						
	e		29	19								
CAZ	iP*	14	26	21.3		4.0		2.66	196			
	iSn			42		1.4						

	i			44.7								
WEL	ePn	14	26	24		2.3	97	3.48	211	4.4		
	Sn			58.8		−1.4	100					
COB	ePn	14	26	34		−0.1	100	4.39	230		5.0	4.7
	i			38.5								
	e		27	30								
	i			34								
KAI								6.07	225	4.6		

AMPLITUDES:

TUA	26	41	WIZ	14	WNZ	2.3			
TRZ	6.2		ECZ	1.1	GSZ	18			
TNZ	0.9		GBZ	0.8	MNG	8.2	11		
CAZ		1.6	WEL	0.8	COB	3.0	5.0		
KAI	0.4								

79/ 220

APR 10 $19^h38^m39^s.1$ 41°.11S 174°.49E 41 km M = 4.8

± 0.4 0.03 0.04 6 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	P	19	38	46.5		−0.5	100	0.19	237			
MRW	P	19	38	47.1		0.0	100	0.21	127			
WHW	P	19	38	47.9		0.2	100	0.26	135			
WEL	P	19	38	48.0		0.3	100	0.27	130			
	S			54.0		−0.1	100					
KIW	P	19	38	48.6		−0.5	100	0.40	53			
WDW	P	19	38	49.5		0.3	100	0.41	113			
BHW	P	19	38	49.5		0.3	100	0.41	136			
CAW	P	19	38	49.7		0.3	100	0.44	90			
MOW	P	19	38	52.6		0.5	100	0.66	119			
MNG	iP	19	38	55.1		−0.4	100	0.90	57			
COB	P	19	39	01.4		−0.2	100	1.33	270			
CAZ	P	19	39	01.2		−0.4	100	1.33	82			
	i			08.8								
TNZ	P	19	39	10.7		0.7	100	1.93	357			
GSZ	P	19	39	10.8		−0.5	100	2.02	25			
	i			14.2								
NGZ	P	19	39	13.0		0.3	100	2.11	24			
	i			17.0								
TRZ	eP	19	39	13.8		−2.5		2.37	50			
KAI	eP	19	39	23		1.8	98	2.71	237			
	e			54								
	i			58								
WNZ	eP	19	39	21		−1.1	100	2.77	27		5.1	
	e			31								
CMZ	P	19	39	21.0		−2.0	98	2.83	208		4.1*	
	i			30.5								
KRP	P	19	39	28.0		−1.5	99	3.28	15			
	i			31.3								
	e			47								
	iS		40	10		2.4						
WTZ	eP	19	39	37		2.0	98	3.67	33		4.6	
	e			46								

AMPLITUDES:

WEL	66		CAZ	21	GSZ	53			
NGZ		42	WNZ	0.6	CMZ	3.8			
WTZ	2.4								

FELT: Cook Strait area MM IV. Numerous aftershocks, the largest (22h 26m) was located by the Wellington network.

79/ 221

APR 10 $22^h04^m24^s.0$ 40°.42S 176°.45E 12 km M = 3.2

± 0.8 0.03 0.06 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CAZ	Pg	22	04	33.5		−1.0	100	0.50	200			
	Sg			42.4		0.9	100					
MNG	Pg	22	04	37.5		−2.1	99	0.76	255		3.1	3.6
	Sg			50.2		0.2	100					
TRZ	eSg	22	04	56		0.9	100	0.92	18		2.9	
	e		05	06								
NGZ	ePg	22	04	50.5		−1.9	99	1.39	332			
	i			53								
	i(Sg)		05	13.5		2.2						
	i			24								
TNZ	ePg	22	05	06		1.1	100	2.02	307		3.4	3.2
	e			38								
COB	ePg	22	05	24		1.3	100	2.90	256		3.5	2.9
	eS*			54		1.3	100					
	eSg		06	01		−0.8	100					

AMPLITUDES: CAZ 2.5 2.8 MNG 3.8 15 TRZ 0.4
NGZ 4.6 TNZ 0.2 0.2 COB 0.2 0.2

79/ 222

APR 10 $22^h26^m53^s.2$ 41°.02S 174°.41E 33 km M = 3.5

± 0.2 0.02 0.01 R S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	P*	22	27	00.7		0.8	99	0.22	208			
MRW	P*	22	27	01.3		0.4	100	0.31	134			
WEL	P*	22	27	02.0		0.1	100	0.38	135	2.9		
	S*			08.2		0.0	100					
KIW	P*	22	27	02.9		0.6	100	0.41	68			
WDW	P*	22	27	03.7		−0.0	100	0.50	120			
BHW	P*	22	27	03.7		−0.3	100	0.52	138			
MOW	P*	22	27	06.7		−0.9	98	0.75	123			
MNG	P*	22	27	09.8		−0.4	100	0.91	64		3.4	3.4
	S*			22.8		0.1	100					
COB	eP*	22	27	16.0		−0.3	100	1.27	266		3.7	3.4
	i			17.4								
	S*			33.2		−0.2	100					
TNZ	e(P*)	22	27	31		5.3		1.84	359			
	e			47								
KAI	eS*	22	28	15		−1.0		2.71	235	3.6		
KRP	e(P*)	22	27	54		4.8		3.21	16		3.6	
GNZ	eS*	22	28	43		−1.5		3.65	51			4.4

AMPLITUDES: WEL 2.3 MNG 5.7 7.2 COB 1.8 2.9
KAI 0.2 KRP 0.2 GNZ 2.5

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APR 11 $09^h51^m40^s.7$ 46°.48S 166°.37E 12 km M = 3.9

± 0.9 0.03 0.06 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P*	09	52	03.2		−0.4	100	1.27	110		3.8	4.1
	S*			20.8		0.3	100					
MSZ	ePn	09	52	14.0		−1.1	99	2.12	31		3.9	4.1
	iP*			17.5		−0.5	100					

	Sn			41.2		0.3	100					
ROX	Pn	09	52	18.6		1.1	99	2.29	65			
OMZ	ePn	09	52	33		−0.7	100	3.48	68		3.6	3.8
	eS*		53	26		−0.7	100					
COB	ePn	09	53	24		1.0	99	7.09	43		4.2	3.9
	eSn		54	41		0.5	100					

AMPLITUDES: OBZ 3.0 17 MSZ 2.7 6.6 OMZ 0.2 0.6
COB 0.2 0.3

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APR 11 $11^h48^m22^s.1$ 38°.31S 176°.14E 154 km M = 3.7
± 1.7 0.06 0.07 12 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	eP	11	48	44		−0.6	100	0.61	309		2.4*	2.7*
	S		49	04.0		1.9	100					
WTZ	P	11	48	45.8		0.3	100	0.75	65		3.1	3.5
	S		49	00.0		−3.4	98					
TUA	P	11	48	47.8		0.8	100	0.94	122		3.9	3.6
	S		49	06		0.1	100					
TRZ	P	11	48	52.0		1.2	100	1.35	157		4.0	3.6
	eS		49	15.8		3.0	99					
GNZ	eP	11	48	53.0		0.4	100	1.52	103		3.3	3.9
	S		49	15.0		−0.7	100					
MNG	iP	11	49	02.8		0.6	100	2.37	192		4.3	3.8
	e			25.8								
	eS			31.8		−1.2	100					
WEL	eS	11	49	49		−1.8	100	3.16	199	4.1		
COB	e	11	49	29				3.82	222			2.8*
	eS		50	05.8		−0.4	100					

AMPLITUDES: KRP 0.3 0.8 WTZ 0.5 1.6 TUA 1.2 0.6
TRZ 0.9 0.8 GNZ 0.5 3.2 MNG 5.8 2.5
WEL 0.4 COB 0.4

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APR 12 $19^h17^m27^s.0$ 41°.68S 171°.98E 12 km M = 3.6
± 0.8 0.04 0.06 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	P*	19	17	42.0		−0.2	100	0.82	44		3.6	3.6
	S*			53.5		0.3	100					
KAI	eP*	19	17	45.5		1.2	100	0.94	207	3.9		
	S*			55.2		−1.8	99					
KKY	P*	19	17	53.1		−0.2	100	1.48	121			
	S*		18	14.6		1.7	100					
CMZ	eP*	19	18	05		3.3		1.97	166		3.3	3.4
	e			09.5								
	eS*			27		−0.6						
WEL	eP*	19	18	04		−0.6	100	2.13	80	3.5		
	eS*			30		−2.6	99					
RHP	Pn	19	18	10.8		0.2	100	2.79	209			
	iSn			43.8		0.3						
MNG	ePn	19	18	13.0		1.6	100	2.85	69		3.9	
	iP*			18.0		1.2						
CNZ	ePn	19	18	28		5.2		3.68	49			
	e			36								
	eS*		19	24		4.9						
NGZ	ePn	19	18	27		3.6		3.73	49			

AMPLITUDES:											
	COB		3.5	11	KAI	3.5		CMZ		0.4	0.7
	WEL	0.3			MNG		1.8	NGZ		0.8	

FELT: Murchison (80) MM IV

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APR 12 $19^h 54^m 25^s.4$ 37°.85S 176°.30E 223 km M = 4.6

± 1.0 0.05 0.07 8 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	19	54	54.0		−1.5	100	0.57	104		4.3	4.4
	eS		55	15		−3.7						
KRP	P	19	54	55.3		−0.4	100	0.60	263			
	S		55	16.7		−2.3	99					
WNZ	eP	19	54	57		0.5		0.79	191		4.2	
TUA	P	19	54	59.0		0.2	100	1.17	145		4.5	4.8
	S		55	24		−0.8	100					
NGZ	P	19	55	03.0		2.1	99	1.44	202			
	i			07.0								
CNZ	P	19	55	02.9		1.7	100	1.48	203			
	S			31.5		2.6	99					
GSZ	P	19	55	03.5		1.8	100	1.53	201			
	S			31.2		1.4	100					
GNZ	P	19	55	02.8		0.8	100	1.57	121		4.6	
	S			28		−2.4	99					
TRZ	P	19	55	04.0		0.4	100	1.75	167		4.5	4.8
	i			33								
	i			36								
ECZ	P	19	55	04.0		0.0	100	1.79	86			
	i			05.6								
	i			07.3								
	eS			34		0.2	100					
TNZ	P	19	55	08.8		2.7	99	2.02	228		3.5*	
ONE	eP	19	55	11		−1.1	100	2.59	323			
MNG	iP	19	55	15.0		0.1	100	2.83	193		5.0	5.1
	S			53.0		−0.2	100					
WEL	eP	19	55	24		−0.1	100	3.64	199	4.8		
	S		56	08		−1.6	100					
COB	eP	19	55	32		0.3	100	4.26	219		3.9*	4.2*
	S		56	22.5		−0.6	100					
KAI	eS	19	56	59		−3.3	98	5.98	217	4.0*		

AMPLITUDES:											
	WTZ		4.0	6.0	WNZ		0.2		TUA	2.2	5.2
	NGZ		9.0		CNZ		2.3	3.8	GSZ	18	13
	GNZ		5.5		TRZ		1.6	6.3	TNZ	0.4	
	MNG		17	33	WEL	1.4			COB	1.1	8.5
	KAI	0.8									

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APR 13 $10^h 16^m 19^s.1$ 38°.33S 176°.92E 12 km M = 4.0

± 0.3 0.02 0.03 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP*!	10	16	28.4		2.2	99	0.34	9			
TUA	iP*	10	16	29.8	U	0.7	100	0.51	159		3.5	3.8
	Pg			32.1		2.3	99					
	eS*			37.5		1.2	100					
WNZ	P*	10	16	33		0.6	100	0.71	244			3.6
	eS*			40		−2.1	99					
	e			53.3								
WIZ	P*	10	16	33.8		−0.6	100	0.83	15			

	ePg			38		2.1	99					
	eS*			44		−1.5	100					
GNZ	iP*!	10	16	33.6		−2.5	99	0.93	111			
KRP	iP*	10	16	41.2	DSE	1.1	100	1.16	290		3.7	3.9
	eS*			55		−0.6	100					
TRZ	eP*	10	16	40.4		−0.9	100	1.23	184		3.7	3.7
	e			51								
	e		17	07								
NGZ	Pn	10	16	43.1		0.3	100	1.33	230			
	eSn		17	02		1.4	100					
ECZ	Pn	10	16	42.2		−2.0	99	1.43	64		4.2	4.4
	e			51.5								
	eSg		17	07		−0.5	100					
TNZ	eP*	10	16	57		−0.2	100	2.17	246		4.3	4.3
	eSg		17	32		−0.1	100					
MNG	ePn	10	16	59		−0.4	100	2.55	205		3.8	3.8
	e		17	15								
	eSg			43		−2.0	99					
WEL								3.39	209	4.1		
COB	ePn	10	17	24		1.4	100	4.25	228		4.4	4.0
	e			27								
	e		18	22								

AMPLITUDES:											
	TUA		4.0	8.8	WNZ		0.7	WIZ		10	23
	KRP		2.6	3.2	TRZ	1.4	1.8	NGZ		12	20
	ECZ		1.7	3.5	TNZ	0.4	0.4	MNG		1.8	2.4
	WEL	0.4			COB	0.9	1.2				

FELT: Opotiki (35) MM IV

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APR 13 $12^h39^m50^s.2$ 38°.95S 175°.19E 107 km M = 3.6

± 0.9 0.03 0.05 12 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	iP	12	40	07.3	U	1.0	100	0.40	126			
TNZ	e(S)	12	40	29		7.0		0.67	249			2.7*
KRP	iP	12	40	11.8	D	−0.1	100	1.05	15		2.7*	2.7*
	eS			28		−0.4	100					
TRZ	eP	12	40	17		0.9	100	1.40	116		3.7	3.7
	eS			35.5		−0.2	100					
TUA	eP	12	40	18		0.4	100	1.53	85		3.2	3.8
	eS			39		0.5	100					
MNG	iP	12	40	19.3	U	−0.2	100	1.68	173		3.5	3.9
	eS			40		−1.6	99					
WTZ	eP	12	40	17		−2.8	88	1.71	56			3.1
	eS			43		1.0	100					
GNZ	e(S)	12	40	48		−5.7		2.23	83			4.0
WEL	eS	12	40	57		0.1	100	2.36	188	3.6		
COB	eP	12	40	36		0.9	100	2.85	221			2.7*
	eS		41	09		0.0	100					

AMPLITUDES:											
	NGZ		15		TNZ		0.3	KRP		0.6	0.7
	TRZ		0.6	1.3	TUA	0.2	0.7	MNG		1.8	6.5
	WTZ			0.3	GNZ		2.3	WEL	0.2		
	COB			0.4							

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APR 14 $12^h35^m28^s.6$ 33°.29S 178°.32W 351 km M = 5.0

± 2.2 0.13 0.28 34 S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	12	36	49		−0.8	100	5.08	209		5.1	4.8
	e		37	01								
	eS			57		3.6	99					
GBZ	e	12	37	26				5.89	238			
WTZ	eP	12	36	56.5		−4.1	99	6.05	218		5.1	4.8
	eS		38	09		−3.9	99					
GNZ	eP	12	37	01		−0.3	100	6.11	208		5.0	5.3
	e			08								
	eS		38	14		−0.3	100					
ONE	eP	12	37	09		2.8	100	6.53	246	3.7*		
TUA	eP	12	37	07		−0.2	100	6.62	212		5.3	5.2
	e			18								
	eS		38	25		0.2	100					
KRP	eP	12	37	10		0.5	100	6.81	226		3.5*	
TRZ	eP	12	37	17		0.8	100	7.38	211		4.9	4.9
	eS		38	43		2.2	100					
CRZ	eP	12	37	19		0.5	100	7.58	259		3.9*	
NGZ	eP	12	37	20		0.5	100	7.66	218			
	eS		38	43		−3.7	99					
TNZ	e	12	37	43				8.33	223		3.7*	
MNG	eP	12	37	33		−0.5	100	8.84	212		4.5	4.6
	eS		39	13		0.9	100					
WEL	eS	12	39	32		1.3	100	9.70	213	4.9		
CIZ	e	12	38	15				10.75	173			
	eS		39	04		−49.3	0					

AMPLITUDES:											
ECZ	1.2	0.6	GBZ	0.5		WTZ	2.0	1.2
GNZ	1.7	5.5	ONE	0.5		TUA	1.3	0.9
KRP	0.7		TRZ	0.4	0.8	CRZ	0.5	
NGZ	1.0	0.9	TNZ	0.2		MNG	0.8	1.3
WEL	0.3		CIZ	0.5	0.6			

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APR 14 $20^h22^m51^s.4$ 43°.60S 171°.21E 12 km M = 3.5

± 0.4 0.03 0.04 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MJZ	S*-P*			09		−0.1	100	0.67	234		3.4	3.3
RHP	iP*	20	23	07.0	U	−1.9	99	0.95	238			
	eS*			22		0.2	100					
CMZ	iP*	20	23	09.8	D	−0.6	100	1.04	90		3.4	
	S*			25.0		0.7	100					
	Sg			26.7		0.0	100					
KAI	eP*	20	23	11		−0.0	100	1.08	8	3.2		
	eSg			29		1.0	100					
OMZ	Pn	20	23	15.4		−1.8	100	1.48	188		3.5	3.5
	eP*			18		0.0	100					
	eS*			39		1.3	100					
ROX	P*	20	23	33.1		1.0	100	2.31	215		3.7	3.2
	ePg			35.5		−2.7	99					
	eS*		24	05		2.6	99					
MSZ	Sn-Pn			33		2.1	99	2.60	245		3.7	3.5
COB	ePn	20	23	33.5		−1.0	100	2.75	25		3.7	3.3
	eSn		24	08		1.1	100					

AMPLITUDES:											
MJZ	9.0	7.5	RHP	27	17	CMZ	1.7	
KAI	0.6		OMZ	0.8	1.7	ROX	0.6	0.4
MSZ	1.1	1.3	COB	0.4	0.5			

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APR 15 $09^h01^m56^s.5$ 38°.26S 176°.20E 159 km M = 3.8

± 1.2 0.05 0.06 8 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	09	02	20.4	DNE	0.8	100	0.62	302		3.2*	2.5*
	S			38.0		0.6	100					
WTZ	iP	09	02	19.2	U	−0.7	100	0.67	66		3.2	3.4
	eS			36		−2.0	99					
TUA	iP	09	02	22.4	D	0.8	100	0.93	127		3.6	3.6
	eS			41		0.1	100					
NGZ	P	09	02	24.6		2.1	99	1.03	206			
TRZ	P	09	02	27.3		1.6	100	1.38	160		4.0	3.8
	eS			49.5		1.2	100					
GNZ	eS	09	02	49		−1.1	100	1.48	106			3.8
MNG	S-P			30		−1.5	100	2.42	193		4.6	3.6
WEL	eP	09	02	47		−0.7	100	3.22	200	4.0		
	eS		03	27		0.1	100					
COB	eP	09	02	55		−1.4	100	3.90	222			2.9*
	eS		03	41		−1.5	100					

AMPLITUDES:										
KRP	2.1	0.4	WTZ	0.7	1.2	TUA	0.6	0.6
NGZ	4.0		TRZ	0.9	1.3	GNZ		2.5
MNG	12	1.4	WEL	0.3		COB		0.4

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APR 15 $15^h33^m09^s.5$ 38°.23S 176°.11E 161 km M = 3.6

± 1.1 0.04 0.05 7 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	eP	15	33	33		0.5	100	0.55	304		2.5*	2.3*
	eS			50.5		0.3	100					
WTZ	iP	15	33	32.5	U	−1.0	100	0.74	71		3.6	3.3
	eS			50.4		−1.7	99					
TUA	iP	15	33	35.8	D	0.4	100	1.00	126		3.5	3.3
	eS			56		0.6	100					
NGZ	P	15	33	37.7		2.0	99	1.03	202			
	e		34	05								
TRZ	eP	15	33	40		0.5	100	1.43	158		3.5	3.6
	eS		34	04		1.4	99					
GNZ	eP	15	33	41		0.2	100	1.56	106		3.3	3.6
	e			58.5								
	eS		34	04		−0.9	100					
MNG	S-P			31		−0.7	100	2.44	191		4.3	3.8
WEL	eS	15	34	39		−1.2	100	3.22	198	4.0		
COB	eS	15	34	54		−1.0	100	3.87	221			2.7*

AMPLITUDES:								
KRP	0.4	0.3	WTZ	1.7	0.9	TUA	0.4	0.3
NGZ	0.8	0.8	TRZ	0.3	0.8	GNZ	0.4	1.5
MNG	5.2	2.2	WEL	0.3		COB		0.3

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APR 15 $18^h09^m00^s.8$ 33°.85S 179°.28W 285 km M = 5.2

± 0.9 0.05 0.09 15 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	18	10	08.8		−0.5	100	4.23	204		5.2	5.2
	eS		11	04		1.2	100					
GBZ	e?	18	10	10.7				4.90	240			
	eP			16.4		−0.7	100					

WTZ	eP	18	10	16	−3.7	84	5.12	215		5.4	5.2
	e			18							
	e		11	09							
	e			14							
	eS			20.3	−1.2	100					
GNZ	eP	18	10	21	−0.4	100	5.26	204			
	e		11	20							
	eS			25	0.5	100					
ONE	eP	18	10	26	0.8	100	5.58	248	3.7*		
TUA	eP	18	10	26	−1.1	100	5.73	209			
	e			27.8							
	eS		11	35.1	0.6	100					
	e			37.7							
KRP	P	18	10	29.0	0.4	100	5.85	224		3.6*	
	eS		11	39	1.7	99					
TRZ	P	18	10	35.7	−0.7	100	6.50	208		5.1	5.1
	eS		11	51	−0.4	100					
CRZ	eP	18	10	39.5	0.7	100	6.70	263		3.7*	
NGZ	eP	18	10	40.0	0.8	100	6.73	216			
	eS		11	57	0.5	100					
TNZ	eP	18	10	50	2.7	98	7.38	222		3.6*	
MNG	S-P		1	29	−0.1	100	7.95	210			
WEL	eP?	18	11	04	−1.0	100	8.80	211	5.0		
	eS		12	41	−1.6	100					
CIZ	eP	18	11	25	1.3	100	10.31	169			
	e			33							
	eS		13	17	0.5	100					

AMPLITUDES:										
	ECZ		2.0	2.0	GBZ	1.1		WTZ	6.2	3.8
	ONE	0.5			KRP	1.0		TRZ	0.8	1.9
	CRZ		0.4		NGZ	3.7	4.0	TNZ	0.2	
	WEL	0.5			CIZ	0.5	1.4			

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APR 16 $00^h28^m03^s.3$ 32°.76S 179°.44W 559 km M = 4.8

± 1.3 0.14 0.28 15 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eS	00	30	50		0.6	100	5.19	198			4.8
WTZ	eP	00	29	42		−0.8	100	5.98	208		4.7	4.6
	e		30	56								
GNZ	eS	00	31	04		−2.1	98	6.23	199			
KRP	eP	00	29	48		−0.5	100	6.59	217		3.3*	
	eS		31	12		−0.1	100					
TUA	eS	00	31	15		2.0	99	6.64	204			4.8
TRZ	eS	00	31	26		−0.6	100	7.42	203			5.0
NGZ	eP	00	29	59		1.2	100	7.57	211			
	e		31	23								
	e(S)			36		7.0						
MNG	S-P		1	41.5		0.0	100	8.85	206		5.3	4.6
WEL	eS	00	32	08		0.6	100	9.69	207	4.9		
COB	eP	00	30	26		−0.1	100	10.41	215		3.7*	3.4*
	eS		32	20		−0.6	100					

AMPLITUDES:										
	ECZ		0.4	WTZ	0.7	0.6	KRP	0.4		
	TUA		0.3	TRZ		0.8	NGZ	0.5	0.9	
	MNG	3.7	1.1	WEL	0.3		COB	0.3	0.5	

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APR 16 $09^h24^m41^s.2$ 37°.64S 177°.03E 159 km M = 4.1

± 1.0 0.04 0.05 8 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP!	09	25	01.9		−1.2	100	0.35	186			3.9
	e(S)			15		−4.9						
TUA	eP	09	25	08.5		0.1	100	1.17	176		3.8	4.1
	eS			29		−0.5	100					
ECZ	iP	09	25	08.1	U	−0.6	100	1.21	93		4.0	4.0
	e			23.5								
	eS			30		−0.0	100					
KRP	iP	09	25	10.0	DE	1.1	100	1.22	256		3.5*	3.1*
	eS			31		0.7	100					
GNZ	iP	09	25	09.2	DSE	−0.2	100	1.27	142		4.2	4.6
	eS			29		−2.1	99					
GBZ	iP	09	25	15.7	D	−0.2	100	1.89	318			
NGZ	eP	09	25	18		1.9	100	1.91	215			
	e(S)			46		3.0						
TRZ	eP	09	25	17		0.7	100	1.92	185		4.1	4.4
	e			40								
	eS			45.5		2.2	99					
ONE	eP	09	25	27		−0.6	100	2.84	310	3.2*		
MNG	S-P			37		−2.1	99	3.21	202		3.7	4.1
CAZ	eS	09	26	17		3.1	98	3.32	191			
WEL	eS	09	26	28		−2.7	99	4.04	205	4.3		
COB	?	09	26	09.7				4.80	223		3.4*	2.9*
	eS			46		−2.3	99					
CIZ	e(P)	09	26	41		6.0		7.96	144			
	eS		28	04		0.1	100					

AMPLITUDES:										
WTZ		4.7	TUA	0.7	1.7	ECZ		1.1	1.1
KRP	3.0	1.5	GNZ	4.0	16	GBZ		5.5	
NGZ	3.8	3.8	TRZ	0.7	3.0	ONE	0.3		
MNG	0.8	3.0	CAZ		0.5	WEL	0.4		
COB	0.3	0.4	CIZ	0.3	0.5				

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APR 16 $20^h07^m55^s.9$ 35°.07S 178°.26E 249 km M = 4.5

± 1.3 0.08 0.11 11 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	eP	20	08	45		0.6	100	2.60	199			
	eS		09	23		1.0	100					
ECZ	P	20	08	43.5		−1.2	100	2.63	175		4.1	4.4
	e(S)		09	18		−4.6						
WTZ	iP	20	08	49.8	D	0.3	100	3.08	199		4.7	4.4
	e		09	16.1								
	eS			33		1.7	100					
GNZ	eP	20	08	54		−1.1	100	3.57	183		4.6	4.7
	eS		09	38		−3.1	98					
KRP	P	20	08	57.2		1.9	100	3.59	217		3.4*	2.8*
	e(S)		09	48		6.5						
TUA	eP	20	08	57		−1.2	100	3.83	193		4.2	4.7
	eS		09	47		0.4	100					
TRZ	eP	20	09	06		−1.6	100	4.62	194		4.4	4.6
	eS		10	04		0.6	100					
NGZ	eP	20	09	09		1.5	100	4.62	206			
	e			59								

	e(S)		10	07		3.7						
MNG	S-P		1	08		−0.9	100	5.96	201		4.6	4.5
WEL	eS	20	10	50		−1.7	100	6.79	203	4.6		
COB	eP	20	09	41		−1.5	100	7.42	214		3.4*	3.2*
	eS		11	07		0.9	100					
CIZ	eS	20	12	01		2.3	99	9.74	157			

AMPLITUDES:										
WIZ		1.2	0.7	ECZ		0.4	0.7	WTZ	2.5	1.5
GNZ		2.0	4.0	KRP		0.9	0.3	TUA	0.3	0.8
TRZ		0.3	1.1	NGZ		1.5	1.3	MNG	1.9	1.9
WEL	0.3			COB		0.2	0.5			

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APR 16 $21^h18^m42^s.1$ 33°.26S 179°.00W 289 km M = 4.8

± 1.3 0.08 0.13 19 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	21	19	57.2		−0.9	100	4.86	204		4.9	4.9
	eS		20	57		−0.6	100					
WIZ	eP	21	20	03		0.0	100	5.27	215			
	eS		21	04		−2.4	99					
GBZ	eP	21	20	04		−0.8	100	5.42	235			
	e			20								
WTZ	P	21	20	06.8		−1.8	100	5.74	214		4.9	4.7
	eS		21	20		3.7	98					
GNZ	eP	21	20	11		0.6	100	5.89	203		5.0	4.9
	eS		21	18		−1.6	100					
ONE	eP	21	20	12		−0.1	100	6.03	244	3.6*		
TUA	eP	21	20	15.7		−0.4	100	6.35	208		4.8	4.8
	eS		21	30		0.2	100					
	e			45								
KRP	eP	21	20	17		−0.1	100	6.44	222		3.3*	3.2*
	eS		21	35		3.3	99					
TRZ	e	21	20	34				7.13	207		5.0	4.8
	eS		21	49		2.2	100					
NGZ	eP	21	20	28		−0.2	100	7.34	215			
TNZ	eP	21	20	38		2.0	100	7.98	220		3.7*	
MNG	S-P		1	33		−2.4	99	8.58	209		4.4	4.6
WEL	eS	21	22	36		−1.9	100	9.43	210	4.9		
COB	eP	21	21	02		−1.9	100	10.22	218		3.5*	3.3*
	eS		22	56		0.2	100					
CIZ	e	21	21	28				10.85	171			
	eS		23	11		1.1	100					

AMPLITUDES:										
ECZ		1.0	0.9	WIZ		1.0	1.0	GBZ	1.3	
WTZ		1.4	1.0	GNZ		2.0	2.5	ONE	0.4	
TUA		0.5	0.5	KRP		0.5	0.4	TRZ	0.5	0.7
NGZ		1.5		TNZ		0.2		MNG	0.7	1.3
WEL	0.3			COB		0.2	0.4	CIZ	0.3	0.5

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APR 17 $09^h50^m21^s.4$ 37°.27S 177°.23E 158 km M = 3.9

± 1.0 0.05 0.07 8 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	09	50	43.8	D	−1.3	100	0.74	195		3.7	3.6
	eS		51	03		−0.4	100					
ECZ	P	09	50	49.3		1.2	100	1.13	112		3.4	3.6
	e		51	20								
KRP	iP	09	50	51.7	DE	−0.2	100	1.49	244		3.0*	2.6*
	eS		51	16		0.9	100					

GNZ	?	09	50	46.7				1.51	156		3.6	4.4
	eP			53		1.0	100					
	e		51	10								
	eS			14.5		−0.9	100					
TUA	P	09	50	52.8		0.5	100	1.54	182		3.5	4.0
	eS		51	17		1.1	100					
GBZ	iP	09	50	51.4	U	−3.2	96	1.75	306			
NGZ	eP	09	51	02		1.1	100	2.29	213			
TRZ	eP	09	51	00		−1.0	100	2.30	188		4.1	4.3
	eS			31		−0.4	100					
ONE	eP	09	51	08		1.4	100	2.75	302	3.1*		
TNZ	eP	09	51	11		1.9	99	2.95	229			3.3*
MNG	S-P			44		0.9	100	3.61	202		4.0	4.0
WEL	eS	09	52	18		−2.1	99	4.45	205	4.4		

AMPLITUDES:											
WTZ	1.9	1.7	ECZ	0.3	0.5	KRP	0.8	0.4
GNZ	0.9	8.2	TUA	0.3	0.8	GBZ	1.2	
NGZ	2.7		TRZ	0.5	2.0	ONE	0.3	
TNZ		0.3	MNG	1.3	1.8	WEL	0.4	

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APR 17 $13^h17^m46^s.9$ 37°.71S 179°.41W 12 km M = 4.0

± 1.3 0.08 0.08 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePg	13	18	20		0.2	100	1.62	270		3.9	4.1
	eSg			44		2.3	99					
GNZ	Pn	13	18	25.1		2.3	99	2.23	244		3.6	4.0
	eSn			51		1.2	100					
WTZ	ePn	13	18	31.1		−0.4	100	2.86	263		4.0	4.1
	eP*			37		0.0	100					
	eSn		19	04		−1.1	100					
TUA	ePn	13	18	32		−0.3	100	2.92	247		3.7	4.1
	e(Pg)			42		−4.0						
	eS*		19	15.5		−0.7	100					
TRZ	e(Sn)	13	19	16		−3.9		3.48	237			4.0
KRP	ePn	13	18	48		0.9	100	4.01	265		3.9	4.1
	eSn		19	30		−2.6	99					
NGZ	ePn	13	18	51.2		1.8	100	4.18	248			
	eSn		19	36.5		−0.1	100					
MNG	Sn-Pn			57		2.0	99	4.92	232		3.7	
TNZ	ePg	13	19	28		−1.9	99	5.09	251			
WEL	eSn	13	20	14		−0.4	100	5.75	230	4.3		
COB	eSn	13	20	43		−0.5	100	6.96	239			3.8
	e		21	01								

AMPLITUDES:											
ECZ	0.6	1.2	GNZ	0.7	2.5	WTZ	1.2	1.3
TUA	0.2	0.5	TRZ		0.5	KRP	0.3	0.4
NGZ	0.4	1.5	MNG	0.4		WEL	0.2	
COB		0.3						

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APR 17 $18^h55^m44^s.6$ 37°.69S 179°.70W 12 km M = 4.2

± 1.0 0.06 0.05 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP*	18	56	09		−0.4	100	1.39	269		3.9	4.2
	eSn			25		−2.3	99					
GNZ	ePg	18	56	23.5		−2.1	99	2.02	241		4.0	4.3
	eS*			47		−0.1	100					
WTZ	iPn	18	56	26.3	U	0.2	100	2.64	263		4.2	4.5

	eSn		57	00.3	3.0	99					
TUA	eP*	18	56	31	−1.1	100	2.72	245		4.2	4.3
	eSn		57	01	1.8	100					
TRZ	ePn	18	56	37	1.9	100	3.29	235		4.0	4.2
	eSn		57	12	−1.1	100					
KRP	ePn	18	56	41	−0.6	100	3.78	265		4.0	4.1
	eSn		57	26	1.3	100					
NGZ	e(Pn)	18	56	48	3.7		3.97	247			
	eSn		57	30	0.7	100					
GBZ	ePn	18	56	46	−0.4	100	4.13	289			
MNG	Sn-Pn			54	0.8	100	4.75	231		3.9	4.1
TNZ	eP*	18	57	10	1.0	100	4.88	250		4.8	4.6
	e			36							
	e(S*)		58	07	−5.5						
WEL	eSn	18	58	07	−1.1	100	5.59	228	4.4		
	e			18							
CIZ	ePn	18	57	24	2.5	99	6.70	160			
	eSn		58	34	−0.8	100					
COB	eP	18	57	20	−2.5	99	6.77	238		4.4	4.0
	e			39.5							
	eS		58	37	0.3	100					

AMPLITUDES:										
	ECZ	0.8	2.3	GNZ	2.0	6.8	WTZ	2.3	4.6
	TUA	0.7	0.9	TRZ	0.4	0.8	KRP	0.4	0.4
	NGZ	1.0	2.3	GBZ	1.0		MNG	0.6	1.3
	TNZ	0.3	0.2	WEL	0.3		CIZ	0.4	1.2
	COB	0.3	0.4						

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APR 17 $19^h08^m37^s.7$ 37°.72S 179°.62W 12 km M = 4.0

± 1.2 0.07 0.07 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	19	09	04.3		1.2	100	1.46	270		3.9	4.0
	eSn			21		−1.0	100					
GNZ	ePn	19	09	12		0.4	100	2.08	243		3.8	4.1
	eS*			40		−1.6	100					
WTZ	Pn	19	09	20.8		0.7	100	2.70	263		4.0	4.4
	e			27								
	eSn			54		2.1	100					
TUA	e(P*)	19	09	30		3.9		2.76	246		4.0	4.2
	eSn			55		1.4	100					
TRZ	eSn	19	10	10		2.7	99	3.34	236			4.1
KRP	ePn	19	09	36		0.3	100	3.84	265		4.0	4.1
	eSn		10	18		−1.4	100					
NGZ	ePn	19	09	39		0.9	100	4.02	247			
	eSn		10	25		1.3	100					
MNG	Sn-Pn			54		0.4	100	4.79	231		3.7	3.8
TNZ	eP*	19	10	00		−3.1	98	4.93	251			
	e(S*)		11	02		−5.3						
WEL	eSn	19	11	02		−0.1	100	5.62	229	4.3		
CIZ	eSn	19	11	27		0.1	100	6.65	161			
COB	ePn	19	10	14		−2.2	99	6.81	238		4.2	3.8
	e			25								
	eSn		11	29		−1.8	100					

AMPLITUDES:										
	ECZ	0.7	1.3	GNZ	1.1	4.0	WTZ	1.5	3.0
	TUA	0.4	0.7	TRZ		0.7	KRP	0.4	0.4
	NGZ	1.5	1.5	MNG	0.4	0.7	WEL	0.2	
	CIZ		0.5	COB	0.2	0.3			

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APR 18 $12^h55^m12^s.5$ 43°.81S 169°.00E 12 km M = 3.3

± 0.5 0.03 0.03 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
RHP	iP*	12	55	28.7	D	0.8	100	0.84	111			
MJZ	P*	12	55	32.9		0.9	100	1.07	100		3.0	3.1
	eS*			45		−1.4	99					
MSZ	eP*	12	55	33		−0.5	100	1.16	222		3.1	3.5
	Pg			36.3		0.2	100					
	eSg			52		0.2	100					
ROX	eP*	12	55	42.5		0.1	100	1.68	172		3.3	3.2
	eSn		56	02		−0.3	100					
OMZ	eP*	12	55	46		0.5	100	1.86	133		3.6	3.1
	ePg			49		−1.2	99					
	eS*		56	11		1.0	100					
COB	e	12	56	14				3.88	47		3.9	3.3
	eSn			55		−0.1	100					

AMPLITUDES: RHP 30 MJZ 1.4 2.2 MSZ 1.5 5.6
ROX 0.4 0.8 OMZ 0.7 0.4 COB 0.3 0.3

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APR 18 $13^h37^m03^s.4$ 43°.83S 169°.05E 12 km M = 3.5

± 0.6 0.04 0.04 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
RHP	iP*	13	37	18.3	D	0.2	100	0.79	110			
MJZ	iP*	13	37	22.7	D	0.4	100	1.03	99		3.3	3.5
	S*			35.4		−0.7	100					
MSZ	eP*	13	37	24		−0.5	100	1.17	224		3.4	3.8
	Pg			27.1		−0.1	100					
	eSg			42		−1.0	100					
ROX	ePn	13	37	32		0.5	100	1.66	173			
	eSn			52		−0.6	100					
OMZ	ePn	13	37	35.5		1.7	99	1.83	134		3.5	3.2
	eSn			58.5		1.9	99					
KAI	eS*	13	38	12		2.1	99	2.16	54	3.5		
CMZ	ePg	13	37	54		−2.3	99	2.62	86		3.7	3.4
	eSg		38	30		−1.6	100					
COB	ePn	13	38	02		0.3	100	3.87	46		3.9	3.3
	eSn			45		−0.7	100					
	e		39	22								

AMPLITUDES: RHP 60 MJZ 3.0 5.0 MSZ 2.5 12
OMZ 0.6 0.6 KAI 0.3 CMZ 0.5 0.4
COB 0.3 0.3

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APR 18 $13^h53^m26^s.7$ 44°.45S 167°.77E 12 km M = 3.7

± 1.2 0.03 0.08 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP*	13	53	32.2	U	0.1	100	0.24	154			
	S*			35.5		−0.3	100					
	e			38.5								
ROX	ePn	13	53	54		1.2	100	1.51	133			
	eSg		54	16		−1.7	100					
RHP	ePn	13	53	54		−1.5	100	1.70	79			
	eSn		54	18		1.0	100					

MJZ	ePn	13	53	57.5		−2.0	99	2.00	78		3.6	3.6
	eSn		54	23.5		−0.6	100					
	eS*			29		0.7	100					
OMZ	eP*	13	54	08		0.3	100	2.33	107		3.4	3.5
	eS*			40		1.8	99					
KAI	eS*	13	55	05		−1.6	100	3.28	55	4.0		
COB	ePn	13	54	42		1.9	99	4.97	49		4.1	3.6
	e		55	29								
	e(Sn)			42		6.5						
	e(S*)		56	03		5.7						

AMPLITUDES: MSZ 5.6 15 RHP 12 15 MJZ 1.5 1.8
OMZ 0.3 0.7 KAI 0.4 COB 0.3 0.3

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APR 18 $17^h 12^m 57^s.3$ 43°.66S 170°.72E 12 km M = 3.4
± 0.4 0.03 0.04 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MJZ	iP*	17	13	04.2	USW	−0.7	100	0.38	209		3.3	3.2
	S*			09.4		−0.9	100					
RHP	iP*	17	13	08.0	U	−1.4	99	0.64	226			
CMZ	Pn	17	13	22.1		0.3	100	1.39	88		3.5	3.3
	eSg			44		−0.4	100					
OMZ	iPn	17	13	23.7	U	1.5	99	1.42	175		3.4	3.2
	eSn			42		1.2	100					
ROX	ePn	17	13	31.5		0.3	100	2.08	208		3.7	3.3
	eSg		14	06		−1.4	100					
MSZ	ePn	17	13	33		−0.6	100	2.26	242		3.4	3.6
	eP*			39		1.9	99					
	eSn		14	02		1.0	100					
COB	ePn	17	13	43		−0.3	100	2.97	31		3.8	3.2
	eSn		14	17.5		−0.5	100					

AMPLITUDES: MJZ 18 18 RHP 41 CMZ 1.1 1.3
OMZ 0.7 1.0 ROX 0.7 0.6 MSZ 0.8 2.0
COB 0.4 0.4

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APR 19 $16^h 27^m 14^s.4$ 37°.75S 176°.87E 12 km M = 4.2
± 0.4 0.03 0.02 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP*!	16	27	18.0		−1.8	99	0.25	157			
WIZ	iP*	16	27	19.0	D	−2.4	99	0.34	49			
KRP	iP*	16	27	32.1	DSE	−1.6	100	1.06	260		4.3	4.3
	eS*			48		0.0	100					
TUA	eP*	16	27	35		1.1	100	1.08	168		4.5	
GNZ	Pn	16	27	38.2		0.9	100	1.28	135			
	Pg			42.0		1.8	99					
ECZ	P*	16	27	40.1		1.8	100	1.33	88		4.6	4.5
	e(Pg)			44		2.5						
	eSg		28	00		0.5	100					
NGZ	eP*	16	27	45		−0.1	100	1.74	214			
	e			57								
TRZ	eP*	16	27	46		−0.2	100	1.80	181		4.2	4.0
	ePg			52		1.2	100					
	e		28	41								
TNZ	ePn	16	27	53.5		0.6	100	2.42	233		4.3	4.3
	ePg		28	02		−1.3	100					
	e(Sg)			39		3.0						

ONE	eP*	16	28	04		0.3	100	2.82	314	4.5			
	eSg			50		0.6	100						
	e		29	23									
MNG	(Sg-Pn		1	01		) 5.2		3.06	200			4.2	3.7
WEL	e	16	28	27				3.89	204	4.0			
	eSn			56		−1.1	100						
COB	ePn	16	28	24		1.0	100	4.62	223			4.3	3.8
	eP*			35		0.6	100						
	eSg		29	51		1.0	100						
CIZ	e?	16	28	47				7.95	143				
	e(Pn)		29	13		4.6							
	eSn		30	32		−2.8	98						

AMPLITUDES:											
	WIZ	49		KRP	11	10	TUA	7.0			
	ECZ	3.8	3.5	NGZ	3.0		TRZ	1.5	1.1		
	TNZ	0.3	0.3	ONE	0.7		MNG	2.3	0.9		
	WEL	0.2		COB	0.4	0.4					

FELT: Pikowai (27)

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APR 19 $18^h01^m09^s.8$ 37°.70S 176°.93E 12 km M = 5.1

± 0.4 0.02 0.03 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	iP*	18	01	15.0	D	−0.5	100	0.27	51			
WTZ	iP*!	18	01	13.4		−2.5	99	0.29	171			
KRP	iP*	18	01	28.4	DNE	−1.7	100	1.13	258			
TUA	P*	18	01	29.0		−1.1	100	1.13	171		5.2	5.2
	iPn			29.6		−1.0	100					
	eSg			50		2.2	99					
GNZ	Pn	18	01	34.7		1.9	99	1.28	138			
ECZ	i(Pg)	18	01	35.6		−0.2	100	1.29	90			
CNZ	ePn	18	01	41.4		0.8	100	1.85	215			
TRZ	P	18	01	41.0		0.4	100	1.85	183		5.4	
GBZ	Pn	18	01	39.7		−1.2	100	1.88	321			
	ePg			46		−1.8	100					
TNZ	ePn	18	01	50		0.7	100	2.49	233		5.3	5.3
	eSg		02	33		−0.8	100					
ONE	ePn	18	01	54		0.3	100	2.82	312	5.5		
	ePg		02	08		1.3	100					
	e(Sg)			51		6.3						
MNG	Sg-Pn			55		−2.2	99	3.13	201		5.0	4.8
WEL	ePn	18	02	11		1.7	100	3.96	204	4.6		
	eS*		03	11		0.9	100					
CRZ	ePn	18	02	21		1.0	100	4.74	312		4.8	4.8
	e(Pg)			41		−4.6						
	e(Sn)		03	18		4.9						
	eSg			50		0.5	100					
CIZ	ePn	18	03	05		1.0	100	7.96	144			
	e		04	24.5								
	eSn			28.5		−2.1	99					

AMPLITUDES:											
	TUA	31	33	CNZ	17		TRZ	21			
	TNZ	2.5	2.5	ONE	7.0		MNG	15	11		
	WEL	0.7		CRZ	0.6	0.5	CIZ	0.8	0.9		

FELT: From Waihi Beach (21) to Rotorua (33) and Gisborne (45)

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APR 19 $21^h11^m24^s.3$ 37°.67S 176°.87E 12 km M = 3.3
± 0.5 0.04 0.04 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	iP*	21	11	29.4		−1.1	100	0.29	60			
	eS*			33		−1.7	100					
WTZ	iP*!	21	11	29.1		−1.9	100	0.32	163		2.5	2.0
KRP	iP*	21	11	43.9	D	−0.1	100	1.09	256		3.8	3.7
	eS*			59		0.4	100					
ECZ	ePg	21	11	53		1.7	100	1.33	91		3.9	3.7
	e(Sg)		12	13		3.7						
GNZ	Pn	21	11	50.4		2.4	99	1.33	137			
	ePg			53		1.7	100					
	e(Sg)		12	14		4.8						
NGZ	ePg	21	11	59		−1.8	100	1.80	213			
GBZ	ePn	21	11	54		−0.8	100	1.84	322			
	ePg		12	00.5		−0.9	100					
	eS*			23		2.1	99					

AMPLITUDES: WIZ 29 34 WTZ 2.5 0.6 KRP 3.0 2.1
ECZ 0.8 0.6 NGZ 0.6 GBZ 2.5 1.6

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APR 19 $22^h55^m53^s.4$ 37°.76S 177°.82E 12 km M = 3.5
± 0.6 0.05 0.03 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP*	22	56	03.4	U	−1.1	100	0.58	84		3.6	3.6
	eSg			15		1.7	99					
WTZ	iP*	22	56	07.2	U	0.8	100	0.69	251		3.3	3.5
	eSg			19		1.9	99					
GNZ	eP*	22	56	09		−0.9	100	0.90	170		3.4	3.8
	e			16								
	eS*			22		0.0	100					
TUA	Sn-Pn			17.5		1.5	100	1.17	207		3.1	3.3
KRP	iPn	22	56	22.8	DW	−0.9	100	1.82	264		3.5	3.5
	e(Sn)			42		−4.4						
NGZ	ePn	22	56	28.5		−1.0	100	2.24	230			
	eSn			56		−0.6	100					

AMPLITUDES: ECZ 2.2 3.0 WTZ 4.5 6.5 GNZ 2.5 11
TUA 0.3 0.5 KRP 0.5 0.4 NGZ 0.6 0.7

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APR 20 $02^h01^m01^s.0$ 38°.60S 176°.00E 12 km M = 2.6
± R R R R S.E. of RES. 2.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	02	01	02.0		−1.8	100	0.09	111			
KRP	ePg	02	01	18.5		1.8	100	0.76	331		2.6	

AMPLITUDES: WNZ 6.0 KRP 0.5

FELT: Wairakei (41)

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APR 20 $02^h26^m45^s.5$ 38°.60S 176°.00E 12 km
± R R R R S.E. of RES. 0.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	iP	02	26	48.5	U	0.2	100	0.09	111			

	e(S)			50		−0.1	100						

AMPLITUDES: WNZ 1.6 5.0

FELT: Wairakei (41)

79/ 252

APR 20 $13^h48^m00^s.3$ 37°.53S 176°.82E 12 km M = 3.6

± 1.1 0.08 0.05 R S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	iP*	13	48	06.8	D	0.3	100	0.30	90			
	eS*			10.5		−0.2	100					
WTZ	iP*!	13	48	05.9		−3.6	98	0.48	164			
KRP	eP*	13	48	20		−0.1	100	1.09	248		3.3	3.4
	eS*			36		1.3	100					
TUA								1.30	169		3.9	3.5
GNZ	Pn	13	48	27.8		2.0	100	1.47	140		3.9	3.8
	ePg			31.5		1.6	100					
	eSg			51		1.3	100					
TRZ	ePn	13	48	31		−2.4	99	2.02	180			3.8
	e(Pg)			44		2.8						
MNG	Sn-Pn			38		0.3	100	3.26	198		3.5	3.3

AMPLITUDES: WIZ 10 21 KRP 1.1 1.0 TUA 1.1 0.4
GNZ 2.5 2.5 TRZ 0.4 MNG 0.3 0.2

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APR 21 $02^h58^m12^s.0$ 40°.16S 174°.90E 12 km M = 4.2

± 0.7 0.02 0.04 6 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	S*-P*			08		−0.8	100	0.64	136		4.0	3.9
TNZ	iP*	02	58	30.8	U	−0.3	100	1.05	337		3.9	4.0
	eS*			46		0.8	100					
NGZ	iP*	02	58	30.0	D	−2.3	99	1.12	30			
	ePg			36.3		1.6	100					
	eS*			45		−2.3	99					
WEL	P*	02	58	32.0		−0.5	100	1.13	185	4.4		
	eS*			47		−0.7	100					
	eSg			50		−0.3	100					
CAZ	Pg	02	58	36.0		−1.5	100	1.26	127			
	eSg			56		1.5	100					
TRZ	ePn	02	58	39		−0.4	100	1.60	68		4.0	3.9
	eP*			42		1.5	100					
	e		59	24								
COB	ePn	02	58	44		0.6	100	1.89	240		4.4	4.1
	iP*			45.6		0.1	100					
	eS*		59	11		0.5	100					
TUA	ePn	02	58	50		2.3	99	2.20	53		4.3	3.8
	e(Sg)		59	32		5.7						
KRP	iPn	02	58	46.7		−2.1	99	2.29	13		4.7	5.0
	eP*			50.2		−2.0	99					
	eSn		59	18		1.6	100					
WTZ	ePn	02	58	56		1.4	100	2.72	38		4.2	4.1
	eP*		59	00		0.5	100					
	e(Sn)			31		4.3						

AMPLITUDES: MNG 46 46 TNZ 2.3 4.0 NGZ 55 50
WEL 7.7 CAZ 10 12 TRZ 1.5 1.8
COB 4.5 7.4 TUA 1.3 0.5 KRP 4.7 7.5
WTZ 1.2 0.6

FELT: Waikawa Beach (65) MM III

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APR 21 $02^h59^m11^s.7$ 40°.19S 174°.98E 12 km M = 3.8

± 0.6 0.03 0.05 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	S*-P*			08		0.1	100	0.58	138		3.5	3.5
WEL	eSg	02	59	49.5		0.4	100	1.11	188	3.7		
TNZ	eP*	02	59	33		1.3	100	1.11	335		3.6	3.5
	eS*			48		1.5	100					
NGZ	P*	02	59	32.1		0.1	100	1.12	26			
	eSg			49		−0.6	100					
COB	P*	02	59	47.7		1.9	99	1.93	242		4.1	3.6
	eS*	03	00	10		−1.3	100					
	eSg			15.5		−1.4	100					
KRP	eP*	02	59	52.3		0.1	100	2.30	11		4.2	4.3
	eS*	03	00	20.5		−2.0	99					

AMPLITUDES: MNG 19 24 WEL 1.5 TNZ 1.0 1.1
NGZ 30 27 COB 2.0 2.0 KRP 1.4 1.3

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APR 21 $07^h16^m14^s.3$ 32°.68S 179°.95W 394 km M = 4.8

± 1.4 0.13 0.29 22 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	07	17	44		−1.7	98	5.86	204		4.7	4.5
	e			46								
	e			56								
	eS		18	57		−0.6	100					
GNZ	eS	07	19	04		−0.1	100	6.18	195			5.0
KRP	eP	07	17	53		1.1	100	6.41	214		3.1*	
TRZ	eS	07	19	29		1.1	100	7.35	200			5.0
GSZ	eP	07	18	05		0.5	100	7.52	208			
	eS		19	32		0.6	100					
MNG	S-P		1	38		−0.2	100	8.74	204		4.9	4.7
WEL	eS	07	20	14		−0.4	100	9.59	205	4.9		
COB	eS	07	20	28		−0.4	100	10.24	213			3.4*

AMPLITUDES: WTZ 0.8 0.6 GNZ 2.5 KRP 0.3
TRZ 1.0 GSZ 1.3 0.8 MNG 1.7 1.6
WEL 0.3 COB 0.5

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APR 21 $09^h13^m11^s.4$ 38°.75S 176°.00E 12 km

± R R R R S.E. of RES. ND

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	eP	09	13	15		0.0	100	0.14	34			

FELT: Taupo (41) MM IV

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APR 21 $11^h56^m14^s.7$ 39°.30S 176°.86E 12 km M = 3.4

± 0.5 0.03 0.04 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	iP*	11	56	19.1	D	−1.1	100	0.25	187			
	eS*			25.5		1.5	100					
TUA	(Sg-P*			10		) 1.8	100	0.54	25		3.6	3.4
NGZ	iP*	11	56	33.2	U	0.7	100	0.97	276			

	eSg		49		1.2	100					
GNZ	P*	11 56	36.1		1.1	100	1.12	55		3.4	3.5
	eSn		52		1.0	100					
	e(Sg)		57		4.4						
WTZ	ePn	11 56	36		−2.2	99	1.31	4		3.2	3.3
	eSn		55		−0.7	100					
MNG							1.69	218		3.3	3.2
KRP	ePn	11 56	43		−0.7	100	1.72	323		3.4	
	ePg		50		0.5	100					
COB	eP*	11 57	15		−2.8	99	3.64	239		3.8	3.4
	eS*		58 06.5		1.3	100					

AMPLITUDES:										
	TUA	4.0	3.0	NGZ	20	16	GNZ	1.6	3.0
	WTZ	0.9	1.0	MNG	1.3	1.2	KRP	0.5	
	COB	0.3	0.4						

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APR 21 $16^h07^m13^s.7$ 33°.04S 178°.42W 227 km M = 4.7

± 2.6 0.13 0.21 48 S.E. of RES. 2.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	16	08	34		1.2	100	5.26	207		4.7	4.6
	e		09	08								
	eS			33		−1.3	100					
WTZ	eP?	16	08	38		−6.5		6.20	216		4.7	4.6
	eP			40.5		−4.0	99					
	e		09	10								
	eS			57		1.6	100					
GNZ	eP	16	08	46		0.2	100	6.30	206		4.4	4.8
	eS		09	58		0.2	100					
ONE	e	16	09	06				6.56	243	3.5*		
TUA	(S-P)		1	23		6.0		6.79	211		5.0	4.9
KRP	eP	16	08	50		−4.0	99	6.94	224		3.3*	3.1*
	eS		10	13		0.6	100					
CRZ	eP	16	09	05		3.2	100	7.55	257		3.7*	
TRZ	eP?	16	09	08		6.1		7.55	209		4.8	4.7
	eS		10	27		0.4	100					
NGZ	e	16	09	22				7.80	217			
	eS		10	36		3.6	99					
MNG	S-P		1	38		−1.4	100	9.01	211		4.1	4.6
WEL	eS	16	11	16		−3.8	99	9.86	211	5.0		
CIZ	e	16	09	54				11.00	173			
	eS		11	48		2.0	100					

AMPLITUDES:										
	ECZ	0.5	0.4	WTZ	0.8	0.8	GNZ	0.5	1.8
	ONE	0.3		TUA	0.7	0.5	KRP	0.5	0.3
	CRZ	0.3		TRZ	0.3	0.5	NGZ	0.8	1.1
	MNG	0.3	1.3	WEL	0.4		CIZ	0.3	0.7

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APR 21 $22^h25^m13^s.8$ 32°.39S 178°.45E 354 km M = 4.6

± 3.0 0.31 0.88 107 S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	22	26	41.7		−0.3	100	5.71	192		4.9	4.2
	eS		27	51		−0.4	100					
KRP	eP	22	26	48		2.5	99	6.02	203		3.3*	
NGZ	eP	22	26	58		−0.9	100	7.16	198			
	eS		28	20		−1.6	100					
TRZ	eS	22	28	25		1.1	100	7.27	190			4.7
MNG	S-P		1	37		1.1	100	8.56	195		5.1	4.4

AMPLITUDES:									
	WTZ	1.3	0.3	KRP	0.5		NGZ	0.9	0.8
	TRZ		0.5	MNG	3.3	0.8			

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APR 22 $12^h14^m19^s.2$ 37°.80S 176°.83E 172 km M = 3.9

± 1.2 0.06 0.07 7 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	12	14	42.0	U	−0.4	100	0.22	146			
	eS			58		−2.1	99					
TUA	P	12	14	47.2		0.7	100	1.03	166		3.9	3.9
	eS		15	07		−0.6	100					
KRP	iP	12	14	47.3	DE	0.8	100	1.03	263		3.1*	2.6*
	eS		15	08		0.5	100					
GNZ	iP	12	14	49.1	U	0.6	100	1.26	132		3.9	3.4
	e			52.9								
	eS		15	10		−1.0	100					
TRZ	P	12	14	54.0		0.7	100	1.75	180		4.1	3.7
	eS		15	21		1.3	100					
GSZ	P	12	14	54.5		1.0	100	1.77	213			
	eS		15	22		2.0	99					
MNG	S-P			37		−0.5	100	3.01	200		4.5	4.0
COB	eP	12	15	26.5		−1.6	100	4.57	223		3.5*	3.2*
	eS		16	19		−2.4	99					

AMPLITUDES:									
	WTZ	0.9	3.0	TUA	1.0	1.0	KRP	1.3	0.4
	GNZ	2.2	1.0	TRZ	0.8	0.7	GSZ	11	1.8
	MNG	5.5	2.2	COB	0.4	0.7			

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APR 22 $19^h44^m23^s.2$ 39°.35S 177°.40E 12 km M = 5.1

± 0.4 0.02 0.04 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	iP*	19	44	30.7	U	−2.1	99	0.49	245			
TUA	iP*	19	44	34.7	U	0.5	100	0.58	340			
GNZ	P*	19	44	39.0		0.0	100	0.85	35			
WNZ	P*	19	44	45.4		−0.1	100	1.24	305			
NGZ	iPn	19	44	48.9	U	1.1	100	1.39	276			
	ePg			51.9		0.4	100					
WTZ	Pn	19	44	45.5	U	−2.3	99	1.40	347			
CAZ	iPn	19	44	54.9	U	1.7	100	1.80	210			
	e		45	03.0								
	eSn			15		−0.7	100					
	eS*			19		0.3	100					
KRP	iPn	19	44	55.0	UNW	−1.5	100	2.04	314		4.6	
	eP*		45	00		0.8	100					
TNZ	Pn	19	45	02.9		2.1	99	2.35	273		5.2	5.3
	ePg			10		−0.7	100					
	e			24								
WEL	ePn	19	45	08		1.2	100	2.79	225	5.0		
	ePg			17		−2.7	99					
	e			29								
	eSn			41		1.3	100					
GBZ	Pn	19	45	14.8		−1.4	100	3.48	333			
	e(P*)			27.5		3.8						
	eSg		46	20		−0.4	100					
COB	iPn	19	45	23.0		0.1	100	3.98	243		5.3	4.8
	e(Pg)			46.7		3.2						
	e		46	50								

ONE	ePn	19	45	29		1.5	100	4.31	325	5.2		
	e		46	57								
CMZ	ePn	19	45	44		−0.3	100	5.54	219		4.8	5.4
	eSn		46	44		−1.8	100					
CRZ	ePn	19	45	54		0.7	100	6.20	321		4.9	
CIZ	ePn	19	45	59		2.2	99	6.45	137			
	eSn		47	06		−1.6	100					

AMPLITUDES:

CAZ		7.0	29	KRP		5.5		TNZ		4.1	7.0
WEL	5.2			GBZ		8.0	5.5	COB		7.5	8.0
ONE	1.3			CMZ		1.6	9.5	CRZ		0.4	
CIZ		2.5	10								

FELT: In Hawkes Bay and Poverty Bay, maximum intensity MM VI in and near Wairoa (53).

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APR 23 $03^h26^m57^s.3$ 37°.70S 176°.94E 12 km M = 4.5

± 0.6 0.02 0.05 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP*!	03	27	01.9		−1.5	100	0.29	173			
TUA	eP*	03	27	16		−1.6	100	1.12	172		4.6	4.6
	eS*			32.5		−0.0	100					
KRP	iP*	03	27	15.9	UW	−2.0	99	1.13	258		4.5	5.0
	e(S*)			29		−4.0						
WNZ	eP*	03	27	19		1.0	100	1.14	215		4.3	
GNZ	ePg	03	27	24		0.9	100	1.27	138			
NGZ	ePn	03	27	29		1.4	100	1.81	215			
	ePg			36		2.0	99					
	eSg			56		−2.5	99					
TRZ	Pn	03	27	29.0		0.8	100	1.85	183		4.1	4.5
	Pg			35.2		0.3	100					
	e		28	10								
GBZ	Pn	03	27	27.0		−1.6	100	1.89	321			
	eP*			30		−0.7	100					
	ePg			33		−2.5	99					
TNZ	ePn	03	27	38		1.0	100	2.50	233		4.7	4.6
	eSg		28	22		0.3	100					
ONE	eP*	03	27	49		2.2	99	2.83	312	4.5		
	eSg		28	34		1.4	100					
	e			59								
MNG								3.13	201		4.5	
COB	e(Pn)	03	28	11		4.0		4.70	223		4.5	3.9
	eS*		29	20		0.1	100					
CRZ	ePn	03	28	08		0.3	100	4.75	312		4.5	

AMPLITUDES:

TUA		7.5	9.0	KRP		15	42	WNZ		0.6	
NGZ		4.0	4.8	TRZ		1.2	3.5	GBZ		12	8.0
TNZ		0.6	0.5	ONE	0.7			MNG		5.0	
COB		0.6	0.5	CRZ		0.3					

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APR 23 $12^h03^m05^s.6$ 44°.53S 168°.55E 33 km M = 3.8

± 0.5 0.04 0.04 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iPn	12	03	13.9	U	−1.8	100	0.48	253		3.3	3.2
	eS*			24		0.8	100					
ROX	P*	12	03	26.1		0.4	100	1.09	150		3.5	3.7
	eS*			41		0.5	100					

RHP	iPn	12	03	26.9	D	1.6	100	1.18	69			
MJZ	iPn	12	03	30.0	DS	0.6	100	1.48	69		4.4	4.0
	eS*			51		−1.0	100					
OMZ	iPn	12	03	33.9	D	0.6	100	1.76	109		4.0	3.8
	P*			36.0		−1.1	100					
	eSn			55		1.0	100					
KAI	e(Sn)	12	04	26		5.0		2.89	47	4.0		
	e			45								
CMZ	ePn	12	03	50		−1.4	100	3.10	74		3.6	3.9
	eSn		04	24		−2.0	99					
COB	ePn	12	04	11		−1.2	100	4.62	43		4.4	4.1
	eSn		05	05.5		2.9	98					

AMPLITUDES: MSZ 12 18 RCIX 1.6 6.2 MJZ 16 9.0
OMZ 1.8 2.5 KAI 0.5 CMZ 0.3 0.9
COB 0.7 1.3

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APR 23 $18^h05^m16^s.7$ 42°.16S 173°.93E 12 km M = 3.9
± 0.5 0.03 0.06 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	iP*	18	05	25.0		1.8	100	0.31	214			
WEL	P*	18	05	34.4		−1.8	99	1.08	36	3.9		
	ePn			35.3		−1.6	100					
	eS*			49		−1.6	100					
COB	iPn	18	05	40.0	D	−1.3	100	1.39	320		4.2	3.7
	eSn			59		−0.6	100					
CMZ	ePn	18	05	46		0.4	100	1.71	213		3.5	3.7
	eSn		06	06		−1.2	100					
KAI	eS*	18	06	15		−0.5	100	1.91	258	3.5		
MNG	S*-Pn			27		−0.7	100	1.93	38		4.0	3.8
TNZ	ePn	18	06	05		2.0	99	2.99	7		3.9	3.9
	eS*			49		1.0	100					
	e(Sg)		07	01		3.5						
NGZ	ePn	18	06	08		1.6	100	3.24	24			
	eS*			57		1.5	100					
TRZ	e(P*)	18	06	20		4.0		3.41	41		3.9	
KRP	eP*	18	06	34		0.9	100	4.41	17		4.4	

AMPLITUDES: WEL 3.1 COB 4.8 5.0 CMZ 0.8 2.0
KAI 0.4 MNG 4.8 4.0 TNZ 0.3 0.4
NGZ 3.5 1.6 TRZ 0.3 KRP 0.6

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APR 24 $00^h27^m42^s.5$ 37°.56S 176°.86E 12 km M = 3.7
± 0.6 0.03 0.04 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	S*-P*			04		0.1	100	0.26	83			
WTZ	iP*!	00	27	48.2		−2.8	97	0.43	167			
KRP	eP*	00	28	03		0.3	100	1.12	251		3.5	3.6
	Pg			05.0		−0.1	100					
	eS*			18		0.5	100					
TUA	ePg	00	28	07.5		−0.6	100	1.27	170		3.9	3.8
	eSg			27.5		2.3	99					
ECZ	ePg	00	28	09		−0.7	100	1.34	96		3.7	
GNZ	ePg	00	28	11.5		0.3	100	1.41	140			
	eSg			32		1.7	100					
GBZ	ePn	00	28	12		0.2	100	1.75	320			
	ePg			19		1.2	100					

GSZ	ePg	00	28	22		−0.7	100	1.99	210			
TRZ	ePg	00	28	21		−1.7	99	1.99	181		3.8	
MNG								3.24	199		3.7	

AMPLITUDES:

WIZ		22	KRP	1.6	1.6	TUA	1.1	0.9
ECZ	0.5		GBZ	1.1		GSZ	0.8	
TRZ	0.4		MNG	0.5				

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APR 24 $13^h48^m31^s.2$ 41°.88S 173°.04E 12 km M = 3.8

± 0.4 0.03 0.04 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	iP*	13	48	46.2	U	−0.3	100	0.83	344		3.9	3.7
	e			52.5								
	eS*			58		0.4	100					
KAI	eSn	13	49	12.5		−1.1	100	1.38	241	3.8		
	eSg			16		−1.7	99					
	e			33								
WEL	ePn	13	48	54.5		−1.7	99	1.42	66	3.9		
	eSn		49	15		0.1	100					
CMZ	eP*	13	49	03.5		1.5	100	1.73	190		3.2	4.2
	eSg			28.5		−1.1	100					
MNG	Sn-Pn			27		−0.0	100	2.23	56		3.6	4.2
MJZ	eP*	13	49	21.5		0.8	100	2.83	221		3.3	3.8
	eSn			50		1.3	100					
RHP	ePn	13	49	19		−0.1	100	3.10	223			
	ePg			36.5		2.5	98					
	eSn			56		0.8	100					
ROX	eSn	13	50	27		−1.7	99	4.50	216			3.7

AMPLITUDES:

COB	6.5	15	KAI	1.4		WEL	1.5		
CMZ	0.4	6.0	MNG		1.5	7.0	MJZ	0.4	1.3
RHP	1.2	3.0	ROX			0.4			

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APR 26 $01^h50^m55^s.2$ 36°.90S 179°.31E 12 km M = 4.8

± 0.8 0.04 0.05 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	01	51	12.7		−0.6	100	1.00	218		4.6	4.8
	Pg			14.1		−1.3	100					
	eSg			31		2.1	99					
GNZ	eP*	01	51	32		1.3	100	2.02	210			
	e			44								
	eSn			51		−2.0	99					
WTZ	Pn	01	51	29.7		−0.2	100	2.14	239			
	e			30.4								
	eSn			56		0.0	100					
TUA	Sn-Pn			30		−0.4	100	2.56	221		4.7	4.6
GBZ	Pn	01	51	43.8		−0.0	100	3.16	281			
	i(P*)			46.8		−3.5						
	eSn		52	20		−0.5	100					
KRP	Pn	01	51	44.0		0.0	100	3.18	250		4.9	4.8
	e			45.3								
	Sn		52	20.0		−0.8	100					
TRZ	ePn	01	51	46		0.4	100	3.29	216		4.6	4.9
	eSn		52	26		2.3	99					
NGZ	ePn	01	51	51.5		0.3	100	3.70	231			
	eSn		52	32		−1.5	100					
TNZ	ePn	01	52	04		1.7	99	4.52	238		5.2	5.0

	e		53	02									
MNG	Sn-Pn			52		−1.4	100	4.77	218		4.3	4.6
WEL	e(Sn)	01	53	14		−5.8		5.62	218	4.8		
CRZ	e(Pn)	01	52	27.3		5.6		5.94	293		5.1	
CIZ	eSn	01	54	09		−1.0	100	7.71	157			

AMPLITUDES:											
ECZ	7.5	15	TUA	2.3	2.0	GBZ	6.5	2.0
KRP	3.5	2.0	TRZ	1.4	4.0	NGZ	5.5	8.0
TNZ	0.6	0.4	MNG	1.7	4.0	WEL	0.7	
CRZ	0.5		CIZ		1.6			

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APR 27 $02^h10^m53^s.9$ 37°.23S 177°.17E 187 km M = 4.2

± 0.9 0.08 0.07 9 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	02	11	20.7	U	−0.2	100	0.76	191		4.0	4.1
	S			40		−1.7	99					
ECZ	iP	02	11	24.6	U	0.7	100	1.19	113		4.7	
KRP	P	02	11	26.5		0.1	100	1.48	242		3.1*	2.7*
	S			53		1.5	99					
GNZ	iP	02	11	27.4	U	0.2	100	1.56	155			
	(S)			53.5		0.5	100					
TUA	S-P			26	U	0.1	100	1.57	181		4.3	4.2
GBZ	iP	02	11	28.3	D	−0.3	100	1.70	306			
	eS?			59.5		4.1						
NGZ	P	02	11	34		−1.1	100	2.30	212			
MNG	P	02	11	47		−4.2		3.63	201		4.2	4.2
	S		12	31		−4.4						
WEL	S	02	12	49		−5.2		4.46	204	4.1		
COB	e(P)	02	12	10		−1.0		5.17	221		2.9*	2.7*
	e			56								
	e(S)		13	06		−4.7						
	e			21								

AMPLITUDES:								
WTZ	3.0	4.5	ECZ	5.0		KRP	0.9	0.5
TUA	1.5	1.1	GBZ	4.7		MNG	2.0	3.0
WEL	0.2		COB	0.1	0.2			

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APR 28 $13^h34^m03^s.1$ 31°.87S 178°.05W 33 km M = 4.8

± 1.6 0.07 0.12 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	13	35	36		1.3	100	6.45	205		4.9	5.1
	e(Sn)		36	47.5		3.4						
	e(S*)		37	20		2.0	99					
GBZ	e(Pn)	13	35	44		3.1		6.90	229			
WTZ	Pn	13	35	45.5		−1.3	100	7.34	212		5.0	4.7
	Sn		37	05		−0.4	100					
	e(S*)			43		−1.5						
ONE	Pn	13	35	51		3.0	98	7.42	236			
GNZ	Pn	13	35	49.5		0.7	100	7.49	204		4.9	5.0
	e		36	01								
	Sn		37	09		0.0	100					
TUA								7.96	208		4.9	4.9
KRP	Pn	13	35	55.5		−0.6	100	8.02	219		5.0	
	e(Sn)		37	27.5		5.8						
CRZ	Pn	13	35	59		0.6	100	8.19	249		5.3	5.2
	Sn		37	25		0.8	100					
TRZ	Pn	13	36	06		0.2	100	8.73	207		4.6	4.9

	e			16								
	e		37	34								
	Sn			40		1.1	100					
NGZ	ePn	13	36	06		−2.7	99	8.95	214			
	Sn		37	42		−1.9	100					
MNG	Pn	13	36	20.5		−5.0		10.18	209		4.2	4.6
	Sn		38	06		−7.6						
WEL	Sn	13	38	25		−9.1		11.03	210	4.7		
COB	ePn	13	36	39		−8.9		11.82	216		4.4	4.4
	Sn		38	44		−9.0						
CIZ	Sn	13	39	01		0.4		12.13	175			

AMPLITUDES:											
ECZ	0.4	0.7	WTZ	1.8	0.9	GNZ	1.1	2.5
TUA	0.4	0.5	KRP	0.4		CRZ	0.2	0.1
TRZ	0.2	0.6	MNG	0.3	0.9	WEL	0.1	
COB	0.1	0.4	CIZ		0.3			

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APR 28 $13^h46^m35^s.5$ 50°.55S 166°.57E 12 km M = 4.6

± 3.0 0.24 0.74 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	iPn	13	47	32.1	U	−0.6	100	3.79	16			
	Sn		48	15.5		−0.3	100					
ROX	Pn	13	47	54		−0.7	100	5.40	21		4.8	4.8
	Sn		48	57		2.3	100					
OMZ	Pn	13	48	09		3.2	99	6.22	30		4.6	4.6
	Sn		49	12		−2.2	100					
	S*			39		−4.4						
RHP	Pn	13	48	12.4		−2.5	100	6.88	22			
	(P*)			23		−11.0						
	e		49	22								
	e(Sn)			31.5		1.3						
MJZ	Pn	13	48	18		0.4	100	7.08	23		4.8	4.7
	P*			37		−0.4						
	e		49	25								
	(Sn)			35		0.0						
COB	Pn	13	49	02		−0.8		10.39	27		4.9	4.2
	Sn		50	55		0.4						
MNG	e(Pn)	13	49	31		10.0		11.73	36		4.4	

AMPLITUDES:											
ROX	1.3	3.2	OMZ	0.6	1.2	MJZ	1.7	1.8
COB	0.4	0.3	MNG	0.3				

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APR 28 $13^h57^m26^s.2$ 32°.34S 179°.60E 318 km M = 4.7

± 1.4 0.13 0.27 35 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	13	58	50.5		0.8	100	5.42	189		4.3	4.3
	S		59	55		−0.3	100					
WTZ	P	13	58	56		−0.9	100	6.03	200		4.8	4.8
	S	14	00	08.5		0.4	100					
GNZ	S	14	00	16		−0.6	100	6.43	191			5.2
KRP	P	13	59	03.5		1.1	100	6.50	210		3.1*	
TUA	S	14	00	23		−0.8	100	6.76	196			4.9
TRZ	e(P)	13	59	16		0.8	100	7.55	197		4.3	5.0
	S	14	00	42		1.1	100					
NGZ	P	13	59	13.5		−1.9	98	7.56	204			
	S	14	00	41		−0.2	100					
MNG	P	13	59	26		−5.7		8.91	201		4.9	4.9

	S	14	01	05		−5.6							
WEL	S	14	01	23		−5.9		9.74	202	4.4			
COB	P	13	59	43		−6.0		10.33	210			3.7*	3.4*
	S	14	01	36		−6.0							

AMPLITUDES:											
ECZ	0.2	0.2	WTZ	1.1	1.1	GNZ	4.0				
KRP	0.3		TUA	0.5		TRZ	0.1	1.0			
MNG	1.9	2.2	WEL	0.1		COB	0.3	0.5			

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APR 28 $15^h16^m32^s.2$ 37°.19S 179°.53W 33 km M = 3.9

± 1.9 0.11 0.13 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(P*)	15	17	01		−0.0	100	1.61	251		3.8	4.0
	e			08								
	(Sn)			19		2.1	99					
GNZ	Pn	15	17	09		0.2	100	2.42	232		3.6	4.0
	e(P*)			17		2.2						
	Sn			35		−1.3	100					
WTZ	Pn	15	17	15		−0.0	100	2.88	253		4.1	4.3
	P*			22		−0.5						
	Sn			48		0.7	100					
TUA	ePn	15	17	18		0.2		3.09	237		3.5	4.1
	(P*)			23		−3.0						
	Sn			50		−2.2						
TRZ	eP*	15	17	36		−0.8		3.72	229		3.5	4.2
	Sn		18	09		1.5	100					
KRP	Pn	15	17	30		−0.2	100	4.00	258		4.0	4.1
	P*			37		−4.4						
	Sn		18	13		−1.0	100					
GBZ	ePn?	15	17	36		3.9		4.13	282			
	e(P*)			46		2.3						
NGZ	Sn	15	18	20		−1.9	99	4.32	241			
MNG	Pn	15	17	41		−5.5		5.18	227		3.8	3.8
	Sn		18	35		−7.8						
WEL	Sn	15	18	56		−7.1		6.03	225	3.9		
CIZ	Sn	15	19	23		−6.5		7.13	162			
COB	Sn	15	19	26		−4.4		7.17	235			3.4

AMPLITUDES:											
ECZ	0.5	0.9	GNZ	0.6	2.0	WTZ	1.4	2.2			
TUA	0.1	0.5	TRZ	0.1	0.7	KRP	0.3	0.3			
GBZ	0.2		MNG	0.4	0.6	WEL	0.1				
CIZ		0.3	COB		0.1						

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APR 28 $20^h47^m34^s.9$ 44°.57S 168°.13E 12 km M = 3.6

± 2.0 0.05 0.15 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ROX	P*	20	47	56.4		−0.8	100	1.24	137		3.7	3.6
	Pg			59		−1.0						
	S*		48	12.5		−1.2	100					
	Sg			14.5		−2.3						
RHP	Pn	20	48	00.4		−0.2	100	1.48	72			
	Sn			19		−0.8	100					
MJZ	Pn	20	48	05		0.3	100	1.78	72		3.6	3.6
	Sn			26		−1.0	100					
OMZ	ePn	20	48	09.5		1.2	100	2.04	105		3.5	3.6
	P*			11.5		0.5						
	Sn			36		2.6	98					

COB	Pn	20	48	46		−0.7		4.86	46			
	eSn		49	38		−3.0						

AMPLITUDES: ROX 1.7 4.0 MJZ 1.7 2.5 OMZ 0.4 1.1

FELT: Mt Aspiring (113), Earnslaw (121) MM IV

79/ 274

APR 28 $22^h52^m27^s.2$ 41°.33S 172°.56E 201 km M = 3.8

± 1.2 0.06 0.08 9 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	iP	22	52	55.2	U	1.3	100	0.28	28			
	S		53	15.5		0.8	100					
KKY	iP	22	53	01.3	U	1.1	100	1.38	142			
	eS			25		−0.6	100					
WEL	P	22	53	04		1.1	100	1.66	89	4.0		
	S			30		−0.3	100					
MNG	iP	22	53	10.0	U	0.3	100	2.33	73		3.8	3.9
	S			42		−0.4	100					
TNZ	S	22	53	45		−2.0	99	2.56	34			3.2*
MJZ	P	22	53	18.5		0.2	100	3.07	210		2.9*	3.0*
	S			56		−1.7	99					
NGZ	e(P)	22	53	19		−0.5		3.18	48			
	e			52								
	e(S)			59		−0.9						
RHP	iP	22	53	21.7	U	0.6		3.31	213			
	S		54	01.5		−1.4						
KRP	(S)	22	54	18		−2.4		4.11	35			2.7*
ROX	(S)	22	54	31		−4.3		4.77	209			2.8*
WTZ	(S)	22	54	35		−0.7		4.79	47			3.5
GNZ	S	22	54	41		0.6		4.99	59			
CIZ	P?	22	54	31		3.9		8.44	112			

AMPLITUDES: COB 3.4 2.0 WEL 0.8 MNG 1.5 2.5
TNZ 0.3 MJZ 0.4 0.6 KRP 0.2
ROX 0.2 WTZ 0.1 CIZ 0.3

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MAY 01 $00^h19^m48^s.4$ 37°.73S 176°.02E 185 km M = 3.7

± 3.4 0.21 0.16 24 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	00	20	14.5	U	0.9	99	0.43	243		3.1*	
WTZ	iP	00	20	14.9	D	−0.6	100	0.81	109		3.7	3.1
	S			36		−0.4	100					
NGZ	P	00	20	20.5		−0.4	100	1.48	192			
CNZ	(S)	00	20	44		−2.5		1.51	194			
	e			55								
GNZ	P?	00	20	21.5		−2.7		1.83	121			4.1
	S			52.5		0.6	100					
TRZ	eS	00	20	54.5		0.6		1.93	161			3.8
MNG	P	00	20	32.5		−4.3		2.92	188		3.8	3.9
	S		21	08.5		−5.6						
WEL	S	00	21	25.5		−5.5		3.68	195	3.6		
COB	P	00	20	50.5		−2.6		4.21	216		2.8*	2.8*
	S		21	38.5		−4.5						
MJZ	S	00	22	50.5		−10.3		7.54	212			2.9*

AMPLITUDES: KRP 1.5 WTZ 1.6 0.4 GNZ 3.0
TRZ 0.8 MNG 1.3 2.2 WEL 0.1
COB 0.1 0.3 MJZ 0.2

79/ 276

MAY 01 $17^h26^m22^s.9$ 37°.64S 176°.34E 204 km M = 3.9

± 1.4 0.07 0.09 10 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	17	26	50.3	U	−0.6	100	0.62	124		3.4	3.2
	S		27	12.5		−0.2	100					
KRP	P	17	26	52		0.6	100	0.69	245		2.8*	
GNZ	P	17	26	58.5		−0.1	100	1.66	128		3.8	4.7
	S		27	27		0.7	99					
ECZ	S?	17	27	31		3.2		1.75	92			3.8
TRZ	S	17	27	31		−0.2	100	1.95	169			4.0
MNG	P	17	27	12		−1.8		3.05	192		4.0	3.9
	S			52		−1.2						
WEL	S	17	28	09		−1.2		3.84	198			
COB	S	17	28	22		−1.6		4.44	218			2.6*
MJZ	S	17	29	35		−5.3		7.76	213			

AMPLITUDES:

WTZ	0.7	0.5	KRP	0.6		GNZ	1.0	12
ECZ		0.4	TRZ		1.1	MNG	1.8	1.6
COB		0.2						

79/ 277

MAY 02 $08^h32^m03^s.8$ 44°.56S 177°.10E 33 km M = 4.1

± 0.6 0.04 0.04 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CMZ	ePn	08	32	54		0.8	100	3.36	285		3.7	4.0
	Sn		33	29		−1.5	99					
WEL	Pn	08	32	58		0.2	100	3.70	332	3.5		
	Sn		33	37		−1.5	99					
MNG	iPn	08	33	04.0	U	0.4	100	4.12	343		4.8	4.7
	Sn			48		−0.7	100					
OMZ	Pn	08	33	08.5		0.6	100	4.44	261		3.5	3.9
	e			53								
	Sn			56		−0.3	100					
CIZ	Sn	08	33	59		−1.1	100	4.59	85			
COB	Pn	08	33	12.4	U	0.5	100	4.73	316		4.4	3.5
	Sn		34	04.5		1.1	100					
MJZ	Pn	08	33	14.7		1.8	99	4.81	275		3.7	3.6
	Sn		34	04.5		−0.6	100					
TRZ	Pn	08	33	16		0.3	100	5.01	358		4.1	4.6
	Sn		34	12		1.8	99					
RHP	Pn	08	33	18.2		1.8		5.06	273			
	Sn		34	10		−1.3						
NGZ	Pn	08	33	24		1.7		5.49	348			
	e		34	17.5								
	Sn			23.5		1.8						
ROX	Sn	08	34	24.5		0.3		5.60	258			4.2
TNZ	ePn	08	33	27.5		1.8		5.74	338		4.0	4.3
	Sn		34	31		3.2						
GNZ	Sn	08	34	37		4.1		5.96	7			
WTZ	Sn	08	34	49		1.2		6.58	359		3.9	
OBZ	Pn	08	33	40.5		1.5		6.71	246		4.2	4.2
	Sn		34	51		−0.1						

AMPLITUDES:

CMZ	0.3	1.1	WEL	0.1		MNG	6.5	7.5
OMZ	0.1	0.5	CIZ		0.6	COB	0.7	0.3
MJZ	0.3	0.3	TRZ	0.2	1.0	ROX		0.8
TNZ	0.1	0.3	WTZ	0.2		OBZ	0.3	0.7

79/ 278

MAY 02 $18^h16^m12^s.0$ 30°.85S 177°.11W 33 km M = 5.9

± 2.2 0.12 0.16 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(Pn)	18	18	02		1.1		7.72	207		6.0	6.4
	(Sn)		19	28.5		5.0						
GBZ	Pn	18	18	07.5		0.3	100	8.18	227			
WTZ	Pn	18	18	10.8		−2.5	99	8.63	213		5.5	6.0
	e(Sn)		19	44		−1.3	100					
	e			50								
ONE	Pn	18	18	15		1.1	100	8.67	233			
GNZ	e(Pn)	18	18	17		2.0	99	8.75	206			
	e(P*)			35		−7.3						
	e			55.5								
	Sn		19	49.5		1.3	100					
TUA								9.24	209		5.6	6.3
KRP	Pn	18	18	21		−1.7	100	9.31	219		6.1	6.0
	e			28								
	P*			47		−4.9						
	e(Sn)		20	05.5		3.7						
CRZ	Pn	18	18	23		0.2	100	9.32	245		7.0	6.8
	Sn		20	02		−0.1	100					
WNZ								9.57	214		5.7	5.7
TRZ	ePn	18	18	28		−4.1		10.01	208		5.3	6.0
	Sn		20	18.5		0.1						
NGZ	Pn	18	18	30		−5.2		10.23	214			
	Sn		20	23.5		−0.4						
TNZ								10.86	218		6.0	6.0
MNG	Pn	18	18	46		−5.9		11.46	210		5.4	6.3
	Sn		20	48		−5.3						
WEL	Sn	18	21	08		−5.9		12.31	210	6.1		
CIZ	ePn	18	19	23		8.7		13.09	178			
	Sn		21	37		4.3						
COB	ePn?	18	19	07		−7.5		13.11	216		5.5	5.6
	Sn		21	25		−8.1						
MJZ	ePn	18	19	53		−6.3		16.40	213		5.6	5.8
	Sn		22	40		−12.0						

AMPLITUDES:											
	ECZ	3.2	10	GBZ	5.8		WTZ	4.5	11
	TUA	1.6	8.0	KRP	3.4	2.0	CRZ	5.6	1.9
	WNZ	0.3	0.4	TRZ	0.9	6.3	TNZ	0.6	0.5
	MNG	3.2	32	WEL	3.0		CIZ	1.0	5.0
	COB	1.1	4.8	MJZ	2.4	4.7			

FELT: Raoul Island MM IV

79/ 279

MAY 02 $20^h35^m22^s.6$ 36°.95S 176°.70E 274 km M = 4.0

± 3.5 0.12 0.48 24 S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	20	35	59.4	D	−1.3	100	1.05	167		3.9	3.8
	e		36	27								
	S			31		0.6	100					
GBZ	iP	20	36	01.1	D	−0.5	100	1.22	306			
TUA								1.89	169		4.2	
NGZ	P	20	36	13		2.2	99	2.38	201			
MNG	P	20	36	25.5		0.0	100	3.79	194		4.3	4.0
	S		37	13.5		−1.1	100					

COB	S	20	37	45.5		2.1		5.16	216		2.9*	2.9*
MJZ	S	20	38	57		−0.2		8.49	212			

AMPLITUDES: WTZ 0.9 0.9 GBZ 1.0 TUA 0.6
MNG 2.2 1.3 COB 0.1 0.3

79/ 280

MAY 03 $02^h30^m22^s.6$ 35°.10S 179°.32W 12 km M = 5.1
± 0.8 0.03 0.08 R S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	02	31	16		−0.8	99	3.11	213		5.1	5.5
	Pg			25		−0.5	100					
	e(Sn)			51		4.3						
	Sg		32	08		0.6	100					
WTZ	Pn	02	31	24.9	U	0.3	100	4.14	225		5.1	5.0
	eSn		32	11		−0.5						
	S*			29		0.6						
GBZ	Pn	02	31	27.5		−0.4	100	4.38	254			
	P*			37		−1.5						
KRP	Pn	02	31	37.4	U	0.9	99	5.01	234		5.7	5.4
	(P*)			43		−6.3						
	Sn		32	32		−0.4	100					
	e			44								
ONE	Pn	02	31	39.5		0.4	100	5.20	261			
TRZ	ePg	02	32	09		−2.9		5.41	214		5.0	5.0
	eSg		33	29		4.3						
NGZ	Pn	02	31	47		0.5	100	5.75	223			
	P*			57		−4.8						
	S*		33	18		1.5						
TNZ	Pn	02	32	01		4.4		6.48	229		5.7	5.4
CRZ	Pn	02	31	58.5		0.0	100	6.62	273		5.7	
MNG	ePn	02	32	00		−2.0		6.88	215		4.9	5.2
	P*			18.5		−2.6						
	eSn		33	17		−0.2						
	eS*			46		−4.4						
	e			54								
WEL	Sn	02	33	33.5		−4.4		7.74	215	4.7		
	eS*		34	14		−2.2						
COB	ePn	02	32	22		−4.3		8.66	224		4.6	4.6
	e			30.5								
	Sn		33	55		−5.1						
	e		34	20								
CIZ	(Pn)	02	32	40.5		8.2		9.10	167			
	Sn		34	15		4.3						
CMZ	e	02	34	37				10.52	214			4.9
	Sn			41.5		−3.2						
MJZ	ePn	02	33	06		−4.1		11.87	219		4.6	4.8
	Sn		35	07		−10.2						
	e			32								

AMPLITUDES: ECZ 2.9 9.0 WTZ 7.3 5.0 GBZ 2.4
KRP 5.3 1.8 TRZ 1.4 1.8 TNZ 0.8 0.4
CRZ 1.5 MNG 3.2 7.0 WEL 0.3
COB 0.3 1.1 CIZ 0.6 1.6 CMZ 0.8
MJZ 0.4 0.8

79/ 281

MAY 03 $09^h27^m30^s.3$ 38°.89S 177°.71E 33 km M = 4.7
± 0.8 0.05 0.08 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P*	09	27	40.5		2.0	99	0.34	45			
TUA	iP*	09	27	39		−0.9	100	0.44	280			
TRZ	iPn	09	27	46.9	D	0.0	100	0.95	226		4.7	4.8
	e			54								
	eS*		28	03.5		2.2	99					
WTZ	iPn	09	27	47.9	U	−0.4	100	1.06	328			
WNZ	(P*)	09	27	53		−0.6		1.28	281		4.9	5.0
	(S*)		28	20.5		9.7						
ECZ	ePn	09	27	53		0.6		1.36	29		4.9	4.9
	iSn		28	05		−4.0						
	e			37								
NGZ	Pn	09	27	56.8		0.3	100	1.66	259			
KRP	Pn	09	27	59.8	U	−0.7	100	1.96	299		5.2	
	(P*)		28	04.5		−0.5						
MNG	iPn	09	28	05.3	D	−1.8	99	2.44	224		4.6	4.5
	P*			20		6.9						
	eSn			37		2.2						
TNZ	Pn	09	28	11		1.5	100	2.61	262		4.8	4.9
	P*			18.5		2.5						
	Sn			40		1.0	100					
GBZ	Pn	09	28	17		−0.5	100	3.20	326			
	P*			34		7.9						
WEL	Pn	09	28	17		−1.8	99	3.29	222	4.5		
	eP*			33		5.4						
	Sn			54.5		−0.8	100					
	(S*)		29	28		17.4						
ONE	ePn	09	28	31.5		1.8		4.09	318	4.6		
	e(P*)			37		−4.3						
	e(Sn)		29	22		7.3						
COB	Pn	09	28	31.5		−2.5		4.41	239		4.9	4.4
	P*			47.5		0.8						
	Sn		29	22.5		0.3						
	eS*			45		1.0						
CRZ	ePn	09	28	57		1.1		6.01	316			
	e		29	05								
CMZ	Pn	09	28	53.5		−3.0		6.06	218		4.6	5.0
	Sn		29	59		−2.7						
CIZ	(Pn)	09	29	07		2.5		6.65	141			
	Sn		30	17		1.0						
MJZ	iPn	09	29	13.6	D	−2.0		7.46	225		4.8	4.9
	P*			36.5		−2.0						
	Sn		30	31.5		−3.9						
OMZ								7.99	217		4.5	4.2

AMPLITUDES:												
	TRZ	20	36	WNZ	3.8	6.0	ECZ	8.0	12			
	KRP	24		MNG	12	13	TNZ	1.4	1.9			
	GBZ	2.8		WEL	1.2		ONE	0.4				
	COB	2.2	2.5	CMZ	0.8	3.4	CIZ	0.9	5.3			
	MJZ	1.6	2.4	OMZ	0.3	0.3						

FELT: Gisborne (45), Wairoa (53) MM IV

79/ 282

MAY 03 $21^h18^m03^s.0$ 32°.22S 177°.46W 33 km M = 5.5

± 2.4 0.16 0.35 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	(Pn)	21	19	38.2		4.7		6.37	210		5.9	6.0
	(P*)			48.5		−4.2						

	(Sn)		20	49.5	7.5							
	e(S*)		21	22	6.6							
GBZ	Pn	21	19	43.4	0.3	100	7.08	234				
WTZ	Pn	21	19	45	−1.6	100	7.33	217		5.6	5.5	
	Sn		21	02	−3.2	98						
ONE	Pn	21	19	52	0.9	100	7.67	240	6.0			
	P*		20	12	−2.7							
	eSn		21	10	−3.1							
TUA	(Sn-Pn		1	25.5	) 1.0	100	7.91	212		5.6	5.6	
KRP	Pn	21	19	58	1.1	100	8.08	223		5.8	5.8	
	e(Sn)		21	32	8.8							
TRZ	Pn	21	20	05.5	0.7	100	8.67	211		5.2	5.7	
	Sn		21	39.5	2.3	99						
NGZ	Pn	21	20	08	−0.6	100	8.95	217				
	eSn		21	40	−3.9							
TNZ	e(Pn)	21	20	19	1.3		9.61	221		5.7	5.7	
	e			30								
	e(S*)		22	48	−4.3							
MNG	ePn	21	20	19.5	−5.3		10.13	212		5.0	5.7	
	Sn		22	07	−5.3							
WEL	Sn	21	22	26	−7.0		10.99	212	5.5			
CIZ	e(Pn)	21	20	54	7.2		11.74	177				
	Sn		23	01	9.8							
COB	ePn	21	20	42	−6.2		11.84	219		4.9	4.9	
	P*		21	18.5	−7.4							
	Sn		22	46	−7.5							
CMZ	Sn	21	23	33	−6.9		13.77	212			5.6	
MJZ	ePn	21	21	25	−7.6		15.10	215		5.0	5.4	
	e			39								
	Sn		24	01	−10.8							

AMPLITUDES:											
ECZ		3.9	6.5	GBZ	9.0		WTZ	8.5	5.0
ONE	0.7			TUA	2.2	2.5	KRP	2.4	1.5
TRZ		0.8	4.0	TNZ	0.4	0.4	MNG	1.6	11
WEL	1.0			CIZ	0.6	1.8	COB	0.3	1.3
CMZ			2.5	MJZ	0.7	1.8			

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MAY 04 $01^h42^m28^s.4$ 37°.88S 176°.40E 210 km M = 3.7

± 2.0 0.09 0.17 12 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	01	42	56.4		−0.3	100	0.48	103		2.9	3.0
	eS		43	18.5		−0.1	100					
KRP	iP	01	42	57.5	U	0.0	100	0.68	266		3.2*	
	S		43	19		−1.1	100					
NGZ	P	01	43	04.4		1.7	99	1.44	205			
	S			31		1.8	99					
ECZ	e(P)	01	43	07		1.8		1.71	84		3.8	
TNZ	eP?	01	43	10		1.5		2.05	230		2.9*	
MNG	iP	01	43	16.5	U	−0.5	100	2.83	194		4.2	4.3
	S			53		−1.6	99					
WEL	eS	01	44	09		−2.6		3.63	200	3.8		
COB	eP	01	43	34		−0.7		4.28	220			2.8*
	S		44	24		−2.0						

AMPLITUDES:									
WTZ		0.2	0.3	KRP	1.5		ECZ	0.4	
TNZ		0.1		MNG	3.4	5.2	WEL	0.1	
COB			0.3						

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MAY 04 $21^h05^m52^s.0$ 39°.19S 175°.24E 12 km M = 4.3

± 0.3 0.02 0.02 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	iPg	21	05	57.6		0.2	100	0.24	93			
GSZ	iPg	21	05	57.6		−0.6	100	0.29	108			
NGZ	iPg	21	05	58.1		−0.2	100	0.29	89			
TNZ	iP*	21	06	04.3	D	−0.3	100	0.67	270		3.6	4.0
	Sg			16		1.2	100					
WNZ	Pg	21	06	09		−0.8	100	0.87	51		4.1	4.3
	Sg			22.5		0.8	100					
TRZ	(Pg)	21	06	22		3.9		1.28	107		4.3	4.5
	Sg			37		1.6	99					
KRP	Pn	21	06	14		−1.0	100	1.29	11		4.9	4.8
	Sn			32.5		0.3	100					
MNG	iPn	21	06	15.3	U	−1.9	98	1.44	173		4.6	4.6
	Sn			35.5		−0.6	100					
WTZ	P*	21	06	25		0.6		1.83	49		4.0	
	e(Pg)			33		4.0						
WEL	iPn	21	06	27.5	DNW	0.9	100	2.12	190	4.2		
	Sn			53		0.4	100					
GNZ	e(Pn)	21	06	29		0.9		2.24	77			
COB	Pn	21	06	33		−1.4		2.70	225		4.6	4.2
	S*		07	11		−3.6						
GBZ	Pn	21	06	42.5		4.4		2.97	4			
	P*			47		3.0						
	Sg		07	37.5		5.3						
ONE	P*	21	06	54		1.4		3.47	348	4.1		
	Pg		07	00		−2.3						
	e(Sg)			55		5.8						
KAI								4.43	220	4.2		
CMZ	e(S*)	21	08	21		3.0		4.81	203		4.0	3.8
CRZ	Sn	21	08	06		0.3		5.17	336			
MJZ	e(Pn)	21	07	22		2.8		5.98	215		4.1	4.2
	Sn		08	24		−1.2						
CIZ	Sn	21	09	05		−3.3		7.78	130			

AMPLITUDES:

TNZ		2.5	8.5	WNZ		0.8	1.4	TRZ		2.6	5.0
KRP		27	18	MNG		35	35	WTZ		1.1	
WEL	1.3			COB		2.5	4.2	GBZ		1.7	1.2
ONE	0.4			KAI	0.3			CMZ		0.3	0.3
MJZ		0.5	0.7	CIZ			0.3				

FELT: Ongarue (39)

79/ 285

MAY 04 $23^h38^m57^s.4$ 41°.19S 173°.77E 33 km M = 3.8

± 0.3 0.02 0.02 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	iP*	23	39	07.3	D	1.1	99	0.38	94			
MRW	iPn	23	39	10.6	D	0.0	100	0.71	94			
WHW	Pn	23	39	10.9	U	−0.1		0.74	99			
WEL	Pn	23	39	11.2		−0.1	100	0.76	98	3.4		
	S*			23.5		0.8	100					
COB	iPn	23	39	11.5	D	−0.2	100	0.79	277		4.2	
	Sn			23		0.7	100					
BHW	iPn	23	39	11.8	D	−0.9	100	0.85	105			
KIW	iPn	23	39	13.7	D	0.1	100	0.93	70			

MOW	Pn	23 39 15.2	D	−1.3	99	1.14	102					
KKY	Pn	23 39 18.5		0.7	100	1.23	183					
	S*	36.5		0.1	100							
MNG	iPn	23 39 19.2	D	−1.1	99	1.42	67			4.3	4.1
	iP*	22.4	D	−0.6							
	S*	42.5		0.5	100							
TNZ	Pn	23 39 30		1.0		2.05	13			3.4	4.0
	Sn	56.5		3.7							
KAI	ePn?	23 39 33		1.8		2.21	232	3.8			
	e(P*)	37		0.6							
	Sn	57		0.4							
NGZ	Pn	23 39 34		−0.4		2.46	36				
	P*	38		−2.5							
	(S*)	40 09		−3.7							
CMZ	P*	23 39 43.5		1.5		2.54	199			3.7	4.0
	Sn	40 10		5.6							
KRP	Pn	23 39 50		0.8		3.54	23			3.4	3.8
	Sn	40 30		1.6							
MJZ	ePn	23 39 50.5		−1.1		3.72	220			4.1	3.8
	Sn	40 29.5		−3.1							
RHP	ePn	23 39 56		0.7		3.99	222				
	Sn	40 41.5		2.4							

AMPLITUDES:											
	WEL	1.9	1.7	COB		16		MNG		18	14
	TNZ	0.2	1.0	KAI	0.5			CMZ		0.6	1.7
	KRP	0.3	0.8	MJZ		1.2	0.8				

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MAY 05 $02^h25^m09^s.9$ 37°.22S 177°.83E 33 km M = 4.9

± 0.9 0.06 0.08 R S.E. of RES. 1.4

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	02 25 24.9	U	0.7	100	0.74	130		4.8	4.9
	e(S*)	40		5.3						
WTZ	iPn	02 25 25.9		−1.5	100	1.02	221			
GNZ	Pn	02 25 32.5		−0.5	100	1.43	174			
	e(Sn)	51		0.6						
KRP	iPn	02 25 39.4	DNE	−0.8	100	1.96	248		5.2	5.2
	eSn	26 02		−0.9						
WNZ	Pn	02 25 39.5		−0.8	100	1.97	224		4.7	4.6
	(P*)	49		4.2						
	(Sn)	26 08		4.8						
	e(S*)	15		4.2						
GBZ	iPn	02 25 43.0	D	0.4	100	2.13	297			
	(S*)	26 13.5		−2.3						
TRZ	Pn	02 25 45.4	U	−1.7	99	2.47	198		4.6	4.9
	Sn	26 17.5		2.3	99					
	S*	27.5		1.8						
NGZ	Pn	02 25 49		−0.4	100	2.63	221			
	eSn	26 23.5		4.4						
ONE	Pn	02 25 57.5		1.1	100	3.15	296	5.0		
	Sn	26 36.5		5.0						
TNZ	Pn	02 26 00.5		1.2	100	3.36	233		5.8	5.1
	eS*	48		−4.3						
MNG	Pn	02 26 00.5		−5.7		3.86	208		4.7	5.1
	(P*)	12		−5.0						
	Sn	50		1.3						
	S*	27 05		−2.3						
WEL	Pn	02 26 15		−2.8		4.72	209	4.8		
	(P*)	30		−1.4						

	Sn		27 04		−5.1						
	S*		24		−8.7						
CRZ	iPn	02	26 24	D	1.9		5.03	302		5.2	
	(Sn)		27 24		7.3						
COB	Pn	02	26 25		−4.1		5.54	224		4.9	4.7
	Sn		27 28		−1.0						
KAI							7.25	221	4.7		
CMZ	Pn	02	26 49		−6.8		7.50	210		4.8	5.1
	Sn		28 09.5		−6.6						
CIZ	Pn	02	26 59		−3.2		7.97	149			
	Sn		28 23		−4.4						
MJZ	Pn	02	27 02		−11.3		8.78	217		4.6	5.0
	Sn		28 35		−12.0						

AMPLITUDES:

ECZ	25	38	KRP	18	12	WNZ		0.7	0.8
GBZ	21	9.0	TRZ	2.4	7.0	ONE	1.4		
TNZ	3.9	0.8	MNG	6.5	19	WEL	1.1		
CRZ	1.0		COB	1.4	3.0	KAI	0.4		
CMZ	0.8	2.7	CIZ	1.3	2.3	MJZ		0.7	2.4

79/ 287

MAY 07 $01^h04^m55^s.3$ 36°.71S 177°.69E 199 km M = 4.6

± 1.6 0.09 0.11 13 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	01	05	29.5		3.0	98	1.20	145		4.0	4.5
	e			35								
	S			49		−1.7	100					
	e			55								
WTZ	P	01	05	28.2	U	−0.0	100	1.39	203		4.2	4.3
	S			54.5		0.9	100					
GBZ	iP	01	05	32.0	D	−0.4	100	1.84	285			
KRP	P	01	05	35.3		0.1	100	2.10	234		3.1*	
	S		06	05		−0.9	100					
TRZ	P	01	05	44.2	U	−0.2	100	2.92	193		4.8	5.0
	S		06	21		−1.4	100					
	e			23.5								
NGZ	P	01	05	44		−1.0	100	2.97	213			
	S		06	26		2.6	99					
TNZ	P	01	05	52		−0.6	100	3.60	226		3.3*	
	e			57								
MNG	P	01	05	57.6	D	−3.5		4.27	203		5.0	4.7
	S		06	46		−5.9						
WEL	P	01	06	07		−4.7		5.10	206	4.8		
	S		07	04.5		−6.5						
COB	P	01	06	16		−5.2		5.84	220		3.3*	3.5*
	S		07	20		−7.9						
KAI								7.57	218	3.5*		
CMZ	S	01	08	05.5		−10.3		7.88	208			3.8*
CIZ	S	01	08	39		9.4		8.47	151			
MJZ	S	01	08	33		−11.7		9.13	215			3.4*

AMPLITUDES:

ECZ	0.9	3.1	WTZ	2.9	4.3	GBZ		1.6	
KRP	0.7		TRZ	1.6	6.5	TNZ		0.2	
MNG	9.0	6.5	WEL	1.0		COB		0.2	1.1
KAI	0.2		CMZ		1.0	CIZ			0.3
MJZ		0.5							

79/ 288

MAY 08 $02^h50^m08^s.0$ 34°.67S 179°.71E 12 km M = 4.3

± 1.8 0.07 0.16 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	02	50	57		0.3	100	3.17	197		4.5	4.4
	(Pg)		51	10		−1.9						
	e(Sg)			51		−3.6						
	e		52	12								
WTZ	Pn	02	51	07		−0.7	100	3.98	213		4.2	4.1
	e(S*)		52	08		−0.8						
ONE	Pn	02	51	14		−1.1	99	4.52	254			
	e			19								
TUA								4.62	206			4.6
KRP	e(P*)	02	51	24		−5.1		4.69	225		4.8	
TRZ	P*	02	51	42		0.7	100	5.40	204		4.2	4.2
	eSg		53	06		−3.8						
NGZ	Pn	02	51	29		−0.6	100	5.58	215			
	(S*)		52	48		−8.8						
	(Sg)		53	14		−1.8						
CRZ	Pn	02	51	34		1.2	99	5.81	270		4.9	
TNZ	e(P*)	02	51	49.5		−5.7		6.21	222			
MNG	(P*)	02	51	59		−6.6		6.82	208		4.1	4.3
	e(Sn)		53	02		0.6						
	e(S*)			43		8.8						
WEL	Sn	02	53	22		0.2	100	7.68	209	4.2		
COB	Sn	02	53	43		2.4		8.46	219			3.8
CIZ	eSn	02	54	02		−8.9		9.72	164			
CMZ	Sn	02	54	30		1.2		10.47	210			4.3
MJZ	Sn	02	54	58		−1.4		11.74	215			4.2

AMPLITUDES:

ECZ	0.6	0.7	WTZ	1.1	0.7	TUA	0.7
KRP	0.7		TRZ	0.2	0.3	CRZ	0.3
MNG	0.5	1.0	WEL	0.1		COB	0.2
CIZ		0.6	CMZ	0.2		MJZ	0.2

79/ 289

MAY 08 $03^h47^m15^s.2$ 38°.97S 175°.83E 12 km M = 3.1

± 0.5 0.01 0.03 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	Pg	03	47	21.0		−0.1	100	0.27	218			
	eSg			24		−1.1	99					
CNZ	Pg	03	47	21.6		−0.4	100	0.32	223			
	eSg			26.5		−0.1	100					
GSZ	Pg	03	47	22.6		−0.3	100	0.36	211			
	eSg			27.5		−0.5	100					
KRP	e(Pg)	03	47	38		1.1		1.06	347			3.4
	Sg			51		−0.3	100					
TNZ	Pg	03	47	39		0.4	100	1.15	258		2.8	3.1
	Sg			55		0.9	99					
MNG	P*	03	47	45.5		0.6	100	1.67	189		3.3	3.0
	Sg		48	12.5		0.8	99					

AMPLITUDES:

KRP	1.1	TNZ	0.1	0.2	MNG	1.0	0.5

FELT: Tokaanu (40)

79/ 290

MAY 08 $07^h18^m37^s.5$ 38°.94S 175°.80E 12 km M = 3.0

± 0.5 0.02 0.04 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	Pg	07	18	43.0		−0.6	100	0.28	210			
	eSg			45.5		−2.1	98					
CNZ	iPg	07	18	43.8		−0.6	100	0.32	217			
	eSg			49		0.0	100					
GSZ	Pg	07	18	45		−0.4	100	0.38	206			
	e			46								
	e(Sg)			49.5		−1.1	100					
TRZ	Pg	07	18	58.5		0.6	100	1.01	128		2.8	2.7
	e(Sg)		19	17		5.5						
KRP	e(P*)	07	18	57		0.7		1.03	349		2.8	3.5
	Pg			58		−0.5	100					
	(Sg)		19	12		−0.5	100					
	e			14								
TNZ	Pg	07	19	01.5		1.1	100	1.13	257		2.8	3.0
	Sg			17		1.3	100					
MNG	P*	07	19	09		1.4	99	1.69	188		3.3	3.1
	Sg			36		1.3	100					

AMPLITUDES: TRZ 0.2 0.2 KRP 0.4 1.7 TNZ 0.1 0.2
MNG 0.9 0.6

FELT: Tokaanu (40)

79/ 291

MAY 10 $01^h12^m42^s.4$ 38°.98S 175°.67E 12 km

± 0.4 0.02 0.04 R S.E. of RES. 0.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	ePg	01	12	47		−0.0	100	0.21	192			
	e(Sg)			50		−0.1	100					
CNZ	Pg	01	12	47.5		−0.1	100	0.23	203			
	Sg			51		−0.1	100					

FELT: Tokaanu (40)

79/ 292

MAY 10 $01^h28^m57^s.3$ 38°.96S 175°.56E 12 km

± 1.3 0.05 0.14 R S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	Pg	01	29	02		−0.4	100	0.23	170			
	(Sg)			06		0.2	100					
CNZ	Pg	01	29	03		0.3	100	0.24	183			
	(Sg)			06		−0.2	100					

FELT: Tokaanu (40)

79/ 293

MAY 10 $05^h24^m10^s.8$ 31°.18S 176°.51E 33 km M = 5.1

± 4.9 0.26 0.64 R S.E. of RES. 3.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pn	05	25	49		1.8	100	6.80	177		5.8	6.0
	eSn		27	02		1.7	100					
	e			05								
NGZ	ePn?	05	26	06.5		2.6	100	8.03	185			
	eSn?		27	37		7.4						

MNG	Pn	05	26	19		−4.5	99	9.46	185		5.6	5.8
	Sn		28	03		−1.1	100					
WEL	eSn	05	28	17		−4.6	99	10.19	187	4.8		
COB	Pn	05	26	35		−0.6	100	10.35	196		4.3	4.2
	Sn		28	29		3.4	100					
	e			32								
CMZ	Sn	05	29	18		−5.5		12.77	193			4.6
MJZ	Sn	05	29	44		−0.9		13.65	199			

AMPLITUDES: WTZ 1.3 0.8 MNG 1.3 1.5 WEL 0.1
COB 0.1 0.3 CMZ 0.3

79/ 294

MAY 10 $13^h16^m32^s.8$ 38°.13S 176°.25E 150 km M = 4.3
± 0.7 0.03 0.03 5 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	13	16	54.3	SE	−0.5	100	0.60	290			
	S		17	12		0.3	100					
WTZ	iP	13	16	53.8	U	−1.0	99	0.60	76		4.0	4.0
	S		17	11		−0.7	100					
NGZ	P	13	16	58.7		−0.5		1.16	205			
	e(S)		17	21		1.5						
CNZ	iP	13	16	59.5		0.0	100	1.21	207			
	S		17	19		−1.1	99					
GSZ	eP	13	16	59.5		−0.7		1.26	204			
	S		17	21		−0.1						
GNZ	P	13	17	02.5	U	0.0	100	1.48	111		3.9	4.7
	S			25.5		0.3	100					
TRZ	P	13	17	02		−0.5	100	1.49	163		4.0	4.1
	S			25.5		0.2	100					
TNZ	P	13	17	06		0.0	100	1.81	234		2.8*	3.1*
	S			33		1.6	98					
ECZ	P	13	17	06.6		−0.1	100	1.87	77		4.6	4.5
	S			34		1.3	99					
MNG	P	13	17	11.7	U	−3.5		2.56	193		4.4	4.6
	S			42.5		−5.1						
WEL	P	13	17	21		−4.4		3.36	199	4.4		
	S			59.5		−6.3						
COB	P	13	17	28		−6.1		4.01	221		3.4*	3.7*
	S		18	15.5		−5.7						
KAI								5.74	219	3.6*		
CMZ								6.10	206		2.9*	4.2*
MJZ	P	13	18	13		−5.0		7.31	215		3.0*	3.6*
	S		19	27.5		−12.4						
CIZ	e(S)	13	19	50		−5.5		7.96	139			
OMZ								8.01	208			3.4*

AMPLITUDES: WTZ 5.5 5.0 GNZ 2.0 19 TRZ 0.8 2.6
TNZ 0.1 0.3 ECZ 3.1 2.5 MNG 6.6 13
WEL 0.8 COB 0.4 3.0 KAI 0.3
CMZ 0.1 3.1 MJZ 0.2 1.1 CIZ 0.3
OMZ 0.4

79/ 295

MAY 10 $14^h11^m43^s.1$ 31°.23S 178°.17W 33 km M = 4.4
± 5.1 0.20 0.29 R S.E. of RES. 3.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	(Pn)	14	13	34.5		0.9	100	7.84	209		4.1	4.3
	e(Sn)		15	01		3.6	99					

GNZ	Sn	14	15	07		4.9	99	8.04	202			
CRZ	Pn	14	13	40		−0.5	100	8.34	245		5.1	
MNG	Sn	14	16	05		−1.0	100	10.69	207			4.5
WEL	Sn	14	16	24		−2.4	100	11.55	208	4.5		
COB	e(P*)	14	15	07		−6.5		12.28	214		4.4	3.9
	e		16	40								
	Sn			44		−0.1	100					
CIZ	e(Sn)	14	16	55		−1.0	100	12.78	175			
CMZ	Sn	14	17	29		−4.4	99	14.33	208			4.2
MJZ	Sn	14	17	56		−7.6		15.59	212			

AMPLITUDES: WTZ 0.2 0.3 CRZ 0.1 MNG 0.7
WEL 0.1 COB 0.1 0.1 CIZ 0.2
CMZ 0.1

79/ 296

MAY 10 $14^h13^m43^s.5$ 39°.01S 176°.05E 12 km M = 3.1
± 0.7 0.02 0.05 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	iPg	14	13	52.5		1.0	100	0.38	243			
	Sg			58		1.1	99					
CNZ	Pg	14	13	52.6		0.1	100	0.43	244			
	Sg			57		−1.6	99					
GSZ	Pg	14	13	53		0.2	100	0.45	233			
	Sg			58		−1.0	100					
KRP	ePg	14	14	06.5		−0.5	100	1.15	339		2.8	3.0
	Sg			22.5		−0.1	100					
TNZ	P*	14	14	08		0.9	100	1.31	262		3.5	
MNG	P*	14	14	12.5		−0.6	100	1.66	195		3.2	3.0
	S*			35		−0.1	100					

AMPLITUDES: KRP 0.3 0.4 TNZ 0.3 MNG 0.8 0.5

79/ 297

MAY 11 $08^h32^m11^s.6$ 37°.95S 176°.15E 199 km M = 4.5
± 1.5 0.07 0.08 10 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	08	32	38.4	D	−0.2	100	0.49	273			
	S		33	00.0		0.5	100					
WTZ	P	08	32	37.8		−1.4	100	0.66	93			
	S			59.0		−1.8	100					
NGZ	P	08	32	45.2		1.5	100	1.30	199			
GSZ	P	08	32	46.1		1.6	100	1.39	198			
GNZ	P	08	32	46.2		−0.3	100	1.63	116			
	S		33	13.3		−0.2	100					
TRZ	P	08	32	49.2		2.1	99	1.68	162		4.2	4.4
	eS		33	17.2		2.6	99					
ECZ	eP	08	32	49.0		−0.3	100	1.91	83		4.5	4.9
MNG	iP	08	32	57.9	D	−0.3	100	2.72	191		4.5	4.6
	e		33	27.8								
	S			32.6		−1.8	100					
WEL	S	08	33	49.1		−1.9	99	3.50	197	4.3		
COB	S	08	34	04.2		−0.2	100	4.10	219			3.5*

AMPLITUDES: TRZ 1.0 3.5 ECZ 1.7 4.1 MNG 7.2 9.6
WEL 0.5 COB 1.7

79/ 298

MAY 12 $12^h07^m38^s.0$ 37°.27S 177°.76E 33 km M = 3.9

± 0.8 0.04 0.04 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iPn	12	07	52.7	D	0.8	100	0.76	124		3.9	4.1
	e		08	00.5								
	e			08.7								
WTZ	iPn	12	07	53.7	U	−0.6	100	0.94	220			3.8
	e			59.1								
	Sn		08	05.6		−0.9	100					
	S*			09.8		1.4	99					
GNZ	iPn	12	08	00.2	U	−0.3	100	1.39	171		3.7	4.2
	Sn			17.8		0.5	100					
	S*			21.3		−0.3	100					
KRP	Pn	12	08	06.8		−0.4	100	1.88	249		3.5	3.9
	Sn			29.0		−0.1	100					
TRZ	Pn	12	08	13.0		−1.2	99	2.39	198		3.8	3.8
NGZ	Pn	12	08	17.6		1.3	99	2.55	221			
ONE								3.11	298	4.1		
MNG	ePn	12	08	29.3		−3.9		3.79	207		3.7	3.7
WEL	eSn	12	09	34.0		−1.3	99	4.63	209	3.9		
COB	eSn	12	09	56.2		1.1	100	5.45	224			3.6

AMPLITUDES:											
ECZ	3.1	5.7	WTZ		7.3	GNZ		2.3	11
KRP	0.4	0.7	TRZ	0.5	0.7	ONE	0.2		
MNG	0.6	0.8	WEL	0.1		COB			0.3

79/ 299

MAY 13 $23^h07^m07^s.5$ 38°.00S 176°.16E 193 km M = 4.9

± 0.8 0.04 0.05 6 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	23	07	33.7		−0.3	100	0.50	278		3.7*	3.1*
	S			54.3		−0.1	100					
WNZ								0.63	184		4.6	
WTZ	iP	23	07	32.9	U	−1.7	99	0.65	89			
NGZ	P	23	07	39.8		1.1	100	1.26	200			
CNZ	P	23	07	40.1		1.1	100	1.30	202			
GSZ	P	23	07	40.0		0.5	100	1.36	199			
GNZ	iP	23	07	41.3	D	−0.5	100	1.60	114			
TRZ	P	23	07	42.8		0.7	100	1.64	162		5.2	5.0
	e			47.2								
	S		08	10.3		1.3	99					
ECZ	eP	23	07	44.8		−0.1	100	1.91	82		4.6	5.0
	S		08	13.6		−0.2	100					
MNG	iP	23	07	52.9	U	−0.5	100	2.67	191		5.1	5.1
	S		08	26.6		−2.2	97					
CAZ	P	23	07	56.5		0.3	100	2.91	179			
	e		08	31.1								
	S			34.5		0.7	100					
WEL	eP	23	08	03.0		0.1	100	3.46	198	4.9		
	eS			44.3		−1.4	99					
	e			45.9								
COB	e	23	08	08.7				4.07	220		4.0*	4.2*
	P			11.1		0.5	100					
	S			59.5		0.1	100					
KAI								5.80	217	4.1*		
CMZ	P	23	08	35.0		-2.9		6.19	204		3.9*	4.5*

MJZ	P	23	08	52.2		−1.2		7.38	214	3.4*	3.7*
	S		10	11.2		−4.9					
OMZ								8.09	207		3.4*
ROX	S	23	10	50.7		−4.7		9.05	212		3.5*
MSZ								9.11	220	3.4*	3.4*

AMPLITUDES: KRP 4.7 1.6 WNZ 0.7 TRZ 10 13
ECZ 2.3 5.4 MNG 26 32 WEL 2.2
COB 1.5 7.5 KAI 1.0 CMZ 1.1 5.7
MJZ 0.5 1.5 OMZ 0.4 ROX 0.6
MSZ 0.4 0.8

79/ 300

MAY 15 $09^h51^m30^s.2$ 37°.66S 178°.11E 12 km M = 3.7
± 1.0 0.06 0.05 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP*	09	51	38.5	U	1.3	100	0.34	95		3.7	3.7
	Sg			47.8		5.4						
WTZ	P*	09	51	47.3		−0.2	100	0.94	250		3.5	
	S*		52	01.3		1.0	100					
GNZ	P*	09	51	46.8		−1.3	100	0.98	184		3.4	4.1
	S*		52	01.7		0.4	100					
TUA								1.38	213			3.6
KRP	Sn	09	52	28.9		−0.1	100	2.06	262			
TRZ	Pn	09	52	02.7		−2.2	99	2.14	208		3.7	3.7
	Sn			32.3		1.2	100					
MNG								3.59	214			3.6
WEL								4.45	215	3.7		

AMPLITUDES: ECZ 8.7 9.8 WTZ 3.7 GNZ 2.0 18
TUA 0.8 TRZ 0.4 0.7 MNG 0.7
WEL 0.1

79/ 301

MAY 15 $14^h49^m13^s.5$ 45°.00S 167°.69E 104 km M = 5.5
± 0.7 0.04 0.06 7 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	14	49	29.0		−0.1	100	0.37	26			
ROX	P	14	49	37.9		0.6	100	1.25	113			
	S			55.7		0.2	100					
HGP	iP	14	49	44.6	U	0.6	100	1.78	61			
	S		50	07.3		0.6	100					
RHP	iP	14	49	46.3	U	0.4	100	1.93	63			
OBZ	iP	14	49	44.9		−0.9	99	1.93	171			
HHP	iP	14	49	46.9	U	−0.0	100	2.01	71			
BSP	iP	14	49	47.9	U	0.2	100	2.07	58			
MJZ	iP	14	49	49.2	U	−0.6	100	2.23	64			
	S		50	14.9		−1.9	90					
OMZ	iP	14	49	51.2	D	0.6	100	2.29	93			
KAI								3.65	49	5.4		
CMZ	P	14	50	11.7		0.1	100	3.82	70			5.6
COB	e	14	50	30.5				5.38	45		5.3	5.5
	P			31.7		−1.1						
	S		51	29.1		−4.9						
WEL	S	14	51	52.4		−5.9		6.37	57	4.0*		
MNG	S	14	52	12.7		−6.1		7.21	55		4.0*	4.1*
CIZ	S	14	53	51.7		−6.0		11.31	90			

AMPLITUDES: KAI 5.2 CMZ 20 COB 2.8 9.4

WEL 0.6 MNG 3.2 4.5

FELT: Southern South Island and Stewart Island, intensity did not exceed MM IV

79/ 302

MAY 16 $10^h45^m15^s.6$ 44°.65S 169°.57E 12 km M = 3.4

± 0.3 0.01 0.01 2 S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
THP	iP*	10	45	20.7		−0.3	100	0.25	65			
DMP	iP*	10	45	21.7		−0.2	100	0.30	38			
TMP	iP*	10	45	25.6	U	0.0	100	0.51	50			
	S*			32.3		−0.4	100					
HGP	P*	10	45	26.3		−0.4	100	0.58	20			
HHP	iP*	10	45	27.8	D	0.1	100	0.64	60			
RHP	iP*	10	45	28.1	U	0.0	100	0.67	34			
MMP	iP*	10	45	29.2	U	0.2	100	0.72	45			
ROX	S*	10	45	41.5		−1.1	94	0.85	192			
BSP	P*	10	45	31.3		−0.3	100	0.87	26			
	Pg			33.4		0.1	100					
MJZ	P*	10	45	32.9		0.4	100	0.93	44		3.3	3.5
	S*			44.5		−0.4	100					
	Sg			46.5		−0.4	100					
OMZ	P*	10	45	34.7		0.1	100	1.04	114		3.6	3.0
	Pn			36.0		0.6	99					
	Sn			49.8		−0.2	100					
MSZ	P*	10	45	37.0		0.1	100	1.18	268		3.6	3.5
	iPn			37.7	D	0.5	100					
	Sn			52.7		−0.6	99					

AMPLITUDES: MJZ 3.6 6.7 OMZ 2.0 1.1 MSZ 4.2 6.2

79/ 303

MAY 17 $07^h13^m14^s.7$ 45°.44S 167°.37E 12 km M = 3.7

± 0.6 0.02 0.07 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	07	13	31.1		0.5	100	0.86	27		3.5	3.7
	Pn			31.4		−0.6	100					
	Pg			35.6		3.3						
	S*			43.6		1.4	99					
	Sn			44.3		−0.5	100					
ROX	P*	07	13	39.5		0.1	100	1.38	92		3.4	
	Sn			57.2		0.0	100					
OBZ	Pn	07	13	41.6		0.1	100	1.56	161		4.3	
	P*			42.7		0.2	100					
	Pg			46.9		0.6	100					
	Sn		14	00.6		−0.9	100					
DMP	iPn	07	13	48.0	D	0.1	100	2.02	60			
TMP	iPn	07	13	50.5	D	−0.5	100	2.26	61			
	eSn		14	16.5		−1.9	99					
RHP	iPn	07	13	51.9	D	−0.4	100	2.36	56			
HHP	iPn	07	13	52.0	D	−0.9	100	2.39	63			
BSP	iPn	07	13	54.1	D	−0.3	100	2.51	52			
OMZ	P*	07	14	01.7		2.5	92	2.54	83		4.0	
MJZ								2.65	58		3.2	3.6

AMPLITUDES: MSZ 5.7 16 ROX 0.8 OBZ 6.4
OMZ 0.9 MJZ 0.3 1.1

79/ 304

MAY 17 $08^h32^m03^s.1$ 38°.85S 175°.22E 221 km M = 3.7

± 1.1 0.05 0.13 12 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P	08	32	33.6		0.9	100	0.43	144			
KRP	P	08	32	35.3		0.2	100	0.96	15		3.4*	
	i			37.2								
TRZ	P	08	32	39.3		0.9	100	1.43	120		4.0	3.4
WTZ	P	08	32	38.0		−2.1	92	1.64	59		3.2	
MNG	P	08	32	42.0		0.6	100	1.77	174		3.6	4.0
	S		33	10.7		−0.3	100					
KIW	iP	08	32	44.1	U	0.2	100	2.02	187			
CAW	iP	08	32	46.5	U	0.2	100	2.26	183			
WEL								2.46	188	3.8		
TCW	iP	08	32	48.6	U	0.1	100	2.47	197			
WHW	P	08	32	48.4		−0.0	100	2.47	189			
	S		33	22.7		−0.8	100					
COB	P	08	32	53.2		−0.4	100	2.94	220		3.6*	2.7*

AMPLITUDES: KRP 2.1 TRZ 0.6 0.3 WTZ 0.2
MNG 1.3 4.5 WEL 0.3 COB 0.7 0.3

79/ 305

MAY 17 $16^h53^m46^s.9$ 35°.67S 179°.91E 12 km M = 4.9

± 0.7 0.05 0.09 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iPn	16	54	25.3	U	1.5	98	2.30	208			4.8
	Pg			32.8		−0.6	100					
WTZ	Pn	16	54	36.3		−1.0	99	3.29	225			
	Sn		55	15.7		0.3	100					
GNZ	Pn	16	54	37.8		−0.1	100	3.33	206		5.1	5.0
	e			40.5								
	e			47.8								
	Sn		55	16.1		−0.2	100					
TUA	Sn-Pn			43.5		−0.1	100	3.83	214		5.6	5.1
KRP	Pn	16	54	49.6	UNE	0.3	100	4.18	236			5.0
	e			53.0								
WNZ	Pn	16	54	50.9		0.6	100	4.25	225		5.1	
ONE								4.52	267	4.7		
TRZ	iPn	16	54	53.9	D	−1.1	99	4.59	211		4.9	4.7
	eSn		55	47.3		0.7	100					
NGZ	e	16	54	58.5				4.90	223			
	Pn			59.2		−0.1	100					
GSZ	e	16	54	59.4				4.99	222			
	Pn		55	00.1		−0.3	100					
	Sn			55.5		−0.5	100					
MNG	Pn	16	55	10.2		−4.8		6.05	214		4.7	4.7
	e			57.3								
	eSn		56	16.8		−4.9						
WEL	Sn	16	56	37.2		−5.1		6.91	214	4.8		
COB	e	16	55	25.7				7.81	224		4.6	4.5
	Pn			33.7		−5.3						
	Sn		56	59.7		−4.3						
MJZ	Pn	16	56	18.6		−4.4		11.03	218		5.0	4.7
	Sn		58	12.5		−8.9						
RHP	Pn	16	56	22.8		−3.9		11.31	219			

AMPLITUDES: ECZ 2.9 GNZ 8.9 11 TUA 7.9 2.9

KRP		1.1	WNZ	0.4		ONE	0.3	
TRZ	1.6	1.5	MNG	2.5	3.2	WEL	0.6	
COB	0.4	1.0	MJZ	1.2	0.8			

79/ 306

MAY 18 $07^h00^m19^s.5$ 39°.64S 174°.66E 78 km M = 3.3

± 0.6 0.02 0.05 11 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ								0.50	334		2.6*	
GSZ	iP	07	00	36.8	D	0.3	100	0.80	63			
NGZ	iP	07	00	37.2		−0.1	100	0.87	59			
	S			50.1		−0.5	100					
MNG	P	07	00	41.0	U	0.1	100	1.16	147		3.7	3.1
	S			56.9		0.0	100					
KIW	iP	07	00	42.5	U	0.7	100	1.23	171			
	S			59.6		1.0	99					
TCW	iP	07	00	47.0	D	0.5	100	1.60	190			
	S		01	07.6		0.8	100					
WDW	iP	07	00	47.0	U	−0.1	100	1.65	171			
	S		01	06.7		−1.2	98					
WEL								1.65	177	3.0		
WHW	P	07	00	47.3		0.0	100	1.66	178			
	S		01	07.1		−1.0	99					
COB	P	07	00	52.6		−0.2	100	2.06	225		3.2*	2.8*
	eS		01	16.9		−0.4	100					

AMPLITUDES:									
TNZ	0.2		MNG	7.5	2.4	WEL	0.1		
COB	0.5	0.7							

79/ 307

MAY 18 $08^h41^m18^s.0$ 42°.60S 173°.05E 33 km M = 3.7

± 0.2 0.02 0.03 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	iPn	08	41	27.2	D	−1.3	99	0.50	69			
	Sn			34.5		−1.6	99					
CMZ	Pn	08	41	35.4		−0.2	100	1.03	197		3.9	3.7
	P*			37.2		0.1	100					
KAI	Sn	08	41	51.8		−1.4	99	1.21	273	3.9		
COB	e	08	41	41.1				1.53	351		3.9	3.8
	iPn			41.6	U	−0.8	100					
	iSn		42	00.6	D	−0.1	100					
TCW	Pn	08	41	44.7		0.5	100	1.66	34			
	P*			48.9		1.2	99					
WEL								1.84	45	3.4		
WDW	Pn	08	41	48.5		0.1	100	1.97	48			
	P*			53.2		0.3	100					
KIW	Pn	08	41	52.8		0.9	100	2.22	39			
	P*			59.1		1.8	98					
MJZ								2.34	233		3.8	3.6
MJP	Pn	08	41	53.5		−0.1	100	2.35	233			
MMP	Pn	08	41	56.2		−0.1	100	2.55	232			
	P*		42	03.8		1.2	100					
HHP	Pn	08	41	56.8		−0.5	100	2.62	228			
	Sn		42	28.1		1.2	100					
RHP	Pn	08	41	57.2		−0.3	100	2.64	234			
	P*		42	04.6		0.4	100					
MNG	ePn	08	41	58.0		−0.3	100	2.69	43		3.7	3.5
	e		42	07 9								

THP	Pn	08	42	01.5		−1.1	100	3.01	229			
MSZ								4.27	239		3.7	

AMPLITUDES: CMZ 5.2 6.0 KAI 2.2 COB 2.1 5.9
WEL 0.3 MJZ 1.7 1.2 MNG 1.4 1.1
MSZ 0.4

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MAY 18 $18^h04^m56^s.9$ 43°.03S 171°.01E 12 km M = 2.7
± 0.5 0.07 0.16 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI								0.58	30	2.2		
MJZ								1.03	202		2.7	2.7
MJP	iP*	18	05	16.5		0.7	100	1.04	202			
BSP	iP*	18	05	15.2	D	−1.1	100	1.07	218			
RHP	Pn	18	05	19.2		−0.5	100	1.27	212			
	Pg			21.8		−0.7	100					
HHP	iPn	18	05	22.5	D	1.2	99	1.39	200			
	e			23.7								
	Pg			24.5		−0.4	100					
	Sg			42.8		−0.9	100					
TMP	Pn	18	05	22.9		0.9	100	1.44	206			
	Pg			24.6		−1.4	99					
DMP	P*	18	05	26.9		1.0	100	1.63	211			
	S*			47.9		0.5	100					
THP	P*	18	05	27.9		0.5	100	1.72	208			
COB	ePg	18	05	43.6		−0.4	100	2.33	34		3.0	2.7
MSZ								2.77	233			3.0

AMPLITUDES: KAI 0.2 MJZ 0.7 0.8 COB 0.1 0.2
MSZ 0.3

FELT: Evans Creek, Harihari (98) MM IV

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MAY 19 $03^h53^m19^s.2$ 44°.33S 168°.87E 12 km M = 3.1
± 0.2 0.03 0.01 R S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
DMP	iP*	03	53	32.4	D	0.1	100	0.69	97			
	Pg			36.7		3.3						
HGP	P*	03	53	32.8		−0.2	100	0.74	73			
THP	iP*	03	53	33.7	D	0.3	100	0.76	107			
MSZ	P*	03	53	33.2		−0.2	100	0.76	243		3.3	3.3
	S*			43.6		−0.1	100					
RHP	P*	03	53	35.9	U	0.1	100	0.90	76			
	Pg			37.9		0.2	100					
TMP	P*	03	53	36.1	D	0.3	100	0.90	90			
	Pg			39.0		1.4						
	S*			47.4		−0.5	100					
BSP	iP*	03	53	36.9	U	−0.6	99	1.00	63			
MMP	eP*	03	53	38.2		0.2	100	1.03	80			
HHP	P*	03	53	39.0	D	0.5	100	1.06	90			
	iPg			41.1	D	0.3	100					
	S*			52.0		−0.7	99					
MJP	eP*	03	53	41.2		0.4	100	1.20	74			
MJZ								1.20	74		3.0	3.1

AMPLITUDES: MSZ 4.8 8.0 MJZ 0.9 1.6

FELT: Mount Aspiring (113) MM IV

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MAY 19 $04^h47^m16^s.4$ 36°.45S 176°.87E 33 km M = 4.8
± 0.3 0.02 0.02 R S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pn	04	47	39.9	D	−1.0	97	1.54	177		4.8	5.0
	P*			44.6		0.6	100					
	e			46.3								
	Sn			59.2		−0.1	100					
	e		48	10.9								
KRP	e	04	47	48.6				1.82	216		4.8	5.1
	iP*			49.0		0.2	100					
	e			53.7								
	S*		48	12.5		−0.4	100					
ECZ	P*	04	47	49.0		0.1	100	1.83	133		4.9	5.1
	e			54.4								
	S*		48	13.0		−0.1	100					
	e			27.4								
	e			27.4								
TUA								2.37	175		4.9	4.9
NGZ	P*	04	48	07.7		0.4	100	2.91	200			
CNZ	P*	04	48	08.4		0.6	100	2.94	201			
GSZ	e	04	48	07.1				3.01	199			
	iP*			08.7	U	−0.2	100					
TRZ	Pn	04	48	04.5		2.2		3.10	181		4.7	4.8
TNZ								3.37	215		4.9	
CRZ	P*	04	48	25.3		−0.1	100	3.98	299		4.6	
MNG	ePn	04	48	20.4		1.6		4.31	194		4.5	
COB	ePn	04	48	41.5		4.4		5.65	214		4.9	

AMPLITUDES:											
WTZ	7.8	7.4	KRP	6.9	8.9	ECZ	2.4	4.3
TUA	1.6	1.2	TRZ	0.6	0.8	TNZ	0.5	
CRZ	0.7		MNG	0.8		COB	0.4	

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MAY 19 $17^h56^m44^s.4$ 38°.01S 176°.32E 185 km M = 3.8
± 1.3 0.06 0.07 8 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	17	57	08.7		−1.3	100	0.53	87		3.0	3.2
	S			27.6		−2.1	99					
KRP	P	17	57	11.2		0.8	100	0.62	278		2.9*	
	S			31.0		0.5	100					
NGZ	P	17	57	17.0		1.9	99	1.30	205			
GSZ	P	17	57	17.7		1.7	99	1.39	204			
GNZ	S	17	57	41.6		−0.3	100	1.48	116			4.1
TRZ	P	17	57	18.8	D	0.9	100	1.59	166		3.8	3.5
	S			45.4		1.6	99					
MNG	iP	17	57	29.8	U	−0.2	100	2.69	194		4.8	3.7
	S		58	04.8		−0.4	100					
WEL	eP	17	57	39.4		−0.4	100	3.48	200	4.0		
	eS		58	21.5		−1.1	100					
COB	eP	17	57	47.6		−0.5	100	4.14	221		2.8*	2.9*
	eS		58	36.0		−1.4	100					
CMZ								6.24	205			3.0*

AMPLITUDES:											
WTZ	0.3	0.6	KRP	0.8		GNZ		4.4
TRZ	0.4	0.5	MNG	13	1.5	WEL	0.3	
COB	0.1	0.4	CMZ	0.2				

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MAY 19 $22^h51^m23^s.0$ 38°.37S 175°.80E 193 km M = 4.2

± 1.4 0.05 0.09 10 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	22	51	49.7	D	0.3	100	0.49	335		3.5*	2.5*
	S		52	10.0		0.3	100					
NGZ	P	22	51	51.6		0.6	100	0.83	190			
CNZ	P	22	51	52.6		1.5	100	0.85	193			
GSZ	P	22	51	53.4		1.8	99	0.92	190			
WTZ	iP	22	51	51.3		−0.9	100	1.02	68			
	S		52	12.4		−2.4	98					
TRZ	P	22	51	56.6		1.0	100	1.42	146		4.3	4.1
	eS		52	22.3		1.6	100					
MNG	iP	22	52	03.9	D	−0.2	100	2.26	186		4.3	4.2
	S			34.7		−1.1	100					
WEL	S	22	52	50.6		−1.0	100	3.02	195	4.3		
COB	eP	22	52	19.5		−0.6	100	3.60	220		2.8*	3.3*
	S		53	03.7		−0.6	100					

AMPLITUDES: KRP 3.3 0.4 TRZ 1.3 2.0 MNG 5.7 5.7
WEL 0.6 COB 0.1 1.1

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MAY 20 $09^h47^m27^s.2$ 41°.64S 171°.95E 12 km M = 3.1

± 0.4 0.04 0.06 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	eP*	09	47	41.8		−0.3	100	0.81	47		3.2	3.2
	Pg			42.6		−1.0	99					
	S*			53.7		0.7	100					
KAI	S*	09	47	56.4		−1.6	98	0.97	204	3.2		
TCW	Pn	09	47	57.6		0.4	100	1.80	77			
	P*			58.4		−0.6	100					
	eSn		48	19.9		0.1	100					
CMZ	P*	09	48	02.7		0.0	100	2.01	166		3.2	3.0
CAW	ePn	09	48	05.5		0.0	100	2.40	78			
BSP	ePn	09	48	08.0		−0.3	100	2.61	211			
	Sn			40.7		1.4	99					
RHP	ePn	09	48	10.9		−0.2	100	2.82	209			
	Sn			45.2		0.9	100					
MNG	P*	09	48	17.7		0.6	100	2.85	70		3.3	2.9

AMPLITUDES: COB 1.4 5.4 KAI 0.7 CMZ 0.3 0.3
MNG 0.4 0.2

FELT: Murchison (80) MM IV

79/ 314

MAY 20 $14^h39^m11^s.4$ 32°.66S 178°.46W 280 km M = 4.7

± 1.6 0.09 0.19 28 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	14	40	36.5		0.7	100	5.59	205		4.7	4.9
WTZ	eP	14	40	44.8		−2.0	99	6.49	214		5.0	4.7
	S		42	01.2		−0.4	100					
TUA								7.10	209		4.7	4.7
KRP	eP	14	40	57.1		1.6	99	7.19	221		3.3*	2.9*
	e		42	44.5								
CRZ	eP	14	41	00.4		−0.3	100	7.61	254		3.5*	
TRZ	eP	14	41	04.6		0.7	100	7.87	208		4.7	4.6

MNG	eP	14	41	21.0		−1.0	100	9.32	210		4.3	4.7
	S		43	05.3		0.5	100					
WEL	eS	14	43	22.8		−1.2	100	10.18	210	4.6		
COB	eS	14	43	42.5		0.5	100	10.98	217		3.2*	3.2*

AMPLITUDES: ECZ 0.5 0.7 WTZ 1.6 0.8 TUA 0.3 0.3
KRP 0.4 0.2 CRZ 0.2 TRZ 0.2 0.4
MNG 0.4 1.4 WEL 0.1 COB 0.1 0.3

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MAY 21 $15^h05^m25^s.2$ 50°.41S 165°.41E 33 km M = 4.2
± 1.3 0.23 0.55 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	e	15	06	24.8				3.95	28		4.3	4.1
	eS		07	05.0		−0.9	100					
ROX	eP	15	06	46.7		1.6	99	5.60	29		4.2	4.1
	eS		07	46.8		1.1	100					
MSZ	eP	15	06	50.3		−0.2	100	5.99	17		4.4	4.0
	e		07	56.8								
THP	P	15	06	58.7		−0.3	100	6.61	29			
	e		07	05.9								
	eS		08	11.0		0.9	100					
DMP	P	15	07	00.2		−0.1	100	6.71	28			
	e			06.4								
HHP	P	15	07	03.2		−0.4	100	6.96	31			
	e			11.9								
	eS		08	16.3		−1.9	99					
RHP	eP	15	07	04.6		−0.7	100	7.07	28			
	e			14.2								
BSP	eP	15	07	07.7		−0.5	100	7.29	28			
MJZ								7.30	30		4.2	4.2

AMPLITUDES: OBZ 1.0 1.6 ROX 0.3 0.6 MSZ 1.0 0.7
MJZ 0.4 0.5

79/ 316

MAY 21 $17^h22^m15^s.7$ 45°.11S 167°.59E 92 km M = 3.3
± 0.6 0.02 0.04 4 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	17	22	31.5	U	0.6	100	0.49	28		3.3	3.6
	S			42.0		−0.5	100					
ROX	P	17	22	40.2	D	1.0	99	1.28	107			
	e			43.4								
	S			57.6		0.7	100					
DMP	iP	17	22	45.5	D	0.5	100	1.74	67			
	S		23	07.2		0.2	100					
OBZ	eP	17	22	47.8		1.5		1.84	169		3.1	3.6
	eS		23	08.0		−1.0	99					
TMP	P	17	22	48.0		−0.1	100	1.97	67			
	S		23	11.7		−0.3	100					
HHP	iP	17	22	49.6	D	−0.5	100	2.12	69			
	S		23	14.6		−0.9	99					
MMP	iP	17	22	50.0	D	−0.6	100	2.15	64			
	S		23	15.8		−0.5	100					
BSP	P	17	22	51.0	D	0.0	100	2.19	56			
	S		23	17.4		0.2	100					
MJZ								2.34	62		2.5	3.5
OMZ	P	17	22	53.8		0.4	100	2.36	90		3.8	3.2

AMPLITUDES: MSZ 6.7 23 OBZ 0.3 2.4 MJZ 0.1 1.0
OMZ 0.7 0.3

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MAY 22 $04^h58^m54^s.3$ 37°.08S 179°.49E 33 km M = 4.1
± 0.7 0.07 0.08 R S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	04	59	11.7	U	0.5	100	0.97	230		4.4	4.5
	P*			15.4		3.0						
	e			18.0								
	Sn			24.3		0.6	99					
WTZ	Pn	04	59	27.4		−0.3	100	2.19	245			
TRZ	ePn	04	59	41.6		−0.6	100	3.25	220			
KRP	Pn	04	59	42.5		0.1	100	3.26	254		4.2	4.1
NGZ	Pn	04	59	48.4		−0.1	100	3.72	234			
	e	05	00	23.0								
CNZ	Pn	04	59	49.3		0.0	100	3.76	235			
	Sn	05	00	30.1		−0.7	99					
GSZ	Pn	04	59	49.8		0.3	100	3.78	233			
TNZ								4.55	241		4.6	
MNG	ePn	04	59	59.1		−3.3		4.72	220		3.9	4.0
	Sn	05	00	46.6		−7.2						
WEL								5.58	220	4.1		
COB								6.61	231		3.9	3.6

AMPLITUDES: ECZ 5.1 9.3 KRP 0.7 0.4 TNZ 0.2
MNG 0.6 1.0 WEL 0.1 COB 0.1 0.2

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MAY 22 $07^h32^m40^s.5$ 44°.95S 167°.69E 70 km M = 3.4
± 0.5 0.02 0.03 3 S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	07	32	52.3	U	0.0	100	0.32	30		3.6	3.3
	S		33	01.0		−0.3	100					
ROX	P	07	33	03.6		0.7	99	1.27	115			3.3
	S			20.7		0.8	99					
TMP	iP	07	33	10.8	D	0.1	100	1.84	71			
	S			33.2		0.1	100					
RHP	P	07	33	11.8	U	0.2	100	1.91	65			
OBZ	S	07	33	35.8		−0.4	100	1.98	172			3.6
HHP	P	07	33	12.5	D	−0.3	100	2.00	73			
	S			36.1		−0.4	100					
MMP	iP	07	33	13.0	D	−0.1	100	2.02	67			
	S			37.7		0.6	100					
BSP	iP	07	33	13.7	D	0.3	100	2.04	59			
OMZ	P	07	33	16.8		−0.1	100	2.29	94		3.5	3.3
	S			42.8		−1.1	97					

AMPLITUDES: MSZ 34 30 ROX 1.7 OBZ 2.5
OMZ 0.5 0.6

79/ 319

MAY 22 $11^h47^m47^s.8$ 36°.28S 177°.78E 269 km M = 4.3
± 1.3 0.08 0.15 10 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ								1.54	157			4.0
WTZ	P	11	48	29.4		−1.1	100	1.82	200		4.7	4.2
	S		49	03.0		−0.7	100					

GNZ	P	11	48	34.7		−0.7	100	2.37	175		4.0	4.5
	S		49	13.6		1.0	100					
KRP	P	11	48	37.5		1.4	99	2.43	227		3.1*	
TRZ	P	11	48	46.4		0.7	100	3.36	193		4.2	4.6
MNG	P	11	49	00.6		−0.5	100	4.69	202		4.2	4.3
	S			58.4		0.1	100					
WEL	S	11	50	15.9		−0.4	100	5.53	204	4.2		
COB								6.22	218		3.0*	3.2*

AMPLITUDES: ECZ 0.5 WTZ 4.2 1.5 GNZ 0.9 3.7
KRP 0.7 TRZ 0.3 1.5 MNG 1.1 2.0
WEL 0.2 COB 0.1 0.5

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MAY 22 $13^h25^m44^s.4$ 40°.16S 174°.18E 33 km M = 3.4
± 0.6 0.04 0.02 R S.E. of RES. 0.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KIW	iP	13	26	00.3	U	0.1	100	0.90	142			
TCW	iP	13	26	02.5	U	0.1	100	1.05	176			
MNG	P	13	26	03.1	D	0.2	100	1.10	115		3.3	3.6
	i			04.5								
	eS			16.8		0.1	100					
MRW	iP	13	26	03.7	U	0.1	100	1.14	160			
CAW	P	13	26	03.3		−0.5	94	1.16	145			
WEL	P	13	26	04.6		0.1	100	1.21	159	3.1		
WHW	P	13	26	04.6		0.1	100	1.21	160			
	e			17.4								
COB	S-P			17.4		0.1	100	1.44	229		3.6	3.5
TRZ								2.12	74		3.0	3.4
CMZ								3.62	198			3.8
MSZ								6.47	224		3.5	3.7

AMPLITUDES: MNG 3.2 7.3 WEL 0.3 COB 1.1 2.8
TRZ 0.1 0.3 CMZ 0.6 MSZ 0.1 0.3

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MAY 22 $19^h58^m21^s.4$ 45°.19S 167°.48E 78 km M = 3.9
± 0.3 0.01 0.03 3 S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	19	58	36.7	U	0.4	100	0.60	31		4.1	3.9
	iS			47.4		−0.3	100					
ROX	iP	19	58	45.5	D	0.5	99	1.33	103			
	S		59	02.8		0.1	100					
OBZ	eP	19	58	50.7		−0.1	100	1.77	166		3.9	4.3
	S		59	12.4		−0.2	100					
THP	iP	19	58	51.8	D	0.2	100	1.84	70			
DMP	iP	19	58	52.2	D	0.4	100	1.84	66			
RHP	iP	19	58	55.9	D	−0.1	100	2.16	61			
HHP	iP	19	58	56.3	D	−0.6	99	2.21	68			
BSP	iP	19	58	57.6	D	−0.4	100	2.29	56			
OMZ	P	19	59	00.1		0.2	100	2.44	88		3.8	3.9
	S			28.4		−0.3	100					
COB								5.62	45		3.9	3.6

AMPLITUDES: MSZ 42 46 OBZ 2.7 15 OMZ 0.9 1.7
COB 0.2 0.3

79/ 322

MAY 23 $20^h36^m29^s.7$ 45°.17S 167°.57E 12 km M = 3.4

± 0.7 0.02 0.09 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP*	20	36	40.7	U	0.3	100	0.56	27		3.0	3.3
	eS*			46.8		−1.3	99					
	Sg			48.4		−0.4	100					
THP	Pn	20	36	59.9		0.6	100	1.76	70			
OBZ	Pn	20	36	58.7		−0.8	100	1.78	168		3.4	4.0
	Sn		37	21.2		−0.6	100					
DMP	Pn	20	37	00.6		1.1	99	1.78	66			
RHP	Pn	20	37	04.4		0.6	100	2.10	60			
HHP	Pn	20	37	04.7		0.1	100	2.15	68			
	eSn			30.2		−0.6	100					
BSP	Pn	20	37	06.7		1.0	99	2.23	55			
OMZ	Pn	20	37	07.4		−0.2	100	2.38	89		3.5	3.0

AMPLITUDES: MSZ 5.2 16 OBZ 0.6 6.0 OMZ 0.3 0.2

79/ 323

MAY 24 $23^h20^m36^s.3$ 50°.12S 163°.78E 33 km M = 4.5

± 1.7 0.16 0.38 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P	23	21	40.4		1.5	99	4.32	44			
	e		22	24.0								
ROX	P	23	22	01.7		0.4	100	5.96	41		4.7	4.5
	S		23	05.1		−0.5	100					
MSZ	P	23	22	04.8		1.2	100	6.14	29		4.7	4.3
	eS		23	10.3		0.6	100					
THP	P	23	22	13.8		−1.0	100	6.96	39			
OMZ	P	23	22	17.2		1.9	99	6.98	46		4.2	4.1
DMP	P	23	22	15.3		−0.6	100	7.04	38			
HHP	P	23	22	18.4		−1.4	100	7.32	40			
RHP	P	23	22	19.6		−1.3	100	7.40	38			
BSP	P	23	22	22.9		−0.7	100	7.60	37			
CMZ								8.92	46		4.7	4.3

AMPLITUDES: ROX 0.9 1.3 MSZ 2.0 1.5 OMZ 0.2 0.3
CMZ 0.5 0.3

79/ 324

MAY 26 $13^h47^m06^s.5$ 37°.66S 176°.86E 174 km M = 4.6

± 1.4 0.07 0.07 9 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	13	47	29.0		−1.1	100	0.33	163		4.0	4.0
	eS			47		−1.3	100					
KRP	iP	13	47	35.0	USW	0.7	100	1.08	256		4.2*	
	eS			55		−0.8	100					
TUA	(S-P)			32		10.0		1.17	169		4.6	4.5
GNZ	P	13	47	38.0		1.3	100	1.34	137			
	e			45.9								
	eS			59		−0.9	100					
ECZ	P	13	47	36.4		−0.2	100	1.34	92		4.6	4.6
	e			39.8								
	eS		48	00		0.2	100					
	e			09								
NGZ	eP	13	47	43.2		1.8	100	1.81	212			

	eS		48 11.5		3.2	98					
TRZ	P	13	47 43.5		1.3	100	1.89	181		5.2	4.5
	e		48.2								
	eS		48 11.5		1.7	100					
	e		21.7								
TNZ	(S-P)		37.5		4.9		2.47	231		3.5*	3.3*
MNG	P	13	47 56.7		−0.5	100	3.14	200		4.7	4.7
	e		48 04.0								
	S		35.5		−0.7	100					
	e		48								
WEL	eP	13	48 07		−0.7	100	3.97	203	4.7		
	eS		52		−2.9	98					

AMPLITUDES:										
WTZ	4.5	5.0	KRP	17		TUA	4.7	3.6
ECZ	4.0	3.7	NGZ	12	10	TRZ	8.5	4.2
TNZ	0.4	0.4	MNG	9.2	12	WEL	1.0	

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MAY 26 $17^h46^m14^s.4$ 32°.09S 179°.91E 446 km M = 5.1

± 1.6 0.09 0.24 21 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	17	47	48.5		2.0	100	5.71	191		4.9	5.4
	eS		49	01		2.1	100					
ONE	eP	17	47	49		0.6	100	5.90	230	3.9*		
WTZ	eP	17	47	50		−3.2	99	6.35	201		5.2	5.2
	e		53									
	e		48	49								
	eS		49	09		−2.1	100					
CRZ	eP	17	47	54		−0.7	100	6.50	247		3.6*	
GNZ	eP	17	47	57		−0.1	100	6.72	193		5.3	4.6
	eS		49	17		−1.3	100					
KRP	P	17	48	00.9		2.5	99	6.84	210		3.9*	3.3*
	e(S)		49	26		5.3						
TUA	S-P		1	23		−1.3	100	7.07	198		4.9	5.2
TRZ	eP	17	48	09		−0.6	100	7.87	198		4.9	5.4
	eS		49	40		−0.6	100					
NGZ	eP	17	48	10		0.1	100	7.90	205			
	e		49	25								
	eS		44			2.6	99					
MNG	eP	17	48	23		−1.8	100	9.23	201		5.2	5.4
	eS		50	08		−0.0	100					
WEL	eS	17	50	26		1.0	100	10.07	203	5.1		
CIZ	e	17	51	29				12.18	168			

AMPLITUDES:										
ECZ	0.6	1.6	ONE	0.7		WTZ	2.3	2.5
CRZ	0.3		GNZ	2.5	0.8	KRP	1.6	0.5
TUA	0.4	0.8	TRZ	0.3	2.1	NGZ	1.0	2.2
MNG	3.2	6.0	WEL	0.5		CIZ		0.4

79/ 326

MAY 27 $15^h22^m42^s.9$ 40°.14S 174°.96E 12 km M = 3.7

± 0.6 0.02 0.06 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iP*	15	22	54.9		0.2	100	0.62	140		3.6	3.4
	eS*		23	02.5		−0.6	100					
TNZ	S*-P*			16		1.8	99	1.06	335		3.6	3.4
NGZ	eP*	15	23	01		−1.6	99	1.08	28			
	eS*			16		−1.1	100					
WEL	eP*	15	23	04		0.3	100	1.15	187	3.8		

	eS*			18.5		−0.6	100					
CAZ	e	15	23	14				1.22	129			
	eSg			26		1.6	99					
KRP	Pn	15	23	20.0		0.7	100	2.26	12		3.9	4.3
	eSn			48.5		1.8	99					
WTZ	eP*	15	23	29		−0.7	100	2.67	37		3.6	

AMPLITUDES: MNG 18 15 TNZ 1.3 1.0 NGZ 16 21
WEL 1.7 CAZ 1.2 2.5 KRP 0.7 1.3
WTZ 0.3

79/ 327

MAY 28 $22^h48^m37^s.7$ 39°.13S 175°.53E 12 km M = 3.8
± 0.7 0.02 0.13 6 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	iPg	22	48	41.3	D	0.8	100	0.08	128			
TNZ	S*-P*			12		−0.0	100	0.89	266		3.7	3.5
KRP	iP*	22	48	58.2		−1.2	100	1.21	0		4.2	4.2
	eS*		49	14		−1.4	100					
	eSg			19		0.6	100					
MNG	Pn	22	49	02.7		−0.8	100	1.48	181		3.8	3.4
	iP*			03.9		−0.3	100					
	eSn			21.5		−1.3	100					
WEL	ePn	22	49	14		0.3	100	2.23	195	3.6		
	eS*			44		−2.2	98					

AMPLITUDES: NGZ 44 TNZ 1.3 1.3 KRP 5.5 5.0
MNG 4.5 2.0 WEL 0.2

79/ 328

MAY 30 $08^h48^m59^s.0$ 37°.97S 178°.80E 12 km M = 4.6
± 1.0 0.03 0.07 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP*	08	49	05.5	U	−0.5	100	0.34	324			
GNZ	P*	08	49	17.0		1.3	100	0.91	222		4.1	4.2
	eS*			28		0.1	100					
WTZ	iP*	08	49	23.0	U	−1.6	100	1.43	269			
TRZ	Pn	08	49	34.2		−0.5	100	2.21	224		4.5	4.7
	eSn		50	04		2.5	98					
WNZ	eP*	08	49	40		1.9	99	2.22	252		4.6	4.4
	e(Pg)			49.5		5.5						
	eS*		50	06		−1.3	100					
KRP	iPn	08	49	39.5	D	−0.2	100	2.58	270		4.6	4.7
	ePg			52		0.8	100					
	eSn		50	10		−0.4	100					
NGZ	Pn	08	49	41.9		−0.5	100	2.78	243			
	eSn		50	15		−0.1	100					
CAZ	eSn	08	50	33		−0.6	100	3.55	213			
MNG	iPn	08	49	53.1		−1.8	99	3.69	223		4.4	4.6
	e		50	21								
	eSn			36		−1.1	100					
ONE	ePn	08	50	02		0.4	100	4.18	300	5.1		
	eSn			50		1.2	100					
WEL	e	08	50	13				4.54	222	4.7		
	ePg			33		2.1	99					
	eSn			56		−1.6	99					
CRZ	ePn	08	50	27		−0.5	100	6.08	304		5.5	

AMPLITUDES: GNZ 11 24 TRZ 2.8 6.6 WNZ 0.5 0.5

KRP	3.2	3.6	NGZ	8.0	10	CAZ	5.5		
MNG	3.5	7.5	ONE	1.2		WEL	0.9		
CRZ	1.5								

79/ 329

MAY 30 $08^h54^m37^s.3$ 37°.95S 179°.00E 12 km M = 4.3

± 1.6 0.05 0.13 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP*	08	54	46.1	U	0.1	100	0.44	305			
GNZ	P*	08	54	58.7		2.4	99	1.04	228		4.1	4.0
	eSg		55	15		2.4	99					
WTZ	Pn	08	55	03.9	U	−0.7	100	1.59	268		4.0	
TRZ	Pn	08	55	15.2		0.4	100	2.34	226		4.6	4.8
	eS*			49		−0.2	100					
KRP	ePn	08	55	19.5		−0.7	100	2.74	269		4.1	4.4
	eSn			51		−1.6	100					
NGZ	ePn	08	55	24		1.1	100	2.93	244			
	eSn			58		0.8	100					
MNG	Pn	08	55	33.5		−1.5	100	3.82	225		3.8	3.9
	eSn		56	17.5		−1.0	100					
ONE	e(Pn)	08	55	46		4.4		4.31	299	4.9		
WEL	eSn	08	56	36		−3.0	99	4.67	223	4.3		
CRZ	ePn	08	56	09		1.5	100	6.20	303		4.8	

AMPLITUDES:											
GNZ	10	11	WTZ	4.5		TRZ	3.0	7.0			
KRP	1.0	1.5	NGZ	3.5	3.0	MNG	0.8	1.3			
ONE	0.7		WEL	0.3		CRZ	0.3				

79/ 330

MAY 30 $09^h27^m10^s.0$ 39°.26S 175°.19E 12 km M = 3.6

± 0.3 0.02 0.03 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P*	09	27	17.7		0.8	100	0.34	77			
TNZ	S*-P*			10		1.3	99	0.63	276		3.2	3.2
TRZ	ePn?	09	27	34		0.8	100	1.30	104		3.5	3.4
	e			41								
	e			59								
KRP	iP	09	27	34.1	UNW	0.0	100	1.36	12		4.2	4.3
	eSn			51		−1.1	99					
MNG	iPn	09	27	34.4	U	0.1	100	1.38	171		3.8	3.5
	eSn			52.8		0.4	100					
WEL	eS*	09	28	12		−1.1	99	2.05	189	3.6		
COB	ePn	09	27	52		0.7	100	2.63	225		3.8	3.6
	eSn		28	22		−0.4	100					
	eS*			30.5		0.2	100					

AMPLITUDES:											
NGZ	57		TNZ	1.0	1.4	TRZ	0.4	0.4			
KRP	4.7	4.0	MNG	6.0	4.0	WEL	0.4				
COB	0.5	1.0									

79/ 331

MAY 31 $00^h25^m34^s.3$ 38°.31S 177°.33E 12 km M = 3.6

± 0.5 0.03 0.03 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP*!	00	25	43.9		1.2	100	0.42	321			
TUA	(Sg-P*			12		) 4.2		0.51	196		3.4	3.3
GNZ	eP*	00	25	44.5		−1.8	100	0.64	122			3.8
	eSg			57		0.9	100					

ECZ	P*	00	25	54.1		−0.9	100	1.14	58		3.8	3.9
	eSg		26	14		1.0	100					
TRZ	ePn	00	25	58		0.4	100	1.30	198		3.5	3.5
	e(Sg)		26	24		5.7						
KRP	iPn	00	25	58.5	UW	−1.3	100	1.47	285		3.7	3.5
	e		26	14								
	eSn			17.5		−1.4	100					
NGZ	P*	00	26	03.0		0.2	100	1.60	237			
	eS*			25		1.1	100					
MNG	e?	00	26	01				2.71	211		3.3	3.6
	e(Pg)			36		6.8						
	eS*			56		−1.2	100					
WEL	eSn	00	27	08		−1.4	100	3.56	213	4.0		
COB	e(Pn)	00	26	45		3.8		4.50	231		4.0	3.7
	eSn		27	35		3.1	98					

AMPLITUDES:										
TUA	3.0	2.5	GNZ		20	ECZ	1.1	1.7
TRZ	0.7	1.2	KRP	1.3	0.8	NGZ	2.5	5.0
MNG	0.5	1.2	WEL	0.3		COB	0.3	0.5

79/ 332

MAY 31 $07^h39^m01^s.4$ 37°.98S 178°.91E 12 km M = 3.9

± 0.9 0.03 0.06 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP*	07	39	09.2	U	−0.3	100	0.40	315		3.7	3.6
	eS*			16		0.8	100					
GNZ	P*	07	39	20.9		1.9	100	0.96	226		3.6	4.0
	(Pg)			23.9		2.9						
	eSg			36		1.9	99					
WTZ	Pn	07	39	26.7		−0.9	100	1.52	269		4.1	4.1
	P*			31.0		2.5	99					
	e(Pg)			35		2.8						
	e			42.9								
	eS*			48		−0.6	100					
TRZ	iPn	07	39	38.0	U	0.1	100	2.27	225		4.0	3.9
	eS*		40	09		−2.0	99					
NGZ	Pn	07	39	45.8		0.0	100	2.85	244			
	eP*			49		−2.2	99					
	eSn		40	19		−0.3	100					
MNG	ePn	07	39	57		−1.0	100	3.74	224		4.1	3.7
	eSn		40	41		0.2	100					
COB	ePn	07	40	22		−2.6	99	5.70	235		4.2	3.8
	eSn		41	28		0.3	100					
CIZ	eSn	07	41	57		0.8	100	6.88	152			

AMPLITUDES:										
ECZ	6.0	7.0	GNZ	3.6	15	WTZ	5.5	4.8
TRZ	0.8	0.8	NGZ	2.5	1.5	MNG	1.8	0.9
COB	0.3	0.4	CIZ		0.5			

79/ 333

MAY 31 $13^h49^m12^s.1$ 38°.23S 176°.31E 163 km M = 4.8

± 0.7 0.04 0.04 6 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	iP	13	49	35.9	U	1.1	100	0.43	202		4.7	
WTZ	iP	13	49	35.0	D	−0.5	100	0.58	66			
KRP	P	13	49	36.2		0.2	100	0.68	296		3.7*	3.7*
	eS			52		−2.4	99					
TUA	S-P			19		−0.5	100	0.87	131		4.5	5.1
NGZ	iP	13	49	40.7	U	1.6	100	1.10	210			

	e			48									
GNZ	P	13	49	43.0		1.0	100	1.40	108		4.5	5.1
	eS		50	05		0.0	100					
TNZ	(S-P)			31		4.8		1.79	237		4.1*	3.5*
ECZ	iP	13	49	46.7	D	0.1	100	1.84	74		5.1	4.7
	eS		50	13		−0.2	100					
MNG	iP!	13	49	55.0		0.9	100	2.47	195			
	eS		50	25		−1.2	100					
CAZ	iP	13	49	58.1	U	1.6	100	2.67	181			
	eS		50	33		2.4	99					
ONE	eP	13	49	59.5		0.1	100	2.91	327	3.3*		
WEL	P	13	50	04.2		0.1	100	3.28	201	4.9		
	eS			43		−1.1	100					
COB	eP	13	50	12		−1.2	100	3.97	223		4.0*	4.2*
	eS			59		−1.2	100					
RHP	eP	13	51	00		0.0	100	7.51	217			
	e(S)		52	29		4.9						
CIZ	e(P)	13	51	10.5		6.0		7.86	139			
	eS		52	29		−3.2	96					

AMPLITUDES:											
WNZ		1.2		KRP		6.2	6.5	TUA		4.7	17
NGZ		48		GNZ		7.5	54	TNZ		2.3	0.8
ECZ		9.2	3.2	CAZ		11	7.5	ONE	0.4		
WEL	2.7			COB		1.4	8.5	RHP		3.7	9.0
CIZ		0.3	2.1								

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JUN 01 $03^h05^m43^s.0$ 37°.62S 176°.95E 136 km M = 3.9

± 1.0 0.05 0.05 7 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	03	06	00.8	D	−1.5	100	0.37	175		3.5	3.3
	eS			16.7		−0.4	100					
KRP	iP	03	06	07.8	DN	−0.4	100	1.16	254		3.5*	
	eS			29		1.5	100					
TUA	S-P			20		0.5	100	1.20	173		3.6	3.9
ECZ	P	03	06	09.8		0.5	100	1.27	94		3.9	3.9
	eS			29		−0.5	100					
GNZ	eS	03	06	31.5		0.9	100	1.33	141			4.2
NGZ	P	03	06	17.7		1.4	100	1.88	214			
	e			49								
TRZ	P	03	06	17.8		0.9	100	1.93	183		4.0	4.5
	eS			41		−1.6	99					
	e			47								
MNG	iP	03	06	33.1	D	−0.3	100	3.21	200		4.1	4.1
	eS		07	11		−0.8	100					
CAZ	e?	03	06	33				3.33	190			
	eS		07	17.5		2.8	97					
WEL	eS	03	07	30		−1.4	100	4.04	204	4.2		
COB	eS	03	07	48		−0.8	100	4.77	222			2.9*

AMPLITUDES:											
WTZ		2.5	1.8	KRP		3.5		TUA		0.6	1.2
ECZ		1.0	1.0	GNZ			7.0	NGZ		1.5	1.8
TRZ		0.7	4.0	MNG		2.4	3.2	CAZ		0.7	0.7
WEL	0.3			COB			0.4				

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JUN 01 $19^h12^m38^s.9$ 36°.00S 179°.87E 187 km M = 4.9

± 1.1 0.06 0.07 9 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP	19	13	17.5	D	0.8	100	2.00	212		4.8	4.7
	eS			44		−2.0	99					
GNZ	P	19	13	29.7		1.0	100	3.02	209		4.8	4.9
	e			32.5								
	eS		14	08		0.8	100					
WTZ	iP	19	13	28.4	D	−0.6	100	3.04	228			4.8
	eS		14	06		−1.6	100					
TUA	S-P			44.5		1.1	100	3.55	217		5.6	5.1
KRP	iP	19	13	41.0	USW	0.5	100	3.97	240		3.9*	
	eS		14	27		−1.1	100					
TRZ	P	19	13	45.8		1.2	100	4.29	213		4.9	4.8
	e		14	30.0								
	eS			37.5		2.0	99					
GSZ	P	19	13	51.2		1.1	100	4.72	225			
	eS		14	47.5		2.3	99					
MNG	eP	19	14	03		−0.7	100	5.76	215		4.6	4.7
	eS		15	09.5		0.0	100					
WEL	eS	19	15	28		−1.6	100	6.62	216	4.8		
COB	eP	19	14	26.5		−0.7	100	7.56	226		3.7*	3.5*
	eS		15	51		−0.8	100					
CIZ	e(P)	19	14	44		5.6		8.41	162			
	eS		16	11		−0.7	100					

AMPLITUDES:

ECZ	3.5	2.6	GNZ	4.2	9.5	WTZ			4.7
TUA	8.0	3.0	KRP	3.0		TRZ		1.1	2.2
GSZ	5.8	3.7	MNG	2.6	3.4	WEL	0.6		
COB	0.4	0.9	CIZ	0.8	1.0				

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JUN 01 $23^h41^m40^s.7$ 45°.11S 165°.59E 12 km M = 5.3

± 1.2 0.04 0.10 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iPn	23	42	08.1	D	0.0	99	1.71	76			
OBZ	eP*	23	42	24		0.0	100	2.52	136		5.3	5.1
	Pg			30.8		0.0	100					
	eS*			59		0.0	100					
ROX	iPn!	23	42	23.9		0.0	99	2.66	99			
RHP	iPn	23	42	33.0	U	0.0	100	3.37	74			
MJZ	Pn	23	42	36.2		0.0	100	3.66	74		5.5	5.6
	P*			45.3		0.0	100					
	e		43	03								
	eSn			18		0.0	100					
OMZ	iPn	23	42	37.8	U	0.0	100	3.77	91		5.4	5.3
	eSn		43	20		0.0	100					
CMZ	ePn	23	42	57		0.0	99	5.28	76		5.4	5.3
	e(P*)		43	18		0.0						
	e?			44								
COB	ePn	23	43	17.5		0.0	100	6.60	55		5.2	4.8
	e(Sn)		44	19		0.0						

AMPLITUDES:

OBZ	24	37	MJZ	37	58	OMZ		9.5	15
CMZ	6.3	7.6	COB	2.0	2.8				

FELT: Manapouri (139)

79/ 337

JUN 02 $01^h02^m48^s.8$ 42°.88S 171°.66E 12 km M = 3.5

± 0.5 0.03 0.05 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CMZ	P*	01	03	07.3		0.1	100	1.01	135		3.8	3.3
	eS*			22		1.2	100					
MJZ	Pn	01	03	11.2		−2.4	99	1.41	218		3.7	3.3
	P*			12.2		−1.9	100					
	eSn			33		0.9	100					
RHP	Pn	01	03	15.5		−1.7	100	1.67	223			
	eSn			39		0.5	100					
COB	Pn	01	03	21.0		−0.1	100	1.96	25		3.9	3.5
	e			21.7								
	eSn			46		0.7	100					
	eS*			49		−0.2	100					
OMZ	iP*	01	03	29.2	D	0.6	100	2.26	193		3.8	3.3
	eSg		04	04		−1.0	100					
ROX	iP*	01	03	44.2	U	1.3	100	3.10	212		3.9	3.3
	(Pg)			48.0		−3.4						
	eSn		04	11.5		−1.1	100					
	e(S*)			27		3.6						
MSZ	e(Pn)	01	03	43		4.3		3.25	235		3.5	3.3
	eS*		04	31		3.0	98					

AMPLITUDES: CMZ 4.6 2.3 MJZ 3.6 1.8 RHP 13 5.0
COB 1.1 1.7 OMZ 0.7 0.5 ROX 0.5 0.3
MSZ 0.4 0.5

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JUN 04 $01^h28^m23^s.4$ 50°.09S 164°.69E 33 km M = 4.9
± 1.3 0.12 0.28 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P	01	29	21.6		1.1	100	3.92	37		5.4	5.3
	eS		30	03		−0.5	100					
ROX	P	01	29	43.1		0.1	100	5.58	36		5.0	4.8
	eS		30	43		−0.3	100					
MSZ	P	01	29	47.1		0.3	100	5.85	23		5.1	4.8
	e			48.1								
	eS		30	51		1.0	100					
OMZ	eP	01	29	58		1.6	99	6.55	42		4.6	4.6
	e		31	01								
RHP	iP	01	30	01.0	U	−2.0	99	7.04	34			
	e(S)		31	13		−5.4						
MJZ	eP	01	30	04		−2.2	98	7.27	35		4.8	4.7
	e			17								
	e		31	07								
	eS			24		−0.1	100					
CMZ	eP	01	30	24		1.2	100	8.49	43		4.9	4.7
	e(S)		32	00		6.7						
COB	eP	01	30	52		0.1	100	10.62	35		5.0	4.2
	eS		32	45		0.4	100					

AMPLITUDES: OBZ 13 26 ROX 1.7 3.2 MSZ 5.5 4.5
OMZ 0.6 1.1 RHP 5.5 4.0 MJZ 1.8 1.8
CMZ 0.8 0.9 COB 0.5 0.3

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JUN 04 $07^h16^m42^s.7$ 37°.60S 179°.94W 12 km M = 4.2
± 0.8 0.05 0.04 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	07	17	04		−0.6	100	1.21	265		3.6	4.2

	ePg			10		2.8	95						
GNZ	e(Pg)	07	17	26		4.5		1.92	236				
	eS*			42.5		0.7	100						
WTZ	Pn	07	17	20.8		−1.0	100	2.47	260		4.1	4.3	
	eSn			51		−0.3	100						
TUA	Sn-P*			25		−1.2	100	2.59	241		4.0	4.2	
TRZ	ePn	07	17	32		0.1	100	3.20	231		4.0	4.5	
	e(S*)		18	16		−4.4							
KRP	ePn	07	17	37		−0.3	100	3.60	263		4.1	4.1	
	eSn		18	17		−1.6	99						
GSZ	e(P*)	07	17	47		−3.3		3.90	243				
	eSn		18	26		0.4	100						
MNG	ePn	07	17	50		−1.9	99	4.67	228		3.9	4.2	
	e			52.7									
	eSn		18	44		−0.2	100						
ONE	ePn	07	17	56		0.5	100	4.93	290	4.7			
WEL	eSn	07	19	05		0.5	100	5.51	226	4.4			
CIZ	ePn	07	18	23		1.3	100	6.85	159				
	eSn		19	36		−0.6	100						

AMPLITUDES:											
	ECZ	0.6	2.7	WTZ	2.3	3.0	TUA	0.5	0.9		
	TRZ	0.4	1.9	KRP	0.5	0.4	GSZ	0.4	0.7		
	MNG	0.7	1.6	ONE	0.3		WEL	0.3			
	CIZ	0.9	4.6								

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JUN 04 $10^h54^m52^s.2$ 38°.13S 177°.05E 116 km M = 3.7

± 0.8 0.04 0.05 7 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	10	55	07.2		−1.1	100	0.15	340			
	eS			19.5		−1.1	100					
TUA	S-P			16		1.4	100	0.68	174		3.4	3.8
GNZ	P	10	55	14.0		0.7	100	0.92	124			
	eS			31		1.7	100					
KRP	eP	10	55	16		−0.4	100	1.21	279		2.6*	2.5*
	eS			35		0.2	100					
ECZ	P	10	55	15.3		−1.6	100	1.26	70		3.6	3.5
	eS			35		−0.7	100					
TRZ	eP	10	55	21		2.0	99	1.44	187			
	eS			38.5		−0.9	100					
	e			46								
GSZ	eP	10	55	23		1.7	100	1.63	224			
	e			29								
MNG	iP	10	55	35.6	D	−0.6	100	2.77	206		3.7	3.8
	eS		56	10		0.6	100					
ONE	eP	10	55	45		3.2	97	3.19	317			
WEL	eS	10	56	29.5		−0.3	100	3.62	208	4.0		
COB	eP?	10	55	57		−2.0	99	4.46	227			2.8*
	eS		56	49		−1.2	100					

AMPLITUDES:									
	WTZ	5.5	3.0	TUA	0.8	2.0	KRP	0.4	0.4
	ECZ	0.6	0.5	GSZ	1.0		MNG	1.2	2.0
	WEL	0.3		COB		0.3			

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JUN 04 $17^h53^m11^s.1$ 41°.06S 173°.78E 33 km M = 3.8

± 0.3 0.03 0.03 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WEL	Pn	17	53	25.6		0.3	100	0.78	107	3.9		

	P*		26.1		0.1	100						
	S*		37.9		0.9	100						
COB	iPn	17 53	25.1	D	−0.4	100	0.79	268		3.8	3.4
	eSn		36		−0.1	100					
MNG	Pn	17 53	32.3		−1.0	100	1.37	72		3.9	4.1
	P*		34.9		−0.9	100					
	eS*		54		−0.1	100					
KAI	eSn	17 54	13		0.6	100	2.30	230	3.8		
	e		39.5								
NGZ	Pn	17 53	46.7		0.0	100	2.35	37			
	e	54	00								
CMZ	ePn	17 53	50		−1.0	100	2.66	198		3.6	3.7
	eSn	54	20		−1.1	100					
KRP	Pn	17 54	01.8		0.5	100	3.42	24		3.5	3.6
	eSn		39		−0.1	100					
MJZ	ePn	17 54	06		−0.7	100	3.82	219		3.7	4.0
	eSn		47		−1.8	99					
RHP	ePn	17 54	13		2.6	95	4.09	221			
	eSn		57		1.7	99					

AMPLITUDES:										
WEL	5.9		COB	5.5	9.0	MNG	7.0	14
KAI	0.5		NGZ	3.0	5.7	CMZ	0.4	0.9
KRP	0.4	0.6	MJZ	0.5	1.3	RHP	0.3	1.5

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JUN 05 $12^h58^m14^s.0$ 39°.20S 175°.04E 12 km M = 4.4

± 0.4 0.02 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	iP*	12	58	21.8	D	−0.9	100	0.44	88			
KRP	Pn	12	58	36.9	U	−0.8	100	1.33	17		4.9	5.1
	P*			37.7		−0.2	100					
	eSn			55		−0.4	100					
TRZ	ePn	12	58	38		−0.9	100	1.42	105		4.5	4.6
	iP*			39.8		0.4	100					
	e			46								
	eS*		59	00		1.7	99					
MNG	iPn	12	58	38.7	U	−0.6	100	1.46	167		4.5	4.3
	eSn			56		−2.3	99					
WTZ	eP*	12	58	49		0.5	100	1.95	52		3.8	4.2
	eSn		59	08		−2.3	99					
WEL	ePn	12	58	49		1.0	100	2.09	186	4.1		
	eSn		59	15		1.4	100					
GNZ	ePg	12	59	02		−0.4	100	2.39	77			
	eSg			36		1.4	100					
COB	Pn	12	58	55.8		1.0	100	2.58	222		4.4	4.1
	eS*		59	32.5		−0.6	100					
ONE	e(P*)	12	59	19		4.7		3.46	351	4.0		
	ePg			26		1.9	99					

AMPLITUDES:									
KRP	22	30	TRZ	3.1	4.6	MNG	26	21
WTZ	0.5	0.7	WEL	1.0		COB	1.8	3.3
ONE	0.4							

FELT: Ohakune (49)

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JUN 06 $11^h38^m42^s.4$ 37°.29S 176°.69E 232 km M = 3.9

± 1.6 0.09 0.10 9 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	11	39	13.0	U	−1.3	100	0.74	162		3.6	3.6
	eS			38		−1.0	100					
KRP	eS	11	39	43		0.1	100	1.12	235			
GNZ	P	11	39	22.0		0.9	100	1.72	143		3.7	
	eS			50		−1.0	100					
NGZ	eP	11	39	26		1.5	100	2.08	204			
	e(S)		40	03		6.1						
TRZ	eP	11	39	27		0.7	100	2.27	178		4.1	4.0
	e			32								
	eS		40	02.5		2.2	99					
TNZ	eP	11	39	32.5		2.3	99	2.64	223		3.2*	
MNG	iP	11	39	38.2	U	−1.3	100	3.46	195		4.7	4.0
	eS		40	22		−1.8	100					
WEL	eS	11	40	42		0.9	100	4.27	200			
COB	eP	11	39	55		−1.8	100	4.89	218		3.4*	3.0*
	eS		40	54		−0.8	100					

AMPLITUDES:									
WTZ	0.7	0.8	GNZ	0.7		NGZ	1.5	0.7
TRZ	0.4	0.7	TNZ	0.2		MNG	6.6	1.8
WEL	0.2	0.3	COB	0.3	0.4			

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JUN 08 $03^h59^m04^s.4$ 44°.11S 168°.02E 12 km M = 4.4

± 1.7 0.08 0.13 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP*	03	59	15.1	U	−0.1	100	0.57	187			
RHP	iPn	03	59	28.8	D	−1.4	100	1.48	90			
ROX	Pn	03	59	32.0	U	−0.4	100	1.65	146			
MJZ	Pn	03	59	32.7	D	−1.3	100	1.77	87		4.6	4.7
	Sn			55.5		−0.8	100					
OMZ	Pn	03	59	40.6	D	−0.4	100	2.29	116		4.4	4.4
	P*			43		−1.5						
	Sn	04	00	09		0.4	100					
OBZ	ePn	03	59	48.5		0.4	100	2.80	179			
	P*			52.5		−0.8	100					
	Sn	04	00	24		3.0	99					
	S*			28		−1.9	100					
CMZ	e(Pn)	03	59	58		1.9		3.38	83		4.4	4.2
	P*	04	00	06.5		3.2	98					
	e(S*)			47		−0.5						
COB	Pn	04	00	11.5		−1.3		4.61	51		4.8	4.2
	(Sn)		01	10		5.4						
	e(S*)			31		6.7						
	e(Sg)			43		3.3						
WEL	ePn	04	00	30.5		2.5		5.72	63			
	(P*)			38		−5.2						
	Sn		01	39		7.8						
MNG	ePn	04	00	37		−2.1		6.54	60		5.0	4.0
	e			43								
	e(Sn)		01	59		8.1						
TNZ	(Pn)	04	00	44		0.6		6.85	46		4.2	
	(P*)			54		−8.4						

AMPLITUDES:									
MJZ	20	31	OMZ	3.0	5.0	CMZ	1.7	1.5
COB	1.9	1.4	MNG	3.9	0.6	TNZ	0.1	

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JUN 08 $05^h08^m36^s.2$ 39°.75S 174°.21E 161 km M = 4.6

± 0.5 0.02 0.03 4 S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	iP	05	08	59.7	D	0.4	100	0.58	13		4.1*	4.3*
	e(S)		09	16.5		−0.6						
GSZ	iP	05	09	03.6		0.0	100	1.17	67			
	S			24.5		−0.2	100					
CNZ	iP	05	09	03.8		0.2		1.17	62			
	S			25.5		0.7						
NGZ	iP	05	09	04.3		0.2	100	1.22	63			
	S			25.5		−0.2	100					
MNG	P	05	09	04.0		−0.9	95	1.30	132			
	e(S)			21.5		−5.5						
WEL	iP	05	09	08.3	USE	0.4	100	1.59	165	4.8		
	S			32.5		0.3	100					
COB	iP	05	09	09.3	U	−0.2	100	1.75	220		4.5*	
	e(S)			35		−0.2						
TRZ	P	05	09	12.6	D	0.0	100	2.02	85		4.3	4.8
	e			21.5								
	S			41		0.3	100					
KRP	P	05	09	11.5		−2.0		2.10	30		3.5*	3.6*
	e			16								
	e			25								
	S			40		−2.1						
	e			46								
TUA	S-P			31		−1.1		2.47	69		4.1	4.6
WTZ	P	05	09	19.0		−3.1		2.80	52		4.1	4.4
	S			54		−3.3						
GNZ	S	05	10	01		−4.5		3.17	71			
KAI	e(P)	05	09	31		0.1		3.49	216	4.6*		
	S		10	09		−4.0						
ECZ	P	05	09	34		−3.1		3.97	60		5.0	5.1
	S		10	30		6.0						
CMZ	P	05	09	35.0	D	−2.7		4.01	197		4.2*	4.8*
	S		10	16		−9.1						
MJZ	P	05	09	48.6		−3.0		5.08	212			
	S		10	44		−5.9						
OMZ	P	05	09	59.3		−2.6		5.85	204		3.8*	4.0*
	eS		11	03.5		−4.9						
ROX	P	05	10	09.5		−4.6		6.77	211		3.8*	4.2*
	S		11	21		−9.2						
MSZ	P	05	10	09		−5.3		6.79	221		4.0*	4.3*
	e			39.5								
	S		11	24		−6.7						
CIZ	S	05	11	58.5		−2.9		8.07	124			

AMPLITUDES:											
	TNZ	3.7	7.0	WEL	6.5			COB	10		
	TRZ	1.1	8.1	KRP		2.2	2.7	TUA	0.5	1.9	
	WTZ	1.0	2.3	KAI	4.5			ECZ	2.0	2.2	
	CMZ	3.2	20	OMZ		0.7	2.3	ROX	0.6	3.5	
	MSZ	2.6	7.7	CIZ			0.7				

FELT: Okaiawa (55)

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JUN 08 $19^h08^m26^s.8$ 41°.92S 171°.53E 12 km M = 3.7

± 0.6 0.03 0.05 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	iP*	19	08	38.0		−0.4	100	0.61	188	3.7		
	S*			45		−1.8	99					
COB	P*	19	08	47.8	U	−1.1	100	1.23	48		4.4	4.0
	S*		09	04.5		−0.8	100					
CMZ	ePn	19	08	56.5		−1.1	100	1.85	154			
	P*		09	00		0.4	100					
	Sn			21		0.2	100					
	S*			24		−0.1	100					
MJZ	Pn	19	09	03.3		0.8	100	2.21	200		3.8	3.7
	Sn			30		0.7	100					
RHP	Pn	19	09	06.8		1.4	99	2.43	205			
	e(Sn)			37.5		3.0						
WEL	eP*	19	09	11		0.2	100	2.51	76	3.2		
	(Sn)			40		3.5						
	S*			45		1.3	100					
OMZ	ePn	19	09	18.5		2.8		3.19	188		3.5	
	Pg			30.5		−0.6						
MNG	ePn	19	09	15.5		−1.2		3.25	68		4.0	
	P*			24		0.5						
TNZ	e(Pg)	19	09	35		−2.3		3.49	39		3.6	3.4
	e(Sg)		10	23		−1.4						
ROX	eP*	19	09	39.5		5.0		3.91	204		3.7	
KRP	ePn	19	09	43		1.9		5.04	39		3.7	
	eSn		10	46.5		9.1						

AMPLITUDES: KAI 5.0 COB 9.0 13 MJZ 1.7 1.8
WEL 0.1 OMZ 0.2 MNG 1.7
TNZ 0.1 0.1 ROX 0.2 KRP 0.3

FELT: Waimangaroa (79) MM IV

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JUN 08 $21^h31^m43^s.8$ 44°.10S 168°.30E 33 km M = 4.1
± 1.2 0.05 0.09 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
RHP	iPn	21	32	03.5	D	−1.4	100	1.29	91			
ROX	Pn	21	32	06.8		−1.8	100	1.56	153		4.1	
	(P*)			09		−2.7						
	Sn			25.5		−1.6	100					
MJZ	Pn	21	32	08.0		−0.7	100	1.57	87		4.2	4.3
	Sn			29		1.6	100					
OMZ	Pn	21	32	15.5		−0.6	100	2.11	118		4.0	4.0
	P*			18		−3.0						
	Sn			42		1.6	100					
KAI	eP*	21	32	33.5		1.3	100	2.76	56	4.2		
	S*		33	08.5		0.1	100					
OBZ	Pn	21	32	25.5		−0.2	100	2.81	183		3.8	3.6
	Sn		33	00		2.7	99					
CMZ	Pn	21	32	31		0.2	100	3.19	82		4.0	3.8
	S*		33	20		−0.9	100					
COB	Pn	21	32	47		−1.1		4.45	49		4.6	4.0
	e(Sn)		33	38.5		1.8						
	e(S*)		34	06		7.3						
MNG	ePn	21	33	12		−2.1		6.36	59		4.6	3.7
	eSn		34	24		1.4						
TNZ	eS*	21	35	11		5.0		6.70	45			

AMPLITUDES: ROX 3.2 MJZ 8.7 15 OMZ 1.4 2.4

KAI	0.9			OBZ		0.6	1.0	CMZ		0.8	0.7
COB		1.1	1.0	MNG		1.8	0.3				

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JUN 09 $00^h38^m56^s.2$ 39°.11S 175°.38E 12 km M = 3.5

± 0.2 0.01 0.01 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	iPg	00	39	00.6		0.5	100	0.15	125			
NGZ	iPg	00	39	00.3		−0.4	100	0.20	112			
GSZ	iPg	00	39	01.2		−0.2	100	0.23	136			
	Sg			04.5		−0.3	100					
TNZ	Pg	00	39	11.4		−0.7	100	0.78	264		3.6	3.3
	Sg			23.5		0.7	100					
KRP	P*	00	39	17.6		−0.1	100	1.19	6		4.2	4.2
	S*			34		0.5	100					
	Sg			39		2.5						
TRZ	e(Pg)	00	39	23		2.4		1.21	112		3.1	3.0
	e(Sg)			44.5		7.6						
MNG	Pn	00	39	22		−0.3	100	1.51	177		3.8	3.5
	iP*			23.5		0.4	100					
	Sn			41.5		−0.3	100					
WEL	S*	00	40	05.5		0.9	99	2.22	192	3.2		
COB	ePn	00	39	42		1.6		2.83	225		3.2	3.4
	S*		40	21.5		−1.3	98					
	Sg			32		0.3	100					

AMPLITUDES:											
TNZ	1.8	1.2	KRP		6.0	5.0	TRZ		0.2	0.2
MNG	3.9	2.5	WEL	0.1			COB		0.1	0.5

FELT: Ohakune (49) MM IV

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JUN 09 $19^h07^m32^s.9$ 46°.25S 167°.08E 12 km M = 3.5

± 1.2 0.04 0.10 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P*	19	07	51.5		0.9	100	0.96	133		3.7	3.9
	iPg			52		−0.5						
	S*		08	03.5		0.0	100					
MSZ	Pn	19	08	01.8		0.3	100	1.69	21		3.5	3.6
	Sn			22		−0.9	100					
ROX	e(P*)	19	08	06		2.1		1.75	64		3.5	3.2
	e(Sn)			23		−1.3						
OMZ	Pn	19	08	17		−1.5	100	2.94	68		3.2	3.2
	S*		09	01		−1.6	99					
RHP	Pn	19	08	19.5		−0.2	100	3.02	46			
	P*			26.5		0.8	100					
MJZ	P*	19	08	30		−0.4	100	3.30	48		3.5	3.4
	ePg			38		−1.6						
	(S*)		09	16		2.5	98					

AMPLITUDES:											
OBZ	4.5	17	MSZ		1.8	3.6	ROX		0.6	0.7
OMZ	0.1	0.2	MJZ		0.4	0.4				

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JUN 13 $16^h33^m26^s.3$ 36°.75S 177°.02E 229 km M = 3.9

± 2.5 0.15 0.15 14 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	16	34	01.8	D	1.0	100	1.23	181		3.3	3.4
	eS			28		0.4	100					

KRP	S?	16	34	33		−0.6	100	1.66	225			2.7*
GNZ	iS	16	34	39		−0.9	100	2.05	157			
TRZ	P	16	34	15		−0.8	100	2.81	183		3.9	4.1
	S			55		0.9	100					
MNG	iP	16	34	27.9	U	−2.4		4.05	197		4.8	4.2
	S		35	15		−5.0						
WEL	S	16	35	32		−5.9		4.86	200	3.8		
CMZ	S	16	36	33		−7.6		7.61	205			2.8*
MJZ	e(P)	16	35	30		−0.6		8.79	213			2.9*
	S		36	59		−8.8						

AMPLITUDES: WTZ 0.3 0.4 KRP 0.4 TRZ 0.2 0.7
MNG 7.0 2.3 WEL 0.1 CMZ 0.1
MJZ 0.2

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JUN 13 $19^h16^m29^s.5$ 41°.99S 174°.16E 12 km M = 4.4
± 0.3 0.03 0.04 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	iP*	19	16	43.4	U	−0.6	100	0.78	6			
BHW	iP*	19	16	44.6	U	0.5	100	0.79	43			
WEL	iP*	19	16	45.2	U	0.2	100	0.84	33	4.8		
	Sg			59		1.0	99					
MRW	P*	19	16	45.3	U	−0.1		0.86	29			
WDW	iP*	19	16	47.0	U	0.0		0.95	41			
	i(Pg)			47.2		−1.7						
MOW	iP*	19	16	47.6	U	−0.1	100	1.00	56			
CAW	iP*	19	16	49.6	U	−0.1	100	1.12	38			
KIW	iP*	19	16	51.8	U	−0.4	100	1.26	27			
COB	ePn	19	16	54.5		0.4	100	1.40	310			
MNG	iPn	19	16	57.1	U	−1.0	99	1.69	36			
	e(S*)		17	22		0.0						
CMZ	Pn	19	17	02		0.4	100	1.95	215		4.5	
	Pg			10		1.0						
KAI	e(P*)	19	17	13		6.3		2.12	254	4.1		
	Pg			19		6.8						
	S*			41		6.5						
TNZ	Pn	19	17	16		2.7		2.81	4		4.6	4.5
	Sg		18	07		2.9						
NGZ	Pn	19	17	17.5		1.3		3.01	22			
	P*			26		3.9						
	e(Sg)		18	11		−0.1						
TRZ	e(Pg)	19	17	32		−1.5		3.17	41		4.3	4.3
	e		18	27								
MJZ	ePn	19	17	22		1.0		3.37	232		4.3	4.1
	P*			32		3.9						
	Sn		18	01		1.2						
OMZ								3.88	216		4.0	3.8
TUA								3.91	37		4.5	4.5
KRP	Pn	19	17	32.5		0.2		4.20	15		5.2	5.2
	P*			44		1.7						
	eS*		18	38		1.0						
	(Sg)			53		2.1						
GNZ	e(Pg)	19	17	59		−0.7		4.46	43			
	Sn		18	30		3.9						
WTZ	ePn	19	17	36.5		−0.7		4.55	29		4.2	4.2
	e(P*)			53		4.6						
	Sn		18	26.5		−1.8						
	e(Sg)		19	08		5.1						

MSZ								5.28	237		4.1	3.8
CIZ	Sn	19	19	27		−2.1		7.08	109			

AMPLITUDES:

WEL	34			CMZ	6.0		KAI	1.2				
TNZ		1.5	2.0	TRZ	0.9	1.2	MJZ		2.7	2.2		
OMZ		0.4	0.5	TUA	0.6	0.7	KRP		4.2	3.3		
WTZ		0.7	0.6	MSZ	0.6	0.6	CIZ			0.4		

FELT: Wharanui (84) MM IV

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JUN 14 $19^h01^m42^s.2$ 39°.52S 174°.12E 197 km M = 4.3

± 1.3 0.05 0.08 11 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	iP	19	02	09.5	D	0.8	100	0.39	31		3.9*	3.6*
	(S)			29.5		0.4						
	e			32								
CNZ	P	19	02	13		0.1	100	1.15	74			
	e			36.5								
	S			39.5		2.8	97					
GSZ	P	19	02	13.5		0.6	100	1.16	78			
	S			37		0.3	100					
MNG	iP	19	02	16.6	U	0.6	100	1.51	137		4.2	4.5
	e			34.5								
	S			40.5		−1.6	100					
WEL	P	19	02	19.5	U	0.4	100	1.84	165	4.5		
	S			46		−1.6	100					
COB	iP	19	02	20.5	U	0.8	100	1.89	214		4.8*	3.8*
	S			48.5		−0.1	100					
KRP	iP	19	02	19.1	D	−1.0	100	1.94	35		3.4*	3.0*
	S			47		−2.5	98					
TRZ	P	19	02	22		0.2	100	2.09	92		4.0	4.3
	e			51								
	S			53		0.7	100					
TUA	S-P			30.5		−3.3		2.47	74		4.0	4.6
WTZ	eS	19	02	59.5		−5.3		2.72	57		3.9	4.5
GNZ	(P)	19	02	33.5		−0.7		3.16	75			
	S		03	08.5		−5.7						
KAI								3.64	213	3.8*		
ECZ	P	19	02	40.5		−3.0		3.92	64		4.5	4.6
	S		03	24.5		−6.4						
CMZ	P	19	02	45.6	D	−1.7		4.21	195		4.1*	4.5*
	S		03	33.5		−4.0						
MJZ	eP	19	02	57		−3.3		5.24	210		3.8*	4.0*
	S		03	59		−1.9						
OMZ								6.04	202		3.7*	3.5*
MSZ								6.91	220		3.5*	3.3*
ROX								6.93	209		4.0*	3.5*

AMPLITUDES:

TNZ		1.9	1.3	MNG	7.0	18	WEL	2.1				
COB		18	6.0	KRP	1.8	0.8	TRZ		0.4	2.1		
TUA		0.4	1.4	WTZ	0.6	2.8	KAI	0.8				
ECZ		0.6	0.8	CMZ	2.2	9.4	MJZ		2.0	3.5		
OMZ		0.5	0.6	MSZ	0.7	0.9	ROX		0.9	0.8		

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JUN 15 $04^h48^m48^s.3$ 40°.55S 176°.69E 12 km M = 4.6

± 0.5 0.02 0.04 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iP*	04	49	06.1	U	0.9	100	0.93	265			
TRZ	P*	04	49	07.7	U	1.1	99	1.00	6		4.4	4.5
	Sg			23.5		1.3	99					
CAW	Pn	04	49	12.6		0.3	100	1.35	245			
KIW	Pn	04	49	13.0		0.2	100	1.39	256			
MOW	Pn	04	49	13.7		0.8	100	1.39	231			
GSZ	iPn	04	49	14.4		−0.3	100	1.53	326			
	Sn			33.5		−0.9	100					
WEL	Pn	04	49	16.3	D	0.2	100	1.63	243	4.7		
	Pg			24.5		3.1						
	Sn			36		−0.9	100					
	Sg			50.5		7.1						
TUA	Sn-Pn			21		−1.3		1.77	12		4.3	4.4
	Sg-Pg			30		6.0						
TCW	Pn	04	49	20.5		0.1	100	1.94	249			
WNZ	eP*	04	49	23		−0.1		1.97	346		4.9	4.8
	Pg			27.5		−0.7						
	eS*			51.5		2.5						
	(Sg)		50	00		5.2						
GNZ	e(S*)	04	49	53		−1.9		2.17	29			
TNZ	Pn	04	49	25		0.6	100	2.24	307		4.6	4.8
	P*			28.5		0.8						
	Pg			32		−1.6						
	eSn			52		0.5	100					
WTZ	Pn	04	49	27.5	U	−1.4	99	2.57	5		4.3	4.2
	Pg			37		−3.3						
KRP	Pn	04	49	30		−1.6	99	2.77	341		5.0	5.0
	P*			37		0.2						
	Pg			41		−3.3						
	S*		50	14		0.9						
	eSg			21		−0.7						
WIZ	eP*	04	49	44		2.6		3.04	7			
COB	Pn	04	49	35		−0.4	100	3.05	259		4.8	4.5
	Pg			46		−4.0						
	eSn		50	10		−1.0						
	Sg			31.5		0.4	100					
ECZ	ePg	04	49	58		5.0		3.19	27		4.5	4.5
	eSn		50	15		0.5						
	S*			23		−2.8						
CMZ	ePn	04	49	54.5		2.3		4.28	223		4.2	4.8
	P*		50	05		2.5						
	Sn			39		−1.5						
KAI	Pg	04	50	18.5		0.6		4.43	242	4.8		
	Sn			43.5		−0.6						
	eSg		51	13		−4.5						
MJZ	Pn	04	50	12.5		0.1		5.76	231		4.6	4.7
	P*			27		−0.7						
	Sn		51	14		−2.0						
CIZ	Pn	04	50	22		5.6		6.06	126			
	Sn		51	28.5		5.3						

AMPLITUDES:											
	TRZ	9.5	17	WEL	7.4			TUA		2.0	2.7
	WNZ	1.2	1.4	TNZ		2.5	5.8	WTZ		3.0	2.4
	KRP	5.3	5.0	COB		3.5	7.5	ECZ		0.7	0.8
	CMZ	0.6	3.9	KAI	1.2			MJZ		1.8	3.0
	CIZ	0.6	1.2								

FELT: Palmerston North (62) MM IV, Wellington (68) MM I

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JUN 15 $09^h47^m30^s.0$ 33°.42S 177°.76W 33 km M = 4.9

± 2.6 0.11 0.25 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ								5.22	214		5.2	5.2
WIZ	e(P*)	09	49	13		2.7		5.81	224			
GNZ	P*	09	49	13		−4.4		6.24	212			
	Sn		50	08.5		2.7	99					
WTZ	Pn	09	48	57		−1.8	100	6.25	222		4.7	4.8
	Sn		50	05		−1.1	100					
	e			24								
TUA	e(Sn-Pn		1	10		)−2.8		6.78	216		5.1	5.0
ONE	e(Pn)	09	49	09		1.1	100	6.91	248			
	eP*			26		−3.0						
KRP	Pn	09	49	09		−1.1	100	7.07	229		5.2	5.4
	e			20								
	Sn		50	24		−1.9	100					
TRZ	Pn	09	49	15.5		−0.7	100	7.52	214		4.6	4.8
	(P*)			42		2.7						
	Sn		50	37		0.3	100					
	S*		51	21		4.2						
CRZ	Pn	09	49	24.5		1.5	100	8.02	260		4.8	
	(P*)			39		−8.7						
MNG	iPn	09	49	28.6	U	−7.7		8.99	215		4.9	4.8
	(P*)			59		−5.4						
	Sn		51	07		−5.1						
	e		52	23								
WEL	Sn	09	51	25		−7.7		9.85	215	5.0		
CIZ	ePn	09	50	03		5.2		10.57	175			
	Sn		51	50		0.1						
COB	Sn	09	51	49		−5.8		10.77	222		4.6	4.5
KAI								12.47	220	4.6		
CMZ								12.63	214			4.6
MJZ	Sn	09	53	01		−11.1		13.99	218		4.7	4.9

AMPLITUDES:											
ECZ	1.3	1.5	WTZ	1.2	1.5	TUA	0.8	0.8			
KRP	0.8	0.8	TRZ	0.3	0.7	CRZ	0.1				
MNG	1.9	2.0	WEL	0.4		CIZ	0.2	1.1			
COB	0.2	0.5	KAI	0.1		CMZ		0.3			
MJZ	0.4	0.7									

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JUN 15 $14^h52^m53^s.2$ 39°.63S 175°.58E 12 km M = 3.1

± 0.3 0.01 0.03 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	Pg	14	53	01		0.4	100	0.35	0			
	Sg			06		0.5	100					
CNZ	iPg	14	53	02.0		−0.1	100	0.42	356			
	e			06.5								
	Sg			08.5		0.5	100					
NGZ	iPg	14	53	02.1		−0.3	100	0.44	3			
	Sg			08		−0.6	100					
TRZ	eP*	14	53	10.5		−0.3		0.96	86		2.7	3.0
	Sg			26		0.3	100					
MNG	iPg	14	53	12.8	D	−0.7	100	1.00	185		3.4	2.9
	Sg			28		1.0	100					
TNZ	eP*	14	53	14		2.0		1.03	295		3.0	3.1

	Pg			15		0.8	100					
	Sg			30		1.8	99					
KRP	P*	14	53	23.5		0.1	100	1.70	359		3.4	3.4
	Pg			26		−1.6						
	S*			44		−1.8	99					
	Sg			50		−0.6						
WEL	eP*	14	53	25.5		0.8	100	1.77	200			
	S*			48.5		0.5	100					
WTZ	ePn	14	53	25		−0.6		1.97	34		3.0	3.1
	P*			28.5		0.4	100					
	eSn			48.5		−1.5						
COB	P*	14	53	37		−2.2	98	2.63	235		3.4	2.5
	S*		54	12		−1.6	99					

AMPLITUDES: TRZ 0.2 0.6 MNG 5.2 2.0 TNZ 0.3 0.6
KRP 0.4 0.3 WTZ 0.2 0.2 COB 0.2 0.1

FELT: Ohakune (49) MM IV

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JUN 16 $15^h52^m57^s.1$ 33°.28S 177°.87W 12 km M = 4.5
± 2.3 0.10 0.24 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ								5.29	213		4.7	4.8
WTZ	Pn	15	54	27		−1.5	99	6.29	220		4.4	4.4
	Sn		55	37		−0.7	100					
GNZ	Sn	15	55	38		−0.0	100	6.31	211			
ONE	e(Pn)	15	54	38		1.5	99	6.88	247			
KRP	ePn	15	54	39		−0.4	100	7.10	227		4.8	
	Sn		55	56		−1.0	100					
TRZ	eSn	15	56	10.5		1.7	99	7.59	213		4.1	4.5
NGZ	e(P*)	15	55	21		7.8		7.90	220			
	Sn		56	16		−0.4	100					
MNG	ePn	15	55	04		−2.2		9.05	214		4.0	4.6
	eSn		56	37		−7.1						
WEL	Sn	15	56	56		−8.7		9.92	214	4.6		
CIZ	Sn	15	57	22		−1.9		10.72	175			
COB	Sn	15	57	22		−4.3		10.82	221			4.2
MJZ	Sn	15	58	32		−11.9		14.04	217			4.5

AMPLITUDES: ECZ 0.4 0.6 WTZ 0.6 0.6 KRP 0.3
TRZ 0.1 0.3 MNG 0.2 1.0 WEL 0.1
CIZ 0.2 COB 0.3 MJZ 0.3

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JUN 17 $14^h15^m39^s.1$ 39°.50S 174°.89E 137 km M = 5.7
± 0.7 0.03 0.05 7 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	iP	14	15	59.1	U	0.0	100	0.50	308			
GSZ	iP	14	15	59.8		0.3	100	0.58	68			
CNZ	iP	14	15	59.8		0.2	100	0.59	60			
NGZ	iP	14	16	00.2		0.3	100	0.65	61			
MNG	iP	14	16	05.9		1.1	99	1.21	158			
WNZ	iP	14	16	05.6	D	0.0	100	1.29	48		5.9	
TRZ	iP	14	16	08.3	D	0.3	100	1.49	93			
KRP	iP	14	16	09.3	DSW	−0.4	100	1.66	18			
WEL	iP	14	16	12.1	USE	0.9	100	1.79	183	5.7		
	S			34		−1.8	94					
TUA	(S-P)			25		−0.4		1.89	69		5.4	5.7

WTZ	iP	14	16	15.7	D	−1.0	99	2.23	48		5.0	
	e(S)			45		−0.3						
COB	iP	14	16	17.4	U	−0.1	100	2.29	225			
	e(S)			45		−1.6						
GNZ	P	14	16	21.0	SW	−0.4	100	2.58	72			
AUC	iP	14	16	22.1	U	0.1	100	2.64	358			
	i			42.5								
WIZ	iP	14	16	22.0	D	−0.5		2.67	43			
	e			31.5								
	(S)		17	04		8.6						
ECZ	iP	14	16	30.8	D	−1.1		3.38	59		5.7	6.2
	e		17	01								
	S			12		0.0						
ONE	P	14	16	38.5		1.9		3.74	353	3.8*		
	e			45.5								
	e(S)		17	14		−6.6						
	e			55								
KAI	e(P)	14	16	39.5		−0.7		4.01	220	5.3*		
	e			46								
	e		17	00								
	S			24		−2.9						
CMZ	P	14	16	43.1	D	−2.4		4.42	202		5.0*	4.9*
	e		17	20								
CRZ	P	14	16	59		0.9		5.36	340		3.9*	
MJZ	eP	14	16	58		−3.0		5.58	215		4.9*	5.3*
	S		17	58		−6.4						
OMZ	P	14	17	08.8	U	−2.0		6.30	207		4.7*	5.0*
	S		18	16		−5.9						
MSZ								7.33	223		4.7*	4.9*
CIZ	P	14	17	31		0.1		7.79	128			
	(S)		18	54		−3.9						
	e		19	00								

AMPLITUDES:

WNZ		12		WEL	50			TUA		20	38		
WTZ		12		ECZ		12	42	ONE	1.1				
KAI	21			CMZ		17	23	CRZ		0.8			
MJZ		23	64	OMZ		5.3	19	MSZ		10	34		
CIZ		6.3	19										

FELT: Wanganui (57) MM VI and from Gisborne to Banks Peninsula at lower intensities

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JUN 18 $13^h30^m10^s.0$ 41°.27S 172°.70E 210 km M = 4.0

± 0.9 0.03 0.05 6 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	P	13	30	38		0.3	100	0.18	7			
	S		31	00		−1.0	99					
KKY	eP	13	30	45		1.3	99	1.37	148			
	S		31	10		0.2	100					
WEL	P	13	30	46		0.6	100	1.56	91	3.8		
	S		31	12		−0.7	100					
KAI	S	13	31	12		−1.2	99	1.58	217	3.7*		
MNG	iP	13	30	51.8	U	0.1	100	2.20	74		4.1	4.2
	S		31	23.5		−0.4	100					
CMZ	eP	13	30	52.5		−0.4	100	2.31	181		2.5*	2.8*
	S		31	26		−0.0	100					
	e			29								
TNZ	S	13	31	28		−0.6	100	2.45	32			3.4*

NGZ	P	13	31	02		0.7		3.05	48			
	e			35								
	S			39		−2.0						
MJZ	P	13	31	02		−0.8		3.18	211		2.8*	3.1*
	S			42		−1.6						
TRZ	S	13	31	51.5		−0.7		3.58	63			4.0
KRP	eS	13	32	00.5		−0.7		4.00	34			2.7*
WTZ	(S)	13	32	13		−3.1		4.66	47		4.0	
GNZ	S	13	32	19.5		−1.1		4.86	59			

AMPLITUDES:

COB	0.7	2.1	WEL	0.5			KAI	1.0			
MNG	3.2	5.8	CMZ		0.1	0.3	TNZ				0.4
MJZ	0.3	0.8	TRZ			0.4	KRP				0.2
WTZ	0.3										

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JUN 18 $22^h30^m55^s.9$ 32°.65S 179°.73W 33 km M = 4.4

± 5.3 0.22 0.81 R S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	ePn	22	32	19.5		−1.3	100	5.97	206		4.7	4.2
	i			22								
	Sn		33	24.5		−0.7	100					
GNZ	Sn	22	33	33		0.7	100	6.25	196			4.7
KRP	Pn	22	32	30		1.3	100	6.53	215		5.0	
NGZ	Pn	22	32	41		−1.3		7.54	209			
MNG	ePn	22	32	52.5		−7.6		8.84	204		4.9	4.0
	i			54.3	U							
	Sn		34	23		−11.3						
WEL	Sn	22	34	42		−12.5		9.68	205			
COB	ePn	22	33	12		−8.9		10.37	213		4.3	3.7
	eSn		34	59		−11.9						

AMPLITUDES:

WTZ	1.4	0.4	GNZ			1.5	KRP		0.6		
MNG	1.7	0.3	COB		0.1	0.1					

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JUN 19 $02^h27^m59^s.3$ 38°.47S 175°.78E 200 km M = 3.7

± 1.5 0.06 0.08 9 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	02	28	26		−0.8	100	0.58	340		2.6*	2.4*
	S			49		0.9	100					
NGZ	P	02	28	29		1.4	99	0.73	191			
	S			49		−0.3	100					
	e			52								
WTZ	iP	02	28	28.6	D	−1.0	100	1.06	63		3.9	3.3
	eS			52		−1.0	100					
TNZ								1.31	236			2.6*
TRZ	S?	02	29	03.5		6.3		1.35	144			4.0
GNZ	eP	02	28	36.5		0.7	100	1.76	96			3.4
	S		29	04.5		0.6	100					
MNG	iP	02	28	40.2	U	0.3		2.16	186		3.7	4.3
	S		29	11		−0.1						
WEL	S	02	29	26		−0.5	100	2.92	195	3.6		
COB	eP?	02	28	50		−5.7		3.52	221		2.8*	3.0*
	e			53								
	S		29	38.5		−0.8						

AMPLITUDES:

KRP	0.4	0.3	WTZ		1.6	0.5	TNZ				0.1
TRZ		1.6	GNZ			0.6	MNG		1.5		6.8

WEL 0.1 COB 0.1 0.6

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JUN 19 $06^h46^m19^s.4$ 34°.84S 179°.09E 232 km M = 4.5
± 1.5 0.16 0.19 28 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	06	47	10		0.1	100	2.88	189		4.3	4.5
	S			50		0.9	100					
WIZ	P	06	47	11		−1.3	99	3.10	209			
GBZ	e(P)	06	47	13		−1.1		3.25	244			
WTZ	iP	06	47	17.3	U	−0.4	100	3.57	208		4.9	4.4
	S		48	03		−0.1	100					
GNZ	S	06	48	09		−1.0	100	3.90	192			4.9
ONE	eP?	06	47	24		1.3		3.98	255			
KRP	P	06	47	26		0.5	100	4.21	222		3.2*	
TUA								4.26	201		4.4	4.6
TRZ	P?	06	47	34		−1.8		5.05	200		4.7	4.5
	S		48	36		0.7						
NGZ	eP	06	47	38		0.8	100	5.16	212			
	e(S)		48	35		−2.7						
MNG	P	06	47	49		−4.5		6.44	205		4.2	4.5
	S		49	02		−4.9						
WEL	S	06	49	21		−5.2		7.29	207	4.3		
COB	e(P)	06	48	11		−2.5		8.01	217		3.1*	2.9*
	S		49	40		−2.8						
CMZ								10.07	208			3.2*

AMPLITUDES: ECZ 0.6 0.8 WTZ 3.6 1.4 GNZ 6.0
KRP 0.5 TUA 0.4 0.6 TRZ 0.5 0.7
MNG 0.8 1.7 WEL 0.1 COB 0.1 0.2
CMZ 0.2

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JUN 19 $16^h13^m52^s.6$ 31°.78S 179°.96W 12 km M = 5.1
± 3.2 0.14 0.45 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn?	16	15	19		−1.4		6.03	191		4.9	4.9
	e			22.5								
	e(Sn)		16	28		1.1	100					
WTZ	Pn	16	15	29		−0.3	100	6.69	201		5.8	4.9
	Sn		16	42		−0.5	100					
GNZ	ePn	16	15	31		−3.3		7.05	193			5.2
	Sn		16	50		−1.4	100					
KRP	Pn	16	15	38		2.1	99	7.16	210		5.1	
NGZ	Pn	16	15	48		−2.4	99	8.23	205			
	Sn		17	19		−0.6	100					
MNG	Pn	16	16	02		−6.6		9.57	201		5.2	5.0
	Sn		17	47		−4.8						
WEL	Sn	16	18	05.5		−6.3		10.39	203	4.8		
COB	eSn	16	18	24.5		−1.7		11.00	210			4.8

AMPLITUDES: ECZ 0.2 0.2 WTZ 7.5 0.6 GNZ 1.7
KRP 0.3 MNG 1.6 1.0 WEL 0.1
COB 0.4

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JUN 20 $02^h10^m11^s.0$ 38°.11S 176°.20E 163 km M = 3.4
± 0.3 0.01 0.01 2 S.E. of RES. 0.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	02	10	34.5		0.2	100	0.56	289		2.8*	2.3*
	S			52		−0.2	100					
WTZ	iP	02	10	34.6	U	−0.1	100	0.63	79		3.3	3.0
	S			53		0.1	100					
TUA	eS-P			20		−0.4		1.03	134		3.2	3.3
NGZ	P	02	10	38.5		−0.1	100	1.17	203			
	eS		11	00		0.1	100					
GNZ	S	02	11	06		−0.2	100	1.53	111			
MNG	iP	02	10	51.4	U	−2.8		2.57	192		3.9	3.8
	S		11	22		−5.3						
WEL	S	02	11	38		−7.0		3.37	199	3.5		
COB	S	02	11	54		−5.9		4.00	221			2.7*
MJZ	S	02	13	07		−10.9		7.31	215			2.6*

AMPLITUDES: KRP 0.8 0.3 WTZ 0.9 0.5 TUA 0.2 0.3
MNG 2.1 2.2 WEL 0.1 COB 0.3
MJZ 0.1

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JUN 20 $05^h16^m53^s.3$ 36°.64S 178°.03E 33 km M = 3.7
± 1.3 0.06 0.06 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	Sn	05	17	25		−1.0	99	1.12	217			
ECZ	(P*)	05	17	19.5		5.4		1.13	159			3.5
	(S*)			29		−0.4	100					
	e			39.5								
WTZ	Pn	05	17	18		−0.4	100	1.57	211		3.5	3.6
	(P*)			20		−1.6						
	e			29								
	Sn			38		0.8	100					
	eS*			44		1.3						
GNZ	Sn	05	17	48		0.6	100	2.00	180			
GBZ	(Pn)	05	17	28		2.5		2.10	281			
	(P*)			36		5.6						
TUA								2.28	198			3.6
KRP	ePn	05	17	29		−0.2	100	2.37	236			
	(P*)			34		−0.9						
TRZ	(Sn)	05	18	12		−0.9		3.06	198			3.8
	e(S*)			25		−1.8						
NGZ	Pn	05	17	41		0.7	100	3.18	216			
	(P*)			51.5		2.7						
	(S*)		18	23.5		−6.8						
CNZ	e(Pn)	05	17	45		4.1		3.22	217			
	(S*)		18	32.5		0.8						
MNG	Pn	05	17	55		−2.6		4.45	206		3.9	3.8
	P*		18	03.5		−6.8						
	e(Sn)			41		−5.2						
	S*			57		−11.2						
WEL	Sn	05	19	03		−3.5		5.29	208	3.8		
	S*			23		−10.5						
COB	Sn	05	19	20		−5.1		6.07	221			3.7
	e		20	19								
MJZ	Sn	05	20	34		−9.8		9.34	216			

AMPLITUDES: ECZ 0.7 WTZ 1.3 1.4 GBZ 0.4 0.5
TUA 0.3 TRZ 0.4 MNG 0.7 0.7
WEL 0.1 COB 0.3

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JUN 20 $05^h47^m10^s.6$ 38°.30S 175°.50E 226 km M = 3.7

± 3.1 0.15 0.22 36 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	05	47	44.0		1.5	99	0.89	174			
WTZ	iP	05	47	43.4	D	−1.3	99	1.21	75		3.6	3.2
	e		48	05								
	e(S)			08		−3.1						
TUA								1.39	112			3.5
TRZ	S	05	48	17		0.1	100	1.62	141			3.7
MNG	iP	05	47	55.0	U	0.4	100	2.31	180		4.2	4.1
	S		48	28		−0.6	100					
WEL	S	05	48	42		−0.7		3.03	190	3.5		
COB	S	05	48	52		−0.5	100	3.51	217			2.7*
MJZ	S	05	50	04		−3.0		6.84	212			

AMPLITUDES: WTZ 0.6 0.3 TUA 0.2 TRZ 0.6
MNG 3.5 4.2 WEL 0.1 COB 0.3

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JUN 20 $07^h45^m19^s.7$ 42°.69S 172°.74E 12 km M = 4.6

± 0.4 0.03 0.05 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	iPg	07	45	36.3	D	1.3	100	0.76	69			
CMZ	iPg	07	45	38.3	D	0.3	100	0.90	185			
KAI	Pg	07	45	40.3		0.4	100	1.00	279			
	(S*)			52		0.8						
COB	Pn	07	45	46.7	U	−0.3	100	1.60	360		4.7	4.4
	Sn		46	07.5		0.0	100					
WEL	Pn	07	45	53.0	D	−0.3	100	2.06	48	4.2		
	ePg		46	02		0.6						
	Sn			16.5		−2.1	99					
	Sg			28		−1.2	100					
MJZ	iPn	07	45	54.8	U	0.9	100	2.11	231		4.5	4.9
	Pg		46	02		−0.3						
	Sn			19.5		−0.2	100					
	e			21.5								
RHP	iPn	07	45	59.5	D	1.6		2.39	233			
OMZ	iPn	07	46	03.1	U	0.8	100	2.73	208		4.7	4.8
	Pg			13		−1.7						
	Sn			33		−1.5	100					
MNG	Pn	07	46	04.2	D	−0.8	100	2.92	46		4.6	4.6
	P*			13		2.4						
	S*			51.5		2.8	97					
TNZ	Pn	07	46	17.5		1.6		3.72	20		4.6	4.6
	eP*			24		−0.2						
	e(Pg)			37		2.3						
	eSn			59		0.7						
	e(S*)		47	08		−4.7						
ROX	Pn	07	46	16		0.0		3.73	220		4.8	4.7
	(Pg)			44		9.1						
	Sn			58		−0.4						
MSZ	Pn	07	46	19.5		−0.6		4.02	239		4.6	4.8
	e(P*)			25		−4.5						
	Sn		47	05		−0.7						
NGZ	Pn	07	46	22		0.5		4.12	33			
	P*			30		−1.2						

	Pg		40	−3.0					
TRZ	Pn	07 46	28	2.8	4.40	46	4.2	4.2
	Pg		45.5	−3.0				
	Sn	47	19	4.3				
	Sg		45	−2.8				
TUA					5.13	42	4.2	4.3
KRP	Pn	07 46	37.5	1.1	5.22	25	4.6	4.5
	Sn	47	35	0.6				
OBZ	Pn	07 46	39	0.8	5.35	216	4.6	4.8
	Sn	47	36	−1.6				
GNZ	e(Sn)	07 47	46	0.0	5.70	47		
WTZ	ePn	07 46	47	3.9	5.71	36	4.6	5.2
	(Pg)	47	10	−5.1				
	(Sn)		44	−2.3				

AMPLITUDES:										
	COB	12	19	WEL	1.5		MJZ	10	32
	OMZ	3.5	9.3	MNG	9.5	11	TNZ	0.9	1.3
	ROX	2.4	5.8	MSZ	3.5	9.0	TRZ	0.3	0.5
	TUA	0.2	0.3	KRP	2.1	1.8	OBZ	1.2	5.0
	WTZ	0.4	1.0						

FELT: North Canterbury MM IV

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JUN 21 $06^h18^m17^s.7$ 37°.41S 176°.52E 226 km M = 3.9

± 1.1 0.07 0.07 8 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	06	18	47.5		−1.2	100	0.68	147		3.6	3.4
	S		19	10		−2.6	98					
KRP	iP	06	18	49.6	DE	−0.3	100	0.93	236		3.5*	
	S		19	15		0.1	100					
GBZ	P	06	18	53		−0.6		1.46	325			
TUA	eS-P			28		0.0	100	1.48	160		3.7	3.9
ECZ	eP	06	18	55.5		0.3	100	1.64	100		3.7	3.9
	S		19	26.5		2.3	99					
	e			35								
GNZ	P	06	18	54.5		−1.4	100	1.71	136		4.1	4.4
	S		19	26		0.7	100					
NGZ	eP	06	18	58		0.4	100	1.91	202			
	eS		19	31		2.5	99					
TRZ	P	06	18	59		−1.0	100	2.15	174		3.9	3.9
	S		19	32		−0.7	100					
	e			45.5								
ONE	eP	06	19	03		0.6	100	2.38	313			
TNZ	P	06	19	03		0.0	100	2.44	223		3.2*	
MNG	P	06	19	09.8		−2.9		3.30	194		3.9	4.2
	S			52		−3.3						
WEL	S	06	20	07		−5.3		4.10	199			
COB	eP	06	19	26		−3.7		4.70	217		2.9*	3.1*
	S		20	20		−5.6						
CMZ	S	06	21	08		−6.3		6.84	204			3.3*
MJZ	S	06	21	33		−8.3		8.02	213			2.6*

AMPLITUDES:									
	WTZ	0.8	0.6	KRP	2.3		GBZ	1.2	
	TUA	0.3	0.5	ECZ	0.3	0.5	GNZ	1.7	6.0
	TRZ	0.3	0.6	TNZ	0.2		MNG	1.3	2.8
	COB	0.1	0.6	CMZ		0.4	MJZ		0.1

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JUN 23 $15^h08^m14^s.7$ 46°.76S 165°.52E 33 km M = 4.9

± 1.0 0.04 0.11 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	15	08	41.9		−0.8	100	1.79	96		5.0	
	Sn		09	02.8		−0.8	100					
MSZ	Pn	15	08	55.0		0.1	100	2.68	40			
	iP*		09	00.3		−1.4						
ROX	Pn	15	08	58.6		0.2	100	2.94	65			
OMZ	Pn	15	09	13.0		−1.6	99	4.13	68		4.7	5.1
	eP*			22.0		−4.3						
	S*		10	15		−5.1						
RHP	Pn	15	09	15.7		0.5	100	4.18	52			
	eP*			25.5		−1.5						
MJZ	Pn	15	09	17.8		−1.3	100	4.45	53		5.3	
	iP*			31.2		−0.6						
	e(Sn)		10	12.9		5.2						
CMZ	ePn	15	09	39.0		−0.5	100	5.96	60		5.1	4.9
	eP*		10	00.8		3.4						
	eS*		11	18		3.4						
CBZ	Pn	15	09	44.8		1.1	100	6.26	159			
	Sn		10	51.5		0.3	100					
WEL	ePn	15	10	17		1.0	100	8.62	54	4.7		
	eSn		11	48		0.1	100					
MNG	Pn	15	10	26		−1.6	99	9.48	53		4.5	4.4
	eSn		12	11		2.6	97					
KRP	ePn	15	10	58		2.4		11.53	44		4.4	
WTZ	ePn	15	11	04		−0.7		12.19	48		5.1	

AMPLITUDES:

OBZ	23		OMZ	1.9	8.3	MJZ	16				
CMZ	2.5	2.7	CBZ	0.3	0.8	WEL	0.3				
MNG	0.7	0.7	KRP	0.3		WTZ	0.2				

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JUN 23 $16^h18^m59^s.5$ 47°.29S 165°.66E 33 km M = 4.1

± 1.5 0.07 0.11 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P*	16	19	30.5		0.3	100	1.72	78		4.0	4.1
	S*			52.0		−1.1	100					
MSZ	ePn	16	19	43.2		−1.6	99	3.06	32		4.0	4.1
	eP*			49		−3.9						
	Sn		20	26.5		7.5						
	iS*			33.0		0.1	100					
ROX	Pn	16	19	47.0		1.4	99	3.11	56		4.6	4.4
	Sn		20	21.1		0.7	100					
OMZ	ePn	16	20	01		−0.4	100	4.27	61		3.8	
RHP	ePn	16	20	03.3		−0.5		4.45	46			
	eP*			18		1.4						
	eSn			53		0.6						
MJZ	ePn	16	20	15.5		8.0		4.72	47		4.0	
	eP*			25		3.8						
WEL	S	16	22	00		−38.7		8.87	51			

AMPLITUDES:

OBZ	2.5	9.5	MSZ	1.6	3.8	ROX	2.5	3.7			
OMZ	0.2		RHP	1.1	1.6	MJZ	0.7				

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JUN 24 $02^h17^m49^s.4$ 37°.50S 176°.63E 217 km M = 4.0

± 1.1 0.06 0.07 7 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	02	18	18.0		−0.8	100	0.56	150		3.5	3.5
	S			39.5		−2.0	99					
KRP	eP	02	18	21.0		0.2	100	0.97	244		2.9*	
	S			45.8		0.5	100					
TUA	S-P			26.5		−0.1	100	1.37	163		3.8	4.1
ECZ	P	02	18	25.0		−0.1	100	1.53	98		3.5	3.8
	e			48.8								
	eS			52.5		−0.3	100					
GNZ	P	02	18	26.2		0.7	100	1.58	137			
	S			52.5		−1.1	100					
NGZ	P	02	18	30.7		2.5	99	1.86	205			
	eS			59		0.9	100					
CNZ	eP	02	18	30.0		1.4	100	1.90	206			
	e		19	13.4								
TRZ	iS	02	19	02.8		1.4	100	2.06	176			4.3
MNG	iP	02	18	43.0		−0.2	100	3.25	196		4.5	4.3
	S		19	23.2		−1.7	100					
CAZ	S	02	19	31.8		3.2	97	3.42	185			
WEL	eP	02	18	51		−2.1	99	4.05	200	4.4		
	eS		19	40.5		−1.9	100					
COB	eP	02	19	01		0.0	100	4.70	219		3.2*	3.0*
	eS			55		−1.6	100					

AMPLITUDES:											
WTZ		0.7	0.9	KRP		0.7		TUA		0.4	0.8
ECZ		0.2	0.4	NGZ		1.9	0.7	CNZ		0.5	0.7
TRZ			2.0	MNG		5.3	3.8	CAZ			1.0
WEL	0.5			COB		0.2	0.5				

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JUN 24 $07^h11^m44^s.1$ 31°.95S 179°.93E 538 km M = 5.7

± 1.5 0.11 0.16 18 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	07	13	21.8		0.3	100	5.85	191		5.4	5.9
	i			24.0								
	e		14	35								
	S			41.5		2.8	99					
WTZ	P	07	13	24.2		−3.3	99	6.49	201		5.8	5.8
	i			27.3								
	e		14	42								
	eS			49		−0.8	100					
CRZ	P	07	13	27.1		−1.1	100	6.57	246		3.9*	
	eS		14	52		0.9	100					
GNZ	P	07	13	32.8		1.7	100	6.87	193		5.5	5.8
	S		14	53.5		−2.7	99					
KRP	eP	07	13	33.0		0.9	100	6.97	210		4.0*	3.8*
	i			34.0								
	S		14	57.0		−1.1	100					
TUA								7.22	198		5.3	6.0
TRZ	eP	07	13	40		−2.4	99	8.00	198		5.5	6.0
	i			43.1								
	i		15	12.3								
	S			18		1.5	100					
NGZ	P	07	13	43.5		0.8	100	8.04	205			

	eS		15	14.5		−2.6						
	i			21.4								
CNZ	P	07	13	45.0		1.9	100	8.07	205			
	eS		15	16.5		−1.3						
	e			22.5								
WEL	eP	07	14	06		1.2	100	10.21	203	5.6		
	e		15	51								
	S			57		−0.3	100					
COB	eP	07	14	10		−0.9	100	10.81	210		4.0*	4.0*
	S		16	09.7		1.1	100					
CIZ	e	07	15	01				12.30	168			
	e		17	12								
CMZ	eS	07	16	47		−1.9		12.97	204			4.2*
	e			54.5								

AMPLITUDES:

ECZ	1.6	4.2	WTZ	6.8	8.8	CRZ	0.5	
GNZ	3.7	12	KRP	2.0	1.4	TUA	0.8	4.5
TRZ	1.0	8.0	NGZ	3.8	11	CNZ	1.1	6.5
WEL	1.2		COB	0.5	2.0	CIZ		0.5
CMZ		1.6						

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JUN 24 $20^h58^m48^s.4$ 37°.70S 176°.55E 205 km M = 4.2

± 1.0 0.06 0.06 6 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	20	59	15.0		−1.0	100	0.45	129		3.9	3.9
	eS			35		−2.3	99					
KRP	P	20	59	17.4		−0.3	100	0.83	254		3.4*	
	S			40.0		−0.4	100					
TUA	S-P			24		−0.6	100	1.21	157		4.0	4.3
GNZ	P	20	59	24.0		1.3	100	1.50	130		4.0	
	S			49		−0.3	100					
ECZ	P	20	59	23.2		−0.4	100	1.58	90		3.8	4.0
	S			51.8		1.1	100					
NGZ	P	20	59	25.5		1.3	100	1.66	206			
	S			53.8		2.0	99					
CNZ	P	20	59	25.9		1.4	100	1.69	207			
	S			55.0		2.6	99					
TRZ	e(P)	20	59	31.2		5.0		1.86	173		4.3	4.4
	eS			54		−1.4	100					
MNG	iP	20	59	39.4		0.3	100	3.03	196		4.9	4.6
	S	21	00	17		−1.4	100					
CAZ	P	20	59	41.3		0.0	100	3.21	184			
COB	eP	20	59	55		−2.3	99	4.50	220		3.5*	3.4*
	S	21	00	49.5		−0.9	100					
CMZ	eS	21	01	33		−5.8		6.60	206			3.4*

AMPLITUDES:

WTZ	2.0	2.6	KRP	2.2		TUA	0.9	1.7
GNZ	1.7		ECZ	0.4	0.6	NGZ	4.7	4.2
CNZ	1.4	2.1	TRZ	1.1	2.5	MNG	15	8.0
CAZ	0.6		COB	0.4	1.1	CMZ		0.5

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JUN 25 $06^h33^m18^s.3$ 38°.91S 175°.36E 132 km M = 3.8

± 1.4 0.04 0.06 13 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P	06	33	37.6		0.8	100	0.32	153			
NGZ	P	06	33	38.0		1.1	100	0.33	144			
GSZ	eP	06	33	38.0		0.8		0.40	154			

TNZ	eP	06	33	41	1.2	100	0.81	250		2.8*	2.9*
	eS			58	1.7						
KRP	P	06	33	41.6	0.1	100	1.00	8		3.2*	2.9*
	S			58.0	−1.2	100					
TRZ	P	06	33	47.8	3.2	96	1.30	120		3.8	3.8
	iS		34	05.8	1.1	100					
	i			07.8							
TUA	S-P			22	1.0	100	1.40	86		3.6	3.9
WTZ	eS	06	34	09.5	−0.7	100	1.57	54			3.2
	e			13.8							
MNG	P	06	33	49.5	0.3	100	1.71	177		3.7	4.1
	i		34	10.3							
	S			12.1	−0.6	100					
CAZ	iS	06	34	20.9	0.0	100	2.10	162			
GNZ	S	06	34	18.8	−2.1	99	2.10	83			4.2
WEL	eS	06	34	26	−2.2	99	2.41	191	3.6		
COB	eP	06	34	05	−0.4	100	2.97	222		3.2*	2.8*
	S			41	−0.1	100					
CMZ	e	06	35	25			5.10	203			3.2*
	eS			28	−4.1						

AMPLITUDES:										
CNZ	8.8		NGZ	19		GSZ	4.0			
TNZ	0.2	0.3	KRP	1.8	1.0	TRZ	0.7	1.8		
TUA	0.5	0.9	WTZ		0.4	MNG	2.6	8.5		
CAZ		0.7	GNZ		3.8	WEL	0.2			
COB	0.3	0.5	CMZ		0.4					

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JUN 25 $09^h02^m28^s.5$ 38°.45S 175°.56E 186 km M = 4.0

± 0.8 0.04 0.05 7 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	09	02	54.2		−0.0	100	0.52	358		3.2*	
	S		03	13.8		−0.2	100					
CNZ	P	09	02	57.0		1.7	99	0.76	181			
	e		03	22								
WTZ	P	09	02	57.3		−1.4	100	1.21	68		3.7	
TUA	S-P			23.0		−0.9	100	1.30	107		3.8	3.9
TRZ	P	09	03	02.7		1.7	99	1.48	139		3.8	4.2
	S			28.0		1.9	99					
	i			30.3								
GNZ	P	09	03	06.0		0.3	100	1.94	97		3.7	4.3
	S			33.5		−0.9	100					
MNG	P	09	03	08.5		0.4	100	2.17	182		4.0	4.1
	S			37.2		−1.6	99					
ECZ	P	09	03	10.3		−1.4	100	2.47	73		4.0	3.9
	eS			45.5		0.5	100					
WEL	P	09	03	16.7		−0.1	100	2.90	192	4.2		
	S			53.0		−1.0	100					
COB	eP	09	03	23.8		0.6	100	3.42	219		3.2*	3.4*
	S		04	05.0		−0.3	100					
CMZ	S	09	04	51.7		−3.4		5.59	202			3.3*

AMPLITUDES:										
KRP	1.6		CNZ	0.7	0.6	WTZ	1.0			
TUA	0.6	0.7	TRZ	0.4	2.6	GNZ	0.7	4.2		
MNG	3.1	5.5	ECZ	0.4	0.3	WEL	0.5			
COB	0.3	1.5	CMZ		0.4					

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JUN 26 $02^h43^m44^s.0$ 42°.01S 174°.03E 18 km M = 3.7

± 0.5 0.03 0.05 9 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	P*	02	43	55.0		1.5	100	0.48	211			
	e		44	04.2								
WEL	P*	02	44	00.5		−0.2	100	0.91	38	3.5		
	S*			14.0		1.0	100					
COB	P*	02	44	06.7		−1.4	100	1.34	313		4.1	3.4
	S*			24.7		−1.1	100					
MNG	Pn	02	44	11.8		−1.3	100	1.77	39		3.8	
	iP*			15.5		0.1	100					
CMZ	eP*	02	44	15.0		−2.2	99	1.88	213			
	i			24.0								
	eS*			39.3		−2.7	98					
KAI	eP*	02	44	20		0.5	100	2.02	254	3.6		
	e			27								
	eS*			48		2.0	99					
GSZ	P*	02	44	36.5		0.6	100	2.98	24			
	eS*		45	12.9		−2.0						
MJZ	ePn	02	44	33.8		0.1	100	3.28	232			
	eP*			42.3		1.2	100					
	eSn		45	12.0		0.8						
RHP	ePn	02	44	39.0		1.3	100	3.57	233			
	iP*			46.5		0.4	100					

AMPLITUDES: WEL 1.6 COB 3.8 2.8 MNG 3.7
KAI 0.4 GSZ 0.8 RHP 3.7

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JUN 26 $21^h59^m04^s.8$ 39°.27S 177°.77E 53 km M = 3.8

± 0.8 0.04 0.07 11 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	21	59	18.5		0.1	100	0.65	18			
	eS			28.5		−0.1	100					
TUA	S-P			11.0		0.8	100	0.67	313		4.0	4.0
TRZ	P	21	59	21.9		1.7	100	0.79	248		3.2	3.5
	S			29.0		−2.5	99					
WTZ	P	21	59	29.0		0.2	100	1.42	334		4.1	4.2
	S			46.2		−0.5	100					
NGZ	P	21	59	34.8		2.5		1.67	272			
ECZ	P	21	59	32.1		−0.2	100	1.68	21		3.5	3.6
	e			47.7								
	eS			54		0.8	100					
GSZ	P	21	59	35.1		2.5	99	1.69	269			
	S			55.3		1.9	100					
CNZ	P	21	59	35.6		2.5	99	1.73	271			
WIZ	P	21	59	32.5		−1.4	100	1.79	345			
	eS			54		−1.8	100					
MNG	P	21	59	39.9		0.0	100	2.22	232		3.4	3.9
	S	22	00	07.0		0.8	100					
WEL	S	22	00	26.0		−1.5	100	3.06	228	4.0		
COB	eP	22	00	08		−0.8	100	4.27	243			3.1*
	eS			56		−1.9	100					

AMPLITUDES: TUA 6.2 7.5 TRZ 0.7 3.2 WTZ 4.5 6.5
NGZ 4.3 ECZ 0.4 0.5 GSZ 3.6 9.8
CNZ 3.5 WIZ 2.1 2.5 MNG 1.1 3.7

WEL 0.4 COB 0.6

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JUN 28 $11^h46^m04^s.3$ 39°.24S 175°.04E 12 km M = 3.8

± 0.3 0.01 0.03 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P*	11	46	12.0		−0.3	100	0.40	84			
NGZ	P*	11	46	12.8		−0.4	100	0.45	82			
KRP	P*	11	46	29.4		0.5	100	1.38	17		4.3	4.4
	S*			47.2		0.0	100					
MNG	Pn	11	46	28.8		−0.3	100	1.41	166		4.1	3.7
	iP*			29.8		0.2	100					
	eS*			48.5		0.1	100					
TRZ	eP*	11	46	30		0.3	100	1.42	103			
	e			35								
	e(S*)			53.0		4.5						
CAZ	e(P*)	11	46	41.5		3.7		1.89	152			
	eS*		47	06.0		3.3						
	e			14.5								
WTZ	eP*	11	46	41.5		2.2		1.98	51		3.4	
	e			49								
WEL	eP*	11	46	41.5		1.0	99	2.05	186	3.6		
	eS*		47	07.0		−0.4	100					
COB	eP*	11	46	47.3		−1.7	95	2.55	223		3.8	3.4
	eS*		47	23.2		0.8	100					

AMPLITUDES: KRP 4.6 4.6 MNG 10 5.0 CAZ 0.2 0.3
WTZ 0.2 WEL 0.3 COB 0.6 0.7

FELT: Ohakune (49) MM IV

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JUN 28 $19^h42^m46^s.8$ 38°.72S 177°.76E 33 km M = 4.1

± 0.5 0.04 0.06 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	S*-P*			07.7		0.2	100	0.49	259			
TRZ	P*	19	43	07.0		−0.2	100	1.12	221		4.4	3.9
	S*			25.2		2.9	97					
ECZ	P*	19	43	08.0		−0.6	100	1.20	31		4.0	3.9
	eS*			26		1.3	100					
WNZ	eP*	19	43	11.8		1.4	100	1.30	273		3.9	
NGZ	Pn	19	43	15.2		1.1	100	1.74	254			
	e			25.1								
	eSn			36.0		1.4						
CNZ	Pn	19	43	16.0		1.1	100	1.79	254			
KRP	Pn	19	43	16.0		−0.6	100	1.92	294		3.6	3.7
	Sn			37.8		−1.1	100					
CAZ	Pn	19	43	24.0		−0.3	100	2.48	208			
	Sn			55.0		2.5						
MNG	Pn	19	43	24.1		−1.6	99	2.59	222		4.0	3.9
	Sn			54.5		−0.5	100					
WEL	e	19	43	48				3.45	221	4.3		
	e			53								
	Sn		44	15.0		−0.6	100					
COB	Pn	19	43	50.3		−2.0	99	4.54	237		4.5	4.0
	Sn		44	41.8		0.0	100					
MJZ	ePn	19	44	32		−2.2		7.61	224		4.2	4.5
	Sn		45	51.5		−4.1						
RHP	ePn	19	44	36.0		−2.1		7.89	225			

	eSn	45 58.0		−4.4							
AMPLITUDES:	TRZ	9.0	4.0	ECZ	1.5	1.5	WNZ	0.3			
	CNZ	2.8		KRP	0.7	0.7	CAZ	1.3	1.2		
	MNG	2.6	2.5	WEL	0.6		COB	0.9	1.1		
	MJZ	0.4	0.9	RHP	0.6	1.7					

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JUN 28 $22^h37^m07^s.7$ 41°.08S 172°.63E 7 km M = 3.7

± 0.6 0.03 0.03 3 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	Pg	22	37	09.7		0.0	100	0.08	96			
KKY	P*	22	37	35.1		−0.8	100	1.56	150			
	S*			57.4		0.6	100					
WEL	eP*	22	37	37.0		−0.1	100	1.63	98	3.8		
	eS*			59.0		0.1	100					
KAI	eP*	22	37	40		1.5	99	1.71	212	3.6		
	eS*			59		−2.3	91					
MNG	ePn	22	37	46.0		1.9		2.21	79		3.8	3.7
	iP*			47.1		−0.0	100					
	S*		38	16.2		−0.2	100					
NGZ	P*	22	38	00.0		−0.1	100	2.97	51			
	e			07.5								
	eS*			39		−0.1	100					
RHP	ePn	22	38	03.4		0.9	100	3.55	211			
	eSn			44.0		0.3	100					
KRP	ePn	22	38	11.5		4.8		3.87	36		3.5	
	eP*			21		5.5						
	eSn			54		2.8						
	e			57								

AMPLITUDES:	WEL	0.9		KAI	0.6		MNG	2.6	2.2		
	NGZ	1.4	1.6	RHP	0.3	0.3	KRP	0.3			

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JUN 29 $03^h44^m41^s.4$ 34°.92S 179°.52E 334 km M = 4.6

± 0.9 0.10 0.18 10 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	03	45	38.6		−0.2	100	2.88	196		4.5	4.6
	e		46	20.8								
	eS			23.5		−0.3	100					
GNZ	S	03	46	42.0		0.1	100	3.91	197			5.2
TUA	S-P			56		−0.5	100	4.32	205		4.4	4.8
KRP	eP	03	45	55		0.8	100	4.40	226		3.0*	
NGZ	eP	03	46	04		0.0	100	5.28	215			
	e(S)		47	14		5.2						
MNG	P	03	46	18.0		−0.6	100	6.53	208		4.5	4.6
	S		47	35		0.2	100					
WEL	eS	03	47	53		0.0	100	7.38	209	4.6		
COB	eP	03	46	36		−2.0	93	8.16	219		3.4*	3.3*
	eS		48	10		0.1	100					
KKY	eP	03	46	46.6		1.3	99	8.77	210			
	(S)		48	30.3		7.3						
CIZ	e(S)	03	48	58		18.5		9.52	163			
MJZ	eS	03	49	27		5.6		11.45	215			3.2*

AMPLITUDES:	ECZ	0.7	0.8	GNZ	8.5		TUA	0.3	0.8		
	KRP	0.3		NGZ	0.6	0.7	MNG	1.3	2.1		
	WEL	0.2		COB	0.2	0.5	CIZ	0.3			

MJZ 0.3

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JUN 29 06h40m59s.7 38°.25S 176°.13E 186 km M = 4.1
± 0.8 0.04 0.05 6 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	06	41	25.9		0.3	100	0.57	305		3.0*	2.7*
	S			45.8		0.2	100					
WTZ	P	06	41	25.7		−0.7	100	0.73	69		4.1	3.6
	eS			45.5		−1.5	99					
TUA	S-P			22		0.1	100	0.98	125		3.7	3.9
NGZ	P	06	41	30.5		2.3	98	1.02	203			
CNZ	P	06	41	30.4		1.9	99	1.05	205			
GNZ	S	06	41	58.0		−0.4	100	1.54	105			4.4
ECZ	P	06	41	36.8		−0.6	100	1.99	75		4.2	4.2
	S		42	07.5		0.9	100					
MNG	iP	06	41	42.7		0.5	100	2.42	192		4.5	4.2
	eS		42	15.4		0.3	100					
WEL	eP	06	41	52		0.2	100	3.21	199	4.1		
	S		42	31		−0.9	100					
COB	eP	06	41	58		−1.9	99	3.86	222		3.3*	3.3*
	S		42	45.5		−0.9	100					
KKY	eP	06	42	09.6		0.7	100	4.56	203			
	e			58.9								
	eS		43	02.5		0.1	100					
MJZ	eP	06	42	41		−1.7		7.15	215		3.1*	3.2*
	S		43	58.5		−4.5						

AMPLITUDES:

KRP	1.0	0.6	WTZ	4.2	1.3	TUA	0.6	1.0
NGZ	5.6		CNZ	1.8		GNZ		7.0
ECZ	0.9	0.8	MNG	8.0	5.0	WEL	0.4	
COB	0.3	1.0	MJZ	0.3	0.4			

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JUN 29 06h45m41s.5 39°.73S 175°.58E 12 km M = 3.4
± 0.2 0.01 0.06 R S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	P*	06	45	50.8		0.4	100	0.45	1			
	S*			56.5		−0.2	100					
CNZ	P*	06	45	51.9		0.2	100	0.53	357			
	S*			59.2		0.1	100					
NGZ	P*	06	45	52.0		0.0	100	0.55	3			
	S*			59.2		−0.3	100					
MNG	iP*	06	45	58.6		0.7	99	0.89	185		3.7	3.2
	S*		46	08.9		−1.0	96					
TUA								1.53	53			3.3
WEL	eP*	06	46	11.5		0.3	100	1.67	201	3.1		
	eS*			35.5		2.1						
KRP	P*	06	46	13.5		0.1	100	1.80	359		3.7	3.9
	e			35.5								
	S*			37		−0.2	100					
WTZ	eP*	06	46	18		0.1	100	2.06	33		3.2	3.1
	eSn			42		1.6						

AMPLITUDES:

GSZ	4.0	40	NGZ	16		MNG	12	4.3
TUA		0.3	WEL	0.2		KRP	0.7	0.8
WTZ	0.3	0.2						

FELT: Ohingaiti (58)

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JUN 29 $06^h55^m51^s.1$ 39°.99S 175°.67E 63 km M = 3.2
± 0.4 0.01 0.04 4 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	P	06	56	05.8		0.4	100	0.64	193		3.4	3.1
	S			16.2		0.3	100					
GSZ	P	06	56	06.4		0.3	100	0.72	355			
	S			16.5		−1.0	98					
CNZ	P	06	56	07.2		0.1	100	0.80	353			
	S			19.0		−0.1	100					
NGZ	P	06	56	07.7		0.5	100	0.81	357			
	S			20.0		0.7	99					
WEL	eP	06	56	15.8		−0.1	100	1.47	208	3.2		
	eS			34.0		−0.7	99					
KRP	eP	06	56	24		−0.2	100	2.07	357		2.4*	
	e(S)			44.8		−3.9						
WTZ	e(S)	06	56	57		3.5		2.26	28			3.1
COB	eP	06	56	30		−0.2	100	2.49	243		3.2*	2.6*
	eS		57	00		0.5	100					

AMPLITUDES:

MNG	10	6.4	GSZ	4.6	11	CNZ	4.2	6.6
NGZ	10	21	WEL	0.3		KRP	0.2	
WTZ	0.2		COB	0.4	0.4			

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JUN 29 $20^h50^m08^s.1$ 37°.82S 177°.42E 136 km M = 4.4
± 1.0 0.05 0.07 8 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	P	20	50	25.4		−1.9	100	0.34	327			
WTZ	P	20	50	26.5		−0.9	100	0.38	244			
ECZ	iP	20	50	31.3		0.5	100	0.90	82		4.8	
GNZ	P	20	50	31.5		0.3	100	0.95	150			
	S			47.7		−1.3	100					
TUA	S-P			16.7		−1.5	100	1.01	192		4.0	4.6
KRP	P	20	50	38.3		1.3	100	1.49	265		3.4*	3.2*
	S			58		−0.9	100					
TRZ	P	20	50	41.2		0.9	100	1.79	195		4.4	4.7
	S		51	06.6		1.7	100					
NGZ	P	20	50	44.7		2.4	99	1.97	226			
	S		51	10.5		2.1	99					
CNZ	P	20	50	45.1		2.2	99	2.02	226			
MNG	P	20	50	57.5		−0.6	100	3.18	208		4.4	4.4
CAZ	P	20	50	58.8		0.2	100	3.22	196			
	S		51	37.8		0.7	100					
WEL	eP	20	51	08		−1.4	100	4.02	210	4.2		
	S			53.5		−2.7	99					
COB	eP	20	51	19.2		−1.5	100	4.89	227		3.5*	3.6*
	S		52	15.5		−1.2	100					
KAI	eS	20	52	53		−4.7		6.59	223	3.6*		

AMPLITUDES:

WIZ	19		ECZ	11		TUA	1.6	6.2
KRP	2.3	1.8	TRZ	1.7	8.2	NGZ	24	17
CNZ	7.1		MNG	4.4	5.5	CAZ	9.0	4.3
WEL	0.3		COB	0.4	1.8	KAI	0.3	

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JUN 30 $03^h32^m07^s.2$ 40°.12S 173°.55E 176 km M = 4.5
± 0.9 0.05 0.08 10 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	P	03	32	38.1		2.2	99	1.15	212		4.5*	4.2*
	S			58.3		0.4	100					
WEL	P	03	32	41.2		2.2	99	1.49	142	4.4		
	S		33	02.8		−0.7	100					
MNG	P	03	32	40.9		1.3	100	1.56	109		4.1	4.8
CNZ	iP	03	32	43.5		1.5	100	1.79	60			
	e		33	12.0								
NGZ	P	03	32	43.9		1.3	100	1.84	60			
	S		33	09.3		−0.6	100					
CAZ	P	03	32	48.7		2.3	99	2.19	112			
	i		33	11.8								
	S			16.3		−0.4	100					
KKY	P	03	32	49.6		1.8	100	2.30	177			
	i		33	14.0								
	S			16.9		−2.1	100					
TRZ	eP	03	32	51		−0.1	100	2.58	78		4.3	4.2
	eS		33	23		−1.9						
	e			27								
KRP	P	03	32	52.0		−0.3	100	2.68	36		3.5*	3.3*
	eS		33	25.5		−1.5	100					
	e			43.5								
KAI	e(P)	03	33	02		7.1		2.90	213	3.9*		
	S			29.5		−2.2	99					
WTZ	P	03	33	01.0		−0.5	100	3.42	53		4.3	
	eS			41		−2.3						
ECZ	P	03	33	15.0		−1.5	100	4.59	60		5.0	4.7
	S		34	08.0		−2.0	100					
RHP	P	03	33	20.2		1.7	100	4.74	212			
	i		34	09.0								
	eS			11		−2.7	99					

AMPLITUDES:											
COB	13	22	WEL	2.5			MNG	6.2	40
CNZ	14	20	CAZ		2.2	26	TRZ	0.7	1.1
KRP	1.7	1.3	KAI	1.1			WTZ	1.0	
ECZ	1.6	0.7	RHP		0.7	7.5			

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JUN 30 $10^h32^m16^s.8$ 31°.63s 179°.70w 521 km M = 5.2

± 1.6 0.19 0.43 21 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	10	34	00.5		3.4	98	6.22	193		5.1	5.0
	S		35	16		−0.6	100					
WIZ	P	10	33	59.5		0.5	100	6.43	203			
	eS		35	20		−0.0	100					
WTZ	eP	10	34	01.8		−1.9	100	6.90	202		5.3	5.0
	i			03.9								
	e		35	24								
	eS			27		−1.5	100					
GNZ	P	10	34	08		0.9	100	7.24	194		5.1	5.6
	S		35	34.0		−0.7	100					
KRP	eP	10	34	10.5		1.8	100	7.41	211		3.7*	
TRZ	eP	10	34	17		−1.8	100	8.41	199		5.1	5.1
	e			19								
	S		35	57		1.1	100					
MNG	eP	10	34	30.0		−3.1	98	9.78	202		5.7	5.2
	i			33.1								
	S		36	23		1.0	100					

WEL	eP	10	34	42		0.2	100	10.62	203	4.9		
	eS		36	38		0.2	100					
COB	eS	10	36	50		0.4	100	11.24	211			3.5*

AMPLITUDES:

ECZ	0.7	0.6	WTZ	1.0	0.4	WTZ	2.1	1.2
GNZ	1.3	6.8	KRP	1.0		TRZ	0.4	0.9
MNG	9.7	3.5	WEL	0.2		COB		0.6

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JUN 30 $20^h30^m00^s.9$ 31°.95S 179°.23E 484 km M = 5.2

± 1.8 0.21 0.68 33 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	P	20	31	36.5		0.8	100	5.82	196			
WTZ	eP	20	31	38.9		−1.6	100	6.30	196		5.6	5.0
	i			41.8								
	eS		32	58		−1.4	100					
GNZ	P	20	31	46.8		1.6	100	6.76	188		5.3	5.3
	S		33	07.4		−0.3	100					
TUA								7.06	193		5.1	5.2
NGZ	P	20	31	57.2		1.2	100	7.80	201			
CNZ	P	20	31	57.9		1.5	100	7.84	201			
TRZ	eP	20	31	54.0		−2.5	99	7.85	194		5.4	5.3
	i			56.2								
	S		33	29		0.8	100					
MNG	eP	20	32	09.2		−1.5	100	9.17	198		5.4	5.1
	i			11.1								
	S		33	55.3		1.5	100					
WEL	eS	20	34	08.5		−1.3	100	9.99	200	4.9		

AMPLITUDES:

WIZ	2.6		WTZ	5.2	1.6	GNZ	2.6	4.5
TUA	0.6	0.7	NGZ	3.7		CNZ	0.5	
TRZ	0.9	1.6	MNG	4.8	2.9	WEL	0.2	

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JUL 01 $11^h52^m16^s.6$ 37°.33S 176°.88E 273 km M = 4.4

± 1.3 0.07 0.09 8 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	eP	11	52	54.8		−0.6	100	1.22	240		2.9*	
	S		53	26.0		0.2	100					
TUA	S-P			30		−1.6	99	1.49	172		4.4	4.2
GNZ	P	11	52	57.7		−0.2	100	1.59	146		4.1	4.6
	S		53	29.6		−0.6	100					
GSZ	iP	11	53	03.8		0.8	100	2.20	207			
TRZ	P	11	53	03.0		−0.2	100	2.22	181		4.6	4.1
	S			40.8		1.3	100					
MNG	P	11	53	15.0		−0.7	100	3.46	198		4.8	4.5
	e			55.0								
	S		54	03.9		1.8	99					
WEL	eS	11	54	17.0		−1.6	99	4.28	202	4.2		
COB	eS	11	54	32.5		−0.3	100	4.95	219			3.3*

AMPLITUDES:

KRP	0.5		TUA	1.2	0.7	GNZ	1.5	7.5
GSZ	3.5		TRZ	1.3	0.8	MNG	8.0	4.7
WEL	0.3		COB		0.9			

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JUL 01 $15^h24^m54^s.3$ 39°.64S 175°.06E 12 km M = 3.7

± 0.4 0.02 0.04 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	P*	15	25	04.6		−0.2	100	0.55	49			
CNZ	P*	15	25	05.8		0.4	100	0.58	41			
MNG	P*	15	25	13.7		0.6	100	1.03	162		4.0	3.8
	S*			25.3		−1.5	98					
TRZ	eP*	15	25	17.8		−0.9	100	1.37	87		3.4	3.4
	eS*			37.5		0.6	100					
WEL	eP*	15	25	24		0.2	100	1.66	188	3.7		
	S*			46.5		0.8	100					
KRP	P*	15	25	25.8		0.4	100	1.75	12			
	S*			48.0		−0.5	100					
TUA	S*-P*			25		0.9	100	1.83	64		3.8	3.8
COB	eP*	15	25	37.0		2.4		2.29	230		3.8	3.7
	e		26	12.5								

AMPLITUDES: MNG 16 13 TRZ 0.5 0.7 WEL 0.8
TUA 0.4 0.4 COB 0.7 1.8

FELT: Wanganui (57) MM IV

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JUL 03 $15^h00^m24^s.9$ 38°.59S 176°.64E 33 km M = 3.9
± 0.3 0.02 0.02 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	eS*	15	00	41.8		0.8	100	0.42	264			3.1
	e			44.2								
TUA	iP*	15	00	36.0		1.3	100	0.46	119		3.5	4.0
	S*			44.0		2.1	99					
TRZ	P*	15	00	42.8		−0.2	100	0.97	172		4.1	3.9
	i			44.8								
	S*			58.8		2.4	99					
NGZ	P*	15	00	44.0		0.6	100	1.00	233			
	S*			58.2		1.1	100					
CNZ	P*	15	00	44.5		0.2	100	1.05	234			
	S*			59.3		0.7	100					
GNZ	eP*	15	00	43.5		−1.4	100	1.09	93			
	S*			58.3		−1.4	100					
KRP	P*	15	00	45.0		−0.0	100	1.09	307		3.6	3.6
	S*		01	00.2		0.3	100					
GNZ								1.09	93		3.4	4.4
WIZ	P*	15	00	45.5		−0.4	100	1.14	22			
	i		01	04.5								
ECZ	Pn	15	00	52.9		0.6	100	1.75	60			
MNG	ePn	15	00	57.5		−1.2	100	2.21	203		4.0	4.2
	eP*		01	01.3		−2.6	98					
	e			08.3								
	S*			32.0		−1.2	100					
WEL	eP*	15	01	17		−1.2	100	3.05	208	4.0		
	eSn			44.5		0.2	100					
	eS*			56.8		−1.4	100					
COB	ePn	15	01	22.0		0.2	100	3.91	229		4.5	4.0
	i			24.8								
	(Sn)		02	11.5		6.7						

AMPLITUDES: WNZ 0.7 TUA 4.6 20 TRZ 5.0 5.2
NGZ 1.7 10 CNZ 4.1 7.7 KRP 2.1 1.7
GNZ 1.6 26 WIZ 3.5 MNG 3.7 7.5
WEL 0.4 COB 1.3 1.2

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JUL 03 $17^h02^m03^s.4$ 41°.32S 172°.67E 209 km M = 4.4

± 0.8 0.07 0.09 7 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	iP	17	02	32.3		1.3	100	0.23	12			
	S			52.2		0.0	100					
KKY	P	17	02	38.8		2.0	100	1.34	146			
	e			45.0								
	i			51.4								
	eS		03	01.6		−1.0	100					
KAI	P	17	02	40.8		2.4	99	1.53	218	4.4*		
	S		03	05.4		−0.1	100					
WEL	P	17	02	39.7		0.9	100	1.58	90	4.0		
	S		03	06.0		−0.2	100					
MNG	iP	17	02	45.6		0.2	100	2.24	73		4.4	4.4
	S		03	15.5		−2.3	99					
CAZ	P	17	02	52.2		1.5	100	2.72	82			
CNZ	P	17	02	53.8		−0.8	100	3.05	47			
	eS		03	33.5		−0.7	100					
	i			36.8								
NGZ	eP	17	02	55.5		0.3	100	3.10	48			
	S		03	33.0		−2.3	99					
MJZ	P	17	02	57.0		1.5	100	3.12	211		3.6*	3.5*
	S		03	36.3		0.5	100					
RHP	P	17	02	59.8		1.4	100	3.37	214			
	S		03	40.5		−0.5	100					
TRZ	eS	17	03	49.5		3.1	99	3.63	62			4.4
OMZ								3.97	198		3.5*	3.1*
ROX	P	17	03	15.0		−1.4	100	4.82	209		3.7*	3.8*
	S		04	11.5		−1.6	100					
MSZ	P	17	03	17.0		0.4	100	4.84	225		3.5*	3.6*
	S		04	10.0		−3.5	98					
GNZ	S	17	04	13.0		−2.0	100	4.90	59			4.9

AMPLITUDES:											
	COB	11	8.6	KAI	5.4			WEL	0.7		
	MNG	7.5	9.0	CNZ		5.0	7.5	NGZ		0.8	3.2
	MJZ	1.9	1.8	RHP		9.0	4.6	TRZ			1.0
	OMZ	0.5	0.4	ROX		0.7	1.8	MSZ		1.1	2.1
	GNZ		4.2								

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JUL 03 $23^h54^m07^s.1$ 39°.69S 175°.35E 12 km M = 3.2

± 0.3 0.01 0.02 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	Pg	23	54	16.6		0.1	100	0.45	24			
	Sg			23.4		0.7	100					
CNZ	Pg	23	54	17.3		−0.4	100	0.51	17			
	Sg			24.8		0.0	100					
NGZ	Pg	23	54	18.2		−0.1	100	0.55	22			
	Sg			25.5		−0.3	100					
TNZ	ePg	23	54	24.0		−1.5	99	0.90	303		2.7	2.9
	Sg			39.0		1.2	100					
MNG	iPg	23	54	25.6		−0.5	100	0.94	174		3.5	2.9
	Sg			38.0		−0.7	100					
TRZ	ePg	23	54	28		−2.3	96	1.14	84		2.8	2.8
	eSg			46.8		1.0	100					
CAZ	iPg	23	54	35.5		0.3	100	1.39	151			

TUA	ePg	23	54	42	1.4	99	1.66	58		3.5	3.4
	eSg		55	03	0.1	100					
WEL	eP*	23	54	36	−0.5	100	1.66	195	3.2		
	eS*		55	00	1.6	99					
KRP	P*	23	54	38.8	0.3	100	1.77	5		4.1	3.5
	S*		55	00.3	−1.5	99					
COB	eP*	23	54	50	0.1	100	2.44	234		3.3	3.1
	eS*		55	25	3.1						
	eSg			30.7	1.4						

AMPLITUDES:

GSZ	9.5	25	NGZ	15	34	TNZ	0.2	0.4
MNG	6.8	2.0	TRZ	0.2	0.3	TUA	0.3	0.3
WEL	0.2		KRP	2.0	0.4	COB	0.2	0.4

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JUL 04 $01^h20^m46^s.4$ 31°.45S 179°.01W 328 km M = 5.2

± 2.7 0.21 0.58 27 S.E. of RES. 2.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eS	01	23	41		1.0	100	6.55	197		5.0	5.1
WIZ	eP	01	22	25		−2.0	100	6.83	206			
	eS		23	46		0.0	100					
WTZ	eP	01	22	32.0		−0.7	100	7.31	206		5.3	5.2
	i			36.0								
	eS		23	53.2		−3.0	99					
GNZ	eS	01	24	04		1.8	100	7.59	198			5.7
KRP	P	01	22	42		2.5	100	7.87	213		3.2*	
TUA	eS	01	24	14.5		3.5	99	7.99	202			5.3
TRZ	eS	01	24	25.5		−2.6	100	8.77	202			5.2
TNZ	eP	01	23	01		2.7		9.42	213			
	e			05								
MNG	eP	01	23	05		−2.4	100	10.18	204		4.9	5.2
	i			09.8								
	e		24	51.0								
	S			58.2		−0.8	100					
WEL	eS	01	25	16		−1.4	100	11.02	205	5.2		
COB	eP	01	23	28		2.1	100	11.70	212		3.8*	3.7*
	S		25	32.7		0.5	100					
KAI	e(S)	01	26	17		6.7		13.45	212	4.0*		
MJZ	eS	01	26	44		0.4	100	15.03	211			3.6*

AMPLITUDES:

ECZ	0.6	0.8	WIZ	0.5	1.0	WTZ	2.3	2.2
GNZ	9.5		KRP	0.3		TUA		1.0
TRZ	1.2		MNG	1.5	3.6	WEL	0.4	
COB	0.3	1.0	KAI	0.3		MJZ		0.5

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JUL 04 $05^h02^m06^s.5$ 37°.40S 178°.11E 33 km M = 3.9

± 0.6 0.04 0.04 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	05	02	16.0		−0.4	100	0.46	131			
WIZ	P*	05	02	19.5		−1.4	99	0.75	260			
WTZ	P*	05	02	25.8		−0.4	100	1.06	236		4.0	
	i			27.8								
GNZ	eP*	05	02	29.5		0.2	100	1.25	183			
	e			37								
TUA	P*	05	02	35.0		−0.2	100	1.60	208		3.9	3.8
	eS*			57		0.5	100					
KRP	ePn	05	02	38.8		−0.1	100	2.11	255		4.2	3.8
	iP*			44.0		0.2	100					

	S*	03 11.8	0.1	100							
TRZ	Pn	05 02 43.8	1.2	99	2.38	205			3.9	3.8	
	eS*	03 18.5	−1.2	99							
NGZ	Pn	05 02 50.4	4.1	0	2.65	227					
	iP*	54.8	1.7	98							
CNZ	Pn	05 02 50.8	3.8		2.70	227					
	e(P*)	57.5	3.6								
TNZ	ePn	05 03 01.0	4.0		3.44	238					
	e	03.0									
MNG	ePn	05 03 01.5	−0.7	100	3.82	212			4.0	3.7	
	eP*	12	−0.8	100							
	e(Sn)	50	5.8								
WEL	eSn	05 04 08	3.3		4.67	213	4.1				
COB	ePn	05 03 27.2	1.1	100	5.57	227			4.2	3.8	
	e	33									
	eSn	04 33	6.6								

AMPLITUDES:										
WIZ	2.7		WTZ	8.7		TUA		1.0	1.0
KRP	1.6	0.5	TRZ	0.6	0.7	NGZ		4.0	
CNZ	0.7		MNG	1.3	0.8	WEL	0.2		
COB	0.3	0.4							

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JUL 04 $06^h09^m32^s.9$ 34°.29S 179°.59W 266 km M = 4.8

± 1.3 0.08 0.17 14 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	06	10	34.0		−0.6	100	3.72	203			
	eS		11	23		0.2	100					
WIZ	P	06	10	38.5		−1.3	100	4.16	218			
WTZ	P	06	10	44.0		−1.1	100	4.62	216		5.3	4.8
	S		11	41.1		−0.4	100					
GNZ	eS	06	11	43		−1.5	100	4.75	203			5.0
ONE	eP	06	10	51		−0.9	100	5.18	252			
TUA	P	06	10	52.5		0.1	100	5.22	209		5.2	4.9
	eS		11	55		0.5	100					
KRP	P	06	10	54.8		0.7	100	5.36	226		3.6*	
TRZ	P	06	11	02.0		0.2	100	5.99	208		4.7	4.6
	S		12	16.0		4.6	58					
NGZ	P	06	11	05.0		0.3	100	6.22	217			
CNZ	eP	06	11	06		0.7	100	6.27	217			
TNZ	eP	06	11	15.3		2.3	99	6.88	223		3.6*	
MNG	eP	06	11	18.8		−1.1	100	7.43	210		4.3	4.4
	S		12	42.5		−1.3	100					
WEL	eS	06	13	01		−2.1	99	8.30	211	4.7		
COB	eS	06	13	22		0.4	100	9.12	220			3.2*

AMPLITUDES:										
WIZ	1.6		WTZ	5.5	1.8	GNZ			4.8	
TUA	1.5	0.8	KRP	1.0		TRZ		0.4	0.6	
NGZ	0.9		CNZ	0.3		TNZ		0.2		
MNG	0.7	1.1	WEL	0.2		COB			0.4	

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JUL 05 $00^h52^m29^s.9$ 38°.85S 175°.84E 141 km M = 3.9

± 1.3 0.09 0.07 8 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	00	52	50.4		0.6	100	0.38	208			
	S		53	05.3		0.2	100					
CNZ	P	00	52	51.0		1.0	100	0.42	213			
	eS		53	05.5		0.1	100					

TUA	eS	00 53 11.5		−1.2	100	1.03	88				
TRZ	P	00 52 56.2		1.9	99	1.03	133			3.8	3.8
	S	53 14.3		1.3	100						
GNZ	S	00 53 24		−1.7	99	1.72	84				3.9
MNG	iP	00 53 03.8		1.4	100	1.79	189			4.4	3.4
	S	26.0		−1.2	100						
COB	eP	00 53 20.8		−0.5	100	3.28	226			3.2*	3.0*
	eS	59.0		−1.5	100						

AMPLITUDES: NGZ 4.7 2.1 CNZ 2.4 0.6 TRZ 1.0 2.0
GNZ 2.5 MNG 12 1.7 COB 0.3 0.6

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JUL 05 $20^h34^m01^s.4$ 39°.39S 175°.08E 12 km M = 3.7
± 0.2 0.02 0.02 R S.E. of RES. 0.8

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	P*	20 34 09.9		0.4	100	0.41	75			
	S*	14.5		−0.8	100					
CNZ	P*	20 34 09.5		−0.0	100	0.41	63			
	S*	15.0		−0.3	100					
NGZ	P*	20 34 10.0		−0.4	100	0.47	64			
TNZ	P*	20 34 12.9		0.5	100	0.58	290		3.6	3.6
	S*	21.1		0.8	100					
	i	23.5								
MNG	P*	20 34 24.0		−0.1	100	1.27	166		3.6	3.8
	i	27.7								
	i	31.2								
	S*	42.2		1.2	99					
TRZ	e	20 34 37				1.36	98			
	eS*	45		1.2	99					
WEL	eP*	20 34 34.5		−0.6	100	1.91	187	3.5		
	eS*	35 00		−0.3	100					
COB	Pn	20 34 40.8		0.2	100	2.47	226		4.2	3.7
	eP*	43.2		−1.5	98					
	S*	35 17.0		−0.1	100					

AMPLITUDES: TNZ 3.6 5.5 MNG 4.6 9.5 WEL 0.3
COB 1.5 1.7

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JUL 06 $07^h58^m37^s.4$ 41°.76S 174°.05E 33 km M = 4.2
± 0.6 0.04 0.04 R S.E. of RES. 1.3

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	P*	07 58 51.0		−0.2	100	0.71	202			
WEL	P*	07 58 51.5		0.1	100	0.72	49	4.1		
	S*	59 02.0		0.4	100					
COB	iP*	07 58 59.5		0.2	100	1.20	304		4.9	4.0
	S*	59 16.0		0.6	100					
MNG	Pn	07 59 02.8		0.4	100	1.57	44		4.3	
KAI	e(P*)	07 59 18.8		4.1		2.11	248			
	e(Sn)	38.2		4.2						
	S*	40		−2.5						
TNZ	eP*	07 59 21		−1.7	99	2.58	6		3.8	4.2
	eS*	57		0.4	100					
NGZ	Pn	07 59 22.1		2.4	98	2.83	25			
	iP*	30.1		3.0						
	e	08 00 08.2								
TRZ	eP*	07 59 30.3		−0.3	100	3.05	45		3.8	
	e	36.5								

RHP	Pn	07 59 33.6		1.6		3.73	230		
	e	41.8							
	iP*	45.8		3.5					
KRP	eP*	07 59 45		−1.8	99	4.00	17		
	e	53							
	e	08 00 30							
	eS*	37		−1.9					

AMPLITUDES: WEL 9.0 COB 32 15 MNG 15
KAI 1.0 TNZ 0.3 1.2 NGZ 8.6
TRZ 0.3 RHP 1.0 7.0

FELT: Kelburn (68) MM IV

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JUL 07 $10^h54^m27^s.5$ 32°.98S 179°.66W 428 km M = 4.6
± 1.3 0.15 0.35 16 S.E. of RES. 1.4

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	10 55 51.2		0.4	100	4.93	197		4.7	
WIZ	eP	10 55 52.7		−1.1	100	5.22	209			
WTZ	P	10 55 57.2		−1.4	100	5.70	208		5.0	4.3
	e	57 05								
	eS	09.0		−1.2	100					
GNZ	eP	10 56 03		1.6	100	5.96	198		4.5	4.7
	S	57 15.3		0.0	100					
KRP	P	10 56 06.0		1.0	100	6.31	217		3.4*	
TRZ	eP	10 56 14		−0.4	100	7.15	202		4.6	4.5
	eS	57 41		2.2	99					
NGZ	P	10 56 16.6		0.8	100	7.28	210			
TNZ	eP	10 56 24		1.8	99	7.86	216		3.9*	
MNG	P	10 56 29.3		−0.9	100	8.57	206		5.1	4.3
	eS	58 08		0.7	100					
WEL	eP	10 56 38		−1.8	99	9.41	207	4.7		
	eS	58 23		−1.5	100					
COB	eP	10 56 49		1.1	100	10.13	215		3.5*	

AMPLITUDES: ECZ 0.4 WIZ 0.9 WTZ 1.5 0.4
GNZ 0.5 1.2 KRP 0.6 TRZ 0.2 0.3
NGZ 0.5 TNZ 0.3 MNG 3.1 0.6
WEL 0.2 COB 0.2

79/ 400

JUL 09 $12^h21^m42^s.0$ 41°.59S 174°.97E 33 km M = 3.8
± 0.7 0.05 0.05 R S.E. of RES. 1.4

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WEL	P	12 21 50.2		0.0	100	0.34	333	3.8		
	S	56.2		0.1	100					
MNG	P	12 21 58.8		−1.0	100	1.04	22		3.6	3.8
	S	22 10.7		−2.4	99					
CAZ	S	12 22 17.0		0.9	100	1.17	55			
	e	34.8								
COB	eP	12 22 09.5		−0.0	100	1.75	286		3.8	3.7
	e	11.0								
	e	16.0								
	e	18.2								
	S	30.8		0.6	100					
CNZ	P	12 22 19.4		0.7	100	2.43	11			
	i	28.6								
	S	47.3		1.0	100					

TNZ	P	12 22 20.5		1.6	100	2.45	349		3.9		
NGZ	P	12 22 19.4		0.3	100	2.46	12				
	S	46.2		−0.7	100						
TRZ	e	12 22 21				2.47	35				3.6
	eS	48.6		1.1	100						
KRP	eP	12 22 37		1.1	100	3.69	7		3.9		
	e	46									
GNZ	eS	12 23 19.0		0.6	100	3.76	39				3.9
WTZ	eS	12 23 19		−3.3	94	3.92	24				3.8
MJZ	eS	12 23 25		−1.3	100	4.09	233				

AMPLITUDES:

WEL	20		MNG	6.5	14	CAZ	1.5	0.4		
COB	1.2	3.2	CNZ	1.3	2.6	TNZ	0.4			
NGZ	1.5	4.7	TRZ		0.4	KRP	0.3			
GNZ		0.8	WTZ		0.4					

79/ 401

JUL 09 $13^h35^m33^s.4$ 37°.77S 179°.13E 33 km M = 3.3

± 1.7 0.05 0.12 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	13	35	43.7		0.3	100	0.47	279		3.2	3.3
	eS*			51.0		0.3	100					
GNZ	eP*	13	35	57		1.1	100	1.23	225		3.2	3.4
	i			58.7								
	S*		36	11.8		−0.7	100					
WIZ	ePn	13	35	59		0.8	100	1.56	278			
	eP*		36	01.4		0.1	100					
WTZ	P*	13	36	01.3		−2.5	99	1.71	262		3.3	
	e			04.4								
TRZ	ePn	13	36	12		0.4	100	2.54	225		3.5	3.5
	eSn			43		2.6	99					
NGZ	Sn	13	36	54.5		0.6	100	3.10	242			
MNG	Pn	13	36	30.7		−1.1	100	4.02	224		3.2	3.3
	Sn		37	14.0		−1.9	99					

AMPLITUDES:

ECZ	1.5	2.2	GNZ	0.8	2.0	WIZ	0.4			
WTZ	0.7		TRZ	0.2	0.3	NGZ		0.8		
MNG	0.2	0.3								

79/ 402

JUL 09 $20^h20^m36^s.6$ 40°.85S 173°.26E 33 km M = 3.7

± 0.4 0.03 0.04 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WEL	eSn	20	21	11.5		−0.4	100	1.22	111	3.4		
	eS*			16.5		1.1	100					
MNG	ePn	20	21	03.0		−0.4	100	1.70	83		3.4	3.5
	iP*			05.5		−1.5	100					
	Sn			23		−0.5	100					
TNZ	ePn	20	21	06		0.3	100	1.87	28			4.1
	eP*			07.5		−2.3						
	eSn			29.7		2.2	99					
	S*			32.0		−2.6	99					
KAI	Sn	20	21	36		1.2	100	2.18	219			
CNZ	ePn	20	21	13.9		0.8	100	2.41	48			
	iP*			16.5		−2.5						
	e			35								
NGZ	Pn	20	21	16.0		2.3		2.46	48			
	i			28.3								
	e(Sn)			44.5		2.8						

TRZ	e	20	21	26				3.02	66		3.8		
	eP*			28		−1.3	100						
KRP	ePn	20	21	27.5		0.7	100	3.41	32		3.6	3.9	
	Sn		22	05.0		0.4	100						
MJZ	ePn	20	21	33		1.5	100	3.76	212		3.5	3.8	
	Sn		22	12.2		−0.7	100						
RHP	ePn	20	21	33		−1.9		4.01	215				
	eSn		22	14		−4.9							
MSZ	eSn	20	22	52.2		−2.1	99	5.48	224			3.8	

AMPLITUDES: WEL 0.6 MNG 1.6 2.8 TNZ 1.8
KAI 0.6 TRZ 0.3 KRP 0.5 1.0
MJZ 0.3 0.8 RHP 1.4 MSZ 0.5

79/ 403

JUL 10 $09^h24^m02^s.3$ 44°.99S 167°.65E 107 km M = 3.2
± 0.8 0.03 0.05 6 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	09	24	18.4		0.1	100	0.37	31		3.4	3.0
	S			30.3		−0.2	100					
ROX	e?	09	24	33				1.28	113			3.2
	S			45.8		0.6	100					
OBZ	eP	09	24	35		0.1	100	1.94	171		3.2	2.9
	eS			59		−0.2	100					
RHP	P	09	24	35.1		0.1	100	1.95	64			
	S		25	00.7		1.3	97					
MJZ	S	09	25	05.5		−0.8	99	2.25	65			3.6
OMZ	S	09	25	07.5		−0.4	100	2.32	93			3.3

AMPLITUDES: MSZ 8.5 6.0 ROX 0.8 OBZ 0.3 0.3
RHP 2.6 3.5 MJZ 1.1 OMZ 0.3

79/ 404

JUL 10 $10^h28^m16^s.7$ 45°.00S 167°.67E 99 km M = 3.1
± 1.7 0.05 0.09 11 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	10	28	32.1		0.3	100	0.38	28		2.7	3.3
	S			42.8		−0.5	100					
ROX	e(P)	10	28	42.5		2.1		1.26	113		3.0	3.1
	S			59.6		1.3	99					
OBZ	S	10	29	12.5		−0.1	100	1.93	171			3.1
RHP	eP	10	28	49		0.0	100	1.94	63			
MJZ	S	10	29	20.8		0.8	100	2.24	64			3.0
OMZ	eS	10	29	20		−1.5	99	2.30	93			3.0

AMPLITUDES: MSZ 1.7 13 ROX 0.3 0.8 OBZ 0.6
MJZ 0.3 OMZ 0.2

79/ 405

JUL 10 $19^h40^m26^s.2$ 45°.00S 167°.66E 92 km M = 3.2
± 1.0 0.03 0.06 7 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	19	40	40.9		0.3	100	0.38	28		3.5	3.3
	S			51.0		−0.6	100					
ROX	P	19	40	50.4		0.9	100	1.26	113		3.2	3.5
	S		41	08.4		1.3	99					
OBZ	P	19	40	58.0		−0.1	100	1.93	171		3.4	2.9
	S		41	21.0		−0.6	100					
RHP	P	19	40	58.4		0.0	100	1.95	63			

	S		41	22.8		0.6	100					
MJZ	S	19	41	29.0		−0.2	100	2.25	64			3.1
OMZ	eP	19	41	03		−0.1	100	2.30	93		3.2	3.2
	S			29		−1.6	98					

AMPLITUDES: MSZ 13 15 ROX 0.5 2.0 OBZ 0.6 0.4
RHP 0.8 1.1 MJZ 0.4 OMZ 0.2 0.3

79/ 406

JUL 10 $19^h59^m03^s.4$ 37°.67S 176°.22E 236 km M = 3.9
± 1.8 0.07 0.09 11 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	19	59	35.9		0.7	100	0.60	244		2.9*	
	eS	20	00	01		1.3	100					
WTZ	P	19	59	35.0		−0.5	100	0.68	118		3.9	3.3
	eS			59		−1.4	100					
TUA	eP	19	59	40		0.5	100	1.36	148		3.8	3.8
	e			42								
	eS	20	00	05.8		−1.7	100					
GNZ	S	20	00	11.0		−1.8	100	1.73	125			4.2
ECZ	eS	20	00	15.5		0.9	100	1.84	92			4.0
TRZ	eP	19	59	45		0.5	100	1.94	166		3.7	3.8
	S	20	00	18.5		2.2	99					
MNG	P	19	59	55.0		−0.5	100	3.01	191		3.9	4.2
	S	20	00	36.5		0.6	100					
CAZ	S	20	00	43.0		2.5	99	3.24	180			
WEL	eS	20	00	50		−2.0	99	3.79	197	4.0		
COB	eS	20	01	03		−1.4	100	4.36	217			2.8*

AMPLITUDES: KRP 0.7 WTZ 1.6 0.4 TUA 0.4 0.4
GNZ 3.0 ECZ 0.5 TRZ 0.2 0.6
MNG 1.2 3.0 CAZ 0.4 WEL 0.2
COB 0.3

79/ 407

JUL 11 $20^h53^m29^s.1$ 36°.07S 178°.61E 285 km M = 4.0
± 3.0 0.27 0.45 29 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	20	54	12.8		1.0	100	1.62	182		3.7	4.2
	e			42.0								
	iS			46.0		0.9	100					
WTZ	eP	20	54	15.5		−2.0	99	2.31	214		4.2	
GNZ	S	20	55	00		−0.3	100	2.61	190			4.6
MNG	eP	20	54	49.0		0.5	100	5.17	207		3.8	3.9
	S		55	49.4		−1.4	100					
COB	eS	20	56	28		1.5	100	6.80	221			3.0*

AMPLITUDES: ECZ 0.2 0.6 WTZ 1.0 GNZ 4.2
MNG 0.4 0.6 COB 0.3

79/ 408

JUL 12 $09^h05^m32^s.4$ 38°.70S 176°.11E 12 km M = 2.8
± 0.2 0.01 0.02 R S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	09	05	35.2		0.3	100	0.06	357			
	e			37.3								
KRP	Pg	09	05	50.0		-0.5	99	0.89	330		2.7	2.7
	Sg		06	02.8		0.2	100					
WTZ	Pg	09	05	52.5		−0.1	100	0.99	45		2.7	

MNG	ePg	09	06	12.5		0.0	100	1.98	194		3.0
	e			14.0							

AMPLITUDES: WNZ 2.5 KRP 0.5 0.4 WTZ 0.3
MNG 0.3

79/ 409

JUL 12 $15^h56^m28^s.8$ 43°.12S 171°.94E 33 km M = 3.6
± 0.3 0.02 0.04 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	eP*	15	56	41		−1.6	99	0.71	327	3.2		
	eS*			52		−0.7	100					
	i			56.5								
MJZ	ePn	15	56	50.2		−0.9	100	1.38	230		3.5	3.6
	iP*			52.0		−1.7	99					
	S*		57	12.2		0.1	100					
KKY	ePn	15	56	52.4		−0.0	100	1.47	62			
	P*			53.9		−1.4	100					
	Sn		57	12.1		2.0	99					
	S*			13.9		−1.0	100					
RHP	ePn	15	56	55.0		−0.1	100	1.66	233			
	eP*			57.6		−0.9	100					
	i			59.3								
	eS*		57	23		2.3	99					
OMZ	P*	15	57	05.0		−0.7	100	2.09	200		3.8	3.6
	eS*			33		−0.2	100					
COB	ePn	15	57	02		0.7	100	2.12	17		3.7	3.4
	eP*			07		0.8	100					
	S*			35		0.9	100					
ROX	eP*	15	57	21.8		0.4		3.01	218		3.8	
	e			31								
MSZ	ePn	15	57	18		0.7	100	3.29	241		3.5	
	eP*			28		1.8	99					
MNG	eP*	15	57	34		1.9		3.64	48		3.5	

AMPLITUDES: KAI 1.2 MJZ 2.6 3.7 RHP 6.5 5.2
OMZ 0.9 1.1 COB 0.6 1.1 ROX 0.4
MSZ 0.4 MNG 0.4

79/ 410

JUL 12 $18^h04^m38^s.7$ 39°.64S 174°.01E 231 km M = 4.0
± 0.9 0.05 0.06 7 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	eP	18	05	08		−1.6	100	0.54	33			
	e			30								
	eS			36		2.3	99					
GSZ	e	18	05	26.5				1.28	74			
	e			40								
	iS			43		2.0						
CNZ	eP	18	05	15		1.3		1.28	70			
	e			37.5								
	eS			41		0.1						
NGZ	eP	18	05	15.5		1.4	100	1.33	70			
	S			42		0.4	100					
MNG	iP	18	05	16.7		1.2	100	1.49	131		4.2	4.1
	i			19.3								
	S			43.2		−0.7	100					
COB	P	18	05	17.8		0.3	100	1.75	214		4.1*	3.4*
	S			45.5		−2.1	99					

WEL	eS	18	05	47		−0.6	100	1.75	161	3.7		
KRP	eP	18	05	21.3		0.5	100	2.10	35		2.7*	
CAZ	S	18	05	55.0		1.2	100	2.12	127			
TRZ	eP	18	05	23		1.3	100	2.18	89		3.7	4.1
	S			55.5		0.6	100					
TUA	eP	18	05	26		0.2	100	2.58	72			
	eS		06	01		−1.4	100					
WTZ	P	18	05	28.2		−0.7	100	2.86	56		3.9	
	eS		06	06		−1.9	99					
	e			09								
GNZ	eP	18	05	34.5		0.9	100	3.28	74		4.0	4.4
	S		06	15		−1.3	100					
ECZ	eP	18	05	43.0		0.1	100	4.05	63		4.1	
MJZ	eP	18	05	53		−2.6		5.08	210			
	eS		06	50		−5.5						
RHP	eP	18	05	56.8		−2.0		5.34	212			
	eS		06	55		−6.1						

AMPLITUDES:											
GSZ		5.3	CNZ	0.3	2.2	NGZ		1.0	4.6
MNG	6.0	6.7	COB	3.0	2.4	WEL	0.3		
KRP	0.3		CAZ		1.1	TRZ		0.2	1.0
WTZ	0.5		GNZ	0.6	2.5	ECZ		0.2	
RHP	0.3	0.3							

79/ 411

JUL 12 $23^h22^m37^s.5$ 44°.44S 167°.90E 12 km M = 3.2

± 2.2 0.09 0.14 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	Pg	23	22	41.8		−0.8	100	0.23	177			
	Sg			44.7		−1.3	100					
RHP	Pg	23	23	09.0		−0.9	100	1.60	79			
	Sg			32.5		0.9	100					
MJZ	eP*	23	23	12		0.9	100	1.90	77		3.0	3.1
	ePg			15		−0.9	100					
	eSg			41		−0.5	100					
OMZ	eP*	23	23	15.2		−1.6	100	2.24	107		3.5	
	ePg			24.5		1.8	100					
OBZ	ePg	23	23	30.0		2.5	99	2.47	177		3.2	3.3
	eSn			47.7		1.5						
	i			50.8								

AMPLITUDES:									
MSZ	16	26	RHP	3.0	3.6	MJZ		0.4	0.7
OMZ	0.4		OBZ	0.2	0.7				

79/ 412

JUL 13 $04^h51^m06^s.0$ 38°.17S 176°.00E 173 km M = 3.7

± 1.7 0.06 0.10 11 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	04	51	30.3	USW	0.4	100	0.44	304		3.2*	
	eS			49		0.7	100					
WTZ	iP	04	51	29.8	U	−1.9	99	0.80	77		3.4	3.2
	e(S)			45		−6.6						
NGZ	eP	04	51	35.5		1.9	99	1.05	197			
	eS			54		−0.9	100					
TRZ	eS	04	52	02		−0.4	100	1.52	155			3.6
MNG	iP	04	51	48.7	D	0.2	100	2.48	189		3.9	4.0
	eS		52	20		-1.3	100					
CAZ	eS	04	52	29		2.2	99	2.74	176			
WEL	eS	04	52	38		-0.2	100	3 26	197	3.9		

COB	eS	04 52 51		−0.9	100	3.86	220			2.9*

AMPLITUDES: KRP 1.7 WTZ 0.9 0.6 NGZ 0.5 1.3
TRZ 0.6 MNG 2.0 3.5 CAZ 0.4
WEL 0.2 COB 0.4

79/ 413

JUL 13 $10^h36^m52^s.7$ 39°.24S 175°.24E 12 km M = 3.9
± 0.4 0.03 0.03 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	iP*	10	36	58.3	D	0.3	100	0.24	81			
TNZ	iP*	10	37	05.2	U	−0.1	100	0.67	274		3.6	3.8
	eSg			16		0.4	100					
TRZ	ePn	10	37	16		0.5	100	1.27	105		3.7	3.6
	ePg			20.5		2.1	99					
	e(Sg)			39		3.5						
KRP	Pn	10	37	15.5		−0.9	100	1.33	10		4.4	4.6
	P*			16.2		−0.4	100					
	eSn			33		−1.1	100					
MNG	iPn	10	37	15.3	U	−1.9	100	1.39	172		4.4	4.1
	eP*			16.4		−1.2	100					
	e(Sn)			32		−3.5						
TUA	ePg	10	37	24		−0.1	100	1.55	74		3.9	3.8
	e(Sg)			51		6.0						
CAZ	Pg	10	37	27.7		−2.0	99	1.83	156			
	eSg			54		−0.3	100					
WTZ	ePn	10	37	26		2.4	99	1.85	48		3.5	
WEL	ePn	10	37	28		1.4	100	2.08	190	3.8		
	eSn			52		0.0	100					
COB	ePn	10	37	33		−1.6	100	2.66	225		4.0	3.8
	e			36								
	eSn		38	09		2.9	98					

AMPLITUDES: CNZ 59 TNZ 2.2 5.3 TRZ 0.7 0.8
KRP 7.0 9.0 MNG 22 14 TUA 0.5 0.4
CAZ 0.8 0.6 WTZ 0.3 WEL 0.5
COB 0.8 1.8

FELT: Ohakune (49) MM IV

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JUL 13 $13^h52^m02^s.1$ 38°.47S 176°.69E 12 km M = 3.5
± 0.4 0.02 0.02 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	iP*	13	52	11.3	U	−0.4	100	0.49	133		3.4	3.4
	e			15.2								
	eS*			20.1		1.5	100					
	eSg			22		2.9	98					
WTZ	iP*!	13	52	12.5		0.0	100	0.54	26			3.3
	eS*			22.0		2.1	99					
WIZ	P*	13	52	18.3		−2.4	99	1.02	23			
KRP	P*	13	52	21.3	D	−0.0	100	1.06	301		3.2	3.0
	eS*			37		1.5	100					
GNZ	eP*	13	52	20		−1.4	100	1.06	100		3.4	3.5
	e			27								
	eS*			33		−2.5	99					
	eSg			38		0.0	100					
TRZ	eP*	13	52	21		−0.8	100	1.09	175		3.4	3.4
	S*			36.9		0.5	100					

NGZ	iP*	13	52	20.8	U	−1.3	100	1.11	229			
	eS*			37		0.2	100					
TNZ	ePn	13	52	34		−0.1	100	1.94	248		3.8	3.8
	eSg		53	07.5		−0.1	100					
MNG	ePn	13	52	41		1.4	100	2.34	203		3.4	3.7
	e(Sn)		53	03		−4.7						
	eS*			13		−0.9	100					
WEL	e(Sn)	13	53	21		−6.9		3.18	207	3.9		
	eS*			37		−2.1	99					
COB	ePn	13	53	03		0.6	100	4.01	228		3.9	3.5
	e(Sn)			43		−5.0						
	e			53								
	eSg		54	19		1.5	100					

AMPLITUDES:											
TUA		3.2	4.0	WTZ		7.0	WIZ		0.8		
KRP		0.9	0.5	GNZ		1.7	3.6	TRZ	0.8	1.2	
NGZ		5.8	29	TNZ		0.2	0.2	MNG	0.9	2.3	
WEL	0.3			COB		0.3	0.4				

79/ 415

JUL 14 $23^h39^m14^s.1$ 39°.52S 174°.28E 191 km M = 4.4

± 0.9 0.03 0.05 7 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	23	39	41.2		1.4	100	0.34	13		3.2*	3.4*
	eS		40	01		1.5	99					
NGZ	iP	23	39	44.2	D	0.5	100	1.09	72			
	e(S)		40	04		−2.6						
MNG	iP	23	39	47.9	U	1.3	100	1.43	140		4.3	4.6
	eS		40	11		−0.8	100					
WEL	eP	23	39	50		−0.2	100	1.80	168	4.1		
	eS		40	18		−0.1	100					
KRP	P	23	39	50.4		−0.5	100	1.87	32		3.5*	3.0*
	eS		40	18		−1.3	100					
COB	iP	23	39	51.8	U	0.0	100	1.96	217		4.3*	4.1*
	eS		40	19		−2.1	99					
TRZ	iP	23	39	52.8	U	0.9	100	1.97	92		4.4	4.6
	eS		40	21		0.0	100					
CAZ	eS	23	40	23		0.6	100	2.03	133			
TUA	iP	23	39	56.0	D	−0.1	100	2.34	73		4.5	4.3
	eS		40	29		0.6	100					
WTZ	P	23	39	58.6		−0.6	100	2.62	55		4.3	4.0
	e		40	30								
	e(S)			37		3.0						
GNZ	eP	23	40	06		1.7	99	3.04	74			
	eS			41		−2.1	99					

AMPLITUDES:											
TNZ		0.4	0.9	NGZ		16	20	MNG	11	26	
WEL	1.0			KRP		2.0	0.7	COB	4.8	12	
TRZ		1.2	4.6	CAZ			23	TUA	1.4	0.8	
WTZ		1.7	0.9								

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JUL 16 $23^h59^m18^s.4$ 38°.06S 176°.59E 158 km M = 3.8

± 1.0 0.04 0.04 6 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	23	59	39.3	U	−0.8	100	0.32	77		3.6	3.6
	S			55		−1.8	98					
KRP	iP	23	59	43.2	UW	0.4	100	0.85	279		2.9*	
	eS	24	00	02		0.3	100					

TUA	eP	23	59	43.5		0.5	100	0.86	150		3.7	3.4
	eS	24	00	03.5		1.5	99					
GNZ	P	23	59	46.5		0.0	100	1.27	118		3.7	4.2
	S	24	00	08.0		−0.1	100					
NGZ	P	23	59	49.5		2.1	96	1.36	214			
	e	24	00	18								
ECZ	eS	24	00	14		0.0	100	1.59	77			3.7
MNG	P	24	00	02.7		−0.2	100	2.70	198		4.2	3.8
	eS			37		0.0	100					
CAZ	eS	24	00	40.5		−0.1	100	2.85	186			
WEL	eS	24	00	55		−0.6	100	3.52	203	3.9		
COB	eS	24	01	12		−0.6	100	4.25	223			3.0*

AMPLITUDES: WTZ 2.2 2.3 KRP 1.0 TUA 0.8 0.4
GNZ 1.5 7.5 NGZ 2.1 1.1 ECZ 0.4
MNG 3.7 2.0 CAZ 0.6 WEL 0.2
COB 0.5

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JUL 17 $06^h04^m04^s.0$ 45°.07S 167°.68E 120 km M = 3.6
± 0.5 0.02 0.03 3 S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	06	04	22.0	U	0.2	100	0.43	23		3.5	3.5
	S			35.3		−0.1	100					
ROX	P	06	04	29.3		0.6	99	1.23	110			3.6
	eS			48		0.5	100					
OBZ	eP	06	04	36		−0.1	100	1.86	171		3.2	4.3
	eS		05	00		−0.4	100					
RHP	P	06	04	37.2		−0.4	100	1.98	61			
	eS		05	03		0.2	100					
MJZ	eP	06	04	42		0.6	99	2.28	62		3.2	3.9
	eS		05	09		−0.6	99					
OMZ	eS	06	05	10		−0.1	100	2.29	91			3.5

AMPLITUDES: MSZ 6.6 13 ROX 2.0 OBZ 0.3 7.0
RHP 3.5 6.6 MJZ 0.3 1.4 OMZ 0.4

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JUL 18 $01^h43^m58^s.8$ 40°.50S 174°.34E 12 km M = 3.9
± 0.4 0.02 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WEL	P*	01	44	15.0		0.5	100	0.85	158	3.9		
	eS*			25.5		−0.4	100					
MNG	iP*!	01	44	14.1		−0.8	100	0.88	98		3.8	4.0
	e(S*)			22		−4.8						
TNZ	ePn	01	44	21.5		−0.7	100	1.31	1		3.4	3.7
	eSn			40		0.3	100					
COB	Pn	01	44	22.3		−0.5	100	1.35	244		4.0	4.0
	eSn			41.5		0.8	100					
CAZ	eP*	01	44	27.2		1.8	99	1.49	106			
	eSg			49		−0.1	100					
NGZ	iPn	01	44	26.1		−0.6	100	1.64	37			
	eSn			47		−0.6	100					
KRP	eP*	01	44	46		−0.6	100	2.74	20		3.8	3.8
	eSn		45	17		3.1	93					
	eS*			21		−1.5	100					
WTZ	eP*	01	44	54		−1.4	100	3.25	40		4.0	4.1
	eS*		45	39		1.2	100					

AMPLITUDES:											
	WEL	4.3			MNG	15	29	TNZ	0.5	1.5
	COB	3.0	10		CAZ	1.8	4.6	NGZ	16	35
	KRP	1.1	1.3		WTZ	0.3	0.3			

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JUL 18 $04^h31^m51^s.0$ 33°.41S 179°.57E 345 km M = 4.7

± 2.2 0.20 0.41 30 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	04	33	04		0.1	100	4.36	191		4.6	4.5
	eS		34	04		2.9	99					
WTZ	eP	04	33	10		−1.2	100	5.03	204		5.0	4.6
	eS		34	12		−2.2	99					
GNZ	eS	04	34	20		−1.1	100	5.37	193			
KRP	P	04	33	18.8		1.4	100	5.58	215		3.5*	
GSZ	P	04	33	30.7		0.4	100	6.69	208			
MNG	P	04	33	42.3		−2.4	99	7.91	203		4.9	4.5
	eS		35	13		−1.3	100					
WEL	eS	04	35	34		1.7	100	8.75	205	4.7		
COB	eP	04	34	04		1.3	100	9.40	213		3.5*	3.2*
	eS		35	47		0.4	100					

AMPLITUDES:										
	ECZ	0.5	0.4	WTZ	2.4	0.9	KRP	0.8		
	GSZ	1.5		MNG	2.1	1.1	WEL	0.2		
	COB	0.2	0.4							

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JUL 18 $08^h38^m27^s.3$ 37°.69S 179°.50W 33 km M = 4.4

± 1.3 0.06 0.09 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	08	38	53		1.0	100	1.55	269		4.2	4.4
	eSn		39	11		0.5	100					
GNZ	ePn	08	39	01		0.5	100	2.18	243		4.1	4.6
	e			22.5								
	eSn			28		2.5	99					
WTZ	Pn	08	39	09.0		−0.0	100	2.80	263		4.5	4.7
	Sn			40.3		−0.2	100					
TUA	ePn	08	39	10		0.0	100	2.86	246		4.3	4.5
	eSn			43		0.9	100					
TRZ	ePn	08	39	18		0.3	100	3.43	236		4.2	4.4
	eSn			59		3.3	97					
KRP	e	08	39	32				3.94	265		4.2	4.3
	eSn		40	06		−1.9	100					
GSZ	e(Pn)	08	39	32		4.2		4.17	246			
	eSn		40	11		−2.5	99					
MNG	iPn	08	39	36.0	U	−1.4	100	4.88	232		4.3	4.3
	eSn		40	29		−1.5	100					
TNZ	ePn	08	39	41		1.4	100	5.04	251			4.8
	e		40	11								
ONE	ePn	08	39	44		0.9	100	5.29	289	5.0		
	eP*			58		−0.6	100					
WEL	eSn	08	40	50		−0.4	100	5.71	229	4.4		
COB	ePn	08	40	03		−2.1	99	6.91	238		4.4	4.1
	eSn		41	19		−0.3	100					

AMPLITUDES:										
	ECZ	1.4	2.8	GNZ	2.2	11	WTZ	4.0	6.0	
	TUA	0.8	1.5	TRZ	0.5	1.3	KRP	0.6	0.6	
	GSZ	0.8	1.3	MNG	1.5	2.0	TNZ		0.3	
	ONE	0.5		WEL	0.3		COB	0.3	0.6	

79/ 421

JUL 19 $02^h38^m47^s.1$ 38°.08S 176°.25E 187 km M = 3.9
± 1.2 0.05 0.06 8 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	02	39	13.9	UW	0.7	100	0.58	285		3.4*	2.6*
	S			33.0		−0.3	100					
WTZ	eS	02	39	31		−2.3	99	0.58	81			3.4
TUA	P	02	39	16.2		0.5	100	1.02	136		3.7	
GSZ	eP	02	39	20.5		2.4	99	1.30	203			
	eS			44		1.9	99					
GNZ	eS	02	39	44.5		−0.7	100	1.50	113			
TRZ	eS	02	39	48		2.1	99	1.54	163			3.9
ECZ	iP	02	39	23.9	D	0.5	100	1.85	79		3.9	3.8
	eS			51		−0.5	100					
MNG	iP	02	39	32.8	U	0.9	100	2.61	193		4.1	4.2
	eS		40	05		−1.4	100					
CAZ	eS	02	40	11		0.0	100	2.83	180			
WEL	eS	02	40	22		−1.6	100	3.40	199	4.1		
COB	eP	02	39	49		−0.8	100	4.06	221		3.3*	3.4*
	eS		40	37		−1.3	100					

AMPLITUDES:								
KRP	3.0	0.5	WTZ	1.0	TUA	0.6		
GSZ	0.6	0.7	TRZ	1.1	ECZ	0.5	0.4	
MNG	3.2	4.5	CAZ	0.7	WEL	0.3		
COB	0.3	1.2						

79/ 422

JUL 19 $08^h20^m30^s.9$ 31°.48S 179°.93W 528 km M = 5.6
± 1.2 0.08 0.17 17 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	08	22	14		1.5	100	6.33	191		5.5	5.3
	eS		23	34		1.0	100					
ONE	eP	08	22	13		−0.2	100	6.41	226	4.1*		
	eS		23	35		0.7	100					
CRZ	eP	08	22	16.5		−1.2	100	6.88	243		4.0*	
WTZ	eP	08	22	15.5		−3.1	98	6.97	201		6.2	5.2
	e			18.9								
	e		23	37								
GNZ	iP	08	22	23.7	D	1.3	100	7.34	193		5.6	5.7
	eS		23	49		−2.0	100					
KRP	eP	08	22	25		1.7	100	7.43	209		4.6*	3.6*
	eS		23	54		1.3	100					
TUA	eP	08	22	26		0.1	100	7.69	197		5.6	5.4
	eS		23	57		−0.3	100					
TRZ	eP	08	22	32.5		−1.4	100	8.49	197		5.7	5.8
	e			34								
	e		24	04.5								
	eS			13		1.2	100					
GSZ	eP	08	22	35		−0.1	100	8.60	204			
	eS		24	12		−2.0	100					
TNZ	eP	08	22	41.5		2.4	99	8.99	210		3.9*	3.8*
	e		24	39								
MNG	P	08	22	45.0		−3.0	98	9.85	201		5.8	5.3
	e			47								
	e		24	31								
	eS			38		0.6	100					
CAZ	eP	08	22	50.5		1.9	100	9.91	197			

	eS		24	39		0.5	100					
WEL	eP	08	22	57		0.5	100	10.68	202	5.2		
	eS		24	53		−0.1	100					

AMPLITUDES:											
	ECZ	1.7	1.2	ONE	1.1			CRZ	0.6		
	WTZ	15	1.8	GNZ		4.0	9.0	KRP	7.0	0.8	
	TUA	1.7	1.1	TRZ		1.6	4.0	GSZ	3.8	1.0	
	TNZ	0.3	0.3	MNG		11	4.0	CAZ	2.3	1.3	
	WEL	0.5									

79/ 423

JUL 20 $08^h00^m20^s.1$ 38°.29S 175°.73E 194 km M = 4.3

± 0.5 0.03 0.03 3 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	08	00	46.2	U	−0.1	100	0.39	337		3.8*	2.8*
	S		01	06		−0.5	100					
NGZ	P	08	00	49.2		0.5	100	0.90	186			
	S		01	11.5		0.7	100					
WTZ	P	08	00	49.9	D	0.3	100	1.03	74		3.7	3.9
	S		01	12.5		0.0	100					
TUA	P	08	00	51.0		−0.2	100	1.23	116		4.3	4.3
	e		01	09								
	S			14		−1.2	98					
TNZ	P	08	00	53.0	U	0.5	100	1.39	229		3.9*	2.6*
TRZ	P	08	00	54		0.2	100	1.53	146		4.2	4.5
	S		01	20		0.2	100					
GNZ	P	08	00	56.8		0.0	100	1.84	102		4.2	4.6
	S		01	25.5		0.4	100					
ECZ	P	08	01	01.5		−0.3	100	2.30	76		4.1	4.1
	S			34.5		0.5	100					
MNG	P	08	01	01.0	U	−1.2	98	2.34	185		4.3	4.8
	S			30		−4.7	0					
WEL	P	08	01	10		−1.0		3.09	194	4.3		
	S			47		−3.3						
COB	eP	08	01	14.5		−3.2		3.64	219		4.0*	3.5*
	e			17								
	S			59		−3.2						
CMZ	S	08	02	45		−6.6		5.80	203			3.8*
MJZ	S	08	03	12		−6.6		6.95	213			3.2*
CIZ	S	08	03	52		5.8		8.12	137			
MSZ								8.67	220			3.0*

AMPLITUDES:											
	KRP	7.0	0.8	WTZ		1.1	1.9	TUA	1.6	1.7	
	TNZ	1.5	0.1	TRZ		1.1	4.8	GNZ	2.5	10	
	ECZ	0.6	0.5	MNG		6.0	22	WEL	0.7		
	COB	1.7	1.7	CMZ			1.3	MJZ		0.5	
	CIZ		0.3	MSZ			0.3				

79/ 424

JUL 20 $09^h55^m55^s.0$ 37°.72S 175°.66E 277 km M = 3.7

± 0.8 0.05 0.06 6 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	09	56	34		0.4	100	1.09	105		3.4	2.9
	S		57	03		−0.6	100					
NGZ	S	09	57	08		0.3	100	1.47	181			
TRZ	S	09	57	17		1.4	97	2.04	154			3.8
GNZ	P	09	56	41.0	U	0.2	100	2.08	117		4.1	4.2
	S		57	15.5		−0.6	100					
MNG	P	09	56	48.5		−0.0	100	2.90	183		3.7	4.1

	S		57	29.5		−0.7	100					
WEL	S	09	57	44		−0.2	100	3.63	191	3.6		
COB	P	09	57	01		−0.2	100	4.06	213		2.9*	2.3*
	(S)			53		0.1	100					

AMPLITUDES: WTZ 0.3 0.1 TRZ 0.5 GNZ 1.1 2.3
MNG 0.8 2.7 WEL 0.1 COB 0.1 0.1

79/ 425

JUL 20 $21^h35^m42^s.2$ 32°.97S 178°.59W 33 km M = 5.4
± 2.9 0.16 0.24 R S.E. of RES. 2.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	21	37	00.2	D	2.6	100	5.26	206		5.8	6.0
	e			11								
	Sn		38	02		7.3	88					
	e(T)		41	30								
WTZ	Pn	21	37	08		−2.0	100	6.17	215		5.6	5.6
	e(Sn)		38	14		−2.5						
	e			18								
GNZ	e(Pn)	21	37	14		2.3		6.30	205			
ONE	Pn	21	37	15		1.0	100	6.47	242	5.9		
	Sn		38	23.5		−0.1	100					
AUC	Pn	21	37	20		2.9	100	6.70	233			
TUA	Pn	21	37	17		−1.2	100	6.78	209		5.6	5.6
	Sn		38	29		−2.0	100					
	eS*		39	03		−3.8						
KRP	Pn	21	37	20		0.2	100	6.88	222		5.8	5.8
	eP*			36		−4.8						
	eSn		38	36		2.3						
TRZ	Pn	21	37	27		−1.8	100	7.55	208		5.3	5.4
	Sn		38	49		−0.5	100					
NGZ	Pn	21	37	30		−1.9	100	7.78	215			
	Sn		38	53		−2.1	100					
TNZ	Pn	21	37	40		−0.7		8.42	221		5.8	5.8
	P*		38	04		−2.9						
	e		39	41								
CAZ	Sn	21	39	20		−3.1		8.95	206			
MNG	ePn	21	37	42		−6.5		9.00	210		5.1	5.4
	Sn		39	19		−5.3						
	e			54								
WEL	Sn	21	39	36		−8.9		9.85	211	5.4		
	e		40	17								
COB	Pn	21	38	05		−6.3		10.66	218		4.9	5.1
	Sn		39	58		−6.5						
CIZ	e(Pn)	21	38	22		4.9		11.09	172			
	Sn		40	12		−2.6						
CMZ	ePn	21	38	35		−3.3		12.64	210		4.6	5.5
	Sn		40	43.5		−8.4						
MJZ	ePn	21	38	49		−7.0		13.94	215		5.0	5.1
	Sn		41	11		−12.1						
ROX								15.60	213		5.2	4.8
MSZ								15.70	218		5.0	4.9

AMPLITUDES: ECZ 4.7 10 WTZ 10 9.5 ONE 0.8
TUA 3.1 3.5 KRP 3.5 2.5 TRZ 1.3 2.3
TNZ 0.6 0.6 MNG 2.8 8.0 WEL 0.9
COB 0.4 2.3 CIZ 0.9 2.4 CMZ 0.2 2.5
MJZ 0.7 1.3 ROX 0.4 0.4 MSZ 0.6 0.9

79/ 426

JUL 21 $08^h40^m30^s.5$ 36°.76S 177°.44E 225 km M = 4.0

± 1.4 0.10 0.11 9 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	(P)	08	41	05.5		0.6	100	1.28	196		3.6	3.5
	S			31		−0.6	100					
KRP	P	08	41	09		−1.4	99	1.92	232		2.7*	
	S			42		0.8	100					
GNZ	e(P)	08	41	13		2.4		1.94	166			4.4
	S			42		0.4	100					
TUA								2.06	186			3.8
NGZ	eP	08	41	20.5		0.6	100	2.83	210			
TRZ	P	08	41	20		0.0	100	2.83	190		3.9	4.0
	S			58		−0.5	100					
MNG	iP	08	41	33.0	U	−2.7		4.16	201		4.5	4.3
	S		42	22		−4.2						
WEL	S	08	42	38		−6.6		4.99	204	4.1		
COB	eP	08	41	51		−3.7		5.68	219		3.0*	2.9*
	S		42	53.5		−6.8						
CMZ	S	08	43	40		−8.0		7.76	207			2.8*
MJZ	S	08	44	08		−8.2		8.97	214			3.0*
MSZ	S	08	44	49		−7.2		10.71	219			2.9*

AMPLITUDES:									
WTZ		0.7	0.6	KRP	0.3		GNZ		4.5
TUA			0.3	TRZ	0.2	0.6	MNG	3.0	2.5
WEL	0.2			COB	0.1	0.3	CMZ		0.1
MJZ			0.2	MSZ		0.2			

79/ 427

JUL 21 $17^h11^m47^s.7$ 40°.42S 174°.07E 12 km M = 3.6

± 0.3 0.01 0.02 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WEL	Pg	17	12	08.4	D	0.1	100	1.02	149	3.4		
	Sg			23		0.9	100					
MNG	iP*	17	12	06.9	D	−0.6	100	1.10	101		3.6	3.8
	Pg			08		−1.9						
	S*			22.5		0.3	100					
COB	Pg	17	12	11.8	U	−0.5	100	1.21	236		3.7	3.5
	Sg			29		0.2	100					
TNZ	P*	17	12	11		0.7	100	1.25	11		3.3	3.7
	S*			28.5		1.5	98					
NGZ	Pn	17	12	16.5		−0.1	100	1.72	44			
	i			30								
	Sn			38		−0.3	100					
TRZ	e(Pn)	17	12	26		1.6		2.29	69		3.1	3.4
	(S*)			59		1.1						
KRP	Pn	17	12	30		−0.6	100	2.74	25		3.5	3.6
	Sn		13	02		−0.9	99					
TUA	Pn	17	12	35		2.6		2.87	57		3.7	3.7
	S*		13	12.5		−3.0						
WTZ	ePn?	17	12	40		1.4		3.33	44		3.7	4.2
	e			42.5								
	e		13	12.5								
	e(Sn)			20		3.0						
CMZ	Sn	17	13	13.5		−3.8		3.34	198			3.3
GNZ	S*	17	13	31		−4.3		3.54	61			3.8
MJZ	Sn	17	13	45		0.7		4.46	216			3.5

MSZ	Sn	17	14	28		1.4		6.23	225		3.2

AMPLITUDES:

WEL	0.9			MNG	6.3	13	COB	1.9	4.5
TNZ	0.4	1.4		TRZ	0.1	0.3	KRP	0.6	0.9
TUA	0.2	0.2		WTZ	0.1	0.2	CMZ		0.2
GNZ		0.7		MJZ		0.3	MSZ		0.1

79/ 428

JUL 25 $17^h13^m01^s.1$ 39°.24S 175°.18E 12 km M = 3.5

± 0.4 0.03 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	Pg	17	13	07.7		0.4	100	0.29	82			
GSZ	iPg	17	13	07.8		−0.1	100	0.31	97			
NGZ	Pg	17	13	08.4		0.1	100	0.34	81			
TNZ	Pg	17	13	14.3	D	0.4	100	0.62	275		3.1	3.0
	Sg			24		1.6	99					
TRZ	Pg?	17	13	29		1.3		1.31	104		3.3	3.3
	e			32.5								
	(Sg)			47.5		2.1						
KRP	Pn	17	13	25		0.1	100	1.34	12		4.1	4.2
	Sn			42		−0.7	100					
MNG	iPn	17	13	25.5	U	−0.2	100	1.39	171		4.0	3.6
	Sn			44		−0.0	100					
TUA	e(Pn)	17	13	31		2.6		1.59	75		3.2	3.3
	e(Sn)			43		−5.8						
WEL	P*	17	13	37		−0.6	100	2.07	189	3.4		
	eSn		14	03		2.8	96					
COB	Pn	17	13	43		0.5	100	2.63	225		3.7	3.3
	eSn		14	11.5		−2.2	99					
	eS*			20		−1.6	99					

AMPLITUDES:

TNZ	1.0	1.0	TRZ	0.3	0.3	KRP	3.1	3.5
MNG	8.3	4.7	TUA	0.1	0.1	WEL	0.2	
COB	0.4	0.6						

FELT: Ohakune (49) MM IV

79/ 429

JUL 26 $11^h01^m48^s.9$ 37°.21S 177°.82E 12 km M = 4.2

± 0.7 0.05 0.03 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WIZ	iPg	11	02	01.7	U	0.6	100	0.59	238			
	Sg			12		2.7	97					
ECZ	Pg	11	02	05.8	D	1.5	100	0.76	130		4.5	4.7
	Sg			14.5		−0.0	100					
	e			21								
	e			26								
WTZ	iP*	11	02	06.8	D	−0.6	100	1.02	220		4.0	4.3
	S*			19.5		−1.6	100					
GNZ	Pn	11	02	13		−1.1	100	1.44	174		4.1	4.5
	(Pg)			22		3.9						
	Sn			33		0.1	100					
TUA	Pn	11	02	16.5		−0.8		1.68	198		4.2	4.2
	P*			18.5		−0.3						
	eSg			47		1.4						
KRP	Pn	11	02	19.5		−1.5	100	1.95	248		4.5	4.3
	Pg			26		−2.4						
	Sn			44		−1.1	100					
WNZ	e(Pn)	11	02	20		−1.2		1.96	223		3.8	4.0

	e(S*)		51	1.5							
GBZ	Pn	11	02 23	−0.4	100	2.12	297				
	e(Sg)		03 01	0.4							
AUC	Pn	11	02 29	1.0	100	2.46	277				
TRZ	Pn	11	02 27	−1.1		2.47	198			4.0	4.0
	(Sn)		03 00	2.4							
NGZ	Pn	11	02 31	0.7	100	2.63	221				
	e(Sn)		03 05	3.6							
ONE	P*	11	02 42	−1.5		3.13	296	4.1			
	Pg		54	1.7							
	Sn		03 15	1.4							
TNZ	Pn	11	02 41	0.8		3.36	233			5.1	
MNG	Pn	11	02 43	−4.1		3.86	207			4.1	4.3
	P*		54	−2.0							
	e(S*)		03 44.5	−1.9							
WEL	e(P*)	11	03 06	−4.5		4.72	209	4.0			
	Sn		46.5	−5.0							
	S*		04 06	−5.8							
COB	Pn	11	03 06	−4.0		5.53	224			4.0	3.8
	Sn		04 10	−1.3							
	e(S*)		45	8.5							
CIZ	Pn	11	03 43.5	0.2		7.98	149				
	Sn		05 03	−7.0							
MJZ	Pn	11	03 49	−5.3		8.78	217			4.0	3.9
	Sn		05 22	−7.3							

AMPLITUDES:										
ECZ	12	21	WTZ	10	18	GNZ		4.5	20
TUA	1.7	2.1	KRP	3.2	1.7	WNZ		0.1	0.2
GBZ	2.3	1.4	TRZ	0.6	1.0	ONE	0.2		
TNZ	0.8		MNG	1.6	2.8	WEL	0.2		
COB	0.2	0.4	CIZ	0.3		MJZ		0.2	0.2

79/ 430

JUL 26 $23^h26^m43^s.4$ 35°.26S 178°.47E 269 km M = 4.4

± 3.0 0.22 0.38 31 S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(P)	23	27	31		−0.6	100	2.43	179			
	e		28	04								
	(S)			09		−0.2	100					
WTZ	P	23	27	36.5		−0.6	100	2.97	203		4.7	4.2
	S		28	16		−2.8	99					
GNZ	S?	23	28	28		0.9	100	3.39	186			4.9
KRP	P	23	27	46		2.6	99	3.55	221		3.2*	
TUA	eS?	23	28	36		3.0	99	3.69	196			4.0
MNG	P	23	28	09.5		−1.2	100	5.85	203		4.3	4.3
	S		29	18		−0.9	100					
WEL	S	23	29	37.5		−0.0		6.69	205	4.1		
COB	e(P)	23	28	35		5.5		7.36	216			2.8*
	eS		29	55		2.3						
	e			58								
MJZ	S	23	31	08		0.6		10.67	213			2.7*

AMPLITUDES:									
WTZ	2.5	0.9	GNZ		6.0	KRP		0.6	
TUA		0.2	MNG	1.1	1.4	WEL	0.1		
COB		0.2	MJZ		0.1				

79/ 431

JUL 27 $14^h21^m09^s.9$ 45°.45S 169°.40E 12 km M = 3.3

± 0.4 0.03 0.03 R S.E. of RES 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ROX	iPg	14	21	12.9		0.6	100	0.05	248			
OMZ	P*	14	21	30.3	U	−0.2	100	1.14	71		3.6	3.2
	Pg			31.6		−1.4	99					
	S*			45.5		−0.2						
	Sg			47		−1.4	99					
MSZ	eP*	14	21	34		0.6		1.31	306		3.1	3.3
	Pg			35.5		−0.9	100					
	Sg			53		−1.1	100					
RHP	Pn	14	21	36		1.0		1.44	20			
	P*			37		1.4						
	Sn			55		1.1						
MJZ	ePn	14	21	38.5		0.5		1.66	28		3.3	3.6
	P*			40.0	D	0.7	100					
	Pg			44		0.6						
	Sn		22	00.5		1.5	99					
	S*			02.5		1.4	100					
OBZ	P*	14	21	40.5		0.4	100	1.70	211		3.2	3.5
	S*		22	03		0.4	100					
CMZ	ePg	14	22	07		−3.1		2.98	52		3.4	3.2
	eSg			45		−5.3						

AMPLITUDES: OMZ 1.7 1.4 MSZ 1.1 2.7 MJZ 1.0 2.4
OBZ 0.4 2.1 CMZ 0.2 0.2

79/ 432

JUL 27 $17^h25^m11^s.6$ 51°.00S 162°.77E 12 km M = 4.6
± 1.0 0.10 0.19 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	17	26	31		0.1	100	5.41	43		4.6	4.8
	e		27	28								
	(Sn)			31		0.1	100					
ROX	ePn	17	26	54		0.7	99	7.06	41		4.9	4.7
	Sn		28	10		−0.4	100					
	e			24								
MSZ	ePn	17	26	55		−0.6	99	7.22	31		4.6	4.8
	Sn		28	15		0.5	100					
OMZ								8.06	46			4.2
MJZ	e(Pn)	17	27	17		0.6		8.74	40		4.7	4.5
	e			30								
	Sn		28	49		−2.0						
COB	e(Pn)	17	28	07		4.9		12.09	39		4.7	4.2
	Sn		30	06		−5.4						
MNG	e(Pn)	17	28	29		5.7		13.64	45		4.3	

AMPLITUDES: OBZ 1.2 4.0 ROX 0.9 1.5 MSZ 1.2 3.4
OMZ 0.3 MJZ 0.9 0.8 COB 0.2 0.2
MNG 0.2

79/ 433

JUL 28 $15^h50^m32^s.5$ 38°.63S 178°.08E 56 km M = 3.9
± 1.4 0.08 0.11 9 S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iP	15	50	41.5	U	0.3	100	0.04	255			
	S			48		0.5	100					
TUA	iP	15	50	47.6	D	−0.0	100	0.76	256		4.0	4.4
	e			57.5								
	S			58.5		−0.4	100					

ECZ	P	15	50	53		2.0	100	1.01	21		3.7	3.7
	e(S)		51	01.5		−3.2						
	e			05								
WTZ	P	15	50	50.6	U	−1.3	100	1.08	306		4.4	4.1
	eS		51	04.5		−1.9	100					
WIZ	P	15	50	54		−1.0	100	1.30	327			
	e(S)		51	12.5		0.5						
TRZ	e	15	51	05				1.35	226		4.1	3.4
	(S)			17		4.1						
	e			33.5								
WNZ	e	15	51	10				1.56	269		4.1	4.1
	e(S)			23		5.1						
NGZ	eP	15	51	06		1.3	100	2.01	253			
CNZ	P	15	51	07.5		2.1	100	2.06	253			
	e			13								
	e			15								
KRP	P	15	51	04		−2.4	99	2.12	289		2.9*	2.8*
	e			12								
	S			35		3.5	99					
MNG	P	15	51	14		−2.3	100	2.83	225		3.4	3.5
	e			29								
	e(S)			47.5		−1.8						
	e		52	20								
WEL	S	15	52	07.5		−3.4		3.68	223	3.5		
COB	P	15	51	41		−3.0		4.80	238		3.2*	2.6*
	e			58								
	eS		52	36		−2.9						
	e			54								
CIZ	S	15	53	26		0.2		6.68	145			
MJZ	S	15	53	45		−9.8		7.85	225			2.6*

AMPLITUDES:											
	TUA	5.7	14	ECZ	1.6	1.5	WTZ	15	8.3
	TRZ	1.8	0.9	WNZ	0.2	0.2	KRP	0.6	0.5
	MNG	0.7	1.0	WEL	0.1		COB	0.2	0.2
	CIZ		0.8	MJZ		0.1			

79/ 434

JUL 29 $11^h33^m27^s.7$ 40°.39S 176°.30E 71 km M = 3.6

± 1.0 0.04 0.07 10 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CAZ	iP	11	33	41.2	U	0.0	100	0.51	186			
	S			52		0.7	100					
MNG	P	11	33	42.9		0.2	100	0.67	250		3.5	
	S			53		−1.0	100					
TRZ	P	11	33	44.7	U	−1.1	99	0.93	26		3.7	3.7
	S			59.5		0.2	100					
NGZ	P	11	33	52		1.2	99	1.31	336			
	eS		34	13		4.8						
WEL	P	11	33	52		−0.8	100	1.47	232	3.6		
	S		34	12.5		0.7	100					
	e			27.5								
TUA	e(P)	11	34	03		6.9		1.71	23		3.6	3.4
	e			34								
WNZ	e(P)	11	34	02		5.3		1.76	355		4.4	
	e			05								
	e(S)			21		2.6						
GNZ	e	11	34	26				2.20	38		3.8	3.4
	S			31.5		2.8						
	e		35	05								

WTZ	P	11 34 04	−2.5	2.47	13	3.6	3.2		
	e	14							
	e	49							
KRP	P	11 34 06	−1.5	2.54	346	3.0*	3.0*		
	e	15							
	e	50							
COB	eP	11 34 10.5	−0.7	2.80	254	3.2*	2.9*		
	e	21.5							
	S	47	3.0						
	e	35 10							
CMZ	S	11 35 16	−3.1	4.20	219		2.8*		
MJZ	S	11 35 51	−3.8	5.63	228		3.0*		
CIZ	eS	11 36 05	−8.5	6.39	126				

AMPLITUDES:

MNG	11		TRZ	1.4	3.1	WEL	0.7		
TUA	0.4	0.3	WNZ	0.3		GNZ		1.1	0.7
WTZ	0.5	0.2	KRP	0.7	0.7	COB		0.4	0.7
CMZ		0.2	MJZ		0.4				

79/ 435

JUL 30 $16^h38^m01^s.6$ 37°.87S 176°.65E 150 km M = 4.0

± 1.0 0.05 0.04 7 S.E. of RES. 1.1

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	16 38 21.3	U	−1.0	100	0.29	113			
	S	36.5		−1.5	99					
WNZ	e(P)	16 38 25.5		0.1		0.87	209		3.7	3.7
	e(S)	39		−4.7						
KRP	iP	16 38 25.7	DE	0.2	100	0.88	266		3.7*	3.0*
	iS	44.5	E	0.7	100					
TUA	P	16 38 26.3	U	−0.2	100	1.02	157		3.8	3.7
	e(S)	49		3.3						
GNZ	iP	16 38 29.5	D	−0.1	100	1.33	126		4.1	4.6
	S	51		−0.1	100					
ECZ	P	16 38 30.5		−1.1	100	1.51	84			
	S	57		2.4	94					
NGZ	P	16 38 32.3		0.5	100	1.54	211			
	eS	55.5		0.4	100					
TRZ	P	16 38 33		−0.4	100	1.68	175		3.9	3.8
	e(S)	58		0.2	100					
TNZ	eP	16 38 41		1.4		2.21	233		2.8*	2.7*
	eS	39 12.5		3.9						
MNG	P	16 38 45.8		−2.4		2.89	198		4.2	4.3
	S	39 20.5		−3.4						
WEL	eP	16 38 55.5		−3.4		3.71	202	4.2		
	S	39 39		−3.9						
COB	eP	16 39 04		−4.1		4.42	222		2.9*	3.3*
	S	55		−4.4						
CMZ	S	16 40 41		−7.6		6.47	207			3.4*
MJZ	eP	16 39 48.5		−3.5		7.69	215		3.0*	3.1*
	S	41 09		−9.1						

AMPLITUDES:

WTZ	6.3	3.4	WNZ	0.1	0.1	KRP		5.5	1.3
TUA	0.9	0.8	GNZ	4.0	20	TRZ		0.6	1.1
TNZ	0.1	0.1	MNG	3.7	5.8	WEL	0.4		
COB	0.1	1.0	CMZ		0.5	MJZ		0.2	0.3

79/ 436

JUL 30 $20^h40^m18^s.0$ 37°.64S 179°.13W 33 km M = 3.8

± 2.3 0.13 0.16 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	20	40	46		−0.7	100	1.84	268			
GNZ	eSn	20	41	25		1.9	100	2.46	245			4.0
WTZ	Pn	20	41	04.5		0.7	100	3.10	262		4.1	3.9
	P*			12		0.0						
	Sn			38		−0.3	100					
TUA	eSn	20	41	42		2.2	99	3.16	247			3.9
KRP	ePn	20	41	20		0.6	100	4.24	265			
	eSn		42	04		−1.8	100					
NGZ	ePn	20	41	27.5		5.8		4.41	248			
MNG	ePn	20	41	31.5		−0.2	100	5.14	233		3.5	3.7
	Sn		42	25		−2.5	99					
CIZ	(Sn)	20	43	12		9.3		6.61	164			
COB	eSn	20	43	16		−0.6		7.19	239			3.4
MJZ	Sn	20	44	24		−3.2		10.13	228			

AMPLITUDES: GNZ 2.2 WTZ 1.4 0.7 TUA 0.3
MNG 0.2 0.4 CIZ 0.3 COB 0.1

79/ 437

JUL 31 $03^h31^m49^s.1$ 38°.67S 175°.69E 156 km M = 3.9
± 1.0 0.03 0.03 7 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	03	32	12		0.6	100	0.51	187			
CNZ	P	03	32	12.3		0.8	99	0.54	192			
KRP	P	03	32	12.4	D	−0.3	100	0.76	351		2.8*	
	S			30.5		−0.4	100					
TNZ	P	03	32	16		0.1	100	1.14	243		2.9*	
TUA	eS	03	32	37		0.5	100	1.15	97			3.7
TRZ	e(S)	03	32	39		0.9		1.25	135			3.6
GNZ	S	03	32	48.5		−0.4	100	1.83	90			4.2
MNG	iP	03	32	24.0	U	−0.4	100	1.95	185		4.1	4.1
	S			51		−0.5	100					
WEL	S	03	33	06		−1.8		2.71	195	3.7		
COB	S	03	33	18		−3.7		3.32	222			2.7*
MJZ	S	03	34	31		−8.4		6.61	215			2.8*

AMPLITUDES: KRP 0.7 TNZ 0.2 TUA 0.6
TRZ 0.9 GNZ 5.0 MNG 4.7 6.3
WEL 0.2 COB 0.3 MJZ 0.2

79/ 438

JUL 31 $07^h36^m15^s.0$ 31°.60S 178°.91E 483 km M = 4.8
± 1.7 0.19 0.49 46 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	07	37	53		0.5	100	6.09	183			
	e(S)		39	09.5		−0.1	100					
WTZ	P	07	37	55		−2.3	99	6.57	193		5.1	4.8
	S		39	17		−1.3	100					
KRP	P	07	38	03		2.3	99	6.89	203		3.3*	
GNZ	P	07	38	02.5		0.1	100	7.07	186		5.0	5.1
	e(S)		39	29		1.4	100					
TUA	P	07	38	04		−1.2	100	7.34	191		4.8	4.8
	S		39	33		0.4	100					
NGZ	P	07	38	13		0.4	100	8.04	199			
	e(S)		39	52		6.1						
TRZ	eP	07	38	10		−3.5		8 12	192		4.5	4.9
	S		39	47		−0.6	100					

MNG	P	07 38 23		−4.5		9.42	196		4.5	4.5
	S	40 10.5		−2.3						
WEL	S	07 40 28		−0.6		10.23	198	4.5		
COB	e	07 40 38				10.70	206			2.7*
	eS	41		3.2						

AMPLITUDES:

WTZ		1.7	0.9	KRP		0.4		GNZ	1.2	2.5
TUA		0.3	0.3	TRZ		0.1	0.6	MNG	0.6	0.7
WEL	0.1			COB		0.1				

79/ 439

AUG 02 $01^h48^m09^s.6$ 39°.26S 174°.65E 212 km M = 4.7

± 1.1 0.05 0.07 8 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	01	48	38.8		1.2	100	0.22	288			
	S		49	00		0.9	100					
NGZ	iP	01	48	40.4		1.1	100	0.75	85			
	eS		49	04		1.7						
WNZ	P	01	48	43.6	D	0.8	100	1.30	61		4.6	
KRP	iP	01	48	44.4	D	−0.1	100	1.50	28		3.8*	3.0*
	S		49	11		−0.6	100					
	e			30								
MNG	iP	01	48	46.0	U	1.4	99	1.50	155		4.8	
	(S)		49	11		−0.6						
TRZ	S-P			27.5		−1.0		1.71	101		4.8	4.7
TUA	P	01	48	49.7	D	0.4	100	2.00	78		4.6	4.6
	S		49	19		−0.9	100					
WEL	P	01	48	50.0	UN	0.3	100	2.02	178	4.6		
	eS		49	20.5		0.0	100					
WTZ	iP	01	48	50.8	D	−0.8	100	2.23	56		4.6	4.5
	S		49	23		−1.1	100					
COB	iP	01	48	52.6	U	−0.3	100	2.35	218		4.8*	4.1*
	S		49	24		−2.5	97					
ECZ	P	01	49	05		−0.3		3.44	64			
KAI	S	01	49	59.5		−3.5		4.09	216	4.0*		
CMZ	P	01	49	17.8	U	−1.9		4.58	199		4.4*	4.8*
	S		50	10		−4.0						
	e			12.5								
MJZ	P	01	49	32.0		−1.5		5.68	212		3.6*	4.0*
	S		50	33		−5.8						
	e			35								
MSZ	P	01	49	51.5		−4.0		7.38	221		3.3*	3.6*
	e		50	14								
	e(S)		51	13		−5.3						

AMPLITUDES:

TNZ		0.8	2.0	WNZ		0.4		KRP	4.2	0.8
MNG		28		TRZ		3.3	6.0	TUA	2.2	2.1
WEL	2.5		2.9	WTZ		3.7	3.7	COB	14	9.4
KAI	1.1			CMZ		3.8	17	MJZ	1.1	3.7
MSZ		0.4	1.4							

79/ 440

AUG 03 $17^h07^m27^s.8$ 34°.67S 179°.23W 417 km M = 4.7

± 1.4 0.16 0.24 15 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	17	08	43.4		−2.8	99	4.50	222		5.0	4.9
GNZ	eP	17	08	46		−0.6	100	4.54	208		4.4	4.9
	e			49								
	S		09	47.5		−1.1	100					

TUA	eP	17	08	52		0.2	100	5.05	214			4.8
	eS		09	57		−0.7	100					
KRP	eP	17	08	52.0		−2.7	99	5.33	231		3.1*	
	eS		10	05		2.3	99					
TRZ	eP	17	09	01.5		1.9	100	5.80	212		4.5	4.7
	S		10	14		2.2	99					
NGZ	P	17	09	03.6		0.8	100	6.11	221			
CNZ	eP	17	09	04.8		1.5	100	6.16	221			
TNZ	eP	17	09	11		0.3	100	6.82	227			
MNG	eP	17	09	15.8		0.1	100	7.27	214		4.8	4.4
	i			17.0								
	eS		10	41		−0.0	100					
WEL	eP	17	09	27		1.5	100	8.13	214	4.6		
	eS		10	57		−1.3	100					
COB	eP	17	09	36		0.4	100	9.03	222		3.5*	3.1*
	eS		11	15		−1.7	100					

AMPLITUDES: WTZ 2.5 2.0 GNZ 0.7 3.5 TUA 0.6
KRP 0.3 TRZ 0.2 0.7 NGZ 0.6
CNZ 0.3 MNG 1.8 1.0 WEL 0.2
COB 0.2 0.3

79/ 441

AUG 03 $22^h20^m08^s.5$ 31°.40S 178°.74E 211 km M = 4.6

± 3.0 0.19 0.55 81 S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	22	21	48.0		1.9	100	6.73	192		4.9	4.5
	eS		23	01		−1.2	100					
GNZ	P	22	21	54		1.1	100	7.25	184		4.6	4.8
	S		23	15		0.6	100					
TRZ	eS	22	23	38		−0.4	100	8.29	190			4.6
MNG	eP	22	22	19.8		−3.1	98	9.58	195		4.4	4.5
	S		24	08.5		0.3	100					
COB	eS	22	24	38		1.0	100	10.82	205			3.2*

AMPLITUDES: WTZ 1.1 0.6 GNZ 0.6 1.6 TRZ 0.4
MNG 0.5 0.9 COB 0.3

79/ 442

AUG 04 $04^h33^m54^s.1$ 44°.99S 167°.22E 56 km M = 4.1

± 0.9 0.03 0.09 12 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	04	34	07.0		−0.2	100	0.59	57			
ROX	P	04	34	20.1		0.0	100	1.57	109			
OBZ	P	04	34	25.8		−0.6	100	2.02	162		4.4	4.4
	S			51.2		0.8	100					
RHP	P	04	34	31.0		1.5	98	2.23	68			
MJZ	P	04	34	34.0		0.3	100	2.53	68		4.0	4.5
	S		35	04.0		0.5	100					
OMZ	P	04	34	34.3		−0.7	100	2.62	93		4.1	
KAI								3.91	52	3.8		
CMZ	eP	04	34	56		−0.4	100	4.14	72		3.5	3.8
	S		35	43		−1.0	99					
COB	P	04	35	16.5		−0.6	100	5.62	48		4.2	4.0
	S		36	22		0.9	100					

AMPLITUDES: OBZ 8.2 21 MJZ 4.5 15 OMZ 2.0
KAI 0.4 CMZ 0.4 1.1 COB 0.8 1.6

FELT: Te Anau Downs (130) MM IV, Manapouri (139)

79/ 443

AUG 04 $08^h00^m51^s.0$ 40°.71S 174°.17E 33 km M = 3.6

± 0.3 0.02 0.03 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WEL	eP*	08	01	05.5		0.3	100	0.73	142	3.3		
	S*			16.6		1.1	100					
MNG	P*	08	01	08.3		−1.3	99	1.00	85		3.6	3.7
	S*			23.5		0.2	100					
COB	P*	08	01	11.7		−0.4	100	1.15	250		4.0	3.8
	S*			28.0		0.3	100					
TNZ	eP*	08	01	17.5		−1.0	100	1.53	6		3.6	3.7
	eS*			39		0.1	100					
CNZ	Pn	08	01	21.1		1.4	99	1.84	36			
	iP*			22.3		−1.4	99					
	(Sn)			45.2		3.9						
NGZ	Pn	08	01	21.8		1.5		1.89	37			
TRZ	eP*	08	01	35		2.8		2.34	61		3.4	3.5
	eS*		02	04.5		1.6						
KRP	ePn	08	01	36		0.8	100	2.98	21		3.6	3.5
	e			39								
	Sn		02	10		1.5	99					
CMZ	ePn	08	01	36		−0.8	100	3.10	201			
GNZ	e(Pn)	08	01	39		−5.0		3.62	56		3.9	3.8
	Sn		02	23.0		−1.0	100					
RHP	P*	08	02	08.5		−1.2		4.54	220			

AMPLITUDES:

WEL	1.4		MNG	7.5	12	COB	4.5	8.7
TNZ	0.5	0.9	NGZ	3.3		TRZ	0.2	0.3
KRP	0.6	0.6	GNZ	0.5	0.7	RHP	0.4	

79/ 444

AUG 04 $09^h51^m59^s.4$ 45°.11S 167°.72E 126 km M = 4.2

± 1.4 0.05 0.09 10 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	09	52	17.3		−0.6	100	0.46	18		4.1	3.9
	S			31.8		−0.4	100					
ROX	eP	09	52	25		0.9	100	1.19	109			
	eS			43		0.1	100					
OBZ	P	09	52	30.9		−0.5	100	1.82	171		4.7	4.6
	S			54.8		−0.7	100					
RHP	P	09	52	33.8		0.7	100	1.96	60			
	S		53	00.2		1.6	100					
MJZ	P	09	52	36.0		−0.9	100	2.26	61		3.6	4.4
	S		53	05.0		−0.2	100					
OMZ	eP	09	52	40		3.0	97	2.27	90		3.6	4.0
	eS		53	05.0		−0.3	100					
CMZ	eS	09	53	40		−2.8	98	3.84	68			4.3
COB	eP	09	53	18.5		−1.0		5.44	44		4.6	4.5
	eS		54	18		−3.4						

AMPLITUDES:

MSZ	26	29	OBZ	7.5	13	RHP	20	18
MJZ	0.7	4.6	OMZ	0.3	1.1	CMZ		0.5
COB	0.3	0.4						

79/ 445

AUG 04 $11^h21^m48^s.6$ 37°.49S 175°.88E 276 km M = 4.0

± 1.2 0.09 0.12 11 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	11	22	25.7		−1.0	100	1.01	120		3.5	3.5
	e			47.5								
	eS			56		−0.3	100					
NGZ	P	11	22	33.7		2.5	96	1.70	187			
CNZ	eP	11	22	33.8		2.5		1.73	189			
GNZ	P	11	22	34.0		0.1	100	2.05	125		4.3	4.0
	S		23	08.0		−1.2	100					
TRZ	eP	11	22	36		0.7	100	2.19	161		3.8	3.9
	eS		23	13.0		1.5	99					
MNG	P	11	22	44.7		0.1	100	3.14	186		4.3	4.2
	S		23	28.2		−0.0	100					
WEL	eP	11	22	53		0.1	100	3.89	192	4.1		
	eS		23	42		−0.9	100					
COB	eP	11	22	57		−1.0	100	4.35	213		3.2*	2.8*
	eS		23	52		−0.3	100					

AMPLITUDES:											
WTZ		0.4	0.4	NGZ		0.7		CNZ		0.2	
GNZ		2.0	1.3	TRZ		0.2	0.6	MNG		2.6	2.6
WEL	0.2			COB		0.2	0.3				

79/ 446

AUG 05 $06^h41^m06^s.7$ 38°.89S 176°.22E 121 km M = 4.2

± 0.8 0.04 0.05 7 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	P	06	41	23.8		0.0	100	0.27	340			
NGZ	P	06	41	26.2		1.0		0.56	238			
CNZ	P	06	41	26.8		1.2	100	0.61	239			
	eS			41		0.9	100					
GSZ	P	06	41	27.0		1.3	100	0.63	232			
TUA	S-P			13.2		−1.9	99	0.73	84		3.5	4.3
TRZ	P	06	41	28.6		1.4	100	0.81	145		4.6	4.3
	S			44.0		1.1	100					
WTZ	iP	06	41	29.0		−0.9	100	1.09	34		4.3	4.4
	S			44.3		−3.2						
KRP	eP	06	41	32		2.0		1.11	331			
	S			46.0		−1.8	100					
GNZ	P	06	41	34.5		0.7	100	1.43	81		4.2	4.5
	S			52.1		−2.3	99					
TNZ	P	06	41	36.0		1.9	99	1.47	258		4.0*	3.4*
	e			59								
MNG	P	06	41	39.3		1.0	100	1.82	198		3.9	4.1
	S		42	01.5		−0.8	100					
ECZ	P	06	41	44.2		1.2	100	2.19	58		4.4	
WEL	eP	06	41	48		−1.2	100	2.65	204	4.4		
	S		42	19.3		−1.8	100					
COB	eP	06	41	58.8		−1.4	100	3.46	230		3.6*	3.4*
	eS		42	39.6		−1.2	100					
CMZ	S	06	43	23		−5.1		5.42	209			4.0*

AMPLITUDES:											
WNZ		0.3		NGZ		10		CNZ		12	14
GSZ		34		TUA		0.8	5.5	TRZ		10	10
WTZ		7.5	11	GNZ		4.6	16	TNZ		2.0	0.8
MNG		4.2	7.5	ECZ		1.5		WEL	1.4		
COB		0.7	1.7	CMZ			2.5				

79/ 447

AUG 05 $14^h05^m34^s.0$ 38°.31S 176°.46E 120 km M = 3.5

± 1.7 0.09 0.08 15 S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	14	05	49.4		−2.9	99	0.53	52		3.1	3.0
	S		06	05.0		−1.3	100					
KRP	P	14	05	54.0		−0.5	100	0.82	298		2.6*	
	S		06	12.5		2.4	99					
NGZ	(P)	14	06	02.7		5.6		1.09	217			
TRZ	e(P)	14	06	03.5		4.4		1.27	167			
	i			08.0								
GNZ	P	14	06	00.0		0.8	100	1.28	106		3.2	3.8
	S			20.2		1.9	100					
ECZ	P	14	06	05.0		0.1	100	1.76	70		3.8	
TNZ	e(P)	14	06	10		4.1		1.84	241			
MNG	P	14	06	15.4		2.0	100	2.42	198		3.5	3.6
	S			41.5		−1.7	100					
WEL	e(S)	14	07	09		6.3		3.24	203	4.0		
COB	eP	14	06	34		−0.5	100	4.00	225		3.1*	2.9*
	e(S)		07	26		5.3						

AMPLITUDES:											
WTZ	1.1	1.0	KRP	0.6	NGZ	1.6					
GNZ	0.6	3.9	ECZ	0.6	MNG	1.0	1.7				
WEL	0.3		COB	0.2	0.4						

79/ 448

AUG 05 $20^h06^m57^s.1$ 38°.37S 176°.11E 164 km M = 3.8

± 1.0 0.05 0.06 8 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	eP	20	07	20		0.6	100	0.26	181			
KRP	P	20	07	20.8		−0.1	100	0.63	314		2.8*	
	S			38.2		−0.9	100					
WTZ	P	20	07	20.2		−1.6	100	0.79	61		3.4	3.4
	e			35								
NGZ	P	20	07	24.3		1.8	99	0.90	205			
TUA	S-P			17.5		−2.4	99	0.93	119		3.4	3.7
CNZ	P	20	07	24.6		1.8	99	0.94	208			
	e			50								
GSZ	P	20	07	24.8		1.5		1.00	204			
TRZ	P	20	07	27.2		1.1	100	1.30	155			
	S			50.2		1.8	99					
GNZ	P	20	07	28.5		0.2	100	1.53	101		3.9	3.9
	S			51.0		−1.3	100					
TNZ	eP	20	07	30		1.2	100	1.58	238		3.0*	
ECZ	P	20	07	33.0		−0.9	100	2.04	71		3.8	
MNG	iP	20	07	37.3		0.4	100	2.29	192		4.5	3.9
	S		08	07.6		0.0	100					
WEL	P	20	07	46.5		−0.4	100	3.10	199	4.1		
	eS		08	23		−2.0	99					
COB	eP	20	07	54		−1.4	100	3.76	223		3.3*	3.5*
	S		08	39.2		−1.1	100					
CMZ	eS	20	09	26		−3.1		5.84	206			3.3*

AMPLITUDES:											
WNZ	0.2	KRP	0.7	WTZ	0.9	1.0					
NGZ	2.7	TUA	0.4	0.7	CNZ	1.3	0.6				
GSZ	1.5	GNZ	1.6	3.0	TNZ	0.2					
ECZ	0.4	MNG	9.0	3.2	WEL	0.5					
COB	0.3	1.7	CMZ	0.4							

79/ 449

AUG 06 $15^h34^m40^s.1$ 45°.30S 167°.33E 78 km M = 3.9

± 1.1 0.03 0.09 11 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	15	34	56.0		−0.6	100	0.76	34		3.9	4.0
	S		35	09		0.0	100					
ROX	P	15	35	05.3		0.6	100	1.41	98			
OBZ	P	15	35	09.0		0.5	100	1.70	161		4.1	4.3
	S			29.6		−0.1	100					
RHP	P	15	35	16.5		−0.3	100	2.30	60			
OMZ	P	15	35	20.0		−0.2	100	2.55	86		3.9	3.7
	eS			49		−1.2	99					
MJZ	P	15	35	20.2		−0.8	100	2.60	61		3.3	3.9
	S			53		1.6	98					
COB	eP	15	36	03		−2.0		5.78	45		3.9	3.7
	e		37	05								
	eS			08		−2.5						
MNG	eP	15	36	34		3.9		7.60	55		2.8*	

AMPLITUDES: MSZ 18 45 OBZ 4.1 15 RHP 23
OMZ 1.1 1.2 MJZ 0.7 2.6 COB 0.2 0.3
MNG 0.2

79/ 450

AUG 06 $18^h15^m34^s.5$ 37°.67S 179°.35E 133 km M = 4.8
± 0.7 0.04 0.06 10 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	18	16	01.8		−0.6	100	1.43	227		4.5	
	S			22.0		−1.6	100					
WTZ	P	18	16	07.0		−0.7	100	1.90	260			
TUA	P	18	16	11.0		1.1	100	2.07	236		4.4	5.0
	S			38.0		1.3	100					
TRZ	P	18	16	18.5		0.0	100	2.74	226		4.6	5.1
	S			54.5		2.6	99					
KRP	P	18	16	21.5		−1.0	100	3.03	264		3.6*	
	eS			56.3		−2.6	99					
NGZ	P	18	16	27.0		0.9	100	3.30	242			
	S		17	05.8		0.5	100					
CNZ	P	18	16	28.0		1.2		3.36	242			
GSZ	P	18	16	28.0		1.1	100	3.37	240			
AUC	eP	18	16	31.7		−0.2	100	3.73	281			
	i			41.4								
CAZ	eP	18	16	36.5		0.7	100	4.04	216			
	S		17	24.9		2.0	99					
TNZ	eP	18	16	40		2.2	99	4.18	247		3.6*	
MNG	eP	18	16	36.0		−2.1	99	4.21	224		4.5	4.9
	i			37.0								
ONE	eP	18	16	41		0.0	100	4.44	294	3.6*		
	eS		17	32		−0.2	100					
WEL	eP	18	16	49		−0.5	100	5.07	223	5.0		
	S		17	46.2		−1.2	100					
COB	eP	18	17	03		−1.2	100	6.16	234		3.6*	3.7*
	S		18	13.2		−0.8	100					
CRZ	P	18	17	07.3		1.2	100	6.30	299		3.7*	
CIZ	eP	18	17	17.7		1.9	99	7.00	155			
	S		18	32.5		−1.8	100					
CMZ	eP	18	17	26		−0.6		7.81	219		3.5*	4.0*
	eS		18	51		−2.8						
MJZ	eP	18	17	45		−0.6		9.23	224		3.4*	4.0*
	S		19	23.5		−4.4						
RHP	eP	18	17	48.8		−0.5		9.51	225			
	i			50.5								
	S		19	31.5		-3.2						

AMPLITUDES:											
	GNZ	9.7		TUA	1.6	7.1	TRZ	1.5	10
	KRP	2.2		NGZ	10	13	CNZ	2.6	
	GSZ	4.0		CAZ	0.7	9.0	TNZ	0.3	
	MNG	3.9	12	ONE	0.6		WEL	1.6	
	COB	0.4	1.8	CRZ	0.4		CIZ	1.0	
	CMZ	0.3	1.6	MJZ	0.4	2.0	RHP	1.6	3.6

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AUG 07 $07^h02^m14^s.7$ 39°.20S 175°.22E 33 km M = 4.0

± 0.4 0.03 0.04 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P*	07	02	20.2		−1.6	99	0.25	90			
GSZ	iP*	07	02	20.2		−2.1	99	0.30	105			
NGZ	P*	07	02	20.3		−2.2		0.31	87			
TNZ	P*	07	02	26.9		−0.7	100	0.65	271		3.6	3.8
	S*			37.6		0.6	100					
WNZ	eS*	07	02	45.5		1.5	99	0.90	51			
	e			50								
TRZ	eP*	07	02	39		0.8	100	1.30	106		3.9	3.8
	i			43.5								
	(S*)		03	01.4		5.8						
KRP	Pn	07	02	37.0		1.0	100	1.30	11		4.5	4.6
	iP*			38.3		−0.0	100					
	S*			55.2		−0.6	100					
MNG	Pn	07	02	38.0		0.2	100	1.43	172		4.4	4.1
	Sn			56.0		1.0	100					
TUA	ePn	07	02	40		0.5		1.56	76			
	eP*			47		4.3						
WTZ	eP*	07	02	51		3.5		1.84	49		3.5	
	e			58								
CAZ	P*	07	02	49.8		1.9		1.87	156			
WEL	ePn	07	02	49.0		1.9		2.12	189	4.0		
	iP*			49.8		−2.2						
	eSn		03	15.2		3.8						
COB								2.51	225		4.1	3.9
	ePn		02	55.0		0.1						
	eP*			57.4		−4.3						
	e		03	26								
	i(S*)			32.0		−4.8						

AMPLITUDES:									
	TNZ	2.7	5.0	TRZ	1.1	1.0	KRP	10	10
	MNG	21	12	WTZ	0.3		CAZ	2.2	
	WEL	0.8		COB	1.1	2.6			

FELT: Ohakune (49) MM IV, Mahoenui (38)

79/ 452

AUG 09 $02^h30^m12^s.7$ 39°.40S 175°.22E 113 km M = 4.0

± 0.4 0.02 0.03 3 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	P	02	30	29.5		0.4	100	0.31	67			
	S			40.2		−1.4	99					
CNZ	P	02	30	29.5		0.4	100	0.32	52			
	e			41.2								
	eS			42.8		1.1	99					
NGZ	P	02	30	29.8		0.5		0.38	55			
	S			42.0		−0.1						
TNZ	P	02	30	32.0		0.6	100	0.68	288		3.3*	3.2*
	eS			45.5		−0.2	100					

	i			47.2								
MNG	P	02	30	38.2		1.3	99	1.23	171		3.6	4.1
	S			54.0		−1.3	99					
TRZ	i(P)	02	30	39.8		2.7		1.25	98			
	eS			56.8		1.1	99					
KRP	iP	02	30	40.2		0.2	100	1.49	10		3.8*	3.3*
	S			59.8		−1.0	100					
TUA	eP	02	30	42.0		0.6	100	1.61	69		3.9	4.0
	S		31	03		−0.3	100					
WEL	eP	02	30	45		−0.2	100	1.92	190	4.0		
	S		31	08.5		−1.0	100					
WTZ	P	02	30	45.0		−1.0	100	1.98	45		3.8	3.7
	S		31	10.5		−0.4	100					
GNZ	P	02	30	49.9		−0.5	100	2.31	72		3.8	4.6
	e		31	14								
	eS			18.5		−0.1	100					
COB	P	02	30	53.3		−0.3	100	2.55	228		4.3*	3.7*
	S		31	24.8		0.5	100					
RHP	eP	02	31	40.8		−0.5		6.07	218			
	eS		32	45		−5.0						

AMPLITUDES:										
GSZ	35	26	CNZ	30	27	NGZ	45			
TNZ	0.7	0.9	MNG	4.2	17	KRP	6.2	2.0		
TUA	0.9	1.1	WEL	0.9		WTZ	1.1	1.0		
GNZ	0.9	9.0	COB	4.8	3.9	RHP	0.7	0.4		

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AUG 09 $04^h31^m27^s.0$ 33°.81S 179°.31W 233 km M = 4.6

± 1.0 0.05 0.08 11 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	04	32	35.8		2.2	96	4.25	204		4.6	4.6
	S		33	24		−1.4	99					
GBZ	i(P)	04	32	44.5		2.8		4.90	239			
WTZ	P	04	32	44.2		−0.3	100	5.14	215		4.8	4.6
	eS		33	45.0		0.0	100					
GNZ	P	04	32	46.2		−0.2	100	5.29	203		4.9	4.6
	eS		33	48		−0.2	100					
TUA	eP	04	32	53.0		0.6	100	5.75	209		4.9	
KRP	eP	04	32	54		0.2	100	5.87	224		3.1*	
	e(S)		34	06		4.6						
CRZ	eP	04	33	03.5		−0.6	100	6.68	262		3.6*	
MNG	eP	04	33	19		−1.5	99	7.96	210		4.0	4.3
	i			21.0								
	S		34	50		0.5	100					
WEL	eS	04	35	10		0.8	100	8.82	210	4.7		
COB	eS	04	35	27		−0.6	100	9.64	219			3.3*
CIZ	eS	04	35	44		−0.3	100	10.36	169			

AMPLITUDES:										
ECZ	0.6	0.6	GBZ	0.7		WTZ	1.6	1.0		
GNZ	2.3	1.5	TUA	0.7		KRP	0.3			
CRZ	0.3		MNG	0.3	0.7	WEL	0.2			
COB		0.5	CIZ		0.6					

79/ 454

AUG 09 $06^h31^m00^s.7$ 37°.64S 177°.53E 33 km M = 3.8

± 0.8 0.05 0.04 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP*	06	31	13.7		1.7	100	0.55	231		3.8	3.5
ECZ	iP*	06	31	15.3		−0.8	100	0.81	94		4.1	4.2

	S*			28.9		1.5	100					
GNZ	Pn	06	31	17.0		−1.9	100	1.08	159		3.8	3.6
	Sn			31.1		−1.4	100					
TUA	P*	06	31	21.0		−1.7	100	1.21	194		3.5	3.6
	S*			41.2		2.3	99					
KRP	P*	06	31	28.7		−0.7	100	1.60	259		3.9	4.1
	S*			49.5		−1.3	100					
TRZ	eP*	06	31	34		−1.9	100	1.99	196		3.6	
	eS*		32	02.0		−0.2	100					
NGZ	ePn	06	31	36		2.3		2.16	224			
CNZ	Pn	06	31	37		2.7	99	2.20	224			
GSZ	Pn	06	31	37.0		2.2	99	2.24	222			
TNZ	e(Pn)	06	31	48		3.9		2.92	237			4.6
MNG	ePn	06	31	50.0		−0.3	100	3.37	208		3.6	3.9
	iP*			58.5		−1.0	100					
	eS*		32	44		0.4	100					
WEL	e	06	32	46				4.22	210	3.9		
	eS*		33	06		−2.9						
	e			09								
COB	ePn	06	32	12.0		−1.4		5.07	226			
	eSn		33	12		3.5						
	e			22.5								

AMPLITUDES:											
WTZ	21	10	ECZ	3.7	5.7	GNZ	4.0	4.2
TUA	0.7	1.1	KRP	1.5	2.0	TRZ	0.4	
NGZ	1.6		CNZ	0.8		GSZ	1.3	
TNZ		0.3	MNG	0.7	1.6	WEL	0.2	

79/ 455

AUG 09 $08^h00^m28^s.6$ 38°.89S 175°.89E 12 km M = 3.7

± 0.2 0.01 0.02 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	08	00	34.9		−0.3	100	0.31	33		3.3	3.4
	Sg			41.0		1.4	99					
NGZ	Pg	08	00	36.5		0.2	100	0.36	216			
CNZ	Pg	08	00	37.6		0.5	100	0.40	221			
GSZ	Pg	08	00	38.8		0.8	100	0.45	211			
TRZ	Pg	08	00	48.8		0.2	100	0.98	133		4.0	3.3
	(Sg)		01	08.0		6.2						
TUA	P*	08	00	47.0		0.4	100	0.99	86		3.8	3.8
	iPg			49.8		1.1	100					
	Sg		01	00.2		−1.9	99					
KRP	P*	08	00	46.2		−0.7	100	1.00	344		3.8	3.7
	iPg			49.7		0.7	100					
	Sg		01	02.0		−0.6	100					
TNZ	Pg	08	00	52.0		−1.2	100	1.21	255		3.5	3.8
	Sg		01	09.8		0.2	100					
	i			12.0								
WTZ	P*	08	00	51.0		−0.1	100	1.25	44		3.3	
GNZ	Pg	08	01	02.0		−0.7	100	1.68	82		3.9	
	i			05.9								
MNG	P*	08	01	00.7		1.0	100	1.75	190		4.2	4.0
	iPg			02.0		−2.1	97					
	Sg			28		0.2	100					
WEL	ePg	08	01	18		−2.1		2.55	199	3.8		
	eS*			47		0.4						
	e(Sg)			50		−4.4						
COB	e(Pn)	08	01	24		5.2		3.28	227		4.0	
	eP*			28.5		2.9						

AMPLITUDES:											
	WNZ	1.6	3.0	TRZ	3.5	0.9	TUA	1.6	1.7
	KRP	4.0	2.8	TNZ	0.4	0.9	WTZ	0.8	
	GNZ	1.5		MNG	5.6	4.0	WEL	0.2	
	COB	0.3							

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AUG 09 $10^h58^m55^s.5$ 39°.26S 175°.30E 33 km M = 3.3

± 0.1 0.01 0.01 R S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P*	10	59	02.2		0.2	100	0.20	73			
	S*			06.8		0.1	100					
GSZ	eP*	10	59	02.4		0.1	100	0.22	95			
	i			06.3								
NGZ	P*	10	59	03.0		0.4	100	0.25	73			
	S*			08.0		0.3	100					
TNZ	P*	10	59	09.0		−0.4	100	0.72	276		2.8	3.0
	S*			20.0		0.3	100					
KRP	P*	10	59	20.2		0.3	100	1.35	8		3.7	3.8
	S*			37.2		−0.7	99					
MNG	P*	10	59	20.1		−0.1	100	1.37	174		3.7	3.1
	S*			37.8		−0.7	99					
WTZ	e(P*)	10	59	33		4.8		1.84	47		3.2	
WEL	eP*	10	59	31		−1.0		2.07	191	3.3		
	eS*			57		−2.3						

AMPLITUDES:										
	CNZ	25		TNZ	0.3	0.7	KRP	1.3	1.3
	MNG	4.5	1.6	WTZ	0.2		WEL	0.2	

FELT: Ohakune (49) MM IV

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AUG 10 $00^h22^m26^s.8$ 42°.95S 171°.23E 33 km M = 3.5

± 0.4 0.03 0.04 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MJZ	Pn	00	22	45.2		−1.2	100	1.18	208		3.6	3.5
	iP*			47.8		−0.5	100					
	S*		23	05.0		0.7	100					
CMZ	P*	00	22	49.0		0.1	100	1.21	122		3.7	3.4
	S*		23	04.5		−0.7	100					
RHP	Pn	00	22	49.9		0.1	100	1.42	216			
	iP*			52.1		−0.3	100					
	S*		23	11		−0.4	100					
OMZ	P*	00	23	05.0		0.5	100	2.13	186		3.7	3.4
	e(Sn)			30		6.0						
	eS*			34		1.4	100					
COB	eP*	00	23	03		−2.1	98	2.18	32		3.5	3.3
	eS*			36		2.2	98					
MSZ	ePn	00	23	11		0.3	100	2.95	233		3.6	3.4
	eP*			19		0.6	100					
	e(Sn)			49		5.3						
	e(S*)			54		−3.0						

AMPLITUDES:									
	MJZ	3.8	4.5	CMZ	2.7	2.0	RHP	18	10
	OMZ	0.6	0.7	COB	0.4	0.8	MSZ	0.7	0.8

79/ 458

AUG 10 $06^h14^m03^s.2$ 35°.33S 178°.36E 321 km M = 4.3

± 0.7 0.06 0.10 7 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	S	06	15	36.0		0.3	100	2.37	176			4.3
WTZ	P	06	15	00.0		0.3	100	2.87	202		4.1	4.1
	S			43.0		−0.6	100					
GNZ	P	06	15	03.8		−0.1	100	3.32	185		4.0	4.2
	S			50.7		−0.7	99					
TUA	e	06	15	50				3.61	195			4.5
	eS			57		0.2	100					
TRZ	e	06	15	57				4.39	196			4.4
	eS		16	13		1.1	97					
MNG	P	06	15	30.3		−0.5	100	5.75	202		4.4	4.2
	S		16	39.5		−0.0	100					
WEL	eS	06	16	57		−0.3	100	6.59	204	4.4		
COB	eP	06	15	49		0.1	100	7.26	216		3.4*	3.0*
	eS		17	12		0.1	100					

AMPLITUDES: ECZ 0.5 WTZ 0.6 0.7 GNZ 0.5 1.1
TUA 0.5 TRZ 0.6 MNG 1.2 1.0
WEL 0.2 COB 0.2 0.3

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AUG 10 $16^h29^m28^s.3$ 40°.13S 175°.00E 33 km M = 3.2
± 0.4 0.02 0.04 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	P*	16	29	41.0		0.4	100	0.61	143		3.2	3.0
	i			42.3								
	S*			49.7		0.2	100					
CNZ	P*	16	29	47.2		−0.1	100	1.03	25			
	S*		30	02.4		1.1	100					
TNZ	P*	16	29	47.5		−0.3	100	1.06	333		2.8	2.9
	S*		30	05.0		2.7	97					
NGZ	P*	16	29	47.8		−0.1	100	1.06	27			
	S*		30	02.5		0.1	100					
WEL	eP*	16	29	51		1.3	100	1.17	189	3.2		
	S*		30	05.0		−0.4	100					
COB	P*	16	30	03.0		−0.2	100	1.97	240		3.3	2.9
	S*			28.3		−1.0	100					
KRP	eP*	16	30	06.5		−1.4	100	2.25	11		3.3	3.6
	S*			35.2		−2.3	99					
WTZ	eP*	16	30	15		0.3		2.65	36		3.4	

AMPLITUDES: MNG 7.0 6.5 CNZ 3.7 2.1 TNZ 0.2 0.3
NGZ 5.5 5.5 WEL 0.5 COB 0.3 0.4
KRP 0.2 0.3 WTZ 0.2

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AUG 11 $00^h20^m03^s.0$ 32°.53S 176°.94W 602 km M = 4.6
± 3.2 0.51 0.86 32 S.E. of RES. 2.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	eS	00	23	25		−2.6	99	7.35	212			4.6
WTZ	eP	00	21	56.0		−1.0	100	7.37	221		4.5	4.5
	eS		23	30		2.2	100					
TRZ	eS	00	23	50.8		1.1	100	8.64	214			4.8
MNG	eP	00	22	24.2		1.1	100	10.12	215		4.6	4.5
	i			26.2								
	eS		24	15		−0.6	100					
WEL	eS	00	24	33		2.1	100	10.98	215	4.9		
COB	eP	00	22	40.5		−0.1	100	11.90	221		3.6*	3.2*

	eS		24	45		−2.1	100						

AMPLITUDES: GNZ 0.7 WTZ 0.3 0.3 TRZ 0.4
MNG 0.7 0.7 WEL 0.2 COB 0.2 0.3

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AUG 11 $05^h14^m36^s.7$ 52°.12S 161°.32E 33 km M = 5.6
± 0.5 0.04 0.08 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MCQ	eP	05	15	19		0.9	100	2.77	210			
	eS			48		−1.3	100					
CBZ	iP	05	15	48.8		2.6	99	4.83	98			
	S		16	36.4		−2.3	99					
OBZ	P	05	16	13.0		−0.7	100	6.85	43		6.2	5.8
	S		17	25.8		−1.3	100					
ROX	P	05	16	36.2		0.0	100	8.50	42			
	S		18	07		0.3	100					
MSZ	eP	05	16	38.8		0.4	100	8.65	33		5.6	
	e		18	16								
OMZ	P	05	16	50.2		0.3	100	9.49	46		5.6	
	i			56.8								
RHP	P	05	16	54.4		−1.4	100	9.94	40			
	i			59.0								
	e		17	10.5								
MJZ	eP	05	16	58		−1.2	100	10.18	40		5.8	
	e		18	09								
	i			14.5								
CMZ	eP	05	17	17.5		1.3	100	11.43	46		6.2	
COB	eP	05	17	43		−1.9	99	13.53	40		5.3	
WEL	eP	05	17	57		2.7	99	14.22	46			
MNG	P	05	18	07.0		1.0	100	15.07	46		5.3	
CIZ	eP	05	18	32		1.7	100	16.86	70			
KRP	eP	05	18	38		0.9	100	17.36	41		4.9	
GNZ	P	05	18	43.0		−0.4	100	17.82	47		5.3	
TOO	iP	05	18	50.2		−0.1	100	18.32	316			
COO	eP	05	19	36		−13.1		22.63	338			

AMPLITUDES: OBZ 28 31 MSZ 8.5 OMZ 2.8
RHP 13 MJZ 9.0 CMZ 8.2
COB 0.6 MNG 1.8 CIZ 0.4
KRP 0.4 GNZ 0.5

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AUG 11 $06^h22^m42^s.9$ 39°.22S 173°.73E 12 km M = 3.7
± 0.6 0.02 0.04 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P*	06	22	53.5		0.7	100	0.51	87		3.3	
	i			56.2								
CNZ	P*	06	23	09.5		1.3	99	1.41	90			
	S*			27.8		0.8	100					
NGZ	P*	06	23	10.5		1.4		1.47	89			
	S*			29		0.4						
KRP	eP*	06	23	16.0		−0.8	100	1.92	48		3.5	3.6
	e			20.2								
	S*			41.2		−0.9	100					
MNG	P*	06	23	17.1		−0.2	100	1.94	137		4.1	4.1
	S*			41.8		−1.1	100					
COB	P*	06	23	18.0		−0.5	100	2.02	202		3.9	3.6
	i			23.6								

	S*			46.5		1.4	99				
WEL	eP*	06	23	21.5		−0.4	100	2.21	159	3.6	
	eS*			50		−1.0	100				
TRZ	ePn	06	23	22		0.5		2.42	99		
	eS*			58		0.8	100				
	e		24.	01							

AMPLITUDES: TNZ 2.5 CNZ 1.2 7.5 KRP 1.3 1.6
MNG 6.8 7.7 COB 1.1 2.0 WEL 0.3

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AUG 11 $06^h49^m44^s.2$ 52°.15S 161°.45E 33 km M = 4.9
± 0.7 0.06 0.11 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MCQ	eP	06	50	27		1.1	100	2.79	211			
	eS			56		−1.3	100					
CBZ	P	06	50	53.3		0.7	100	4.74	98			
	S		51	43.6		−0.6	100					
OBZ	P	06	51	20.3		−0.4	100	6.81	42		5.6	5.2
	S		52	32		−1.8	100					
ROX	eP	06	51	45		1.7	100	8.46	41		4.7	4.4
	eS		53	15		1.5	100					
MSZ	eP	06	51	43		−2.6	99	8.63	32		4.6	
	e			49								
MJZ	e(P)	06	52	16		9.7		10.15	40		4.5	
CMZ	eP	06	52	24		0.7	100	11.39	46		5.0	

AMPLITUDES: OBZ 6.6 6.7 ROX 0.4 0.5 MSZ 0.7
MJZ 0.5 CMZ 0.6

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AUG 11 $16^h31^m37^s.4$ 37°.93S 178°.11E 83 km M = 4.1
± 1.0 0.04 0.06 8 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	iP	16	31	49.5		−1.7	99	0.42	56		4.2	4.2
	S		32	01.8		0.2	100					
GNZ	P	16	31	54.8		1.0	100	0.72	185		3.8	4.2
	S		32	06.6		0.4	100					
WTZ	P	16	31	55.8		0.2	100	0.89	266		4.1	4.2
	S		32	08.0		−1.4	100					
TUA	P	16	31	59.9		1.0	100	1.16	220		4.8	3.9
	eS		32	15.8		0.6	100					
TRZ	P	16	32	09.2		0.5	100	1.91	211		4.5	3.9
	eS			33		1.1	100					
KRP	P	16	32	11.0		0.6	100	2.03	269		3.3*	3.1*
	S			35.0		0.3	100					
NGZ	P	16	32	15.9		1.5		2.32	237			
	S			43.0		1.1						
CNZ	iP	16	32	16.0		0.8	100	2.38	237			
	S			43.5		0.2	100					
GSZ	P	16	32	16.2		0.8	100	2.39	235			
	S			43.5		−0.2	100					
AUC	iP	16	32	24.2		2.2		2.86	291			
TNZ	eP	16	32	28		1.6	100	3.19	246		3.4*	
MNG	P	16	32	26.8		−2.4	99	3.37	216		4.0	3.8
	S		33	04.8		−3.3	92					
WEL	eS	16	33	24		−5.4		4.23	217	4.2		
COB	eP	16	32	52		−2.6		5.22	231		3.4*	3.3*
	S		33	51		−3.1						

AMPLITUDES:											
	ECZ	15	14	GNZ	7.0	26	WTZ	10	12		
	TUA	13	1.5	TRZ	2.2	1.3	KRP	1.5	1.0		
	NGZ	14	11	CNZ	4.1	2.5	GSZ	6.8	2.3		
	TNZ	0.3		MNG	1.6	1.5	WEL	0.3			
	COB	0.3	0.9								

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AUG 12 $02^h24^m04^s.2$ 32°.56S 179°.73E 402 km M = 4.4

± 1.6 0.14 0.30 26 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	02	25	36.5		0.6	100	5.86	202		5.0	4.2
	eS		26	47		−1.1	100					
GNZ	P	02	25	40.5		0.5	100	6.24	192		4.6	
	S		26	55.5		0.1	100					
KRP	eP	02	25	42		0.5	100	6.36	211			
TRZ	eS	02	27	20		1.4	99	7.37	198			4.3
MNG	P	02	26	07.2		−1.4	99	8.74	202		4.3	4.1
	eS		27	46		−0.9	100					
COB	eS	02	28	18		0.7	100	10.20	211			3.0*

AMPLITUDES:									
	WTZ	1.5	0.3	GNZ	0.7		TRZ	0.2	
	MNG	0.5	0.4	COB	0.2				

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AUG 12 $08^h43^m34^s.7$ 39°.54S 176°.57E 81 km M = 3.8

± 0.5 0.02 0.03 5 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	iP	08	43	46.8		−0.2	100	0.20	94			
	S			56.9		0.7	100					
GSZ	P	08	43	53.1		1.2		0.81	289			
	S		44	04.5		−0.4						
NGZ	P	08	43	53.0		0.9	100	0.82	295			
	S		44	05.0		−0.2	100					
CNZ	iP	08	43	53.6		1.0	100	0.86	293			
	S		44	04.3		−1.7	99					
TUA	P	08	43	53.2		0.6	100	0.86	32		3.5	3.7
	i			58.4								
	S		44	05.6		−0.3	100					
MNG	iP	08	43	59.2		0.4	100	1.37	217		3.8	3.7
	S		44	16.8		−0.2	100					
GNZ	iP	08	44	00.4		0.6	100	1.44	52		4.1	4.2
	S			18.9		0.1	100					
WTZ	P	08	44	01.7		0.0	100	1.58	12		3.6	3.8
	S			20.8		−1.2	100					
TNZ	P	08	44	05.3		1.6	99	1.74	281		3.5*	3.4*
	eS			27.3		2.1	98					
KRP	eP	08	44	05		0.4	100	1.81	333			
	S			26.2		−0.6	100					
WEL	eP	08	44	09		−1.3	99	2.22	218	3.9		
	S			36.2		−0.4	100					
COB	P	08	44	24.2		−1.4	99	3.32	241			

AMPLITUDES:									
	TRZ	6.8	5.3	GSZ	15	26	CNZ	42	
	TUA	1.0	1.7	MNG	6.2	6.0	GNZ	4.5	9.0
	WTZ	1.1	2.0	TNZ	0.6	0.7	WEL	0.6	

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AUG 12 $16^h50^m19^s.1$ 33°.62S 178°.71W 277 km M = 4.4

± 2.4 0.12 0.29 49 S.E of RES 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	16	51	44.0		0.6	100	5.59	218		4.6	
GNZ	eP	16	51	43		−1.5	100	5.67	207		4.4	4.2
	eS		52	50		−1.2	100					
ONE	eP	16	51	51		1.4	100	6.10	247			
TUA	eP	16	51	49		−1.4	100	6.16	212		4.6	4.6
	eS		53	02		−0.1	100					
TRZ	eP	16	52	02		2.1	100	6.93	210			
	eS		53	22		3.0	99					
CRZ	eP	16	52	02		−1.3	100	7.20	261		3.5*	
MNG	eP	16	52	19		0.9	100	8.39	212			3.9
	eS		53	49.5		−2.0	100					

AMPLITUDES: WTZ 0.9 GNZ 0.5 0.6 TUA 0.3 0.3
CRZ 0.2 MNG 0.3

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AUG 12 $18^h13^m29^s.7$ 45°.16S 167°.03E 12 km M = 3.7
± 1.0 0.03 0.09 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	18	13	43.2		−1.3	100	0.80	52		3.6	3.7
	iPg			45.8		−0.2	100					
	S*			55.5		0.2	100					
ROX	Pn	18	13	56.5		−1.2	100	1.65	102		3.9	3.4
	iP*		14	01.2		2.2	99					
	iPg			04.8		1.7	99					
	eS*			19.3		−1.4	100					
OBZ	eP*	18	14	03.5		0.1	100	1.91	157			
	eS*			28		−0.4	100					
RHP	Pn	18	14	09.2		0.9	100	2.43	65			
	eSn			37.5		0.1	100					
MJZ	Pn	18	14	12.9		0.5	100	2.73	66		3.5	
	Sn			46.7		2.2	99					
OMZ	ePn	18	14	13		0.2	100	2.75	90		3.6	
	e(P*)			21.5		3.6						
	ePg			23.7		−1.7	99					
COB	ePn	18	14	54		−0.8	100	5.83	48		4.2	3.7
	eSn		15	58		−1.2	100					

AMPLITUDES: MSZ 8.5 21 ROX 1.8 1.5 RHP 7.5
MJZ 0.6 OMZ 0.3 COB 0.3 0.3

This is the largest shock of several near Milford Sound. The next largest, both magnitude 3.4, occur at 17h 00m and 18h 22m.

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AUG 13 $14^h14^m24^s.8$ 45°.22S 166°.37E 33 km M = 4.1
± 1.4 0.05 0.12 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	14	14	44.1		−1.0	100	1.23	64		3.9	4.1
	i			47.0								
	S		15	00.3		0.0	100					
OBZ	eP	14	14	57.5		0.8	100	2.08	145		4.3	4.2
	i			59.3								
	S		15	21.5		0.8	100					
ROX	P	14	14	56.0		−0.9	100	2.10	98		4.5	4.2
	e		15	17.8								
	eS			19.5		−1.6	99					

RHP	P	14	15	08.0		0.4	100	2.88	68		
	i			09.8							
	eS			42.2		2.3	98				
MJZ	P	14	15	12.0		0.3	100	3.18	69	4.1	4.2
	e			16.0							
	e			19							
	S			47.2		0.1	100				
OMZ	eP	14	15	11.0		−1.3	100	3.22	89	3.7	
	e			49							

AMPLITUDES: MSZ 7.5 20 OBZ 3.5 7.2 ROX 4.1 5.8
RHP 16 14 MJZ 1.7 3.0 OMZ 0.3

79/ 470

AUG 13 $18^h10^m09^s.3$ 38°.57S 175°.88E 12 km M = 3.1
± 0.4 0.02 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	18	10	14.7		1.1	100	0.19	109			
	e			16.2								
	iSg			18.1		1.6	99					
NGZ	e(Pg)	18	10	27		4.4		0.65	199			
KRP	Pg	18	10	22.9		−0.7	100	0.70	337		2.8	
	e			31.5								
	Sg			33.8		0.7	100					
	e			37.2								
GSZ	ePg	18	10	23		−1.5	100	0.75	198			
	eSg			35		0.4	100					
WTZ	eP*	18	10	27		−1.4	100	1.05	57		2.9	
	ePg			29.8		−0.8	100					
	e			35								
	e			37								
TRZ	e(Pg)	18	10	37		2.8		1.22	144			
TNZ	ePg	18	10	38		1.9	99	1.32	242		3.3	
	e(Sg)			59.5		5.5						
GNZ	ePg	18	10	44.0		0.7	100	1.68	93		3.2	
	eS*		11	01.3		−0.1	100					
MNG	ePg	18	10	49.5		−1.7	99	2.07	188		3.1	
	e		11	01								

AMPLITUDES: WNZ 1.5 NGZ 1.0 KRP 1.2
GSZ 0.6 WTZ 0.3 TNZ 0.2
GNZ 0.3 MNG 0.3

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AUG 13 $23^h03^m06^s.0$ 41°.29S 174°.92E 28 km M = 3.1
± 0.1 0.01 0.01 1 S.E. of RES. 0.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WDW	iP*	23	03	10.7		−0.0	100	0.06	66			
BHW	iP*	23	03	11.0		−0.1	100	0.12	198			
WEL	P*	23	03	10.9		−0.2	100	0.12	274			
	S*			14.8		0.1	100					
WHW	iP*	23	03	11.2		−0.1	100	0.13	268			
MRW	iP*	23	03	11.6		0.0	100	0.17	290			
CAW	iP*	23	03	12.0		−0.1	100	0.22	31			
MOW	iP*	23	03	13.0		0.1	100	0.28	117			
KIW	iP*	23	03	15.3		0.2	100	0.43	359			
MTW	iP*	23	03	15.7		0.2	100	0.46	73			
TCW	iP*	23	03	16.1		0.1	100	0.49	279			
MNG	P*	23	03	20.8		−0.2	100	0.80	32		3.0	3.1

	S*			32.0		−0.0	100					
COB	eP*	23	03	36.7		1.0		1.66	276		3.2	3.1
	Sn			55.0		2.2	0					
CNZ	eP*	23	03	43.3		−0.5		2.15	13			
	e			49.6								
	eS*		04	13.5		1.4						

AMPLITUDES: WEL 9.2 MNG 3.0 4.6 COB 0.3 0.9
CNZ 0.4 0.5

FELT: Eastbourne (68) MM III

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AUG 14 $05^h51^m42^s.4$ 44°.79S 167°.28E 12 km M = 4.5
± 1.3 0.05 0.10 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	05	51	51.0		−0.6	100	0.47	75			
ROX	P*	05	52	10.6		−0.3	100	1.60	116		4.8	
	S*			32.0		0.0	100					
RHP	P*	05	52	18.6		−1.2	100	2.12	72			
	i			20.3								
	S*			50		2.3	99					
OBZ	P*	05	52	20.2		−0.8	100	2.20	165		4.2	4.6
	i			23.6								
	S*			50.0		0.1	100					
MJZ	Pn	05	52	21.9		0.9	100	2.42	72			
	iP*			27.8		2.9	99					
	S*			54.0		−2.7	99					
OMZ	Pn	05	52	24.6		1.2	100	2.60	97		4.6	4.3
	Sn			53.5		−0.7	100					
KAI	e(P*)	05	52	52		4.3		3.75	54	4.4		
	eS*		53	40.5		3.8						
	e			45								
CMZ	ePn	05	52	42		−1.0		4.04	75		4.3	4.4
	iP*			53.2		0.7						
	eSn		53	28		−0.9						
COB	ePn	05	53	01		−1.3	100	5.45	49		4.6	
	eSn		54	00.5		−2.3						
	e			06.5								

AMPLITUDES: ROX 16 OBZ 2.7 1.7 OMZ 3.7 3.6
KAI 0.7 CMZ 0.8 1.8 COB 0.7

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AUG 15 $00^h11^m28^s.2$ 45°.01S 166°.82E 12 km M = 3.7
± 1.1 0.05 0.08 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	00	11	42.4		−1.5	99	0.85	67		3.4	3.4
	i			44.7								
	i			46.0								
	S*			55.0		−0.4	100					
ROX	ePn	00	11	58.0		−0.7	100	1.83	106		4.1	
	eP*		12	01.0		0.4	100					
	i			04.2								
	eSn			21		−0.5	100					
RHP	Pn	00	12	09.0		1.1	100	2.50	70			
	eSn			39.0		1.2	99					
MJZ	ePn	00	12	12.0		0.0	100	2.81	70		3.5	3.9
	i			14.0								

	Sn			46.0		1.0	100					
OMZ	ePn	00	12	11		−2.4		2.91	93			
	eSn			47		−0.4						
COB	ePn	00	12	54		0.5	100	5.85	50		4.1	3.7
	eSn		13	57		−1.1	100					

AMPLITUDES: MSZ 5.0 10 ROX 2.2 RHP 3.4 3.9
MJZ 0.6 1.8 COB 0.2 0.3

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AUG 15 $08^h15^m00^s.1$ 37°.85S 176°.36E 198 km M = 4.2
± 0.7 0.03 0.05 5 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	08	15	26.5		−0.7	100	0.51	105		4.2	3.8
	S			47.0		−1.0	100					
KRP	P	08	15	28.0		0.3	100	0.66	263		3.1*	2.6*
	S			50.0		0.9	100					
TUA	P	08	15	31.8		1.0	100	1.14	147		3.9	4.2
	S			54.0		−0.6	100					
GNZ	P	08	15	34.7		0.6	100	1.53	122			
	S		16	00.0		−0.4	100					
AUC	P	08	15	34.5		−0.3	100	1.60	308			
ECZ	P	08	15	35.8		−0.3	100	1.74	86		4.6	
TRZ	P	08	15	37.0		0.9	100	1.74	168		3.9	4.1
	S		16	06.0		2.1	98					
TNZ	P	08	15	41.0		1.7	99	2.05	229		3.3*	
ONE	eP	08	15	45		−0.6	100	2.62	322			
MNG	P	08	15	48.2		−0.1	100	2.85	194		4.5	4.7
	S		16	25.4		−0.2	100					
WEL	eP	08	15	57		−1.0	100	3.64	199	4.3		
	eS		16	42		−0.8	100					
COB	eP	08	16	07.5		1.5	99	4.28	220		3.3*	3.4*
	eS			55.5		−1.5	99					

AMPLITUDES: WTZ 4.5 2.3 KRP 1.3 0.4 TUA 0.7 1.6
AUC 0.8 ECZ 2.5 TRZ 0.4 1.7
TNZ 0.3 MNG 7.0 12 WEL 0.5
COB 0.3 1.3

79/ 475

AUG 15 $18^h11^m24^s.2$ 38°.15S 176°.14E 199 km M = 4.1
± 1.0 0.04 0.05 6 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	18	11	51.7		0.3	100	0.53	295		2.6*	
	e		12	08.5								
	S			12.8		0.4	100					
WTZ	P	18	11	51.2		−0.9	100	0.69	76		3.6	4.1
	S		12	12.3		−1.4	99					
TUA	P	18	11	54.5		0.4	100	1.03	130		4.0	4.0
	S		12	17.0		−0.4	100					
CNZ	P	18	11	56.1		1.0	100	1.14	204			
GSZ	P	18	11	56.3		0.8	100	1.21	201			
TRZ	P	18	11	59.0		1.0	100	1.49	159		4.4	4.2
	S		12	27.2		3.1	77					
GNZ	eP	18	11	58.3		−0.3	100	1.56	109			
	S		12	24.2		−1.0	100					
TNZ	eP	18	12	00		−0.1	100	1.72	233			
MNG	iP	18	12	08.7		0.1	100	2.51	192		4.3	4.1
	eS			42.8		0.0	100					

WEL	eS	18	12	57.5		−1.9	99	3.30	198	4.1	
COB	eP	18	12	26.0		0.2	100	3.94	221		3.3* 3.2*
	e			40							
	S		13	12.5		−1.0	100				

AMPLITUDES: KRP 0.4 WTZ 1.0 3.6 TUA 1.1 1.0
CNZ 0.8 GSZ 0.6 TRZ 1.5 2.1
MNG 4.6 3.5 WEL 0.3 COB 0.3 0.8

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AUG 16 $02^h35^m17^s.7$ 38°.56S 175°.86E 12 km M = 2.3
± 0.4 0.02 0.04 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	02	35	22.0		−0.4	100	0.21	112			
	Sg			26.0		0.4	100					
	e			36.1								
KRP	ePg	02	35	30.8		−0.8	99	0.67	338		2.3	
	eSg			41.5		0.6	100					
	e			49								
CNZ	ePg	02	35	32		0.2	100	0.68	201			
	e			36								
	e			48								

AMPLITUDES: WNZ 0.6 1.0 KRP 0.4 CNZ 0.3

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AUG 16 $08^h51^m04^s.6$ 31°.57S 178°.15W 444 km M = 4.9
± 1.1 0.14 0.30 12 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	08	52	47		0.0	100	6.70	203			
	e		53	15.8								
	eS		54	07.8		0.0	100					
	e			12.8								
WTZ	eP	08	52	55		−1.2	99	7.55	211		4.8	5.1
	eS		54	24		−0.5	100					
GNZ	eP	08	52	59		0.8	100	7.73	203		4.7	5.1
	i		53	25.0								
	S		54	27.5		−0.5	100					
KRP	eP	08	53	04		0.5	100	8.20	218		3.2*	
TRZ	eP	08	53	13		1.1	100	8.96	206		4.8	5.0
	eS		54	54		1.3	99					
GSZ	e(P)	08	53	19		4.0		9.23	212			
MNG	eP	08	53	26.2		−1.7	99	10.40	208		4.8	5.0
	e			30								
	e		55	16								
	eS			21		−0.8	100					
WEL	eS	08	55	39		−0.1	100	11.25	208	5.1		
COB	eS	08	55	55		0.5	100	12.01	215			3.9*

AMPLITUDES: WTZ 0.6 1.5 GNZ 0.6 2.2 KRP 0.3
TRZ 0.2 0.7 MNG 1.0 2.2 WEL 0.3
COB 1.5

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AUG 16 $15^h33^m00^s.5$ 38°.06S 176°.30E 190 km M = 4.7
± 1.0 0.05 0.06 6 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	15	33	27.9		1.2	100	0.55	82		4.5	4.6
	i			43.0								

	S		45.9	−1.0	100						
WNZ	P	15 33	27.8	0.9	100	0.59	195		4.9		
KRP	P	15 33	27.0	−0.0	100	0.62	282			3.5*	
	S		46.1	−1.4	100						
TUA	P	15 33	29.2	−0.1	100	1.00	138		4.5	4.8	
	S		51.2	−0.4	100						
NGZ	P	15 33	33.0	1.8		1.24	205				
CNZ	P	15 33	33.0	1.4	100	1.28	207				
GSZ	P	15 33	33.4	1.4	100	1.34	204				
	S		58.5	2.1	99						
GNZ	P	15 33	33.6	0.3	100	1.48	114				
	S		56.3	−2.3	99						
TRZ	P	15 33	34.2	0.2	100	1.55	165		4.8	4.6	
	S	34	01	1.2	100						
ECZ	P	15 33	36.3	−0.3	100	1.82	79		4.7	4.4	
	eS	34	01.0	−3.5							
TNZ	eP	15 33	39	1.8	99	1.88	233		3.7*	3.5*	
	eS	34	10	4.3							
CAZ	P	15 33	49.2	1.0	100	2.84	181				
	S	34	25.5	0.4	100						
WEL	P	15 33	55.0	−0.5	100	3.44	200	5.2			
	i	34	34.8								
	S		36.5	−1.4	100						
COB	eP	15 34	02	−1.8	99	4.09	221		3.6*	4.6*	
	S		50.2	−2.5	99						
KAI	S	15 35	28	−4.6		5.82	218	4.4*			
RHP	eP	15 34	49	−1.0		7.65	216				
	S	36	10.7	−4.8							

AMPLITUDES:											
	WTZ	9.2	14	WNZ	1.3		KRP		4.0		
	TUA	3.8	6.3	NGZ	15		CNZ	5.6			
	GSZ	10	13	TRZ	4.5	5.3	ECZ	3.0	1.6		
	TNZ	0.7	0.7	CAZ	8.1	18	WEL	4.9			
	COB	0.6	19	KAI	1.7		RHP	0.6	10		

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AUG 17 $03^h22^m01^s.2$ 32°.33S 177°.98W 374 km M = 4.7

± 4.0 0.16 0.49 42 S.E. of RES. 2.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e	03	24	00				6.07	207		4.5	4.6
	eS			47		−0.3	100					
GBZ	e(P)	03	23	53.5		12.5		6.67	233			
WTZ	e(P)	03	23	51		6.2		6.99	215		4.5	4.7
	eS		25	07		0.7	100					
GNZ	eS	03	25	09		0.4	100	7.10	206			4.9
ONE	eP	03	23	51		3.4	99	7.24	240	3.7*		
KRP	e(P)	03	24	06		12.8		7.71	222		3.4*	
CRZ	eP	03	23	55		−2.6	100	8.10	252		3.7*	
TRZ	eP	03	24	02		1.3	100	8.35	209		5.4	5.1
	eS		25	33		−1.9	100					
MNG	eP	03	24	16		−1.8	100	9.81	211		4.2	4.5
	eS		26	04		−1.9	100					
WEL	eS	03	26	27		2.7	99	10.66	211	5.0		

AMPLITUDES:											
	ECZ	0.2	0.3	GBZ	0.5		WTZ	0.4	0.7		
	GNZ		1.7	ONE	0.4		KRP	0.5			
	CRZ	0.3		TRZ	0.9	1.1	MNG	0.3	0.8		
	WEL	0.3									

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AUG 17 $09^h17^m34^s.3$ 37°.30S 177°.39E 166 km M = 4.3

± 0.9 0.04 0.07 7 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	09	17	58.7	U	−0.3	100	0.76	205		4.5	4.2
	eS		18	17.0		−1.2	100					
ECZ	P	09	18	00.7		−0.1	100	1.00	114		4.3	
GNZ	iP	09	18	05.2	W	0.5	100	1.43	160			4.5
	eS			27.0		−1.2	100					
TUA	P	09	18	06.1		0.5	100	1.52	187		4.1	4.4
	eS			30		0.3	100					
KRP	P	09	18	07.9		1.4	100	1.60	246		3.3*	3.0*
	eS			32		0.8	100					
GBZ	iP	09	18	08.2	D	−1.2	100	1.88	304			
TRZ	P	09	18	14.9		0.6	100	2.29	191		4.3	4.6
	eS			47		2.0	99					
NGZ	eP	09	18	17		2.1	99	2.35	216			
	e(S)			53		6.9						
ONE	eP	09	18	21		−0.4	100	2.88	301	3.3*		
MNG	P	09	18	30.2		−0.9	100	3.64	204		3.9	4.2
	eS		19	13		−1.8	99					
CAZ	iP	09	18	32.0	D	−0.1	100	3.72	194			
	eS		19	17.5		0.9	100					
WEL	eS	09	19	32		−2.2	99	4.47	206	4.2		

AMPLITUDES:										
WTZ	10	7.0	ECZ	2.6		GNZ		11		
TUA	1.2	2.3	KRP	1.5	0.9	GBZ		10		
TRZ	0.8	4.0	NGZ	1.6	2.9	ONE	0.4			
MNG	1.2	2.5	CAZ	1.5	2.8	WEL	0.3			

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AUG 17 $11^h15^m13^s.3$ 40°.13S 174°.39E 121 km M = 4.1

± 0.6 0.03 0.04 7 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	iP	11	15	36.4	D	1.3	100	0.94	360		4.1*	4.2*
	eS			51		−0.6	100					
MNG	iP	11	15	36.8	U	1.6	100	0.96	121		4.5	4.5
	eS			50		−2.1	99					
WEL	iP	11	15	39.0	USE	1.4	100	1.19	166	4.5		
	eS			56		−0.2	100					
NGZ	P	11	15	39.5		0.3	100	1.34	45			
	eS			59		−0.1	100					
COB	iP	11	15	43.7	U	1.5	100	1.58	232		4.3*	4.6*
	eS		16	03		−1.1	100					
CAZ	P	11	15	43.8		1.4	100	1.60	119			
	e			59								
	eS		16	06		1.5	100					
TRZ	eP	11	15	46		−0.7	100	1.96	74		3.9	4.0
	eS		16	13.5		1.7	100					
KRP	iP	11	15	52.8	UE	0.6	100	2.38	22		3.8*	3.8*
	e		16	18								
	eS			20		−1.5	100					
TUA	e(P)	11	15	58		4.0		2.51	59		3.8	4.2
	eS		16	24		−0.7	100					
WTZ	eP	11	15	59		−0.9	100	2.95	44		3.7	4.0
	e		16	08.5								
	eS			36		0.9	100					

GNZ	P	11	16	01.8		−1.3	100	3.19	63		4.0	4.6
	eS			38		−2.7	98					
KAI	e	11	16	11				3.28	222	3.9*		
	eS			42		−1.1	100					
CMZ	eP	11	16	08.5		−1.4	100	3.70	200		3.7*	4.6*
	e			44								
	e(S)			49		−3.9						
ONE	eS	11	17	10		1.3	100	4.35	360	3.4*		

AMPLITUDES:											
TNZ	3.6	6.8	MNG	39	50	WEL	6.8				
NGZ	13	29	COB	8.0	48	CAZ		16	29		
TRZ	0.5	1.5	KRP	4.3	4.5	TUA		0.3	0.7		
WTZ	0.4	0.9	GNZ	0.7	4.7	KAI	1.1				
CMZ	1.0	15	ONE	0.4							

79/ 482

AUG 17 $12^h29^m39^s.8$ 39°.52S 175°.73E 33 km M = 3.7

± 0.3 0.02 0.03 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	iP*	12	29	49.2	D	1.1	100	0.34	344			
	eS*			57		3.0	98					
TRZ	ePn	12	29	55.5		0.7	100	0.85	93		3.1	3.4
	e(P*)		30	00		4.3						
	eS*			10		2.5	99					
	e			12.8								
	e			16								
TNZ	iPn	12	29	58.7	D	0.3	100	1.10	287		4.0	3.6
	S*		30	14.6		−0.4	100					
MNG	iPn	12	29	58.0	U	−0.6	100	1.12	190		3.6	3.7
	P*			59.4		−0.9	100					
	eSn		30	13		0.4	100					
TUA	ePn	12	30	01		−0.2	100	1.31	58		3.8	3.8
	P*			02.3		−1.2	100					
	eSn			19		1.8	99					
CAZ	e	12	30	14.5				1.44	165			
	eSn			21.7		1.4	100					
KRP	Pn	12	30	05.0		−0.1	100	1.60	354		3.4	3.6
	eSn			24		−0.1	100					
WTZ	ePn	12	30	06.5		−1.6	100	1.82	33		3.9	3.7
	eP*			10.1		−2.0	99					
	eSn			28.5		−0.9	100					
WEL	eP*	12	30	14		0.2	100	1.92	202	3.6		
	eSn			30		−1.8	100					
	eS*			39		−0.1	100					
GNZ	Pn	12	30	08.9		−1.5	100	1.98	65		3.4	3.7
	eSn			32		−1.4	100					
COB	Pn	12	30	22.7		1.4	100	2.78	235		4.1	3.9
	e(Sn)			57.5		4.9						

AMPLITUDES:											
TRZ	0.7	2.2	TNZ	2.6	1.4	MNG		6.5	9.5		
TUA	1.0	1.1	CAZ		2.9	KRP		0.4	0.5		
WTZ	1.7	0.9	WEL	0.4		GNZ		0.5	1.5		
COB	0.9	2.0									

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AUG 17 $13^h31^m54^s.8$ 46°.33S 165°.52E 33 km M = 4.1

± 1.0 0.04 0.08 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	13	32	23		−1.0	100	1.88	109		4.2	3.9

	P*			29.2		1.0	100				
	e			33							
	e			36.3							
	e			43							
	Sn			46.5		0.5	100				
MSZ	ePn	13	32	30		−0.6	100	2.37	46	4.2	4.3
	eP*			36		−0.4	100				
	e(Sn)		33	04		6.4					
	eS*			07		−0.5	100				
ROX	ePn	13	32	35		−1.4	100	2.79	74	4.4	4.1
	eP*			44		0.4	100				
	eSn		33	09		1.2	100				
RHP	ePn	13	32	51		−0.9	100	3.92	57		
	eP*		33	04		1.1	100				
	eS*			54		0.0	100				
OMZ	ePn	13	32	53		0.2	100	3.99	74	3.9	3.9
	eS*		33	53		−2.9	95				
	e		34	12							
MJZ	e(Pn)	13	33	02		6.2		4.21	58	4.2	4.1
	eP*			10		2.2	99				
	e(Sn)			46		4.0					
	eS*		34	04		1.3	100				
COB	eP*	13	34	01.5		−0.6	100	7.41	48		3.9
	eSn			59		0.3	100				

AMPLITUDES: OBZ 3.8 5.0 MSZ 4.5 9.0 ROX 1.7 2.3
RHP 4.0 4.0 OMZ 0.3 0.6 MJZ 1.3 1.2
COB 0.3

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AUG 18 $06^h03^m51^s.6$ 39°.02S 174°.87E 207 km M = 4.0
± 0.8 0.04 0.05 6 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	06	04	19.7		0.3	100	0.41	246		3.3*	
NGZ	iP	06	04	21.4	U	1.4	100	0.60	106			
	eS			42		0.0	100					
KRP	iP	06	04	24.2	U	0.5	100	1.21	26		3.1*	2.6*
	eS			49		0.3	100					
TRZ	iP	06	04	28.8	U	1.7	99	1.60	110		4.1	4.0
	eS			55		0.5	100					
	e			59								
MNG	P	06	04	28.4		0.7	100	1.66	164		3.7	4.2
	e			48.8								
	S			54.7		−0.8	100					
TUA	iP	06	04	29.3	U	0.4	100	1.79	84		3.9	4.0
	e			51								
	eS			57		−0.6	100					
WTZ	iP	06	04	29.8	D	−0.7	100	1.96	59		3.8	3.7
	eS		05	00		−0.6	100					
CAZ	eS	06	05	06		1.9	99	2.15	151			
WEL	eS	06	05	05		−1.3	100	2.27	182	4.1		
GNZ	iP	06	04	36.0	D	−0.2	100	2.49	82		4.3	4.2
	e		05	01								
	eS			07.8		−2.9	93					
COB	iP	06	04	37.3	U	−0.5	100	2.64	218		3.8*	3.0*
	eS		05	12		−1.6	99					
ECZ	eP	06	04	44		−0.2	100	3.18	67		4.2	

AMPLITUDES: TNZ 0.4 NGZ 10 4.5 KRP 1.1 0.4

TRZ	0.7	1.4	MNG	1.8	7.5	TUA	0.5	0.6
WTZ	0.7	0.7	CAZ	1.6	WEL	0.7		
GNZ	1.8	2.4	COB	1.4	0.7	ECZ	0.4	

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AUG 18 $10^h09^m25^s.9$ 31°.17S 178°.52W 269 km M = 4.7

± 2.9 0.14 0.25 51 S.E. of RES. 2.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	10	11	06.5		−0.4	100	6.95	200		4.7	4.7
	e		12	15								
ONE	e	10	11	21				7.51	230	3.6*		
WTZ	e(P)	10	11	10		−6.8		7.75	207		4.6	4.7
	eS		12	44.5		0.6	100					
GNZ	eP	10	11	17		−2.8	99	7.98	200		4.5	4.8
	eS		12	47		−2.2	100					
CRZ	eP	10	11	23.5		2.3	100	8.10	244		3.7*	
	e		12	58								
KRP	e?	10	11	33				8.33	214			
TUA	eS	10	13	01		2.2	100	8.41	204			4.8
TRZ	eS	10	13	18.5		2.1	100	9.20	203			4.6
MNG	eP	10	11	52		−0.7	100	10.61	206		4.2	4.6
	eS		13	46		−2.5	100					
WEL	eS	10	14	06		−1.7	100	11.47	206	4.9		
CIZ	eS	10	14	41		2.0	100	12.87	174			

AMPLITUDES:											
ECZ	0.3	0.3	ONE	0.3		WTZ	0.5	0.7
GNZ	0.4	1.1	CRZ	0.3		TUA		0.3
TRZ		0.3	MNG	0.3	0.8	WEL	0.2	

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AUG 19 $00^h09^m02^s.2$ 40°.19S 176°.80E 12 km M = 3.5

± 0.6 0.03 0.05 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	P*	00	09	14.3		0.1	100	0.64	1		3.7	3.7
	eS*			23		0.1	100					
CAZ	e	00	09	26.5				0.84	211			
	eSn			31.5		−0.2	100					
	e			42								
MNG	iPn	00	09	22.6	U	−0.0	100	1.10	247		3.6	3.5
	(Pg)			28.0		3.6						
	eSn			39		1.1	100					
	e			49								
NGZ	iPn	00	09	26.1	U	−0.2	100	1.36	317			
	Pg			32.0		2.2	99					
	eSn			43		−1.2	100					
TUA	eSg	00	09	51.5		1.8	99	1.40	11			3.4
GNZ	ePg	00	09	41		2.1	99	1.81	32		3.4	3.2
	eSn			55		−0.1	100					
	e		10	17								
WEL	eSn	00	09	57		−0.1	100	1.89	234	3.4		
WTZ	Pn	00	09	35.8		−2.0	99	2.20	4		3.2	3.2
	ePg			45		−1.9	99					
	e		10	30								
KRP	ePn	00	09	39		−2.4	99	2.47	336		3.6	3.7
	eS*		10	18		0.2	100					
COB	eP*	00	09	59		0.6	100	3.22	253		3.9	3.4
	eSg		10	50.5		−0.3	100					

AMPLITUDES:								
TRZ	4.7	6.5	CAZ	1.0	2.5	MNG	6.0	6.7

NGZ		6.8	10	TUA		0.5		GNZ		0.6	0.6
WEL	0.3			WTZ	0.3	0.3		KRP		0.3	0.3
COB		0.4	0.5								

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AUG 19 $05^h44^m19^s.8$ 30°.80S 179°.87E 157 km M = 4.8

± 3.2 0.17 0.17 59 S.E. of RES. 2.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CRZ	eS	05	47	21		−0.1	100	7.06	237			4.0*
	e			27.5								
WTZ	eP	05	46	09		0.7	100	7.56	198		4.9	4.8
	e			12								
	e			23.5								
	e			25								
	eS		47	32		−0.8	100					
	e			38								
KRP	e?	05	47	26				7.96	206			3.1*
GNZ	eP?	05	46	16		2.2	100	7.97	190		4.5	5.0
	e		47	33.5								
	eS			42		−0.8	100					
TRZ	eS	05	48	11		1.8	100	9.09	195			5.0
MNG	eP	05	46	43		−3.2	99	10.43	199		4.3	5.0
	eS		48	39		−1.9	100					
COB	e	05	47	16				11.78	207			3.3*
	eS		49	14		1.4	100					

AMPLITUDES:											
CRZ			0.8	WTZ		1.0	0.8	KRP			0.3
GNZ		0.4	2.1	TRZ			0.7	MNG		0.4	2.3
COB			0.4								

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AUG 19 $08^h03^m11^s.2$ 38°.58S 175°.67E 182 km M = 4.2

± 0.8 0.03 0.04 7 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	08	03	37.7	DSE	0.7	100	0.66	351		4.0*	2.9*
	eS			57		0.0	100					
TUA	P	08	03	41.7		1.0	100	1.19	102		4.2	4.3
	eS		04	02.9		−0.4	100					
WTZ	iP	08	03	40.4	U	−0.3	100	1.20	61		3.6	3.9
	e(S)		04	03		−0.6	100					
	e			08.8								
TRZ	P	08	03	43.1		1.2	100	1.33	138		4.6	4.6
	e		04	00								
	eS			06		0.4	100					
GNZ	iP	08	03	47.6	D	0.6	100	1.84	93		4.4	4.3
	e		04	05.4								
	eS			13		−1.8	99					
MNG	iP	08	03	49.7	U	0.5	100	2.04	184		4.6	4.6
	e		04	11.5								
	S			16.9		−1.5	100					
CAZ	P	08	03	54.2		1.4	100	2.37	170			
	eS		04	27		2.0	99					
ECZ	eP	08	03	51		−2.5	98	2.44	70		4.0	4.2
	e		04	20								
	eS			27		0.6	100					
WEL	eP	08	03	58		0.0	100	2.80	194	4.2		
	e		04	32								
	eS			34		0.0	100					

ONE	eS	08	04	39		0.9	100	2.99	339	3.2*		
COB	eP	08	04	04		−1.0	100	3.37	221		3.6*	3.5*
	eS			45		−1.6	99					

AMPLITUDES:

KRP	10	1.0	TUA	1.5	1.8	WTZ	0.9	1.8			
TRZ	3.5	6.5	GNZ	3.5	4.8	MNG	14	17			
CAZ	1.3	5.3	ECZ	0.4	0.6	WEL	0.6				
ONE	0.3		COB	0.7	2.0						

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AUG 19 $12^h07^m47^s.6$ 39°.18S 174°.65E 12 km M = 3.8

± 0.5 0.03 0.03 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	iPg	12	07	54.1	U	1.7	100	0.21	268			
	Sg			57.0		1.5	100					
GSZ	iP*	12	08	01.2	U	−0.1	100	0.74	98			
	eS*			11		−0.3	100					
KRP	iPn	12	08	12.4	DSE	−0.3	100	1.43	29		3.6	3.8
	eSn			30		−1.4	100					
MNG	iPn	12	08	14.1	D	−0.5	100	1.57	156		3.9	3.9
	eP*			15		−0.6	100					
	eSn			36		1.2	100					
TRZ	eP*	12	08	21		2.8	98	1.73	103		3.6	3.7
	e(Pg)			26		3.5						
	e(Sg)			49.5		3.7						
TUA	P*	12	08	22.6		−0.0	100	1.99	80		4.1	
WEL	ePn	12	08	21		−0.8	100	2.11	178	3.6		
	eSn			49		1.4	100					
COB	ePn	12	08	24		−1.9	99	2.41	217		3.9	3.6
	eS*			59.5		−1.9	99					

AMPLITUDES:

TNZ	2.0	5.0	GSZ	15	41	KRP	2.8	5.5			
MNG	5.6	8.0	TRZ	0.3	0.4	TUA	0.4				
WEL	0.4		COB	0.8	1.4						

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AUG 19 $23^h05^m58^s.7$ 34°.58S 179°.56W 224 km M = 5.8

± 1.0 0.05 0.08 14 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	23	06	55		−0.5	100	3.47	206		6.0	5.8
	e			57.1								
	eS		07	41		1.5	100					
GBZ	P	23	07	06.3	D	−0.3	100	4.37	247			
WTZ	P	23	07	05.3	D	−1.6	100	4.40	218		6.0	5.7
	e			07.0								
	eS			59		−0.8	100					
GNZ	P	23	07	07.6		−0.6	100	4.51	205		5.9	5.7
	e			09.3								
	eS		08	00		−2.0	99					
TUA	P	23	07	14.4		0.3	100	4.99	211		6.3	6.0
	e			15.5								
	e			29								
	eS		08	14		1.2	100					
ONE	iP	23	07	17.0	E	1.1	100	5.13	255	4.7*		
AUC	P	23	07	17.0	D	0.8	100	5.15	242			
KRP	iP	23	07	17.1	D	0.4	100	5.18	228		4.8*	4.4*
	e		08	37								
TRZ	P	23	07	24.2		0.3	100	5.75	209		5.9	5.7
	e			25.4								

	e(S)		08	25		−5.2						
GSZ	eP	23	07	29		0.7	100	6.10	218			
	e			31.5								
	eS		08	40.5		2.4	99					
CRZ	P	23	07	32.2	U	−0.1	100	6.42	269			
	eS		08	45		−0.4	100					
TNZ	P	23	07	39.0		3.1	97	6.70	225		4.8*	
	e			48								
CAZ	P	23	07	41.3		−0.4	100	7.15	207			
	eS		09	03		0.7	100					
MNG	eP	23	07	40		−2.5	99	7.21	212		5.5	5.6
	e			43.1								
	e		08	56								
	e		09	48								
WEL	eP	23	07	53		−0.5	100	8.06	212	5.6		
	e		08	23								
	eS		09	21		−2.4	99					
	e		10	04								
CIZ	eP	23	08	14		−0.0	100	9.66	167			
	e			21.9								
	eS		10	01		1.0	100					

AMPLITUDES:											
ECZ	20	13	GBZ	20		WTZ	32	18			
GNZ	25	25	TUA	21	12	ONE	5.3				
AUC	32		KRP	18	8.0	TRZ	6.6	10			
GSZ		9.0	TNZ	3.4		CAZ	11	7.0			
MNG	13	20	WEL	2.2		CIZ	3.7	5.0			

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AUG 19 $23^h40^m14^s.1$ 34°.54S 179°.63W 229 km M = 6.0

± 1.0 0.06 0.08 15 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	23	41	10.0		−1.3	100	3.48	205		6.3	6.1
	e			11.7								
	eS			56		0.4	100					
GBZ	i	23	41	13.7	D			4.34	246			
WTZ	iP	23	41	20.7	D	−1.7	100	4.40	217		6.3	5.7
	e		42	09								
GNZ	P	23	41	22.0		−1.9	99	4.52	204		5.9	5.7
	e			23.7								
	eS		42	18.5		0.4	100					
TUA	eP	23	41	29		−0.7	100	4.99	210		6.4	6.0
	e			30.7								
	e			40.5								
	eS		42	29		0.4	100					
ONE	P	23	41	32.1	E	1.3	100	5.08	254	4.6*		
AUC	i	23	41	37.5	D			5.11	241			
KRP	iP	23	41	32.3	D	0.3	100	5.17	228		4.9*	4.5*
	e		42	52								
TRZ	eP	23	41	40		0.5	100	5.76	209		6.3	5.8
	eS		42	47		1.1	100					
GSZ	P	23	41	44.0		0.3	100	6.09	218			
	eS		42	55		1.5	100					
CRZ	iP	23	41	47.9	U	0.8	100	6.35	269			
	eS		43	00		0.4	100					
TNZ	P	23	41	53.2		2.0	99	6.68	224		4.8*	
	e		42	05								
CAZ	eP	23	41	56.5		−0.7	100	7.15	206			
	eS		43	19		1.0	100					

MNG	eP	23	41	55		−2.9	98	7.21	211		5.8	5.6
	e			57								
	e		42	18								
	eS		43	18		−1.1	100					
	e		44	02								
WEL	eP	23	42	07		−2.0	99	8.06	212	5.6		
	e			33								
	eS		43	37		−1.8	100					
	e		44	19								
CIZ	eP	23	42	33		3.0	98	9.71	167			
	e			37								
	e		44	14								
	eS			17		0.5	100					

AMPLITUDES:											
ECZ	47	26	GBZ	15		WTZ	60	19		
GNZ	25	25	TUA	31	13	ONE	5.0			
AUC	43		KRP	25	10	TRZ	15	11		
GSZ	28	11	TNZ	3.6		CAZ	19	13		
MNG	25	20	WEL	2.5						

79/ 492

AUG 20 $03^h16^m05^s.0$ 38°.50S 175°.80E 171 km M = 4.1

± 1.1 0.04 0.06 8 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	03	16	29.8	UNW	0.4	100	0.61	340		3.7*	2.7*
	eS			47		−1.1	100					
GSZ	P	03	16	31.5		1.1	100	0.79	192			
	eS			51		0.9	100					
WTZ	iP	03	16	32.1	U	−0.2	100	1.07	62		3.9	3.7
	e			48								
	eS			53		−0.6	100					
TUA	P	03	16	33.6		0.9	100	1.10	107		4.0	3.9
	eS			53		−1.0	100					
TNZ	eP	03	16	37		2.5	99	1.30	238		3.3*	3.0*
	e		17	03								
TRZ	iP	03	16	36.6	D	2.0	99	1.32	143		4.3	4.0
	eS		17	00		2.5	99					
GNZ	iP	03	16	39.8	USW	0.8	100	1.75	95		4.5	4.2
	e			56								
	eS		17	03		−2.1	99					
MNG	iP	03	16	43.5	D	0.2	100	2.13	187		4.4	4.4
	e		17	04								
	eS			10		−2.6	99					
ECZ	e	03	17	10				2.31	70			4.2
	eS			15.5		−0.8	100					
CAZ	e	03	17	12.5				2.42	172			
	eS			20		1.1	100					
WEL	eP	03	16	52		−0.4	100	2.90	196	4.2		
	eS		17	28		−1.0	100					
COB	eP	03	16	59		−1.1	100	3.50	221		3.5*	3.1*
	eS		17	41		−1.6	100					

AMPLITUDES:										
KRP	5.7	0.7	GSZ	0.8	2.3	WTZ	2.0	1.6		
TUA	1.2	1.0	TNZ	0.4	0.3	TRZ	1.8	2.1		
GNZ	6.1	4.0	MNG	9.0	11	ECZ		0.7		
CAZ		6.0	WEL	0.6		COB	0.5	0.7		

79/ 493

AUG 20 $17^h23^m46^s.0$ 33°.94S 179°.20E 348 km M = 4.5

± 2.1 0.09 0.22 20 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eS	17	25	48		2.2	99	3.78	188			4.6
GBZ	eP	17	24	52.8		−0.5	100	3.81	232			
ONE	eP	17	25	01		1.7	100	4.38	244	3.5*		
WTZ	eP	17	24	59		−0.7	100	4.42	203		4.5	4.3
	e		25	01								
	eS			55		−2.6	99					
GNZ	eP	17	25	03		−0.7	100	4.79	191		4.4	4.6
	eS		26	03		−1.8	100					
KRP	eP	17	25	08		2.4	99	4.97	216		3.3*	
TUA	e(S)	17	26	15		3.4		5.13	198			4.5
CRZ	eP	17	25	10		−0.8	100	5.43	263		3.4*	
TRZ	eP	17	25	17		0.6	100	5.92	198		5.0	4.7
	eS		26	29		1.5	100					
MNG	eP	17	25	31		−1.6	100	7.30	203		4.3	4.3
	eS		26	56		−0.3	100					
WEL	eS	17	27	15		0.7	100	8.14	204	4.7		

AMPLITUDES:

ECZ		0.6	GBZ		0.4		ONE	0.4			
WTZ	0.8	0.6	GNZ		0.7	1.7	KRP		0.5		
TUA		0.3	CRZ		0.2		TRZ		0.6	0.7	
MNG	0.7	0.8	WEL	0.2							

79/ 494

AUG 20 $18^h00^m30^s.7$ 39°.09S 174°.82E 221 km M = 4.2

± 0.9 0.04 0.06 7 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	eP	18	01	01		1.1	100	0.35	254		3.0*	3.0*
	eS			23		0.5	100					
GSZ	P	18	01	02.3		1.5	100	0.63	108			
	e			09								
	eS			24		−0.1	100					
KRP	iP	18	01	05.2	DS	0.4	100	1.30	26		3.5*	2.7*
	eS			31		−0.3	100					
MNG	iP	18	01	09.0		1.5	100	1.61	162		4.8	4.5
	e			28.3								
	eS			34.7		−1.2	100					
TRZ	eP	18	01	09		1.4	100	1.62	107		3.8	4.3
	e			33								
	eS			38		2.0	99					
TUA	eP	18	01	09.5		−0.1	100	1.84	82		3.9	4.1
	eS			39		−0.5	100					
	e			45								
WTZ	iP	18	01	10.5		−0.9	100	2.02	58		4.2	3.7
	eS			41.5		−1.3	100					
CAZ	eS	18	01	46		1.7	99	2.12	150			
WEL	eP	18	01	13		−0.1	100	2.20	181	4.3		
	eS			44		−1.8	99					
GNZ	iP	18	01	16.6	D	−0.1	100	2.54	81		4.3	4.1
	eS			50.0		−2.3	99					
COB	iP	18	01	16.6	U	−0.3	100	2.56	218		4.0*	3.5*
	eS			51		−1.7	99					
CMZ	eS	18	02	37		−3.2		4.79	199			
RHP	eS	18	03	09		−2.0		6.14	214			

MSZ	eS	18 03 37		−7.5		7.60	220				

AMPLITUDES:											
	TNZ	0.2	0.3	GSZ	2.0	3.3	KRP	2.2	0.4		
	MNG	24	14	TRZ	0.3	2.5	TUA	0.4	0.7		
	WTZ	1.6	0.6	CAZ		2.1	WEL	1.0			
	GNZ	1.6	1.9	COB	2.3	2.4					

79/ 495

AUG 20 $20^h58^m23^s.2$ 38°.71S 175°.14E 225 km M = 4.3

± 1.9 0.09 0.11 14 S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	eP	20	58	54		0.1	100	0.67	148			
	eS		59	19		1.3	100					
TNZ	eP	20	58	58		3.7	,98	0.76	231			
KRP	eP	20	58	56		1.2	100	0.85	22		2.8*	2.9*
	eS		59	17		−2.3	100					
TUA	eS	20	59	28		−0.6	100	1.57	94			
MNG	iP	20	59	04.0	U	0.9	100	1.93	172		4.5	4.0
	eS			34		0.0	100					
GNZ	eP	20	59	07		0.5	100	2.26	89			4.4
	eS			39		−0.9	100					
COB	eP	20	59	11.8		−2.8	99	3.01	217		3.4*	
	eS			53.5		−1.1	100					

AMPLITUDES:											
	GSZ	1.0	0.2	KRP	0.5	0.7	MNG	10	3.5		
	GNZ		4.0	COB	0.5						

79/ 496

AUG 20 $22^h06^m56^s.6$ 32°.84S 179°.02E 271 km M = 4.9

± 2.0 0.11 0.17 21 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	e	22	08	16				4.46	220			
ECZ	eP	22	08	12		0.2	100	4.86	184		4.4	4.7
	eS		09	10		−0.7	100					
WTZ	eP	22	08	18.3		−0.1	100	5.39	197		4.8	4.9
	e		09	09								
	eS			25		2.7	99					
GNZ	eP	22	08	23		−0.9	100	5.85	188		4.6	5.1
	eS		09	30.5		−1.7	100					
TUA	eS	22	09	39		0.2	100	6.15	194			5.1
TRZ	e(S)	22	10	00		3.7		6.93	194			5.0
GSZ	eP	22	08	41		2.8	99	7.00	202			
	e		10	10								
MNG	eP	22	08	52		−2.1	99	8.27	199		4.9	5.1
	e		10	21.5								
	eS			26		−0.3	100					
WEL	eS	22	10	44		−0.7	100	9.09	201	5.1		
CIZ	eS	22	11	43		1.0	100	11.63	164			

AMPLITUDES:											
	GBZ	0.3		ECZ	0.3	0.6	WTZ	1.3	1.8		
	GNZ	0.8	4.5	TUA		1.0	TRZ		1.2		
	GSZ	0.4	0.5	MNG	2.3	4.2	WEL	0.6			
	CIZ		0.3								

79/ 497

AUG 22 $02^h30^m34^s.2$ 37°.13S 177°.56E 12 km M = 4.6

± 0.6 0.03 0.05 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP*	02	30	49.8	D	−2.1	100	0.97	208		4.1	4.4

	eS*		31 06		1.1	100					
ECZ	P*	02	30 52.7		0.8	100	0.97	126		4.6	
	Pg		55.8		1.9	100					
GNZ	iPn	02	31 01.2	US	0.3	100	1.56	167		4.9	4.8
	e(Pg)		09		3.3						
	eSn		22		1.0	100					
TUA	Pn	02	31 01.0		−2.0	100	1.71	191		4.7	4.6
	eP*		05		0.5	100					
	ePg		08		−0.8	100					
	eSg		31		−0.9	100					
KRP	iPn	02	31 01.3	DE	−2.9	99	1.80	243		4.7	5.1
	ePg		12		1.5	100					
	eS*		31		1.4	100					
GBZ	Pn	02	31 03.1		−2.5	99	1.90	298			
	e		20								
WNZ	Pg	02	31 13.0		0.5	100	1.90	217		4.3	4.3
	eS*		35		2.4	99					
AUC	ePn	02	31 08.5		−1.8	100	2.24	276			
	e(Pg)		22		2.4	99					
TRZ	e(P*)	02	31 22		4.1		2.49	193		4.5	4.6
	e(S*)		55		4.4						
GSZ	ePn	02	31 17		1.1	100	2.65	215			
	ePg		29		1.2	100					
	e(Sn)		51		3.7						
ONE	ePn	02	31 19		−0.4	100	2.92	297	4.7		
	e		44								
	e(S*)		32 07		3.9						
TNZ	ePn	02	31 24		0.1	100	3.25	230		4.9	4.9
	e(Pg)		37		−2.7						
	e		56								
MNG	Pn	02	31 31.8		−0.4	100	3.85	204		4.6	4.5
	e(P*)		37		−4.0						
	eSn		32 13		−3.0	99					
WEL	ePn	02	31 46		2.3	99	4.69	207	4.5		
	eSn		32 33		−3.2	99					
CRZ	ePn	02	31 45		−0.1	100	4.80	303		4.6	4.7
	eSn		32 40		1.2	100					
COB	e(Pn)	02	31 54		−0.1		5.45	222		4.6	4.2
	e(Sn)		33 00		5.4						
CMZ	e(Sn)	02	33 40		−3.0		7.47	209			
RHP	e(Pn)	02	32 49.0		6.6		8.99	217			

AMPLITUDES:										
WTZ	15	22	ECZ	9.6		GNZ	29	37
TUA	5.0	5.0	KRP	5.0	9.0	GBZ	6.0	9.0
WNZ	0.3	0.4	AUC	20		TRZ	2.3	3.6
GSZ	6.5	3.5	ONE	0.9		TNZ	0.6	0.5
MNG	4.8	5.0	WEL	0.6		CRZ	0.3	0.3
COB	0.7	1.0						

79/ 498

AUG 22 $05^h03^m00^s.9$ 32°.20S 179°.30W 497 km M = 5.1

± 2.2 0.29 0.54 27 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	05	04	38		2.3	99	5.76	197		5.0	5.2
	eS		05	52		1.2	100					
WTZ	eP	05	04	43		−0.3	100	6.52	207		4.9	5.0
	e		05	58								
	eS		06	04		−0.3	100					
GNZ	eP	05	04	46		0.1	100	6.79	198		5.2	5.3

	e		06	01								
	eS			06		−3.2	98					
TUA	eS	05	06	16		−0.7	100	7.21	203			5.3
TRZ	e	05	06	30				7.99	202			5.2
	eS			34		2.5	99					
GSZ	e	05	06	30				8.20	209			
	eS			34.5		−1.0	100					
MNG	eP	05	05	11		−2.2	99	9.40	205		4.7	5.1
	e		06	50								
	eS			58.5		0.1	100					
WEL	eS	05	07	15		0.2	100	10.24	206	5.0		
COB	eS	05	07	29		0.8	100	10.93	214			3.4*

AMPLITUDES: ECZ 0.7 1.0 WTZ 1.0 1.5 GNZ 2.0 4.5
TUA 1.0 TRZ 1.2 MNG 1.0 3.0
WEL 0.3 COB 0.5

79/ 499

AUG 22 $11^h09^m33^s.8$ 40°.92S 175°.51E 0 km M = 3.7
± 0.9 0.03 0.06 5 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iPg	11	09	40.0	D	0.2	100	0.30	356			3.2
	eSg			44		0.2	100					
WEL	eP*	11	09	47		−0.5	100	0.67	236	3.2		
	eS*			57		−0.1	100					
GSZ	ePn	11	10	04		0.8	100	1.64	2			
	eS*			27		0.8	100					
TRZ	ePn	11	10	02		−2.0	99	1.69	37			3.5
	ePg			09		1.0	100					
TNZ	Pn	11	10	06.0		−1.2	100	1.93	333		3.8	3.6
	eSn			33		0.9	100					
COB	ePn	11	10	11.5		1.9	99	2.11	264		3.8	3.6
	eS*			40		−0.2	100					
KRP	eP*	11	10	29		1.9	99	2.99	0		4.2	4.7
	eS*		11	06		−0.7	100					
	eSg			13		−1.4	100					

AMPLITUDES: MNG 39 WEL 1.6 GSZ 1.8 4.0
TRZ 0.6 TNZ 0.5 0.5 COB 0.8 1.8
KRP 0.8 2.0

FELT: Masterton (66) MM IV

79/ 500

AUG 22 $18^h46^m34^s.5$ 38°.94S 177°.25E 33 km M = 4.3
± 0.5 0.03 0.04 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	iP*	18	46	39.3	U	−1.3	100	0.15	328			
	eS*			44		−1.0	100					
GNZ	iPn	18	46	47.9	DNE	0.7	100	0.67	64		4.1	4.1
	eSn			57		0.4	100					
TRZ	iPn	18	46	46.8	D	−0.9	100	0.70	208		4.3	
	eSn			57		−0.4	100					
WNZ	ePn	18	46	50		−1.0	100	0.94	288		4.4	4.5
	eSn		47	01.9		−1.4	100					
WTZ	iPn	18	46	51	U	−0.3	100	0.97	348		4.0	4.2
	eSn		47	04		0.1	100					
GSZ	ePn	18	46	56		−0.4	100	1.34	255			
	eSn		47	14		1.3	100					

ECZ	ePn	18	47	01		1.0	100	1.60	40	4.2	4.0
	e			10							
	e			34							
KRP	ePn	18	46	59		−2.1	99	1.68	306	4.4	4.1
	eP*		47	06.2		1.6	100				
	eS*			29		2.0	99				
MNG	Pn	18	47	04.3		−3.4	97	2.17	219	4.4	4.1
	eP*			15		2.2	99				
	e		48	06							
TNZ	Pn	18	47	08.9		0.1	100	2.25	263	4.3	4.4
	e(S*)			41		−2.9					
WEL	eP*	18	47	30		2.6	99	3.02	218	4.2	
	e(Sn)			49		−4.2					
	e(S*)		48	13		6.1					
COB	ePn	18	47	30		−3.8		4.09	237	4.5	4.3
	eP*			44		−1.4					
	e		48	30							

AMPLITUDES:

GNZ		22	38	TRZ		15		WNZ		2.0	3.9
WTZ		12	15	GSZ		34		ECZ		1.3	1.1
KRP		6.0	2.5	MNG		10	6.5	TNZ		0.5	0.8
WEL	0.6			COB		1.0	2.3				

FELT: Mahia Beach (54)

79/ 501

AUG 23 $17^h48^m49^s.9$ 33°.69S 179°.62E 263 km M = 4.8

± 2.3 0.11 0.16 24 S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	eP	17	50	00		2.5	99	4.24	232			
WTZ	eP	17	50	04		−0.1	100	4.79	206		4.5	4.8
	e			11								
	eS		51	03.5		1.4	100					
GNZ	eP	17	50	06		−2.1	100	5.11	194		4.3	5.0
	e			16.0								
	e		51	00								
	eS			08.5		−0.5	100					
KRP	e(P)	17	50	22		10.8		5.37	217		3.0*	
TUA	e	17	51	04				5.49	201			4.9
	eS			16		−1.2	100					
TRZ	eS	17	51	36		1.4	100	6.27	200			5.0
MNG	eP	17	50	38		−1.8	100	7.67	204		4.3	5.1
	e		51	28								
	eS		52	04		−2.0	100					
WEL	eS	17	52	24		−1.0	100	8.51	206	5.0		
COB	e	17	51	59				9.20	215			
	eS		52	42		1.5	100					
CIZ	eS	17	53	16		2.0	100	10.68	165			

AMPLITUDES:

GBZ		0.5		WTZ		0.8	2.1	GNZ		0.6	4.2
KRP		0.3		TUA			0.8	TRZ			1.5
MNG		0.7	5.6	WEL	0.5			COB	1.3		
CIZ			0.4								

79/ 502

AUG 24 $02^h01^m08^s.6$ 35°.98S 179°.51E 221 km M = 4.5

± 1.0 0.06 0.08 14 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	02	01	47		−0.8	100	1.88	204		4.2	4.3

	e	02 22.5										
	e	36										
WTZ	P	02 01 56.8		−1.2	100	2.84	225		4.6	4.6
	e	02 42										
GNZ	eP	02 01 59.5		0.7	100	2.92	204		4.5	4.6
	eS	02 37		−0.7	100					
TUA	P	02 02 06.1		1.8	99	3.39	213		4.5	4.5
	e	19								
	eS	49		1.4	100					
	e	03 03								
KRP	iP	02 02 09.1	UW	0.7	100	3.73	237		3.7*	3.4*
	eS	53		−1.7	99					
TRZ	e	02 02 29				4.16	210		4.6	4.5
	e	50								
	e(S)	03 10.5		6.3						
ONE	eP	02 02 13		−1.0	100	4.18	271	3.6*		
	eS	03 06		1.2	100					
CNZ	eP	02 02 20		2.1	99	4.50	223			
	e	03 36								
TNZ	e	02 02 34				5.18	230		3.9*	3.7*
	e	58								
	e	04 02								
MNG	eP	02 02 31		−1.1	100	5.62	213		4.4	4.6
	e	48								
	e	04 04								
CRZ	P	02 02 33.9		−0.6	100	5.80	283		4.2*	
WEL	eS	02 03 56		−0.5	100	6.47	214	4.5		
	e	04 29								
CIZ	eP?	02 03 09		−0.4	100	8.52	160			

AMPLITUDES:										
ECZ	0.9	1.0	WTZ	2.6	3.2	GNZ	2.5	4.3
TUA	0.7	0.8	KRP	2.1	1.1	TRZ	0.6	1.0
ONE	0.6		CNZ	1.3	1.4	TNZ	0.5	0.5
MNG	1.5	3.0	CRZ	1.3		WEL	0.3	

79/ 503

AUG 25 $22^h48^m25^s.0$ 37°.65S 176°.24E 318 km M = 4.4

± 1.5 0.08 0.11 9 S.E. of RES. 1.6

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	22 49 07.7		1.6	100	0.62	243		3.3*	2.8*
	eS	39.5		1.3	100					
WTZ	P	22 49 03.3		−3.0	98	0.68	120		3.8	4.1
	e	07								
	eS	36		−2.5	99					
TUA	e	22 49 26.6				1.36	148		4.3	4.6
	eS	45.0		1.1	100					
GNZ	P	22 49 12.7		1.0	100	1.72	126		4.5	4.3
	e	23.6								
	e	41								
	e	45.4								
	eS	47		−0.9	100					
ECZ	eP	22 49 13		0.6	100	1.84	92		4.2	4.3
	eS	50		0.6	100					
TRZ	eS	22 49 52		0.9	100	1.95	167			4.5
MNG	iP	22 49 23.1	U	0.5	100	3.02	191		4.5	4.7
	eS	50 06.5		−1.0	100					
WEL	eS	22 50 23		1.1	100	3.81	197	4.4		
COB	eP	22 49 36		−0.7	100	4.38	217		3.7*	3.2*
	eS	50 32		−0.9	100					

AMPLITUDES:											
	KRP	1.1	0.4	WTZ		0.7	1.3	TUA		0.8	1.7
	GNZ	3.0	3.0	ECZ		0.5	0.7	TRZ			2.0
	MNG	3.7	7.6	WEL	0.5			COB		0.7	0.7

79/ 504

AUG 26 $10^h31^m48^s.4$ 41°.33S 173°.51E 33 km M = 5.3

± 0.3 0.03 0.05 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	iPn	10	32	02.2	D	2.2	100	0.58	79			
COB	iPn	10	32	01.2	D	0.6	100	0.63	292			
WEL	Pn	10	32	05.9	DW	1.0	100	0.95	88	5.2		
	e(Sn)			14.5		−2.7						
KKY	iPn	10	32	07.9	D	0.9	100	1.10	173			
MNG	iPn	10	32	14.2	D	−0.3	100	1.66	65			
KAI	ePn	10	32	19		0.1	100	1.97	232	5.5		
	eSn			41		−0.7	100					
CAZ	Pn	10	32	20.0		−0.6	100	2.10	79			
	e			29.5								
	eSn			47		2.3	99					
	e		33	01								
TNZ	iPn	10	32	23.9	U	1.3	100	2.24	18		5.2	5.5
	eSn			49		0.7	100					
CMZ	ePn	10	32	22		−2.0	100	2.35	196			
GSZ	iPn	10	32	28.4	U	1.0	100	2.59	38			
	e(Sn)		33	00		3.3						
TRZ	ePn	10	32	33		−1.1	100	3.09	56		5.1	5.3
	eP*			44		1.7	100					
	e(Sn)		33	14		5.4						
MJZ	ePn	10	32	39		−0.4	100	3.48	219		5.3	5.6
	e		33	01								
	eSn			16		−2.0	100					
KRP	iPn	10	32	43.3	UN	0.2	100	3.74	25		5.4	5.4
	eSn		33	22		−2.4	99					
RHP	ePn	10	32	42		−1.1	100	3.75	221			
	eSn		33	26		1.5	100					
TUA	P*	10	32	50.8		−3.0	99	3.76	49		5.2	5.4
	e		33	12.5								
	eS*			41		−1.8	100					
OMZ	Pn	10	32	49.2		0.0	100	4.19	206		4.8	5.1
	eSn		33	37		1.8	100					
WTZ	Pn	10	32	47.8		−2.7	99	4.29	40		5.3	5.9
	e			54								
	eP*		33	04		1.3	100					
	e			32								
	eSn			40		2.6	99					
	e			51.2								
GNZ	Pn	10	32	48.0		−3.8	97	4.38	54		5.1	5.3
	e		33	10								
	e			34								
	eSn			39		−0.7	100					
AUC	iPn	10	32	55.5	D	1.1	100	4.57	13			
	eSn		33	46		1.7	100					
ECZ	eP*	10	33	17.5		−2.9		5.33	49		4.8	5.3
	eSn		34	01		−1.4						
ONE	Pn	10	33	09		0.8		5.59	7	5.3		
	eSn		34	07		−1.7						
BRZ	ePn	10	33	16		−0.8		6.22	222	5.2*	4.9*	5.2*
	eSn		34	25		1.3						

AMPLITUDES:													
	WEL	67			KAI	30			CAZ			10	45
	TNZ		11	28	GSZ		42		TRZ			5.0	12
	MJZ		22	56	KRP		26	30	TUA			3.5	6.5
	OMZ		2.0	7.7	WTZ		3.0	6.5	GNZ			6.0	15
	AUC		37	55	ECZ		0.5	1.8	ONE	3.6			
	BRZ	3.7	1.5	7.0									

FELT: From central North Island to central South Island

79/ 505

AUG 26 $10^h35^m56^s.6$ 41°.39S 173°.54E 33 km M = 4.7

± 0.3 0.03 0.04 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	iPn	10	36	09.7	D	0.3	100	0.67	296		4.5	4.1
	eSn			19		0.1	100					
WEL	Pn	10	36	13.8	D	0.9	100	0.93	84	4.7		
	eSn			27		2.1	100					
KKY	iPn	10	36	15.4	D	1.1	100	1.03	174			
MNG	iPn!	10	36	22.0		−0.8	100	1.66	63		5.0	
	eS*			49		0.6	100					
KAI	ePn	10	36	27		0.2	100	1.95	234	4.8		
	e			37								
	eSn			50		0.5	100					
CAZ	eP*	10	36	36		2.5	99	2.09	77			
	e		37	10								
TNZ	Pn	10	36	31.9		0.4	100	2.29	17		4.4	5.1
	eSn			59		1.3	100					
CMZ	ePn	10	36	30		−1.5	100	2.29	197		4.7	5.0
	e(P*)			42		5.0						
	eSn			56.5		−1.2	100					
GSZ	Pn	10	36	36.5		0.5	100	2.63	37			
	eSn		37	08		2.3	99					
TRZ	ePn	10	36	40		−2.5	99	3.10	55		4.4	4.5
	eP*			52		1.2	100					
	e		37	45								
MJZ	Pn	10	36	48.0		0.8	100	3.45	220		4.9	5.0
	e			51								
	eSn		37	25		−0.4	100					
RHP	ePn	10	36	50		−0.9	100	3.72	222			
	eSn		37	34		2.0	100					
KRP	iPn	10	36	52.0	D	0.1	100	3.79	25		4.6	4.8
	eSn		37	33.5		−0.1	100					
TUA	eP*	10	36	59.9		−2.5	99	3.79	48		4.5	5.0
	e		37	09								
	e			48								
OMZ	Pn	10	36	58		1.2	100	4.15	207		4.3	4.5
	eSn		37	39		−3.3	98					
WTZ	ePn	10	36	55		−4.1	93	4.32	39		4.5	5.2
	eP*		37	11.5		0.1	100					
	e			31								
	eSn			45		−1.4	100					
	e			57								
GNZ	e	10	36	56				4.40	53		4.4	4.7
	e		37	39								
	eSn			47		−1.4	100					
MSZ	iPn	10	37	11.8	D	−0.3	100	5.27	230		4.9	4.9
	eSn		38	09		−0.2	100					
BRZ	ePn	10	37	25		0.4	100	6.18	223	4.5*	4.4*	4.6*
	eSn		38	34		2.8	99					

AMPLITUDES:											
	COB	43	59	WEL	23		MNG	63			
	KAI	7.0		CAZ	3.0	6.5	TNZ	1.6	11		
	CMZ	6.5	20	GSZ	15	44	TRZ	1.1	2.0		
	MJZ	9.5	17	RHP	33	41	KRP	4.5	7.0		
	TUA	0.7	2.5	OMZ	0.7	2.0	WTZ	0.5	1.4		
	GNZ	1.0	3.0	MSZ	4.5	8.0	BRZ	0.7	0.5	1.9	

FELT: Extensively on both sides of Cook Strait

79/ 506

AUG 26 $20^h35^m30^s.7$ 39°.33S 175°.25E 12 km M = 4.2

± 0.4 0.02 0.03 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	iP*	20	35	34.4	U	−2.0	99	0.27	79			
TNZ	iP*	20	35	45.5	U	1.8	100	0.69	282		3.7	3.7
	e(Sg)			58		3.7						
TRZ	P*	20	35	52.1		−0.9	100	1.24	101		3.9	4.2
	e			57								
	eS*		36	10		0.5	100					
	e			16.5								
MNG	iPn	20	35	52.8	U	−1.1	100	1.30	172		4.5	4.5
	eSn		36	09		−2.3	99					
KRP	iPn	20	35	54.5	UNW	−1.1	100	1.42	9		5.0	4.9
	eSn		36	13		−1.2	100					
TUA	Pn	20	35	58.3		0.7	100	1.57	71		4.2	4.1
	ePg		36	03.5		1.0	100					
	eSg			25		1.3	100					
CAZ	P*	20	36	03.5		1.9	99	1.75	155			
	eSg			30		0.5	100					
WTZ	ePn	20	36	03		0.7	100	1.92	46		3.7	
WEL	ePn	20	36	05		1.6	100	1.99	191	4.8		
	eS*			31		−1.0	100					
GNZ	ePg	20	36	14		−2.6	99	2.27	73		4.2	4.0
	e			23.2								
	eSg			48		0.8	100					
COB	Pn	20	36	12.8		1.0	100	2.61	227		4.3	4.1
	eS*			50		−0.5	100					
ONE	ePg	20	36	41		−2.9		3.62	348	4.2		
	e		37	14								
CRZ	ePn?	20	36	51		2.3		5.31	336			

AMPLITUDES:										
	TNZ	3.4	5.3	TRZ	2.3	5.6	MNG	32	40	
	KRP	26	13	TUA	1.0	0.8	CAZ	2.5	3.5	
	WTZ	0.6		WEL	5.0		GNZ	1.3	1.0	
	COB	1.8	3.6	ONE	0.4					

FELT: Ohakune (49) MM IV

79/ 507

AUG 27 $18^h54^m04^s.0$ 39°.33S 175°.73E 12 km M = 3.7

± 0.6 0.02 0.05 2 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	iPg	18	54	07.7	U	0.4	100	0.13	293			
	eSg			10		0.5	100					
CNZ	iP*	18	54	08.2	U	−0.2	100	0.19	311			
	eSg			10.5		−0.9	100					
MNG	iPn	18	54	26.6	U	−0.8	100	1.30	188		3.9	3.5
	ePg			31		0.5	100					
	eSn			43		−1.8	97					

KRP	ePn	18	54	28		−0.7	100	1.40	354		3.9	3.9
	eSn			47		−0.2	100					
	eSg			52.5		0.9	100					
WEL	eSn	18	55	05		1.3	99	2.10	200	3.5		
COB	ePn	18	54	49		−0.1	100	2.90	232		3.7	3.3
	eSn		55	23		0.0	100					

AMPLITUDES: GSZ 19 63 CNZ 7.5 35 MNG 8.0 4.3
KRP 1.8 1.4 WEL 0.2 COB 0.3 0.4

FELT: Ohakune (49) MM IV

79/ 508

AUG 27 $20^h14^m39^s.3$ 42°.30S 172°.98E 12 km M = 4.8
± 0.2 0.02 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	iP*!	20	14	49.8		0.0	100	0.55	103			
KAI	ePg	20	15	03		−0.3	100	1.19	258	4.8		
	eS*			18		1.6	100					
COB	iP*	20	14	59.9	U	−1.4	100	1.22	351		5.0	4.8
	eS*		15	17		−0.5	100					
CMZ	Pn	20	15	03.0		0.3	100	1.31	191			
	eSn			20		−0.2	100					
TCW	iPn	20	15	03.6		−1.0	100	1.46	42			
WEL	Pn	20	15	08.1		0.4	100	1.68	54	4.6		
	eSn			30		1.0	100					
	eSg			36		0.1	100					
MJZ	iPn	20	15	19.8	U	0.9	100	2.50	227			4.9
	e(P*)			26.5		3.4						
MNG	iPn	20	15	18.2	U	−1.0	100	2.52	49		5.1	4.9
	eP*			22.1		−1.4	100					
	eS*			58		1.4	100					
RHP	Pn	20	15	23.8		1.0	100	2.78	229			
	eP*			29		1.1	100					
	eS*		16	05		0.7	100					
OMZ	Pn	20	15	28.0		0.2	100	3.15	208		4.8	4.5
	ePg			41		−2.0	99					
	e(Sg)		16	29		3.5						
GSZ	Pn	20	15	35.0		0.9	100	3.61	34			
	eP*			41.8		−0.3	100					
	eSg		16	40		−0.9	100					
TRZ	eP*	20	15	51		2.3	99	4.00	48		4.8	4.6
	eSg		16	53		−1.1	100					
MSZ	Pn	20	15	43		−1.6	100	4.38	235		4.8	4.6
	e			48.7								
	ePg		16	06		−1.8	99					
	e(Sn)			39.5		5.5						
TUA	eP*	20	16	00		−1.0	100	4.72	44		4.8	4.8
	e			04.8								
	e			31.5								
	e			56								
KRP	e	20	15	57.9				4.79	25		5.0	
	eP*		16	05		2.8	97					
BRZ	ePn	20	15	55.5		−0.9		5.25	227		4.4*	4.3*
	e		16	18								
	eSn			57.5		2.8						
	e(Sg)		17	45		9.1						
WTZ	e	20	16	04				5.29	37		5.0	5.0
	eP*			13		2.2						

GNZ	eP*	20	16	13		2.0		5.31	48		4.9	4.6
	ePg			27		0.5						
	eSn			57		0.9						
ONE	ePn	20	16	19		4.1		6.61	10	4.7		
	eP*			33		−0.1						
CIZ	ePn	20	16	34		2.3		7.84	106			
	eSn		17	55		−1.9						

AMPLITUDES:

KAI	17			COB	38	88	WEL	6.4			
MJZ			23	MNG	38	29	RHP		45	30	
OMZ		3.5	3.5	GSZ	20	20	TRZ		1.5	1.3	
MSZ		4.8	5.5	TUA	1.0	1.0	KRP		6.8		
BRZ		0.6	1.3	WTZ	1.2	0.7	GNZ		2.3	1.8	
ONE	0.6			CIZ		0.3					

FELT: Waiau (96)

79/ 509

AUG 28 $17^h29^m50^s.7$ 38°.70S 176°.00E 12 km

± R R R R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	eP	17	29	53		−0.7	100	0.11	50			
	eS			56.5		0.7	100					

AMPLITUDES: WNZ 0.3 0.3

FELT: Taupo (41) MM IV

79/ 510

AUG 29 $07^h58^m47^s.8$ 37°.64S 176°.39E 302 km M = 4.0

± 1.7 0.09 0.15 13 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	07	59	26.5		−0.5	100	0.58	126		3.5	3.4
	eS			58		0.3	100					
	e	08	00	07								
KRP	P	07	59	27.9		0.4	100	0.73	247		3.0*	
GNZ	iP	07	59	33.8	U	1.5	100	1.63	128		4.4	4.2
	eS	08	00	07.5		0.6	100					
ECZ	eP	07	59	33.5		0.6	100	1.72	92		4.0	4.0
	eS	08	00	05.5		−2.5	98					
TRZ	eS	08	00	13		2.1	99	1.93	170			4.3
MNG	iP	07	59	44.1	U	−0.5	100	3.06	193		3.9	4.0
	e	08	00	23								
	eS			28		−0.9	100					
WEL	eS	08	00	43		−0.9	100	3.85	199			

AMPLITUDES:

WTZ	0.4	0.3	KRP	0.6		GNZ	2.2	2.3
ECZ	0.4	0.4	TRZ		1.3	MNG	1.2	1.7

79/ 511

AUG 29 $11^h25^m42^s.4$ 34°.28S 178°.95E 261 km M = 4.7

± 1.7 0.09 0.14 17 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	11	26	40		−0.5	100	3.43	185		4.7	4.5
	eS		27	26		0.1	100					
	e			30								
WTZ	P	11	26	46.5		−1.0	100	4.02	203		5.3	4.6
	i			47.9								
	eS		27	39		0.8	100					
ONE	eP	11	26	50		2.2	99	4.05	247	3.5*		

	e		27	09									
GNZ	e(P)	11	26	48		−4.2		4.43	189		4.5	4.6
	eP			51.0		−1.2	100					
	eS		27	45		−1.5	100					
KRP	P	11	26	56.7		2.8	99	4.57	216		3.2*	2.9*
	e		28	00								
	e			36								
TUA	eS	11	27	54		0.4	100	4.75	197			4.9
TRZ	eP	11	27	04		−1.7	100	5.53	197			4.6
	eS		28	12		1.3	100					
MNG	eP	11	27	20		−2.7	99	6.91	203		4.5	4.4
	eS		28	40		−1.3	100					
WEL	eS	11	29	00		−0.1	100	7.74	204	4.7		
CIZ	e	11	28	15				10.28	162			
	eS		30	00		2.5	99					

AMPLITUDES:											
ECZ	1.0	0.7	WTZ	6.5	1.5	ONE	0.4				
GNZ	1.1	2.0	KRP	0.5	0.3	TUA		0.9			
TRZ		0.7	MNG	1.4	1.2	WEL	0.3				
CIZ		0.4									

79/ 512

AUG 29 $19^h15^m08^s.2$ 33°.07S 178°.30W 33 km M = 5.0

± 1.7 0.09 0.14 R S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	19	16	26		2.1	100	5.28	208		5.1	4.9
	eSn		17	21		−0.2	100					
	eS*			48		−0.2	100					
WTZ	ePn	19	16	35		−1.8	100	6.24	217		4.9	4.9
	eSn		17	45		1.1	100					
GNZ	ePn	19	16	38.5		0.5	100	6.32	207		5.1	5.0
	e(P*)		17	00		3.0						
	eSn			45		−0.9	100					
ONE	ePn	19	16	44		1.6	100	6.64	244	5.6		
TUA	ePn	19	16	45		0.2	100	6.81	212		5.2	5.2
	eSn		18	00		2.1	100					
KRP	ePn	19	16	47		−0.1	100	6.98	224		5.2	
TRZ	ePn	19	16	54.5		−0.7	100	7.58	210		4.7	4.8
	e		17	06								
	eSn		18	19		2.7	99					
NGZ	ePn	19	16	59		0.2	100	7.85	217			
	eSn		18	25		2.4	100					
TNZ	e(Pn)	19	17	16		8.1		8.50	222		5.5	5.5
	e(P*)			39.5		5.2						
	e		19	05								
MNG	ePn	19	17	12		−3.1	99	9.04	212		4.3	4.8
	e(P*)			39		−4.3						
	eSn		18	49		−2.3	100					
WEL	eSn	19	19	07		−4.9	94	9.89	212	4.9		
CIZ	e(Pn)	19	17	47		5.7		10.96	173			
	eSn		19	38.5		1.0	100					

AMPLITUDES											
ECZ	1.0	0.7	WTZ	2.0	1.8	GNZ	2.8	3.6			
ONE	0.5		TUA	1.0	1.2	KRP	0.9				
TRZ	0.4	0.7	NGZ	1.6	1.3	TNZ	0.3	0.3			
MNG	0.5	1.6	WEL	0.3		CIZ		0.6			

79/ 513

AUG 30 $15^h12^m13^s.8$ 37°.08S 177°.03E 213 km M = 4.2
± 1.2 0.06 0.08 8 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	15	12	43.0	D	−1.4	100	0.91	182		3.8	3.9
	eS		13	06		−2.1	99					
ECZ	eP	15	12	49		1.4	100	1.36	117		3.9	3.9
	eS		13	16		2.2	99					
KRP	iP	15	12	49.6	D	1.2	100	1.46	234		3.1*	2.7*
	eS		13	16		0.7	100					
GBZ	P	15	12	47.6		−1.3	100	1.51	304			
TUA	eP	15	12	51		0.1	100	1.73	177		4.0	4.3
	e		13	03								
	e?			18								
	S			19.8		0.2	100					
GNZ	P	15	12	50.8		−0.3	100	1.75	154		4.2	4.7
	e		13	11.5								
	eS			17		−3.0	98					
GSZ	P	15	13	00.3		1.8	100	2.47	207			
	eS			35.5		2.4	99					
TRZ	eP	15	12	59		0.4	100	2.47	184		4.2	4.7
	eS		13	34		0.8	100					
TNZ	e(P)	15	13	08		3.9		2.97	224			
	e			58								
MNG	P	15	13	12.3		−1.1	100	3.73	198		4.2	4.4
	eS			58		−1.5	100					
CAZ	eS	15	14	04		1.6	100	3.87	189			
WEL	eS	15	14	16		−1.7	100	4.55	202	4.3		
COB	eP	15	13	31		−1.0	100	5.22	219			3.0*
	eS		14	33		0.4	100					

AMPLITUDES:										
WTZ	1.4	1.8	ECZ	0.6	0.6	KRP	1.0	0.4
GBZ	0.8		TUA	0.6	1.1	GNZ	2.3	12
GSZ	2.5	0.7	TRZ	0.5	3.8	MNG	2.0	3.8
CAZ		1.1	WEL	0.3		COB		0.4

79/ 514

AUG 30 $23^h46^m16^s.4$ 45°.24S 167°.65E 130 km M = 4.4
± 0.6 0.02 0.04 4 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P	23	46	35.9		0.1	100	0.54	189		3.6*	3.9*
	eS			51		0.2	100					
MSZ	iP	23	46	36.2	U	0.0	100	0.60	18		4.2	3.5
	eS			51		−0.4	100					
OBZ	P	23	46	47.3		0.2	100	1.69	169		4.7	4.3
	eS		47	10		−0.5	100					
RHP	iP	23	46	51.8	U	0.1	100	2.08	58			
	e		47	05								
	eS			19.5		1.1	98					
OMZ	eP	23	46	55		0.2	100	2.31	87		3.8	4.1
	eS		47	23		−0.8	99					
MJZ	P	23	46	55.0		−0.5	100	2.37	59		3.9	4.5
	S		47	24.8		−0.3	100					
KAI	eS	23	47	59		−0.8	99	3.84	46	4.7		
CMZ	eS	23	48	03		0.8	99	3.94	67			4.6
COB	e(S)	23	48	37		−4.7		5.57	44			5.0

AMPLITUDES:									
BRZ	2.9	11	MSZ	26	10	OBZ	9.0	6.5

		RHP		45	22	OMZ	0.4	1.3	MJZ	1.3	4.8
		KAI	0.4			CMZ		0.9	COB		0.9

79/ 515

AUG 31 $08^h17^m04^s.1$ 37°.86S 176°.67E 146 km M = 3.9

± 0.7 0.04 0.04 6 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	08	17	23.8	U	−0.4	100	0.29	117			
	S			38.5		−1.2	99					
KRP	P	08	17	28		0.3	100	0.90	265		2.8*	2.7*
	S			46		0.2	100					
TUA	P	08	17	28.5		−0.3	100	1.03	158		3.9	3.7
	S			49.5		1.7	99					
GNZ	iP	08	17	31.7	U	−0.0	100	1.32	127		4.2	4.1
	S			52.5		−0.5	100					
ECZ	eP	08	17	34		0.4	100	1.50	84			
NGZ	P	08	17	33.8		−0.5		1.57	212			
	e(S)			58		0.5						
CNZ	(P)	08	17	34.2		−0.6		1.60	213			
GSZ	iP	08	17	34.8		−0.5	100	1.66	210			
	S			58.5		−0.7	100					
TRZ	P	08	17	34.5		−1.3	99	1.70	176		3.7	3.8
	e			58.5								
	S		18	01.5		1.4	99					
GBZ	iP	08	17	38.9	D	0.9	100	1.89	330			
ONE	e(P)	08	17	50.5		1.3		2.78	318			
MNG	P	08	17	47.5	D	−3.4		2.91	198		4.0	3.8
	S		18	22		−4.5						
WEL	S	08	18	39		−6.6		3.73	203			
COB	S	08	18	56.5		−5.8		4.44	222			2.6*

AMPLITUDES:										
WTZ	6.1	1.3	KRP	0.8	0.6	TUA	1.2	0.8		
GNZ	5.1	5.5	TRZ	0.4	1.0	GBZ	1.6			
MNG	2.3	1.6	WEL	0.1	0.2	COB		0.2		

79/ 516

SEP 01 $01^h36^m40^s.1$ 39°.78S 177°.52E 12 km M = 4.0

± 0.8 0.03 0.05 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	iP*	01	36	50.6	D	−0.6	100	0.58	293		4.0	4.2
	e(S*)			56.5		−2.8						
	Sg		37	04		3.9						
TUA	Pg	01	36	59.5		−1.2	100	1.02	343		4.2	4.0
	i		37	05.5								
	Sg			13.5		−0.9	100					
GNZ	Pg	01	37	04		−0.4	100	1.20	19		3.8	3.9
	e			13								
	e(Sg)			23		2.3	98					
	e			35								
CAZ	e	01	37	21				1.49	221			
	e			42								
WNZ	(P*)	01	37	09		0.6		1.59	316		4.5	4.3
	e(Sg)			34		0.2						
NGZ	e(Pn)	01	37	08.5		1.2		1.59	291			
	P*			10		1.6	99					
	S*			29.5		0.0	100					
MNG	Pn	01	37	09		−0.8	100	1.77	241		3.9	4.0
	Pg			14.5		−1.5						

	e(Sn)			32.5		0.4					
	Sg			41.5		1.6	99				
WTZ	P*	01	37	12		−0.7	100	1.84	347	3.7	3.8
	Pg			17		−0.4					
	S*			35		−1.9					
	Sg			41.5		−0.7	100				
KRP	P*	01	37	23.5		1.0	100	2.41	319	4.1	4.2
	Sn			47.5		0.0	100				
	S*			54		−0.2					
TNZ	eP*	01	37	25		1.0	100	2.50	283	4.1	4.0
	Pg			28		−2.7					
	S*			57		0.2	100				
WEL	Sn	01	37	49.5		−2.0	99	2.58	233	4.0	
COB	P*	01	37	47		−0.5		3.88	249	4.1	3.9
	Pg			58		−0.6					
	Sn		38	24		1.3					
	S*			42.5		4.4					
KAI	Sn	01	38	56		−2.5		5.37	237	4.1	
CIZ	(Sn)	01	39	20.5		5.0		6.07	135		
	e			24							
MJZ	Sn	01	39	29.5		−1.9		6.74	229		4.3
RHP	(Sn)	01	39	36		−2.4		7.03	230		
BRZ	Sn	01	40	34		−3.2		9.48	227		3.7*

AMPLITUDES:											
	TRZ	11	25	TUA		4.5	3.8	GNZ		4.0	6.7
	WNZ	0.8	0.8	MNG		5.0	7.5	WTZ		1.6	1.8
	KRP	1.2	1.3	TNZ		0.6	0.7	WEL	0.6		
	COB	0.5	1.0	KAI	0.2			CIZ		0.3	0.8
	MJZ		0.8	BRZ			0.1				

79/ 517

SEP 01 $17^h 33^m 27^s.5$ 40°.10S 176°.88E 33 km M = 3.3

± 0.7 0.04 0.06 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	iP*	17	33	37.2	U	−1.6	99	0.55	355		3.2	3.4
	S*			47.5		0.4	100					
CAZ	eS*	17	34	01		2.9		0.94	212			
MNG	Pn	17	33	46.1	D	−1.2	100	1.19	244		3.5	3.4
	Sn		34	03		0.9	100					
TUA	Pn	17	33	48		−1.0	100	1.31	9		3.0	3.4
	Sn		34	06		1.0	100					
	e			07.5								
NGZ	iPn	17	33	48.5		−0.9	100	1.35	313			
	eSn		34	06		0.2	100					
GNZ	Pn	17	33	54		−0.3	100	1.71	32		3.0	3.1
	Sn		34	16		1.5	99					
WEL	Sn	17	34	22.5		1.0	100	2.00	233	3.0		
WTZ	e(P*)	17	34	10.5		5.5		2.12	2		3.1	3.0
	(Sn)			24		−0.4						
TNZ	P*	17	34	04		−1.3		2.14	295		3.4	3.5
	(Sn)			29.5		4.6						
	e(S*)			34		0.5						
KRP	P*	17	34	12		2.0		2.42	334		3.5	3.5
	e			18								
	S*			43.5		1.7						
COB	eP*	17	34	26		0.8		3.31	251		3.3	3.0
	(Sn)			52.5		−0.6						
	e(S*)		35	07		−1.4						
MJZ	Sn	17	36	01		−0.4		6.16	229			

CIZ	Sn	17 36 09.5			6.7			6.22	130				

AMPLITUDES:

TRZ		1.9	5.2	MNG		3.9	4.0	TUA		0.2	0.5
GNZ		0.3	0.6	WEL	0.1			WTZ		0.3	0.2
TNZ		0.2	0.3	KRP		0.3	0.2	COB		0.1	0.2
CIZ			0.3								

FELT: Waipawa (60) MM IV

79/ 518

SEP 01 $21^h43^m47^s.3$ 37°.76S 176°.91E 176 km M = 5.3

± 0.6 0.02 0.03 5 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	21	44	09.3	U	−1.6	97	0.23	164			
	e(S)			25.5		−3.5						
TUA	iP	21	44	14.8	U	−0.3	100	1.06	170		5.2	5.3
	e(S)			35		−1.7						
WNZ	iP	21	44	15.2	U	−0.1	100	1.07	216		5.3	
KRP	iP	21	44	15.5	UW	0.0	100	1.10	261		4.7*	4.5*
	S			36.5		−0.7	100					
GNZ	iP	21	44	16.6	NW	−0.1	100	1.24	135			
ECZ	iP	21	44	17.1	U	−0.2	100	1.30	87		5.5	5.5
	S			41		0.7	100					
NGZ	iP	21	44	21.7		0.0	100	1.75	215			
TRZ	P	21	44	22.1	U	0.0	100	1.79	182			
	S			50		1.0	99					
GBZ	iP	21	44	23.0	D	−0.5	100	1.92	323			
AUC	iP	21	44	24.6	D	1.1	99	1.93	297			
TNZ	iP	21	44	30.1	U	0.6	100	2.44	234		4.5*	4.1*
	eS		45	06		4.0						
ONE	P	21	44	34.8	E	0.3	100	2.85	313			
CAZ	iP	21	44	37.5	U	−1.1	99	3.19	189			
	S		45	18		−0.1	100					
WEL	iP	21	44	45.0	US	−2.6		3.89	205	5.3		
	S		45	31		−3.1						
COB	P	21	44	53.8	U	−3.4		4.63	223		4.5*	4.6*
	S		45	47		−4.2						
CRZ	iP	21	44	58.6	DE	−0.4		4.78	313		4.2*	
KAI	S	21	46	25		−6.7		6.36	220	4.4*		
CMZ	(P)	21	45	21		−2.8		6.67	208		4.4*	4.8*
	S		46	32.5		−6.5						
MJZ	P	21	45	37		−3.3		7.91	216		4.0*	4.4*
	S		47	00		−8.5						
CIZ	S	21	47	08.5		−0.3		7.92	143			
OMZ	P	21	45	45.5		−3.7		8.59	210		4.2*	4.0*
	S		47	16.5		−7.8						
ROX	eP	21	45	58		−4.2		9.58	214		3.9*	4.0*
	S		47	39		−8.7						
MSZ	P	21	45	58.5		−4.9		9.67	222		3.6*	4.0*
	S		47	42		−8.0						
BRZ	eP	21	46	12		−4.0		10.64	218	3.6*	3.6*	3.7*
	S		48	06.5		−6.1						

AMPLITUDES:

TUA		17	24	WNZ		2.9		KRP		45	36
ECZ		27	28	TNZ		3.9	2.2	WEL	5.3		
COB		4.0	17	CRZ		1.7		KAI	1.6		
CMZ		3.2	12	MJZ		2.2	7.0	CIZ		1.1	2.1
OMZ		1.2	1.6	ROX		0.5	1.5	MSZ		0.7	2.9
BRZ	0.3	0.3	0.8								

79/ 519

SEP 01 $22^h32^m22^s.4$ 40°.91S 172°.74E 4 km M = 3.7

± 0.6 0.02 0.03 3 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	iPg	22	32	24.8	D	−1.2	100	0.18	181			
	Sg			28.5		0.0	100					
TCW	iP*	22	32	44.1	D	−0.7	100	1.20	105			
	e			44.5								
WEL	P*	22	32	51.5		0.2	100	1.57	104	3.6		
	(Pg)			55		0.7						
	Sg		33	15		−0.6	100					
KKY	P*	22	32	52.8	D	−0.0	100	1.67	155			
	Sg		33	18.5		−0.1	100					
KAI	P*	22	32	58		1.2	99	1.90	211	4.0		
	(Sn)		33	19		−0.1						
	Sg			28		1.6	99					
MNG	P*	22	32	59.5		−0.7	100	2.11	83		3.7	3.9
	S*		33	30		1.8	99					
TNZ	(P*)	22	33	00.5		−0.2		2.13	37		3.4	3.8
	(Pg)			03		−2.5						
	Sg			34		−0.2	100					
CMZ	(P*)	22	33	11		1.0		2.67	182		3.7	3.3
	(Sn)			39		1.2						
	e(S*)			49		3.6						
NGZ	Pn	22	33	07.5		0.3	100	2.80	53			
	e(P*)			14		1.8						
	S*			49		−0.1						
MJZ	Pn	22	33	15.5		−1.3	99	3.51	208		3.8	3.7
	Sn			57		−0.7	100					
	S*		34	12		1.7						
KRP	Pn	22	33	18.5		−0.8		3.69	37		3.6	3.4
	(Pg)			34		−2.9						
	e		34	10.5								
	S*			16		0.3						
RHP	Pn	22	33	18.8		−1.3		3.74	211			
	Sn		34	03		−0.5						
GNZ	Sn	22	34	29		3.6		4.66	63			
MSZ	Pn	22	33	36		−3.5		5.17	222		3.7	3.6
	Sn		34	32.5		−5.2						
	(S*)		35	06		5.8						
BRZ	Sn	22	35	00		−1.8		6.17	216		3.7*	

AMPLITUDES: COB 52 75 WEL 0.7 KAI 1.2
MNG 2.1 4.1 TNZ 0.2 0.6 CMZ 0.5 0.3
MJZ 0.8 0.8 KRP 0.4 0.3 MSZ 0.3 0.4
BRZ 0.1

FELT: Bainham (72)

79/ 520

SEP 02 $08^h39^m28^s.9$ 38°.67S 176°.49E 12 km M = 3.0

± 0.1 0.01 0.01 R S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	iPg	08	39	34.8	D	−0.6	99	0.31	277			
	(Sg)			37		−2.7						
	e			40								
WTZ	eS*	08	39	53.5		−0.7	99	0.79	30			2.6
	Sg			56		0.3	100					

NGZ	Pg	08 39 46.5		0.2	100	0.85	233				
	(S*)	56		−0.2							
CNZ	Pg	08 39 47.5		0.2	100	0.91	234				
TRZ	e	08 39 54.5				0.93	164				2.7
	e(S*)	58		−0.2	100						
	e	40 17									
KRP	Pg	08 39 50.5		0.2	100	1.05	314			3.1	2.8
	eSg	40 04.5		−0.0	100						
GNZ	(S*)	08 40 07		0.4	100	1.21	89				2.7
	(Sg)	10		0.4							
TNZ	eP*	08 40 00		0.5	99	1.73	252			3.4	
MNG	eP*	08 40 07		1.1		2.10	201			3.5	
	Pg	11		−0.4	100						

AMPLITUDES: WNZ 3.0 20 WTZ 0.6 TRZ 0.3
KRP 0.8 0.3 GNZ 0.4 TNZ 0.1
MNG 1.3

FELT: Taupo (41) MM IV

79/ 521

SEP 02 $09^h47^m10^s.1$ 39°.80S 177°.44E 12 km M = 3.9
± 0.7 0.03 0.05 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	iP*	09	47	19.3	D	−1.1	100	0.54	297		4.1	4.2
	Sg			28		−0.6	100					
TUA	P*	09	47	28.5		−0.1	100	1.02	347		4.1	4.1
	i			34.5								
	S*			42.5		0.3	100					
GNZ	P*	09	47	32.5		0.1	100	1.24	22		3.9	3.9
	e			41								
	e(Sg)			55		3.0						
	e		48	08								
GSZ	P*	09	47	37.8		0.5	100	1.53	289			
	eSn			56		−0.1	100					
NGZ	Pn	09	47	37		0.3	100	1.54	293			
CNZ	Pn	09	47	37.2		0.0	100	1.58	292			
	P*			38.5		0.2	100					
	Sn			58.5		1.0	100					
MNG	Pn	09	47	37.5		−1.4	100	1.71	241		3.8	3.8
	Pg			46		1.3						
	(S*)		48	01		−2.0						
	Sg			10.5		2.7	96					
WTZ	ePn	09	47	42.5		1.7		1.84	349		3.8	3.7
	P*			44.5		1.7	99					
	(Pg)			49		1.5						
	eSg		48	18		5.6						
KRP	P*	09	47	53		0.9	100	2.39	321		3.9	3.9
	S*		48	22		−1.4	100					
TNZ	P*	09	47	53		−0.0	100	2.45	284		4.0	3.7
	e(Pg)			55.5		−4.1						
	eSg		48	33		0.4						
WEL	Sn	09	48	18		−2.0	99	2.52	233	3.7		
	e(Sg)			39		3.9						
COB	eP*	09	48	16		−0.4		3.82	249		3.9	3.5
	ePg			26		−1.2						
	Sn			51		−0.2						
	(S*)		49	11.5		5.3						
CMZ	Sn	09	49	21		−3.9		5.22	222			3.8

KAI								5.31	237	3.8			
CIZ	Sn	09	49	50		3.8		6.11	135				
MJZ	Sn	09	49	57		−3.0		6.68	229				4.0

AMPLITUDES:

TRZ	16	33	TUA	3.8	4.3	GNZ	4.5	7.3
MNG	4.0	4.9	WTZ	1.7	1.4	KRP	0.8	0.7
TNZ	0.5	0.4	WEL	0.3		COB	0.3	0.5
CMZ		0.3	KAI	0.1		CIZ		0.3
MJZ		0.4						

79/ 522

SEP 03 $07^h17^m09^s.0$ 41°.38S 174°.36E 83 km M = 5.1

± 0.6 0.04 0.07 8 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	iP	07	17	19.4		−2.0	99	0.18	339			
WEL	iP	07	17	22.8	USE	0.7	100	0.32	73			
	S			31		−1.1	100					
BHW	iP	07	17	23.7	U	1.1	100	0.39	94			
KIW	iP	07	17	25.5	U	0.6	100	0.67	39			
MNG	iP	07	17	31.9	U	1.6	100	1.14	49			
KKY	iP	07	17	32.2	D	1.7	100	1.15	205			
	e			34.5								
COB	iP	07	17	30.3	U	−1.5	100	1.26	283			
TNZ	iP	07	17	45.6		1.4	100	2.20	0		4.8*	5.1*
	(S)		18	12		1.8	100					
GSZ	iP	07	17	47.1		1.4	100	2.30	24			
	e			56								
KAI	P	07	17	49.5		1.2	100	2.48	242	5.0*		
	S		18	16.5		−1.1	100					
CMZ	P	07	17	48.8	U	−0.4	100	2.55	209		4.7*	4.6*
TRZ	e(P)	07	17	50.5		0.3		2.62	47		5.1	5.1
	e		18	00								
	e			37.5								
TUA	e(P)	07	18	00		−0.4		3.35	41		5.2	5.2
	i			11								
	e			20.5								
	e			56								
KRP	iP	07	18	03.2	UN	−0.3	100	3.57	15		4.7*	4.8*
	S			43		−1.7	100					
MJZ	P	07	18	07		−0.7	100	3.88	226		4.6*	4.8*
	e			17								
	e			40								
	S			49.5		−2.8						
	e			56.5								
GNZ	P	07	18	07		−1.3	100	3.92	47		5.0	5.0
	e			21								
	S			51		−2.4	99					
WTZ	P	07	18	07		−1.7		3.95	32		5.2	
	e			15								
OMZ								4.47	213		4.1*	4.2*
AUC	iP	07	18	17.1	D	0.5		4.53	4			
	e			50.5								
ECZ	eP	07	18	22		0.1		4.90	43			
	e			32								
	(S)		19	14.5		−3.3						
GBZ	P	07	18	25.5		−0.9		5.23	10			
ROX								5.50	220		4.3*	4.3*
ONE								5.60	0	4.4*		
MSZ								5.76	233		4.2*	4.7*

BRZ	6.62	226	
CRZ	7.06	349	4.5* 3.9*
CIZ	7.17	114	

AMPLITUDES:

TNZ		10	32	KAI	20			CMZ		15	20
TRZ		4.8	11	TUA		5.0	4.1	KRP		22	31
MJZ		18	35	GNZ		5.5	9.0	WTZ		7.0	
OMZ		2.0	4.5	GBZ		3.2	3.8	ROX		2.2	5.7
ONE	2.6			MSZ		4.8	24	BRZ	2.1	0.7	2.5
CRZ		2.3	0.7	CIZ		2.5	9.0				

FELT: Extensively around the Cook Strait area, maximum intensity MM V

79/ 523

SEP 04 $06^h22^m22^s.4$ 39°.58S 173°.44E 12 km M = 3.8

± 0.7 0.03 0.06 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P*	06	22	38		0.3	100	0.83	62		3.3	3.8
	(Pg)			40.5		1.2						
	S*			50		1.1	100					
COB	Pn	06	22	49		−0.7	100	1.60	199		4.0	3.7
	P*			50.5		−0.4						
	e(Sn)		23	10		−0.2						
	S*			12		−0.0	100					
CNZ	iPn	06	22	50.7		−0.1	100	1.67	78			
	Sn		23	11		−1.1	100					
MNG	Pn	06	22	52.0	U	−1.5	99	1.88	124		4.3	4.6
	i			53.5								
	(Pg)		23	00		−0.4						
	Sn			15.5		−1.4	99					
WEL	ePn	06	22	56		1.0	100	1.98	150	4.1		
	Sn		23	21		1.5	99					
KRP	Pn	06	23	00		0.3	100	2.33	45		3.6	3.8
	Pg			10		0.5						
	e			22								
	Sn			27.5		−0.2	100					
	(S*)			33		−0.9						
KAI								3.32	207	3.9		
CMZ	(S*)	06	24	18		−7.5		4.05	188			3.2
MJZ	e(Pn)	06	23	40		4.7		4.93	206			3.6
	eSn		24	34		3.6						

AMPLITUDES:

TNZ		1.0	4.0	COB		2.3	4.5	MNG		9.5	25
WEL	1.3			KRP		1.0	1.9	KAI	0.3		
CMZ			0.1	MJZ			0.3				

FELT: Stratford Mountain House (47)

79/ 524

SEP 04 $10^h11^m22^s.1$ 51°.73S 163°.24E 12 km M = 4.4

± 1.9 0.19 0.48 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	10	12	48		1.4	99	5.79	35		4.9	4.2
	Sn		13	50		−0.6	100					
BRZ	Pn	10	12	56.5		−1.2	99	6.61	27		4.3*	3.9*
	Sn		14	10		−0.1	100					
ROX	e(Pn)	10	13	13		3.8		7.44	35		4.5	4.1
	(P*)			27		−3.3						
	e(Sn)		14	36		5.6						

MSZ	Pn	10	13	13		−0.1	100	7.73	26		4.6	4.1
	eSn		14	38		0.8	100					
OMZ	e(Pn)	10	13	24		1.8		8.40	40		4.4	
RHP	e(Pn)	10	13	31		1.8		8.91	34			
CMZ	e(Pn)	10	13	54		5.5		10.32	42		4.5	

AMPLITUDES: OBZ 2.0 0.9 BRZ 0.3 0.3 ROX 0.3 0.3
MSZ 1.0 0.6 OMZ 0.2 CMZ 0.2

79/ 525

SEP 04 $22^h00^m47^s.4$ 40°.13S 174°.99E 12 km M = 3.3

± 0.3 0.01 0.03 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iP*	22	00	59.9	U	0.7	100	0.62	143		3.2	3.2
	S*		01	08		0.3	100					
GSZ	P*	22	01	05		−0.0	100	0.96	29			
	S*			18.5		0.5	100					
	Sg			20.5		0.4						
CNZ	iP*	22	01	06.0		0.0	100	1.02	25			
	Sg			22		0.1	100					
TNZ	P*	22	01	07.5		1.1	100	1.04	333		3.0	3.2
	S*			22		1.6	99					
NGZ	P*	22	01	06.5		−0.1	100	1.06	27			
	Sg			22		−1.2	99					
WEL	S*	22	01	24		−0.1	100	1.17	188	3.2		
COB	P*	22	01	21.5		−0.6	100	1.97	240		3.7	3.1
	S*			47		−1.0	100					
KRP	P*	22	01	27		0.2	100	2.24	11		3.7	3.9
	Pg			31		−1.7						
	S*			54.5		−1.7	98					

AMPLITUDES: MNG 7.0 8.5 TNZ 0.3 0.6 WEL 0.5 0.6
COB 0.7 0.7 KRP 0.5 0.6

79/ 526

SEP 06 $16^h36^m18^s.9$ 31°.81S 178°.86W 469 km M = 4.5

± 2.0 0.22 0.50 20 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eS	16	39	16.5		1.2	100	6.25	199			
WTZ	P	16	38	05		−0.7	100	7.05	208		4.7	4.4
	e		39	24								
	e(S)			28		−2.3	98					
GNZ	e(P)	16	38	09.5		1.3		7.28	200		4.2	4.5
	S		39	34.5		−0.3	100					
KRP	eP	16	38	13		0.9	100	7.65	215		3.2*	
MNG	P	16	38	36		−0.6	100	9.91	206		4.5	4.6
	S		40	25		−1.2	100					
WEL	S	16	40	42.5		−0.5		10.76	207	4.5		
COB	P	16	38	53		−0.4	100	11.47	214		3.3*	3.0*
	S		40	58		0.9	100					
CMZ	eS	16	41	39		1.6		13.54	207			3.0*
MJZ	e(S)	16	42	11		10.0		14.79	212			3.2*

AMPLITUDES: WTZ 0.6 0.3 GNZ 0.2 0.6 KRP 0.3
MNG 0.6 1.0 WEL 0.1 COB 0.1 0.2
CMZ 0.1 MJZ 0.2

79/ 527

SEP 07 $05^h31^m32^s.4$ 37°.11S 177°.22E 192 km M = 4.9

± 0.6 0.03 0.04 5 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	05	31	59.9	D	−0.8	100	0.89	192		4.6	4.7
	S		32	21		−1.6	97					
ECZ	P	05	32	03.0	U	−0.0	100	1.21	119		4.4	4.8
	S			28		1.3	99					
KRP	iP	05	32	06.8	DNE	0.6	100	1.57	238		4.2*	3.7*
	S			33		0.7	100					
GBZ	iP	05	32	06.7	D	−0.4	100	1.66	302			
	S			34		0.1	100					
GNZ	iP	05	32	07.0	UNW	−0.1	100	1.66	158			
	(S)			30		−3.9						
TUA	P	05	32	07		−0.5	100	1.70	182		4.4	4.8
	e			27								
	(S)			33		−1.6						
	e			47								
AUC	P	05	32	11.0		0.7	100	1.97	276			
NGZ	P	05	32	15.5		0.1	100	2.43	211			
	e(S)			48		−0.6						
TRZ	P	05	32	15.3	U	−0.4	100	2.47	187		5.1	5.5
	S			50		0.8	100					
CNZ	P	05	32	16		0.2		2.47	212			
	(S)			53		3.6						
ONE	P	05	32	18		−0.1	100	2.66	299			
TNZ	P	05	32	23.5		0.7		3.05	226		3.7*	3.5*
	e(S)		33	05		3.3						
MNG	iP	05	32	29.0	U	−2.5		3.76	201		5.2	5.4
	S		33	13		−4.2						
CAZ	iP	05	32	31.0	U	−1.9		3.87	191			
	S		33	17.5		−2.2						
CRZ	P	05	32	41.5		−0.2		4.55	305		3.3*	
WEL	P	05	32	38.5		−3.6		4.59	204	5.1		
	S		33	30		−5.9						
COB	P	05	32	47		−4.1		5.29	220		4.1*	4.2*
	S		33	48		−4.1						
KAI								7.02	218	4.3*		
CMZ								7.36	207		4.0*	4.5*
MJZ	P	05	33	29.5		−4.6		8.59	215		3.7*	4.1*
	S		35	00		−9.3						
OMZ								9.27	209		3.9*	3.7*
MSZ								10.33	220		3.7*	3.7*
BRZ								11.30	217	3.6*	3.5*	3.4*

AMPLITUDES:											
WTZ	9.5	15	ECZ	2.5	6.3	KRP	13	4.0			
GBZ	17	3.0	TUA	1.6	3.8	TRZ	4.2	27			
TNZ	0.5	0.5	MNG	20	43	CRZ	0.2				
WEL	2.4	2.1	COB	1.4	6.3	KAI	1.2				
CMZ	1.0	6.0	MJZ	1.0	3.0	OMZ	0.5	0.7			
MSZ	0.8	1.4	BRZ	0.3	0.2	0.4					

79/ 528

SEP 07 $14^h05^m39^s.1$ 38°.18S 176°.07E 172 km M = 3.7

± 1.0 0.04 0.06 7 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	14	06	03.6	D	0.5	100	0.49	301		3.0*	2.2*

	S			22		0.5	100					
WTZ	P	14	06	04.0	D	−0.4	100	0.76	75		3.2	3.4
	e			20								
	S			23		−1.0	100					
TUA								1.05	127		3.6	3.8
TRZ	P	14	06	12		1.4	99	1.49	157		4.0	3.6
	S			37		2.1	98					
GNZ	P	14	06	12		0.3	100	1.60	107		3.7	3.8
	S			36		−0.9	100					
GBZ	(P)	14	06	16		−0.1	100	2.02	346			
ECZ	P	14	06	16.5		0.3	100	2.02	77			
MNG	iP	14	06	21.0	U	−0.5	100	2.47	190		4.3	3.7
	S			52.5		−1.7	99					
CAZ	P	14	06	24.5		−0.1		2.73	177			
WEL	S	14	07	10.5		−0.8		3.26	197	3.5		
COB	eS	14	07	25		−0.5		3.88	221			2.6*

AMPLITUDES:

KRP	1.1	0.2	WTZ	0.6	1.0	TUA	0.5	0.7
TRZ	0.7	0.7	GNZ	0.9	1.8	GBZ	0.2	
MNG	5.2	1.8	WEL	0.1		COB		0.2

79/ 529

SEP 07 $16^h01^m02^s.6$ 37°.75S 176°.62E 12 km M = 2.9

± 0.4 0.03 0.03 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iPg	16	01	09.6	U	−0.9	100	0.38	129		2.9	3.1
	i			11.7								
	(Sg)			15		−0.7	100					
KRP	Pg	16	01	20		−0.4	100	0.87	258		2.6	2.8
	Sg			32.5		0.2	100					
GNZ	Pg	16	01	31.5		0.1	100	1.42	129		3.3	2.7
	eSg			51.5		0.9	100					
GBZ	P*	16	01	36		1.8	99	1.78	329			
	Pg			39		0.3						
	Sg		02	01.5		−1.2	100					
MNG	e(Sg)	16	02	42		−1.7		3.00	197			3.2

AMPLITUDES:

WTZ	4.0	6.0	KRP	0.4	0.6	GNZ	0.6	0.2
GBZ	0.1	0.1	MNG		0.2			

79/ 530

SEP 07 $16^h30^m47^s.4$ 37°.77S 176°.62E 12 km M = 3.6

± 0.5 0.03 0.03 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iPg	16	30	54.4	U	−0.7	100	0.37	126		3.4	3.5
KRP	Pg	16	31	05		−0.1	100	0.86	259		3.3	3.6
	Sg			17.5		0.6	100					
WNZ								0.95	205		3.9	3.7
GNZ	Pg	16	31	15		−1.0	100	1.41	129		4.1	3.6
	Sg			36.5		1.4	100					
ECZ	ePg	16	31	18.5		0.0	100	1.53	88			
CNZ	Pg	16	31	23		2.0	99	1.66	210			
TRZ	Pg	16	31	22.5		−1.1	100	1.79	175		3.4	3.1
	e			57								
GBZ	P*	16	31	21		1.8	99	1.80	329			
	Pg			24		0.2						
	Sg			47		−1.0	100					
TNZ	ePg	16	31	31		−2.0	99	2.26	230		3.7	
ONE	ePg	16	31	45		3.2		2.69	317			

MNG	e(Pg)	16	31	43.5	−4.2	2.98	197		3.2		
WEL	e(Sn)	16	32	31	3.0	3.80	202	3.9			
COB	e(Pn)	16	31	58	4.0	4.48	221		3.8		

AMPLITUDES:

WTZ	16	17	KRP	1.8	3.7	WNZ	0.4	0.3
GNZ	3.5	1.6	TRZ	0.2	0.1	GBZ	0.7	0.7
TNZ	0.1		MNG	0.2		WEL	0.1	
COB	0.1							

FELT: Cloverly (27)

79/ 531

SEP 08 $07^h08^m00^s.6$ 32°.53s 178°.19w 33 km M = 5.0

± 1.6 0.07 0.10 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	07	09	24.5		1.1	100	5.80	207		5.2	5.1
	Sn		10	28		1.9	99					
WIZ	Pn	07	09	28		−1.7	100	6.26	216			
	e(Sn)		10	38		0.8						
WTZ	ePn	07	09	32		−3.9		6.72	215		5.0	4.9
	Sn		10	45		−3.1	97					
GNZ	(Pn)	07	09	38		0.5	100	6.84	206		5.1	5.3
	Sn		10	51.5		0.6	100					
ONE	Pn	07	09	40		0.6	100	6.97	240	5.4		
	eSn		10	56		1.8	99					
TUA								7.33	210		5.2	5.3
KRP	Pn	07	09	45		−0.7	100	7.44	222		5.2	5.2
	e(P*)		10	06		−2.5						
	(Sn)		11	06		0.6						
CRZ	Pn	07	09	51		−0.5	100	7.87	254		5.4	5.1
	eSn		11	15.5		−0.1	100					
TRZ	Sn	07	11	21		−0.0	100	8.09	209		4.7	5.2
NGZ	ePn	07	10	01		3.1		8.33	215			
	Sn		11	26		−0.8	100					
MNG	ePn	07	10	11		−3.4		9.55	210		4.5	5.1
	eSn		11	49		−6.9						
WEL	Sn	07	12	08		−8.5		10.40	211	4.9		
COB	Sn	07	12	29		−7.2		11.22	218		4.3	4.6
CIZ	Sn	07	12	42		−0.6		11.48	174			
CMZ								13.19	211			4.7
MJZ	Sn	07	13	42		−12.8		14.49	215			4.8
MSZ								16.25	218		4.7	4.5

AMPLITUDES:

ECZ	0.9	1.0	WTZ	2.1	1.8	GNZ	2.2	5.7
ONE	0.2		TUA	1.0	1.3	KRP	0.7	0.5
CRZ	0.3	0.1	TRZ	0.3	1.4	MNG	0.6	3.0
WEL	0.3		COB	0.1	0.7	CIZ	0.2	0.5
CMZ		0.3	MJZ		0.5	MSZ	0.3	0.3

79/ 532

SEP 09 $05^h52^m29^s.4$ 34°.67s 178°.46w 33 km M = 4.6

± 1.7 0.09 0.18 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	05	53	27.5		1.7	99	3.87	218		4.6	4.5
	(Sn)		54	15.5		7.1						
GNZ	Pn	05	53	40		0.5	100	4.88	214		4.7	4.8
	Sn		54	33.5		1.0	100					
WTZ	Pn	05	53	40		−0.5	100	4.95	227		4.6	4.6
	Sn		54	35		0.8	100					

KRP	Pn	05	53	53		0.4	100	5.84	234		4.8	
	(Sn)		54	56		0.3						
WNZ								5.89	226		4.8	
TRZ								6.16	216		4.6	4.8
NGZ	Pn	05	54	03		0.7	100	6.55	225			
	Sn		55	13		0.3	100					
TNZ								7.30	230		4.9	
CRZ	Pn	05	54	12.5		−0.3	100	7.32	269		5.0	
	e			24								
MNG	Pn	05	54	15		−2.3	99	7.64	217		4.2	4.4
	P*			46		5.2						
	Sn		55	36.5		−2.5	98					
WEL	Sn	05	55	56		−3.6		8.50	217	4.5		
CIZ	e(Pn)	05	54	45		3.8		9.40	172			
	Sn		56	22		0.9						
COB	Sn	05	56	18		−4.8		9.47	225			3.9
CMZ								11.27	215			4.5
MJZ	Sn	05	57	31.5		−7.8		12.64	219			4.4

AMPLITUDES:											
	ECZ		0.5	0.6	GNZ		1.9	3.1	WTZ	1.5	1.6
	KRP		0.5		WNZ		0.1		TRZ	0.4	0.9
	TNZ		0.1		CRZ		0.2		MNG	0.5	0.9
	WEL	0.2			CIZ		0.4	0.6	COB		0.2
	CMZ			0.3	MJZ			0.3			

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SEP 09 $15^h 14^m 20^s.8$ 38°.22S 176°.17E 162 km M = 4.3

± 0.8 0.03 0.05 6 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	eP?	15	14	44		0.7		0.41	188		3.6	4.1
	e			45.5								
	S		15	00.5		−0.1	100					
KRP	iP	15	14	44.0	SE	−0.1	100	0.58	301		4.2*	3.2*
	S		15	01.5		−0.6	100					
WTZ	iP	15	14	43.6	D	−1.1	100	0.68	70		4.3	4.1
	S		15	01		−2.1	99					
TUA	iP	15	14	47.5	D	1.0	100	0.96	128		4.4	4.7
	S		15	07		0.6	100					
NGZ	P	15	14	47.8		0.5	100	1.05	204			
	S		15	10.5		2.8	97					
TRZ	eS-P			21.5		−1.6		1.42	159		3.1	3.5
GNZ	iP	15	14	52.0	D	0.3	100	1.51	107		4.6	4.9
	e		15	09								
	S			14		−1.5	100					
TNZ	P	15	14	55		1.3	100	1.70	235		3.1*	3.1*
	e(S)		15	22		3.0						
ECZ	iP	15	14	56.7	D	0.3	100	1.95	75		4.9	4.5
	S		15	26		2.1	99					
MNG	iP	15	15	01.4	U	−1.0	100	2.46	192		4.6	4.6
	S			32.5		−1.9	99					
CAZ	iP	15	15	05.0	U	−0.2	100	2.68	179			
	S			39		−0.3	100					
ONE	e(P)	15	15	14.5		7.2		2.84	329	3.0*		
	S			42.5		−0.5	100					
WEL	P	15	15	11		−1.5		3.25	199	4.4		
	S			49		−3.1						
COB	eP	15	15	18		−3.0		3.91	222		3.3*	3.5*
	S		16	04		−3.2						
KAI								5.63	219	3.7*		

CMZ	S	15	16	50.5	−5.8	5.99	205			4.0*
MJZ	e(P)	15	16	02	−2.4	7.20	215		2.7*	3.6*
	S		17	17.5	−7.6					
OMZ						7.89	208			3.3*
CIZ	eP	15	16	16.5	2.3	7.93	139			
	S		17	41	−1.7					
MSZ						8.95	221			3.0*

AMPLITUDES:										
WNZ		0.1	0.3	KRP		19	2.0	WTZ	7.7	6.1
TUA		3.8	6.5	TRZ		0.1	0.6	GNZ	8.0	27
TNZ		0.2	0.3	ECZ		4.8	2.0	MNG	12	15
ONE	0.2			WEL	0.9			COB	0.3	1.9
KAI	0.4			CMZ			2.0	MJZ	0.1	1.0
OMZ			0.3	CIZ		0.2	0.3	MSZ		0.3

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SEP 10 $07^h33^m44^s.8$ 35°.22S 178°.87W 12 km M = 4.0

± 2.5 0.10 0.24 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	ePn	07	34	35		0.6	100	3.23	219			
	e(S*)		35	19		−4.2						
GNZ	Pn	07	34	48		0.0	100	4.23	215		3.8	4.1
	Sn		35	37		1.3	100					
WTZ	Pn	07	34	48		−1.3	100	4.33	229		3.9	4.0
	e(Sn)		35	38		−0.1	100					
GBZ	e(Pn)	07	34	58.5		4.0	95	4.71	256			
KRP	e(Pn)	07	35	00.5		−1.4	100	5.25	237		4.4	
ONE	e(P*)	07	35	15.5		−5.2		5.55	262			
CRZ	ePn	07	35	24		−1.8	100	6.99	274		4.6	
MNG	e(Pn)	07	35	26		0.2	100	7.00	218		3.7	3.9
	Sn		36	41		−1.3	100					
WEL	Sn	07	36	58.5		−4.4		7.86	218	4.2		
COB	Sn	07	37	21		−5.4		8.84	226			3.6
MJZ	Sn	07	38	36		−6.7		12.01	220			

AMPLITUDES:										
GNZ		0.3	0.9	WTZ		0.4	0.5	GBZ	0.1	
KRP		0.3		CRZ		0.1		MNG	0.2	0.4
WEL	0.1			COB			0.1			

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SEP 10 $08^h12^m49^s.3$ 36°.94S 176°.83E 239 km M = 3.7

± 1.5 0.09 0.11 10 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	08	13	24	D	0.4	100	1.04	173		3.1	2.7
	S			50		−0.3	100					
GNZ	P	08	13	31.0	D	0.4	100	1.94	151		4.2	4.1
	S		14	02		−0.6	100					
TRZ	S	08	14	16		1.6	98	2.61	180			3.8
MNG	P	08	13	50.5		−0.5	100	3.82	196		4.2	3.8
	S		14	38		−0.9	100					
COB	S	08	15	10		0.3	100	5.23	216			2.4*
MJZ	S	08	16	24		−1.2		8.55	213			
	e		17	06								

AMPLITUDES:										
WTZ		0.2	0.1	GNZ		1.7	2.2	TRZ		0.4
MNG		1.7	0.9	COB			0.1			

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SEP 10 $14^h18^m30^s.3$ 35°.17S 178°.64W 12 km M = 4.4

± 2.0 0.08 0.20 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	Pn	14	19	25		2.9	98	3.39	221		4.2	4.1
	(Sn)		20	06		4.8						
GNZ	Pn	14	19	36		0.4	100	4.38	217		4.6	4.3
	Sn		20	27		2.0	99					
WTZ	Pn	14	19	36.5		−0.8	100	4.51	230		4.3	4.2
	eSn		20	28		0.1	100					
	(S*)			52		5.0						
GBZ	Pn	14	19	41		−1.7	100	4.90	256			
KRP	Pn	14	19	49		−1.0	100	5.44	238		4.7	4.8
	P*		20	01		−3.2						
	(S*)		21	18		3.0						
ONE	Pn	14	19	55		0.8	100	5.75	262			
	(Pg)		20	26		−0.4						
NGZ	eP*	14	20	13		−2.4		6.09	227			
CNZ	ePn	14	19	59		−0.6	100	6.15	227			
	e(P*)		20	20		3.7						
TNZ								6.87	232		4.8	
MNG	ePn	14	20	12		−1.5	100	7.15	219		4.0	4.4
	P*			38		4.4						
	Sn		21	30		−1.7	100					
	e		22	20								
CRZ	Pn	14	20	15		1.1	100	7.18	273		4.9	
	e			24								
WEL	Sn	14	21	48		−4.3		8.02	218	4.2		
	(S*)		22	35		2.8						
COB	Sn	14	22	12		−4.1		9.01	226			3.6
MJZ	Sn	14	23	26		−6.1		12.17	220			4.4

AMPLITUDES:

ECZ	0.3	0.3	GNZ	1.6	1.5	WTZ	1.0	0.7
GBZ	0.9		KRP	0.6	0.5	TNZ	0.1	
MNG	0.4	1.2	CRZ	0.2		WEL	0.1	
COB		0.1	MJZ	0.3				

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SEP 11 $07^h46^m10^s.0$ 31°.84S 178°.80W 334 km M = 5.1

± 2.4 0.18 0.29 115 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	07	47	44.5		0.8	100	6.24	200		4.9	5.3
	e			51								
	eS		48	58		0.7						
GBZ	eP	07	47	48		1.8	99	6.45	226			
WTZ	P	07	47	51.5		−1.7	99	7.04	208		5.3	5.1
	e		48	07								
	S		49	13		−1.3	100					
GNZ	P	07	47	55		−1.0	100	7.27	200		5.1	5.3
	S		49	19		−0.2	100					
CRZ	P	07	47	59		−0.9	100	7.60	248		3.2*	
KRP	P	07	48	02		1.4	100	7.65	216		3.5*	
	e			26								
TUA	S	07	49	30		1.4	100	7.70	204			5.0
TNZ	P	07	48	23.5		4.3		9.20	215			3.6*
MNG	P	07	48	28		0.2		9.91	206		5.0	5.2
	S		50	15		−1.4						

WEL	S	07	50	34		−1.0		10.75	207	5.0	
COB	S	07	50	50		−0.6		11.47	214		3.6*
CMZ								13.54	208		3.7*
MJZ	S	07	52	02.5		0.6		14.79	212		3.5*

AMPLITUDES:

ECZ		0.6	1.4	GBZ	0.4		WTZ	2.3	1.9
GNZ		1.7	4.0	CRZ	0.1		KRP	0.6	
TUA			0.5	TNZ		0.2	MNG	2.0	3.7
WEL	0.3			COB		0.7	CMZ		0.5
MJZ			0.4						

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SEP 11 $12^h30^m45^s.5$ 40°.43S 173°.71E 117 km M = 3.7

± 0.4 0.01 0.01 4 S.E. of RES. 0.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	iP	12	31	07.6	U	0.3	100	0.99	228		3.8*	3.6*
	S			24		0.0	100					
WEL	P	12	31	09.5		0.2	100	1.17	137	3.5		
	S			27		−0.4	99					
TNZ	P	12	31	11		−0.3	100	1.34	23		2.9*	3.3*
	S			31		0.1	100					
MNG	iP	12	31	11.1	D	−0.4	99	1.37	99		3.6	3.9
	e			30								
	S			31.5		0.2	100					
CNZ	P	12	31	17.0		−0.7		1.87	50			
	S			43.5		1.7						
	e			49.5								
NGZ	P	12	31	18.5		0.2		1.93	50			
	S			44		1.1						
CAZ	S	12	31	44		0.1	100	1.97	105			
KAI								2.72	219	2.8*		
KRP	P	12	31	28.5		−2.5		2.88	30		2.6*	2.7*
	e			38								
	(S)		32	01		−4.3						
CMZ	e(P)	12	31	33.5		−2.6		3.26	194		2.9*	3.6*
	S		32	08.5		−5.9						
WTZ	e(P)	12	31	36.5		−3.3		3.53	47		3.3	3.5
	S		32	17		−4.0						
GNZ	S	12	32	23		−4.1		3.78	63		4.0	4.2
MJZ	P	12	31	49		−1.1		4.29	213		2.9*	3.1*
	S		32	33		−6.5						

AMPLITUDES:

COB		3.0	6.8	WEL	0.6		TNZ	0.2	0.6
MNG		3.3	9.1	KAI	0.1		KRP	0.2	0.3
CMZ		0.2	1.6	WTZ		0.1 0.2	GNZ	0.6	1.4
MJZ		0.3	0.6						

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SEP 11 $20^h39^m45^s.5$ 46°.17S 166°.35E 12 km M = 3.9

± 1.1 0.03 0.07 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P*	20	40	12		1.0	100	1.42	122		4.3	4.1
	i(Pg)			17.5		3.1						
	iS*			30		0.1	100					
MSZ	ePn	20	40	17		0.6	100	1.86	37		4.0	4.0
	(P*)			21		2.6						
	Pg			24.5		1.4						
	S*			44.5		1.6	99					
ROX	P*	20	40	24		−0.0	100	2.19	73		4.3	4.0

	(Pg)		27		−2.8						
	eS*		52.5		−0.3	100					
	Sg		59.5		0.2	100					
OMZ	eP*	20 40	44		−0.4	100	3.38	73		3.8	3.7
	ePg		52		−2.0						
	eS*	41	23		−5.7						
	e(Sg)		39		−0.6						
MJZ	eP*	20 40	46		−2.8	91	3.64	55		4.1	4.1
	Pg		59		−0.1	100					
	e(Sn)	41	26		3.6						
	Sg		48		−0.2	100					
CMZ	eSn	20 42	03		4.0		5.17	62			3.4
COB	e(Pn)	20 41	29		4.2		6.88	45		3.9	3.4
	e(Sn)	42	47		6.9						

AMPLITUDES:											
	OBZ	7.5	14	MSZ	4.0	8.0	ROX	2.7	3.3
	OMZ	0.3	0.5	MJZ	1.3	1.6	CMZ		0.1
	COB	0.1	0.1						

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SEP 11 $23^h07^m01^s.4$ 38°.66S 175°.87E 158 km M = 4.1

± 1.1 0.05 0.05 9 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	P	23	07	24.5		1.7		0.18	81			
NGZ	iP	23	07	25.5		1.4	100	0.56	201			
KRP	iP	23	07	25.4	D	0.0	100	0.78	340		3.6*	2.8*
	S			44		0.1	100					
WTZ	iP	23	07	27.7	U	−0.3	100	1.11	53		3.5	3.8
	S			46		−2.5	99					
	e			50								
TNZ	P	23	07	29.9	D	0.4	100	1.28	245		3.2*	3.3*
	(S)			53		1.8	99					
	e			56								
GNZ	iP	23	07	34.7	D	0.9	100	1.68	90		4.3	4.0
	S			59		0.2	100					
MNG	iP	23	07	36.6	U	−0.5	100	1.98	189		4.6	4.4
	S		08	03		−1.6	100					
ECZ	P	23	07	41		−0.2	100	2.32	66			
	S		08	14		2.3	99					
GBZ	iP	23	07	41.6	D	−1.3	100	2.46	353			
WEL	P	23	07	45		−1.6		2.75	198	4.1		
	e		08	18								
	S			19.5		−1.8						
COB	P	23	07	51		−4.2		3.42	224		3.1*	3.5*
	S		08	32.5		−3.9						
KAI								5.15	220	3.4*		
CMZ	e	23	08	42				5.50	205		3.4*	3.7*
	S		09	18		−7.1						
MJZ	S	23	09	44.5		−9.4		6.70	216			3.3*

AMPLITUDES:											
	WNZ	0.4		KRP	4.9	0.9	WTZ	1.0	2.2
	TNZ	0.3	0.6	GNZ	4.0	3.5	MNG	15	14
	GBZ	0.9		WEL	0.6	1.1	COB	0.2	2.0
	KAI	0.2		CMZ	0.4	1.1	MJZ		0.6

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SEP 12 $00^h01^m26^s.9$ 45°.19S 166°.96E 12 km M = 4.2

± 1.6 0.03 0.14 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	00	01	39.5		−0.8	100	0.72	146	3.8*	4.0*	3.8*
	S*			49.5		−0.5	100					
MSZ	P*	00	01	41		−1.7	99	0.85	53		4.2	4.2
	S*			53.5		−0.7	100					
ROX	ePn	00	01	55		−0.5	100	1.69	101		4.5	
	e(S*)		02	20		0.8						
OBZ	eP*	00	02	02		1.6	99	1.90	155		3.9	4.0
	Pg			07.5		2.2						
	S*			25		−0.4	100					
MJZ	Pn	00	02	10.5		0.1	100	2.78	66		4.6	4.4
	iPg			21		−2.1						
	Sn			45		1.9	99					
	S*			54		2.1						
OMZ	Pn	00	02	11.5		0.8	100	2.81	89		4.2	3.9
	e(S*)			50		−2.6						
	(Sg)			58		−3.4						
KAI	eSn	00	03	21		4.3		4.18	52	4.1		
	Sg			44.5		−3.2						
CMZ	e(Pn)	00	02	34		1.8		4.38	71		4.2	4.0
	e(P*)			44		1.2						
	Sn		03	23		1.5						
	e(S*)			46		6.2						
COB	ePn	00	02	52		−0.8		5.89	48		4.6	4.1
	e(P*)		03	02		−6.6						
	Sn			57		−0.8						
MNG	Pn	00	03	21		2.8		7.75	57		4.0	3.9
	e(Sn)		04	44		1.5						

AMPLITUDES:											
BRZ	10	15	20	MSZ	30	51	ROX	6.0			
OBZ		2.0	5.2	MJZ	7.5	6.0	OMZ	1.1	1.1		
KAI	0.3			CMZ	0.6	0.6	COB	0.6	0.8		
MNG		0.3	0.3								

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SEP 12 $00^h03^m49^s.1$ 45°.16S 166°.86E 12 km M = 4.3

± 1.5 0.03 0.12 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	00	04	04		0.3	100	0.78	142	3.6*	3.7*	3.7*
	S*			14		−0.3	100					
MSZ	P*	00	04	04.0	D	−1.6	99	0.90	57		4.2	4.2
	iPg			07		−0.4						
	S*			17.5		−0.2	100					
ROX	iP*	00	04	18.7	D	−1.7	99	1.77	101		4.7	4.4
	e(Sg)			45.5		−3.3						
OBZ	eP*	00	04	24.5		0.9	100	1.95	154		3.8	3.9
	e			27								
	S*			49.5		0.1	100					
	Sg			53		−2.1						
MJZ	Pn	00	04	34.5		1.2	100	2.83	67		4.9	4.8
	iPg			45		−1.4						
	iSn		05	09		2.4	98					
	Sg			19		−5.7						
OMZ	ePn	00	04	33		−0.9	100	2.88	90		4.2	4.1
	P*			35.5		−3.9						
	Sn		05	07.5		−0.1	100					
	S*			16		−1.0						
KAI	Pg	00	05	09		−5.3		4.22	53	4.4		

	S*		49	−8.2						
	eSg		06 04.5	−6.7						
CMZ	P*	00 05 03	−3.0	4.44	71	4.4	4.3			
	Pg		16	−2.8						
	Sn		39.5	−5.6						
	Sg		06 10	−8.6						
COB	Pn	00 05 16	0.6	5.92	49	4.4	4.3			
	Sn		06 19	−1.8						
MNG	Pn	00 05 46	5.0	7.79	57	4.3	4.1			
	P*		58	−5.3						
	Sn		07 10	4.2						
TNZ				8.18	46		4.2			
KRP	Pn	00 06 14.5	7.1	9.73	45	4.3				
	Sn		07 53	0.8						

AMPLITUDES:										
BRZ	5.7	6.0	12	MSZ	32	50	ROX	10	12
OBZ		1.3	4.5	MJZ	14	16	OMZ	1.0	1.6
KAI	0.6			CMZ	1.0	1.3	COB	0.4	1.2
MNG		0.6	0.5	TNZ		0.1	KRP	0.3	

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SEP 12 $03^h45^m22^s.7$ 42°.22S 172°.66E 12 km M = 5.1

± 0.5 0.04 0.06 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	iP*	03	45	36.8	D	−0.6	100	0.79	105			
	(Pg)			39		0.1						
KAI	P*	03	45	40.8		0.3	100	0.97	252			
	Pg			44.5		2.0						
COB	iP*	03	45	42.8	U	−0.5	100	1.13	3			
CMZ	Pn	03	45	44.9	D	−1.9	99	1.36	181			
WEL	Pn	03	45	53.7		0.4	100	1.84	60	5.3		
	P*			55.5		0.3						
	Sn		46	18.5		2.3	99					
MJZ	iPn	03	46	00.3	D	−0.5	100	2.38	222		5.2	5.3
	P*			04.5		−0.1						
	Sn			31		1.6	100					
	e(Sg)			42		−1.1						
MNG	iPn	03	46	03.8	U	−0.7	100	2.66	54		5.3	
	P*			10.5		1.2						
OMZ	Pn	03	46	09		−1.7	99	3.11	203		5.0	4.8
	Pg			22		−3.7						
	Sg		47	09		1.3	100					
TNZ	Pn	03	46	15		1.7		3.30	24		5.3	5.5
	P*			23		2.7						
	Pg			31.5		2.0						
	e(S*)		47	09		5.5						
	e(Sg)			19		4.9						
CNZ	Pn	03	46	21		1.8		3.73	37			
	P*			29		1.4						
	Sg		47	24		−4.6						
ROX	Pn	03	46	21		−2.5		4.05	215		5.2	4.8
	eP*			36		3.0						
	eSn		47	04		−5.4						
	e(S*)			32		6.2						
TRZ								4.13	51		4.9	5.1
MSZ	ePn	03	46	25		−1.0		4.23	233		4.9	4.9
	Sn		47	16		2.2						
	e(Sg)			40		−5.3						
WNZ								4.45	37		5.7	5.4

KRP	Pn	03 46 35.5	1.4	4.83	28		5.4	5.2
	Sn	47 33	4.8					
WTZ	ePn	03 46 40	−1.7	5.38	40		5.5	5.7
	P*	59	3.3					
	Sn	47 44	2.6					
GNZ	Pn	03 46 43	0.6	5.44	51		4.8	5.1
	Sn	47 43	0.3					
AUC	ePn	03 46 49	4.3	5.61	18			
OBZ	Sn	03 47 50	1.0	5.70	213			3.5
GBZ	ePn	03 46 57	1.6	6.39	21			
	eSn	48 10	4.4					
	Sg	49 05	7.1					
ONE	Pn	03 47 01	3.0	6.58	12	5.1		
	Sn	48 15	4.8					
CRZ	Pn	03 47 15.5	1.0	7.78	0		5.4	4.8
	Sn	48 40.5	1.4					

AMPLITUDES:									
WEL	25	18	MJZ	41	61	MNG	47		
OMZ	5.5	8.0	TNZ	6.5	12	ROX	5.2	5.2	
TRZ	2.0	4.5	MSZ	6.5	11	WNZ	1.1	0.8	
KRP	15	12	WTZ	2.7	2.5	GNZ	1.9	6.0	
OBZ		0.2	GBZ	2.7	2.0	ONE	1.8		
CRZ	1.7	0.5							

FELT: Throughout Buller and north Canterbury, maximum intensity MM IV

79/ 544

SEP 12 $09^h16^m39^s.6$ 30°.70S 177°.60W 33 km M = 4.7

± 4.0 0.17 0.64 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	e(Pn)	09	18	37		9.1		7.68	204			
	e(Sn)		20	05.5		15.5						
GBZ	Pn?	09	18	32.5		0.4	100	7.98	225			
WTZ	ePn	09	18	38		−1.7	99	8.54	210		4.6	4.2
	Sn		20	10		−0.7	100					
GNZ	ePn	09	18	42.5		0.5		8.71	203		5.2	4.9
	Sn		20	16.5		1.6	99					
KRP	Pn	09	18	49.5		1.1	100	9.18	216		5.0	
TRZ	Sn	09	20	43.5		−1.1	100	9.94	206		4.4	4.9
MNG	Pn	09	19	11		−7.5		11.38	208		4.9	4.8
	Sn		21	09		−10.2						
WEL	Sn	09	21	29.5		−10.2		12.24	208	4.6		
COB	e(Sn)	09	21	42		−15.8		13.00	214			4.2

AMPLITUDES:								
GBZ	0.3	WTZ	0.6	0.2	GNZ	1.6	1.3	
KRP	0.3	TRZ	0.1	0.5	MNG	1.1	1.0	
WEL	0.1	COB		0.2				

79/ 545

SEP 13 $04^h53^m44^s.7$ 39°.29S 178°.50E 12 km M = 4.2

± 1.1 0.05 0.09 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iPg	04	54	01.3	USW	1.4	100	0.75	330		4.4	
	e(Sg)			12		1.9						
TUA	iP*	04	54	03.5		−2.1	99	1.16	294			
TRZ	P*	04	54	09.5		1.0	100	1.32	258		4.6	4.7
	Sg			30		0.4	100					
ECZ	Pg	04	54	16		−1.0	100	1.59	1			

	e		23								
	eSg		36.5		−2.0						
WTZ	iPn	04 54	13.5	U	−0.7	100	1.76	317		4.4	
	Pg		17		−3.3						
WNZ	P*	04 54	19		−0.7	100	1.98	289		4.6	4.4
	(Pg)		24		−0.8						
	Sg		56		4.4						
NGZ	Pn	04 54	22		1.1	100	2.25	272			
	(P*)		25		0.8						
MNG	Pn	04 54	27.5		0.8	100	2.67	239		4.0	3.8
	ePg		44		5.2						
	Sn		57		−1.3	100					
KRP	Pn	04 54	28		1.0	100	2.69	299		4.3	
	P*		31		−0.8						
TNZ	Pn	04 54	35		1.1	100	3.20	271		4.3	
	e(Sg)	55	37		4.4						
WEL	Sn	04 55	17		−0.8	100	3.48	234	3.9		
COB	Pn	04 54	53		−2.3		4.77	246		4.2	3.7
	e(P*)	55	13		5.7						
	e(Sn)		47.5		−1.2						
	eS*	56	11		1.6						
CMZ	Sn	04 56	20		−1.9		6.16	224			4.1
MJZ	Sn	04 56	56		−1.5		7.63	229			4.1

AMPLITUDES:										
GNZ	36		TRZ	9.5	15	WTZ	7.5			
WNZ	0.8	0.7	MNG	2.4	2.2	KRP	1.7			
TNZ	0.3		WEL	0.3		COB	0.4	0.5		
CMZ		0.4	MJZ		0.4					

79/ 546

SEP 13 $05^h15^m29^s.1$ 39°.27S 178°.45E 12 km M = 4.3

± 1.4 0.05 0.13 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iPg	05	15	45.5	USN	1.9	99	0.71	332		4.4	
	e(Sg)			55		1.8						
TUA	P*	05	15	47.5		−1.8	99	1.12	294			
TRZ	iP*	05	15	53.5	D	1.1	100	1.30	257		4.9	
	Pg			56		0.7						
ECZ	Pg	05	16	00.5		−0.5	100	1.57	3			
	e			10								
	e(Sg)			21		−1.3						
WTZ	iPn	05	15	57.4	U	−0.7	100	1.72	318		4.5	
	Pg		16	01		−2.9						
WNZ	P*	05	16	03		−0.4	100	1.94	288		4.8	4.5
	Pg			07.5		−0.8						
	(Sg)			40		5.5						
CNZ	Pn	05	16	05.5		0.1	100	2.26	271			
	(P*)			08		−0.8						
KRP	ePn	05	16	11		0.2	100	2.65	300		4.4	
	P*			15		−0.5						
MNG	Pn	05	16	11		0.2	100	2.65	239		4.3	4.1
	e(Pg)			27		4.3						
	e(Sn)			47		4.8						
TNZ	Pn	05	16	19		1.2	100	3.17	270		4.4	4.4
	P*			23		−1.2						
	eSg		17	22		6.3						
WEL	Sn	05	17	01		−0.7	100	3.46	233	3.9		
GBZ	ePn	05	16	27		−0.2	100	3.85	321			
COB	Pn	05	16	37		−2.3		4.74	246		4.4	3.8

	ePg		17 03		−1.9						
	Sn		30		−2.4						
	e(Sg)		18 16		7.1						
CMZ	Sn	05	18 04		−2.0		6.14	223			4.3
MJZ	Pn	05	17 19		0.4		7.61	229		4.2	4.2
	Sn		18 39		−2.5						

AMPLITUDES:

GNZ	42		TRZ	18		WTZ	10			
WNZ	1.1	0.9	KRP	2.2		MNG	5.3	4.5		
TNZ	0.4	0.4	WEL	0.3		COB	0.6	0.6		
CMZ		0.6	MJZ	0.4	0.5					

FELT: Mahia Beach (54)

79/ 547

SEP 13 $06^h56^m47^s.6$ 38°.62S 177°.26E 27 km M = 4.0

± 0.4 0.02 0.02 2 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	P*	06	56	53.8		0.3	100	0.21	204			
GNZ	iPn	06	56	59.8	USN	0.0	100	0.60	93		4.0	4.0
	Sn		57	08.5		−0.3	100					
WTZ	iPn	06	57	00.6	U	−0.1	100	0.67	341		3.7	4.2
	Sn			10.5		0.1	100					
WNZ	Pn	06	57	04		−0.0	100	0.91	269		3.7	3.8
	eSn			17		0.8	100					
TRZ	iPn	06	57	04.7	D	−0.5	100	1.00	200		4.3	4.4
	e(P*)			10		4.1						
	(S*)			24		4.6						
ECZ	Pn	06	57	11.5		1.1	99	1.37	48		4.3	3.8
	P*			17		4.7						
	e			44								
NGZ	Pn	06	57	10.5		−0.3	100	1.40	246			
	Sn			29.5		1.3	98					
CNZ	Pn	06	57	11.0		−0.5	100	1.46	246			
	Sn			29		−0.4	100					
KRP	iPn	06	57	11.6	U	−0.8	100	1.52	296		3.7	3.5
	eP*			18		3.2						
	Sn			30.5		−0.5	100					
TNZ	P*	06	57	26		−2.3		2.32	255		3.9	4.1
	S*			56		−2.8						
MNG	Pn	06	57	21		−3.7		2.43	214		4.0	
	P*			34		3.8						
GBZ	Pn	06	57	30		0.4		2.78	329			
WEL	Sn	06	58	10		−3.3		3.28	215	3.6		
COB	Pn	06	57	47		−2.9		4.27	233		4.2	4.2
	eP*			53		−8.6						
	eS*		58	49		−8.2						
MJZ	Sn	06	59	47		−5.6		7.42	221			4.0

AMPLITUDES:

GNZ	23	37	WTZ	10	32	WNZ	0.4	0.7		
TRZ	9.0	14	ECZ	2.4	0.9	KRP	1.3	0.7		
TNZ	0.2	0.3	MNG	3.2		GBZ	0.8			
WEL	0.1		COB	0.5	1.7	MJZ		0.3		

FELT: Tuai (43) MM IV

79/ 548

SEP 13 $11^h40^m39^s.1$ 39°.36S 174°.93E 141 km M = 3.8

± 2.0 0.05 0.09 14 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	11	40	59.7	D	0.3	100	0.46	292		2.8*	3.1*
	eS		41	16		1.0	100					
CNZ	iP	11	40	59.6		−0.0	100	0.50	71			
	e(S)		41	15.5		0.2						
MNG	iP	11	41	06.5	D	0.1	100	1.32	162		3.8	4.0
	i			19								
	S			25		−2.3	99					
TRZ	P	11	41	09		1.0	100	1.48	98		3.7	4.3
	S			32.5		2.4	99					
KRP	P	11	41	09		0.5	100	1.51	18		3.0*	3.0*
	S			30		−0.9	100					
TUA	eS	11	41	34		−2.8		1.81	73			3.6
WEL	eP	11	41	13		−0.2		1.93	184	3.8		
	S			37		−2.1						
WTZ	e(P)	11	41	14.5		−1.0		2.12	50		2.9	3.6
	S			41.5		−1.6	100					
COB	P	11	41	17.5	U	−1.7		2.41	224		3.8*	3.1*
	S			47.5		−2.3						
GNZ	P	11	41	20.5		−0.1		2.51	74		4.2	4.1
	S			48.5		−3.6						
CMZ	e(S)	11	42	34		−6.1		4.56	201			3.0*
MJZ	S	11	43	02		−5.7		5.71	214			2.8*

AMPLITUDES: TNZ 0.2 0.6 MNG 5.0 9.5 TRZ 0.5 3.7
KRP 0.8 0.9 TUA 0.3 WEL 0.5
WTZ 0.1 0.6 COB 1.5 1.0 GNZ 1.8 2.1
CMZ 0.3 MJZ 0.2

79/ 549

SEP 14 $05^h00^m09^s.5$ 39°.00S 176°.70E 33 km M = 3.3
± 0.3 0.02 0.03 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	P*	05	00	17.5		−1.0	100	0.40	61			
	eS*			25		0.0	100					
TRZ	S*-P*			10.2		1.9	98	0.56	171		3.6	3.6
NGZ	Pn	05	00	24.4		−0.5	100	0.86	258			
	iP*			25.6		−0.2	100					
	S*			38.3		0.4	100					
CNZ	Pn	05	00	25.1		−0.5	100	0.92	257			
	iP*			26.0		−0.7	100					
	S*			39.3		−0.1	100					
WTZ	P*	05	00	28.7		−0.0	100	1.04	13		2.9	3.2
	S*			44.8		1.9	98					
GNZ	iP*	05	00	29.0		−0.6	100	1.09	71			
MNG	ePn	05	00	38.8		0.2	100	1.87	210		3.3	3.2
	eP*			42.7		0.0	100					
	Sn		01	01.5		1.1	100					

AMPLITUDES: TRZ 5.3 6.8 NGZ 13 10 CNZ 4.5 4.5
WTZ 0.7 1.3 MNG 1.0 1.1

FELT: Patoka (52) MM IV

79/ 550

SEP 15 $05^h38^m34^s.6$ 33°.12S 179°.81E 293 km M = 4.7
± 0.8 0.09 0.19 11 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	05	39	57.5		0.7	99	5.37	205		4.2	4.6

	S		41	01		−0.2	100					
GNZ	eP	05	40	00.8		0.0	100	5.71	194		4.8	4.9
	e			02								
	S		41	08.5		0.2	100					
TUA	eS	05	41	16		−0.3	100	6.07	200			4.8
TRZ								6.87	200			4.8
MNG	eP	05	40	31.3		−0.6	99	8.25	204		4.3	4.9
	i			34.0								
	eS		42	04		−0.2	100					
WEL	e	05	41	16				9.09	205	5.0		
	eS		42	23.5		0.6	99					
COB								9.76	213			3.2*

AMPLITUDES: WTZ 0.3 1.0 GNZ 1.3 2.9 TUA 0.5
TRZ 0.7 MNG 0.5 3.1 WEL 0.5
COB 0.4

79/ 551

SEP 15 $13^h30^m43^s.8$ 37°.96S 175°.38E 251 km M = 3.8
± 1.2 0.07 0.12 9 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	13	31	21.2		0.4	100	1.27	92		3.4	3.3
	eS			49		−0.5	100					
GNZ	P	13	31	29.0		0.6	100	2.19	109		4.3	4.1
	S		32	03.2		0.3	100					
MNG	P	13	31	32.9		−0.1	100	2.65	178		3.3	3.9
	S		32	10.7		−0.6	100					
WEL	eS	13	32	25		0.1	100	3.36	188	3.9		
COB	S-P			49		1.4	98	3.74	212		3.3*	3.0*

AMPLITUDES: WTZ 0.3 0.3 GNZ 2.1 2.1 MNG 0.4 1.9
WEL 0.2 COB 0.3 0.5

79/ 552

SEP 18 $01^h17^m48^s.1$ 38°.15S 176°.04E 195 km M = 3.7
± 1.5 0.07 0.13 12 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	01	18	15.0		−1.0	100	0.76	78		3.4	3.0
	eS			38.0		0.4	100					
TUA	P	01	18	19.0		0.9	100	1.10	128		3.3	
TRZ	eS	01	18	46.5		−1.5	99	1.53	157			3.9
	e			54								
GNZ	P	01	18	22.9		0.0	100	1.64	108		4.5	3.5
	S			50.0		0.3	100					
MNG	P	01	18	32.0		−0.2	100	2.51	190		3.9	3.8
	S		19	07.7		1.5	99					
WEL	eS	01	19	22		−0.7	100	3.28	197	4.0		

AMPLITUDES: WTZ 0.6 0.3 TUA 0.2 TRZ 1.1
GNZ 5.8 0.8 MNG 2.0 2.1 WEL 0.3

79/ 553

SEP 18 $14^h57^m58^s.1$ 37°.32S 176°.72E 254 km M = 4.6
± 1.2 0.08 0.14 10 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	14	58	31.3		−1.0	100	0.70	162		4.2	4.4
	i			56.9								
	S			58.3		−0.6	100					
TUA	P	14	58	37.0		−0.2	100	1.53	167		4.1	4.7

	e			40.0								
	S		59	07.0		−0.6	100					
GNZ	P	14	58	38.7		0.3	100	1.68	142		4.8	4.9
	e		59	04.8								
	S			09.1		−0.6	100					
CNZ	P	14	58	43.3		1.3	100	2.09	206			
TRZ	P	14	58	43.8		0.5	100	2.23	178		4.4	4.6
	e		59	14.5								
	S			21.0		2.5	98					
TNZ	P	14	58	49.0		1.8	99	2.62	224		4.0*	
MNG	P	14	58	54.9		−1.1	100	3.44	196		5.1	4.6
	S		59	39.5		−1.5	100					
CAZ	eP	14	58	58.2		0.3	100	3.60	186			
	S		59	45.8		1.3	100					
WEL	eP	14	59	04.0		−1.5	100	4.24	200	4.4		
	S			56.5		−1.4	100					
CMZ	P	14	59	37.3		−2.1		6.99	205		3.7*	3.5*
	S	15	00	55		−3.7						

AMPLITUDES: WTZ 2.5 4.6 TUA 0.7 2.5 GNZ 8.0 15
CNZ 1.2 TRZ 0.8 2.8 TNZ 1.0
MNG 15 6.2 CAZ 0.6 2.2 WEL 0.4
CMZ 0.5 0.6

79/ 554

SEP 18 $15^h29^m39^s.3$ 39°.07S 177°.64E 33 km M = 2.8
± 1.0 0.05 0.07 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	eP*	15	29	48.2		−1.0	100	0.46	304		2.4	2.9
	S*			58.3		1.8	100					
GNZ	P*	15	29	49.3		−0.8	100	0.52	35		3.2	2.8
	i			50.4								
	S*		30	00.0		2.0	99					
TRZ	eP*	15	29	53		−1.5	100	0.80	233		2.7	2.9
	eS*		30	07.2		1.5	100					
WTZ	eP*	15	30	00.0		−1.2	100	1.20	335		2.6	3.0
	e			02.2								
	eS*			16.5		−0.9	100					

AMPLITUDES: TUA 0.4 1.5 GNZ 5.0 3.0 TRZ 0.3 0.8
WTZ 0.3 0.7

FELT: Wairoa (53)

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SEP 18 $17^h36^m40^s.3$ 38°.26S 176°.78E 33 km M = 3.5
± 0.4 0.03 0.04 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P*	17	36	50.0		1.8	99	0.32	31		2.7	3.1
	iS*			54.7		0.7	100					
	i			58.1								
TUA	P*	17	36	53.0		0.3	100	0.62	152			
	S*		37	03.2		1.5	100					
WIZ	P*	17	36	55.0		−0.6	100	0.80	24			
	e(S*)		37	10.2		3.4						
GNZ	Pn	17	36	57.7		−0.5	100	1.05	112		3.9	3.6
	iP*			59.2		−0.5	100					
	S*		37	12.2		−1.8	99					
TRZ	eP*	17	37	04.0		0.2	100	1.30	179		3.4	3.7

	eS*			23.5		2.3	99					
	e			28.2								
CNZ	P*	17	37	05.2		0.5	100	1.35	225			
TNZ	eP*	17	37	17.5		0.2	100	2.10	243			
MNG	ePn	17	37	18.2		−0.6	100	2.56	203		3.6	3.4
	eP*			23.0		−2.3	99					
	eSn			47.5		−0.3	100					
WEL	eSn	17	38	07		−0.9	100	3.40	207	3.8		

AMPLITUDES:											
WTZ	5.0	11	WIZ	0.4	0.7	GNZ	6.1	4.6
TRZ	0.6	1.6	CNZ	1.6		MNG	1.1	0.9
WEL	0.2							

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SEP 18 $21^h11^m01^s.2$ 38°.87S 175°.53E 167 km M = 4.0

± 0.9 0.04 0.06 7 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	21	11	25.0		0.9	100	0.32	168			
	(S)			39.0		−2.5						
CNZ	P	21	11	25.0		0.9	100	0.33	178			
	eS			42.7		1.0	100					
	e			47								
GSZ	P	21	11	25.0		0.6		0.41	174			
	S			42.8		0.7						
KRP	P	21	11	27.0		−0.2	100	0.94	0		3.4*	
	S			45.8		−1.6	99					
TNZ	P	21	11	28.0		0.6	100	0.95	250		3.6*	
TRZ	eS	21	11	52.8		1.3	100	1.21	125			
TUA	eP	21	11	31		0.9	100	1.27	88			
	eS			53		0.6	100					
WTZ	P	21	11	31.0		−0.8	100	1.45	53		3.7	
MNG	P	21	11	35.9		0.8	100	1.75	181		4.0	4.0
	S			59.2		−1.8	99					
GNZ	P	21	11	37.8		0.4	100	1.96	84		4.3	4.0
	S		12	03.0		−2.1	99					
WEL	eP	21	11	43.7		0.1	100	2.49	193	3.9		
	S		12	14.5		−1.6	99					
ECZ	P	21	11	45.7		0.1	100	2.65	65		3.9	
KAI	eS	21	13	03		−6.0		4.81	219	3.3*		
CMZ	eS	21	13	11		−7.0		5.20	204			3.2*

AMPLITUDES:											
NGZ	1.1	1.6	CNZ	1.1	2.2	GSZ	1.0	3.6
KRP	2.5		TNZ	1.0		WTZ	1.1	
MNG	4.8	5.5	GNZ	3.0	2.6	WEL	0.4	
ECZ	0.3		KAI	0.2		CMZ		0.4

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SEP 19 $21^h32^m08^s.9$ 39°.45S 175°.64E 12 km M = 3.1

± 0.4 0.02 0.04 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GSZ	Pg	21	32	14.0		1.0	100	0.17	346			
	Sg			17.2		1.4	99					
CNZ	Pg	21	32	15.0		0.5	100	0.26	343			
	Sg			17.5		−0.8	100					
NGZ	Pg	21	32	15.8		1.1	100	0.26	355			
TRZ	ePg	21	32	27.7		0.1	100	0.92	97		2.8	2.9
	e(Sg)			48.0		7.9						
TNZ	Pg	21	32	28.2		−1.3	100	1.02	284		3.2	3.0
	Sg			44.0		0.8	100					

MNG	P*	21 32 29.9		−0.3	100	1.18	186		3.7	2.9
	S*	46.0		0.1	100					
KRP	eP*	21 32 34.7		−1.4	99	1.52	357		3.2	3.4
	S*	54.8		−1.4	99					

AMPLITUDES: GSZ 7.0 31 CNZ 8.5 23 TRZ 0.3 0.5
TNZ 0.5 0.4 MNG 6.5 1.3 KRP 0.3 0.4

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SEP 20 $04^h41^m34^s.5$ 39°.97S 174°.54E 140 km M = 3.9
± 2.2 0.06 0.14 14 S.E. of RES. 2.4

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	eP	04 41 57.0		0.4	100	0.79	351		3.0*	3.4*
	S	42 11.5		−2.1	100					
MNG	iP	04 42 01.0		2.9	99	0.97	132		3.8	4.0
	S	17.0		0.8	100					
GSZ	P	04 42 02.7		3.8		1.06	50			
	S	20.5		2.8						
CNZ	P	04 42 02.0		2.7	100	1.09	46			
	S	19.8		1.6	100					
NGZ	P	04 42 03.2		3.5		1.14	47			
	S	20.8		1.7						
WEL	S	04 42 21.4		−1.1	100	1.33	173	3.8		
CAZ	(P)	04 42 09.0		4.4		1.59	127			
	(S)	32.8		5.2						
COB	S-P	21.2		−3.4	99	1.78	230		3.6*	3.6*
KRP	P	04 42 13.5		1.9	100	2.19	21		2.9*	2.9*
	S	41		1.2	100					
WTZ	eP	04 42 16		−2.9	99	2.75	45		3.8	3.7
	eS	52		−0.8	100					
GNZ	P	04 42 20.3		−2.0	100	3.01	65		4.0	4.2
	S	56.7		−2.0	100					
KAI	eS	04 43 06		−3.9		3.48	222	3.4*		
CMZ	eP	04 42 33		−1.0		3.89	201		3.0*	3.2*
	eS	43 16		−3.5						

AMPLITUDES: TNZ 0.3 1.0 MNG 7.0 12 GSZ 4.0 20
CNZ 3.3 9.5 NGZ 3.7 WEL 1.0
CAZ 2.3 1.3 COB 1.4 4.6 KRP 0.6 0.6
WTZ 0.6 0.5 GNZ 0.9 2.3 KAI 0.3
CMZ 0.2 0.5

FELT: Onamalutu, Picton (77), Manaroa (78)

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SEP 20 $17^h36^m21^s.5$ 42°.42S 173°.05E 33 km M = 4.7
± 0.3 0.04 0.06 R S.E. of RES. 1.4

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	P*	17 36 33.2		1.5	100	0.48	91			
CMZ	Pn	17 36 41.1		−0.4	100	1.21	194			
	iP*	42.6		−0.9	100					
	iS*	59.0		−0.8	100					
WEL	ePn	17 36 49.0		0.6	100	1.71	49			
	iP*	51.8		−0.2	100					
	S*	37 14.0		−0.7	100					
MJZ	ePn	17 36 56.5		−2.1	99	2.46	229		4.6	4.5
	iP*	37 05.2		0.5	100					
	Sn	27.4		0.9	100					
MNG	Pn	17 36 59.9		−0.1	100	2.56	46		5.0	4.7

	iP*		37 04.6	−1.9	99						
	i		46.5								
RHP	Pn	17	37 00.6	−1.9	99	2.74	231				
	iP*		04.5	−5.0							
CAZ	eP*	17	37 13.8	2.9		2.83	59				
	i		16.8								
	i		38 04.5								
TNZ	Pn	17	37 11.7	0.5	100	3.38	18			4.8	4.7
	eP*		20.5	0.1	100						
	i		26.8								
	eS*		38 06	1.4							
GSZ	Pn	17	37 16.2	0.9	100	3.68	32				
	iP*		23.0	−2.5	99						
CNZ	ePn	17	37 17.3	1.3	100	3.73	31				
	iP*		25.2	−1.2	100						
NGZ	Pn	17	37 18.0	1.4		3.77	32				
	iP*		26.2	−0.8							
TRZ	ePn	17	37 21	0.7		4.04	46			4.4	
	e		26								
	eP*		32	0.3	100						
ROX	ePn	17	37 23.2	2.5		4.08	220			4.6	4.3
	iP*		34.9	2.7	99						
	Sn		38 05.5	0.1	100						
	e		13.3								
MSZ	ePn	17	37 21.8	−2.8	98	4.36	237			4.4	4.5
	e		24.2								
	eP*		38.5	1.5	100						
	Sn		38 14.0	1.8	100						
WNZ	e(Pn)	17	37 29.5	3.8		4.45	33			5.1	
	eP*		38.0	−0.4	100						
KRP	Pn	17	37 31.4	−0.2	100	4.88	24			4.9	
	i		35.3								
	eP*		49	3.1							
GNZ	ePn	17	37 39	1.0	100	5.35	47				
	e		42								
	Sn		38 38.8	2.8	98						
WTZ	ePn	17	37 38	−0.2	100	5.36	36			4.9	
	e		47								
	iP*		54	−0.0	100						

AMPLITUDES:										
MJZ	10	10	MNG	30	19	CAZ	1.1	6.5
TNZ	2.0	1.8	GSZ	5.2		TRZ	0.6	
ROX	1.3	1.6	MSZ	2.0	4.7	WNZ	0.3	
KRP	4.8		WTZ	1.0				

FELT: Maruia (97) MM III, Okaiawa (55)

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SEP 21 $09^h32^m19^s.7$ 44°.42S 167°.85E 12 km M = 4.2

± 0.8 0.04 0.05 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	eP*	09	32	26		0.8	100	0.25	169			
BRZ	eP*	09	32	44		−0.3	100	1.38	189			
	eS*		33	02		−0.5	100					
ROX	eP*	09	32	46.5		0.3	100	1.48	136		4.0	3.9
	eS*		33	06		0.2	100					
RHP	eP*	09	32	50		1.2	100	1.64	79			
	eS*		33	10		−0.4	100					
MJZ	eP*	09	32	54		0.1	100	1.93	78		4.5	4.5

	eS*		33	20			0.7	100					
OMZ	ePn	09	32	57			0.7	100	2.28	108		4.0	4.1
	eS*		33	29			−0.6	100					
CMZ	eP*	09	33	19			−2.6	89	3.55	78			

AMPLITUDES: BRZ 4.5 7.5 ROX 2.5 5.5 MJZ 12 17
OMZ 1.0 3.0

79/ 561

SEP 21 $11^h54^m45^s.9$ 34°.35S 177°.73W 188 km M = 5.4
± 1.5 0.09 0.16 32 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	eP	11	56	06		−1.1	100	5.49	217		5.1	5.7
	e			21								
	eS		57	09		−1.1	100					
WTZ	eP	11	56	10		1.3	100	5.61	228		5.5	5.8
	e			21								
	eS		57	11		−1.8	99					
TUA	eP	11	56	14		−0.6	100	6.07	221		5.1	5.7
	eS		57	24		0.3	100					
KRP	eP	11	56	22	D	1.4	100	6.52	235		3.9*	4.2*
	eS		57	36		1.8	99					
WNZ	eP	11	56	20		−1.0	100	6.56	228			
TRZ	eP	11	56	24		−0.1	100	6.79	218		4.9	5.7
	eS		57	43		2.4	99					
CRZ	eP	11	56	38		−1.1	100	7.94	267			
	e			50								
MNG	eP	11	56	45		1.5	100	8.27	219		4.7	5.6
	e		57	51								
	eS		58	15		−0.4	100					
WEL	eS	11	58	34		−1.4	100	9.13	218	5.6		
CMZ	eP	11	57	34		3.6		11.89	216			4.5*
	eS		59	40		0.2						
RHP	eP	11	57	56		4.3		13.56	220			
	eS	12	00	18		−0.2						

AMPLITUDES: GNZ 3.0 21 WTZ 6.5 14 TUA 1.0 4.5
KRP 2.0 4.0 TRZ 0.5 6.5 MNG 1.5 15
WEL 2.0 CMZ 3.5 RHP 6.5 4.5

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SEP 21 $23^h11^m26^s.4$ 36°.70S 177°.45E 293 km M = 4.2
± 1.8 0.11 0.18 13 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	23	12	08		−0.0	100	1.32	139		4.0	4.0
	eS			42		1.6	100					
WTZ	eP	23	12	07		−1.1	100	1.33	196		4.2	4.0
	eS			40		−0.5	100					
KRP	eP	23	12	13		0.6	100	1.95	231		3.0*	
GNZ	eP	23	12	13.5		0.7	100	1.99	167		4.6	4.3
	eS			47		−1.9	99					
MNG	P	23	12	34.3		−0.7	100	4.20	201		4.4	4.3
	e			50								
	eS		13	31		2.3	99					
WEL	eS	23	13	45		−0.8	100	5.03	204	4.3		

AMPLITUDES: ECZ 0.4 0.5 WTZ 1.5 1.0 KRP 0.5
GNZ 3.6 3.0 MNG 2.2 2.2 WEL 0.2

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SEP 22 $03^h29^m16^s.2$ 38°.34S 175°.75E 184 km M = 4.0

± 0.9 0.03 0.05 5 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	03	29	41.3	UN	−0.1	100	0.45	338		3.6*	2.5*
	eS		30	01		0.2	100					
NGZ	P	03	29	44.0		0.6	100	0.85	187			
	eS		30	05		0.6	100					
WTZ	P	03	29	43.7		−1.0	100	1.03	70		3.2	3.7
	eS		30	06		−0.8	100					
TUA	eP	03	29	46		0.1	100	1.20	113		4.0	4.3
	eS		30	09		0.1	100					
TRZ	eP	03	29	49		0.5	100	1.48	146		4.0	4.2
	eS		30	15		1.6	99					
GNZ	P	03	29	51.7		−0.2	100	1.81	100			
	eS		30	17		−2.3	96					
MNG	iP	03	29	56.8	D	−0.2	100	2.29	185		4.0	4.4
	iS		30	26.8		−1.8	99					
ECZ	eP?	03	29	58		0.8	100	2.30	75		3.8	3.9
	eS		30	30		1.1	100					
CAZ	eS	03	30	35.5		0.6	100	2.59	172			
WEL	eS	03	30	44		−0.5	100	3.04	194	4.3		

AMPLITUDES:											
KRP	5.0	0.4	NGZ	2.8	2.5	WTZ	0.4	1.3			
TUA	1.1	2.0	TRZ	0.7	2.5	MNG	3.0	9.8			
ECZ	0.3	0.4	CAZ	1.5	WEL	0.6					

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SEP 22 $21^h01^m33^s.6$ 38°.93S 175°.98E 12 km M = 3.7

± 0.5 0.03 0.04 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	eP*	21	01	39		−1.1	100	0.31	18			
	eS*			45		0.3	100					
TRZ	iP*	21	01	49	U	−1.2	100	0.90	134		3.9	3.7
	e		02	07								
TUA	eP*	21	01	49		−1.5	100	0.93	83		3.7	3.8
	eS*		02	03		0.1	100					
KRP	eP*	21	01	52	D	−0.9	100	1.06	341		3.6	3.8
	eS*		02	09		1.9	100					
WTZ	ePn	21	01	55.3		−0.6	100	1.23	40		3.4	
TNZ	ePn	21	01	55		−1.4	100	1.27	258			
GNZ	eP*	21	02	05		2.5	99	1.63	80		3.6	
	eSn			22		0.0	100					
MNG	eP*	21	02	05.3		1.0	100	1.73	193		4.0	4.0
	eS*			30		2.9	99					
WEL	eS*	21	02	49		−2.1	99	2.53	201			

AMPLITUDES:											
TRZ	3.0	2.5	TUA	1.5	2.0	KRP	2.0	3.0			
WTZ	1.0		GNZ	1.0		MNG	4.0	5.0			

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SEP 22 $23^h15^m16^s.4$ 39°.61S 176°.95E 33 km M = 4.6

± 0.4 0.02 0.03 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	iPn	23	15	30.8	D	−0.3	100	0.82	11		4.2	4.6
	e			39								
	eSn			42		0.0	100					

	e			51								
CNZ	iPn	23	15	35.0	U	−0.8	100	1.16	290			
	Sn			49		−1.3	100					
WNZ	ePn	23	15	36.2	D	0.1	100	1.18	326		5.0	5.3
	eP*			40		2.0	99					
	eSn			50		−0.7	100					
	e		16	01								
GNZ	ePn	23	15	37		−0.4	100	1.28	41		3.9	4.2
	e			45								
	eS*			57		0.2	100					
CAZ	ePn	23	15	38	U	−1.1	100	1.40	203			
	e			46								
	eSn			58		1.8	99					
	e		16	10								
MNG	ePn	23	15	42.2	D	1.6	99	1.51	228		4.2	
	e			52								
WTZ	ePn	23	15	43		0.9	100	1.62	1		4.0	4.7
	e			50								
	e			55								
	eSn		16	00		−1.4	100					
KRP	ePn	23	15	48	D	0.6	100	2.02	326		4.2	
	eP*			53		0.9	100					
	e		16	15								
TNZ	ePn	23	15	47		−0.7	100	2.03	281		4.8	4.9
	e			51								
	eP*			53		0.6	100					
	e		16	06								
	eS*			20		0.7	100					
ECZ	ePn	23	15	50.5		−0.7	100	2.29	34			
	e		16	12								
WEL	eSn	23	16	17		−2.1	99	2.37	224	4.5		
CMZ	e(Sn)	23	17	21		−4.5		5.12	218			5.3
MJZ	e(Sn)	23	17	55		−4.3		6.53	226			5.0

AMPLITUDES:											
TUA	8.0	23	WNZ	5.0	13	GNZ	4.0	12
CAZ	4.0	7.0	MNG	12		WTZ	4.0	18
KRP	2.0		TNZ	5.0	8.5	WEL	2.5	
CMZ		8.0	MJZ	4.5				

FELT: Widely in Hawkes Bay and Palmerston North (62). Maximum intensity MM IV at Napier, Patoka (52) and Waipawa (60).

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SEP 23 $09^h07^m02^s.5$ 38°.10S 176°.85E 5 km M = 3.6

± 0.7 0.03 0.03 6 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iPg	09	07	05.6		−0.2	100	0.16	44			
TUA	iP*	09	07	14.5		−2.6	96	0.75	162		3.6	3.9
	eS*			27.0		−0.5	100					
WNZ	eP*	09	07	17		−0.9	100	0.79	228			
KRP	eP*	09	07	22.3		0.0	100	1.05	279		3.2	3.6
	eS*			37		0.3	100					
GNZ	eP*	09	07	22.0		−0.6	100	1.07	121		4.0	3.7
	eS*			39.0		1.8	99					
ECZ	ePn	09	07	28		−0.1	100	1.40	74			
TRZ	ePn	09	07	29		0.2	100	1.45	181		3.4	
CNZ	ePn	09	07	30		0.6	100	1.50	222			
MNG	ePg	09	07	59		1.3	100	2.74	202			

AMPLITUDES: WTZ 8.5 TUA 2.5 4.5 KRP 1.0 2.0
GNZ 7.0 5.0 TRZ 0.5

FELT: Ohope Beach (35) MM 1V

79/ 567

SEP 23 $14^h19^m17^s.2$ 37°.49S 176°.36E 193 km M = 4.0
± 1.1 0.06 0.08 9 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	14	19	43.6		−0.9	100	0.70	135			3.2
	eS		20	05		−0.6	100					
KRP	eP	14	19	46		1.0	100	0.78	236			
TUA	eP	14	19	48.5		−1.6	99	1.46	155			
	eS		20	15		−0.5	100					
GNZ	iP	14	19	52.0		−0.9	100	1.75	132		4.3	4.4
	e			54.5								
	e		20	18								
	eS			20		−0.5	100					
ECZ	eP	14	19	54		1.1	100	1.75	97			
	eS		20	22		1.5	99					
CNZ	eP	14	19	54		0.4	100	1.83	200			
TRZ	eP	14	19	55		−1.5	99	2.10	170			3.8
	eS		20	28.5		1.6	99					
MNG	eP	14	20	10		0.6	100	3.20	192		4.2	4.3
	eS			50		0.2	100					
WEL	eS	14	21	03		−4.2		3.99	198			

AMPLITUDES: WTZ 0.5 GNZ 3.0 6.5 TRZ 0.7
MNG 2.5 4.5

79/ 568

SEP 23 $16^h06^m06^s.7$ 36°.59S 177°.57E 208 km M = 4.0
± 1.2 0.06 0.10 10 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	16	06	41.5		1.5	99	1.35	145			
WTZ	eP	16	06	41		−0.0	100	1.47	198		3.8	3.5
	eS		07	07.6		0.1	100					
GBZ	eP	16	06	42.8		−0.6	100	1.73	282			
GNZ	eP	16	06	47.5		0.6	100	2.08	170		4.2	4.6
	e		07	11								
	eS			17		−1.0	100					
TUA	eS	16	07	20		−1.0	100	2.24	188			
TRZ	eP	16	06	55.6		−1.8	99	3.01	191			
	eS		07	37.5		0.8	100					
CNZ	eS	16	07	39		1.5	99	3.06	211			
MNG	eP	16	07	14.2		0.5	100	4.35	202			3.9
	eS		08	05		−0.6	100					

AMPLITUDES: WTZ 1.0 0.5 GNZ 2.0 7.0 MNG 1.0

79/ 569

SEP 26 $04^h31^m21^s.3$ 33°.46S 178°.69W 333 km M = 4.7
± 1.2 0.06 0.11 16 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	04	32	38.9		0.6	100	4.79	207		4.6	4.4
	eS		33	40.5		1.9	99					
	e			49								
WTZ	eP	04	32	48		−0.9	100	5.72	217		4.9	4.7
	eS		33	55		−2.7	94					

GNZ	eS	04	33	59		−0.7	100	5.81	206			
ONE	eP	04	32	54		−0.2	100	6.17	246	3.7*		
	e		33	29.5								
	eS		34	08		0.8	100					
TUA	eP	04	32	55.5		−0.3	100	6.31	211		5.2	5.0
	e		33	04								
	eS		34	10		−0.0	100					
KRP	eP	04	32	59.0		1.3	100	6.47	225		3.5*	
	e?		33	58								
	e		34	22								
CRZ	eP	04	33	06.5		−0.4	100	7.24	260		3.8*	
MNG	eP	04	33	22		−0.3	100	8.53	211		4.3	4.6
	eS		34	58		0.3	100					
WEL	eS	04	35	17		0.6	100	9.39	212	4.8		

AMPLITUDES: ECZ 0.4 0.3 WTZ 1.5 1.0 ONE 0.5
TUA 1.0 0.7 KRP 0.7 CRZ 0.4
MNG 0.5 1.2 WEL 0.3

79/ 570

SEP 27 $22^h14^m26^s.1$ 37°.52S 177°.20E 162 km M = 3.6
± 1.7 0.08 0.09 11 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	22	14	47.7		−1.2	100	0.49	200		3.3	3.5
	S		15	05.9		−0.5	100					
ECZ	eP?	22	14	50		−2.8		1.09	100		3.2	3.2
	eS		15	15		1.6	99					
TUA	e(S)	22	15	22.5		5.8		1.29	182			3.6
GNZ	P	22	14	54.2		−0.6	100	1.30	150		4.0	3.8
	eS		15	16		−0.9	100					
KRP	P	22	14	56.0		0.4	100	1.38	252		2.7*	
CNZ	eP	22	15	05.5		1.9	99	2.12	217			
MNG	P	22	15	17.9		−1.4	100	3.37	203		4.0	3.5
	eS		16	02		1.9	99					
WEL	eS	22	16	19		−0.5	100	4.20	206	4.1		
COB	eS	22	16	37		−0.4	100	4.97	223			2.8*

AMPLITUDES: WTZ 1.0 1.8 ECZ 0.2 0.2 TUA 0.4
GNZ 2.5 2.5 KRP 0.5 MNG 1.5 0.7
WEL 0.2 COB 0.3

79/ 571

SEP 29 $10^h14^m48^s.1$ 40°.13S 175°.11E 105 km M = 3.8
± 0.9 0.03 0.07 12 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	eP	10	15	03.4		−1.7	99	0.57	150		3.6	3.8
	e			14								
CAZ	eP	10	15	12.0	D	1.1	100	1.15	133			
	eS			28		0.0	100					
WEL	eP	10	15	11.8		0.6	100	1.19	193	4.1		
	eS			28.6		−0.2	100					
TRZ	eP	10	15	13		−1.3	99	1.44	67			3.6
	eS			35		0.8	100					
WNZ	eP	10	15	18		0.7	100	1.68	28			
TUA	eP	10	15	21		−1.1	100	2.06	51			
KRP	eP	10	15	25.5		1.1	100	2.23	9			3.6*
	eS			51.5		0.1	100					
WTZ	eP	10	15	28.0		−1.4	99	2.59	35			
GNZ	eP	10	15	31.5		0.6	100	2.70	58			

AMPLITUDES: MNG 12 23 CAZ 2.5 WEL 2.6
TRZ 1.0 KRP 3.0

FELT: Mahia Beach (54)

79/ 572

SEP 29 $20^h22^m25^s.3$ 40°.98S 175°.28E 12 km M = 3.9
± 0.3 0.02 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CAW	Pg	20	22	31.4		1.4	100	0.21	231			
MTW	Pg	20	22	31.0		0.3	100	0.24	137			
KIW	Pg	20	22	34.0		2.2	99	0.31	292			
WDW	Pg	20	22	33.6		0.7	100	0.36	217			
MNG	ePg	20	22	35.0		1.5	100	0.40	23		3.0	3.2
	e			45								
BLW	Pg	20	22	34.4		0.4	100	0.41	159			
MOW	Pg	20	22	35.0		0.5	100	0.44	183			
WEL	ePg	20	22	34.5		−1.0	100	0.49	231	3.5		
	eSg			41		−1.3	100					
MRW	Pg	20	22	36.6		0.9	100	0.50	240			
WHW	e	20	22	36.7				0.52	232			
BHW	Pg	20	22	36.4		0.2	100	0.53	216			
CAZ	ePg	20	22	39.0	D	−1.0	100	0.72	84			
	eSg			51		1.1	100					
TCW	Pg	20	22	42.0		0.5	100	0.79	253			
CNZ	ePn	20	22	55.0	U	−0.2	100	1.79	7			
	eS*		23	21		0.4	100					
TRZ	eP*	20	22	56		−2.0	99	1.85	40			
	ePg		23	04		1.2	100					
WNZ	eP*	20	23	07.0		−0.9	100	2.43	15			
TUA	eP*	20	23	12		1.1	100	2.60	34			
KRP	ePn	20	23	14		1.4	100	3.06	4		4.7	4.9
	eP*			21		2.3						
	eSn			46		−2.2	99					
	eSg		24	06		−2.4						
GNZ	ePn	20	23	12		−1.8	99	3.15	43			4.1
	eSn			48		−2.3						
CMZ	ePn	20	23	14		−1.3	100	3.26	216			
	e		24	34								
	e			59								
WTZ	ePn	20	23	14		−1.4	100	3.28	24			
RHP	ePn	20	23	37.5		−0.8	100	4.95	229			

AMPLITUDES: MNG 12 25 WEL 5.0 CAZ 25
CNZ 7.5 KRP 2.5 3.0 GNZ 1.5

FELT: Lower North Island, maximum intensity MM IV

79/ 573

SEP 30 $01^h00^m39^s.2$ 38°.46S 175°.77E 172 km M = 4.2
± 1.5 0.05 0.08 11 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	eP	01	01	04.8		1.3	100	0.57	341		3.1*	
	eS			23		0.8	100					
CNZ	eP	01	01	06.5		2.0	99	0.76	193			
WTZ	eP	01	01	05		−1.8	100	1.07	64			3.5
	eS			25.5		−2.5	99					
TUA	eP	01	01	07.8	D	0.5	100	1.13	108		3.9	4.1
	e			22.5								

	eS			29		0.1	100					
GNZ	eP	01	01	14.0		0.5	100	1.77	97		4.1	4.0
	e			36								
MNG	eP	01	01	18.0	U	0.1	100	2.17	186		4.4	4.6
	eS			47.8		0.1	100					
CAZ	eP	01	01	22		0.6	100	2.47	172			
	eS			55		1.0	100					
WEL	eS	01	02	03		−0.9	100	2.92	195	4.6		
COB	eS	01	02	15		−2.1	99	3.52	221			3.5*

AMPLITUDES: KRP 1.5 CNZ 7.5 WTZ 1.0
TUA 1.0 1.5 GNZ 2.0 2.5 MNG 9.0 15
CAZ 1.5 WEL 1.6 COB 1.8

79/ 574

SEP 30 $03^h35^m18^s.5$ 38°.73S 175°.24E 229 km M = 4.1
± 1.2 0.05 0.08 10 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	iP	03	35	50.4	U	1.2	100	0.52	153			
	eS		36	14		1.0	100					
TNZ	eP	03	35	51.5		1.1	100	0.81	236			
KRP	eP	03	35	51.5		0.9	100	0.84	16			
WTZ	eP	03	35	55.0		−0.6	100	1.57	62			
	eS		36	23		−1.4	100					
MNG	eP	03	35	59.0		0.4	100	1.89	174		4.3	3.7
	eS		36	28		−1.4	100					
GNZ	eP	03	36	01		−0.3	100	2.18	89		4.3	4.2
	eS			33		−1.4	100					
CAZ	eP	03	36	03.8	D	1.3	100	2.29	161			
	eS			38.8		2.2	99					
WEL	eS	03	36	41		−0.7	100	2.57	188			
COB	eP	03	36	10		−0.6	100	3.04	219			3.1*
	eS			49		−2.0	99					

AMPLITUDES: CNZ 4.0 1.5 MNG 5.5 2.0 GNZ 2.0 2.5
COB 0.8

79/ 575

SEP 30 $07^h51^m48^s.3$ 40°.22S 173°.41E 157 km M = 4.0
± 0.7 0.03 0.04 5 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	eP	07	52	14.2		0.3	100	1.01	210		3.8*	3.1*
	eS			33		−0.6	100					
TNZ	eS	07	52	38		0.1	100	1.28	36			
WEL	eS	07	52	42		0.3	100	1.48	136			
MNG	eP	07	52	20.9	U	0.8	100	1.63	105		3.6	4.0
	eS			44.0		−0.5	100					
CNZ	eP	07	52	24.2		0.8	100	1.94	59			
	eS			46.8		−3.7						
CAZ	eS	07	52	57		−0.1	100	2.25	109			
WNZ	eP	07	52	32		0.1	100	2.63	54			
GNZ	eP	07	52	47		−1.3	98	3.91	68		4.3	
	e		53	30								

AMPLITUDES: COB 2.5 2.0 MNG 2.0 6.5 GNZ 1.0

79/ 576

OCT 01 $00^h54^m22^s.2$ 45°.41S 166°.87E 12 km M = 3.4
± 1.4 0.03 0.11 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pg	00	54	35.1		0.6	100	0.59	129			
MSZ	P*	00	54	41.4		0.2	100	1.04	46		3.6	3.3
	S*			55.8		0.6	100					
ROX	S*	00	55	15.8		0.2	100	1.73	93			
OBZ	S*	00	55	15.6		−0.2	100	1.73	151		2.9	3.7
ROX								1.73	93		3.8	3.8
THP	Pn	00	55	00.0		0.8	100	2.30	69			
	P*			01.2		−1.6	99					
HGP	P*	00	55	03.8		−2.0	99	2.48	59			
BSP	Pn	00	55	06.9		1.3	100	2.77	57			
	e			07.7								
OMZ								2.88	85		3.2	3.2
MJZ								2.93	62		3.5	3.5

AMPLITUDES: MSZ 5.6 5.0 OBZ 0.2 3.8 ROX 1.1 3.3
OMZ 0.1 0.2 MJZ 0.5 0.7

79/ 577

OCT 01 $03^h05^m15^s.5$ 40°.18S 176°.45E 33 km M = 4.2
± 0.2 0.01 0.03 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	eP*	03	05	29.3		0.2	100	0.69	25			
CAZ	iP*	03	05	29.4	U	−0.4	100	0.74	193			
	e			33								
	e			37								
	eS*			41		0.7	100					
MNG	ePn	03	05	30		−0.8	100	0.85	239		2.8	
	eP*			33.6		1.9						
CNZ	ePn	03	05	36		0.5	100	1.21	324			
	eSn			51		0.6	100					
TUA	ePn	03	05	40		0.7	100	1.48	22			
	e			50								
WNZ	ePn	03	05	42		1.4	97	1.57	350		4.8	
	e			48								
WEL	ePn	03	05	42		−0.1	100	1.68	229	4.0		
	eSn		06	02		0.0	100					
GNZ	ePn	03	05	45.5		−0.4	100	1.96	39		3.7	
	eP*			53		2.7						
WTZ	ePn	03	05	48.7		−0.9	99	2.24	11			4.4
	eP*			58		3.0						
	e		06	08								
	eSn			15		−0.2	100					
KRP	ePn	03	05	51.2	D	−0.2	100	2.37	342		4.8	4.5
	eP*			59		1.9						
	eSn		06	17.5		−0.8	100					
COB	ePn	03	05	59		−0.6	100	2.97	251			4.3
	eSn		06	33		0.2	100					

AMPLITUDES: MNG 1.5 WNZ 1.5 WEL 1.5
GNZ 1.0 WTZ 4.5 KRP 5.0 2.0
COB 4.5

FELT: Waipawa (60) MM 1V

79/ 578

OCT 01 $03^h26^m41^s.1$ 37°.25S 176°.91E 198 km M = 4.3
± 1.2 0.06 0.08 9 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	03	27	09		−0.2	100	0.74	175			

KRP	eP	03	27	13	−0.0	100	1.29	238			
	eS			38.5	0.8	100					
GBZ	eP	03	27	14.0	−1.3	100	1.55	311			
TUA	eP	03	27	17	1.5	99	1.57	173			
	eS			43	0.9	100					
GNZ	eP	03	27	17	0.8	100	1.65	148		4.0	
	eS			42	−1.4	99					
CNZ	eP	03	27	22.5	0.3	100	2.23	208			
MNG	eP	03	27	38.5	0.7	100	3.55	198		4.8	4.2
	eS		28	20	−1.6	99					

AMPLITUDES: GBZ 2.0 GNZ 1.5 MNG 8.0 2.5

79/ 579

OCT 01 $17^h 49^m 59^s.2$ 45°.13S 166°.67E 15 km M = 4.4

± 0.4 0.01 0.05 3 S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iP*	17	50	15.5	D	−0.1	100	0.89	137			
ROX	Pn	17	50	30.9	D	0.5	99	1.90	102			
OBZ	Pn	17	50	32.1		−0.2	100	2.04	151		5.0	4.7
	Sn			57.2		0.0	100					
THP	iPn	17	50	37.1	U	0.5	99	2.36	77			
TMP	iPn	17	50	39.8	U	0.1	100	2.59	73			
RHP	Pn	17	50	40.5		0.0	100	2.65	68			
	eP*			49.4		3.9						
BSP	Pn	17	50	42.0		−0.1	100	2.76	64			
MJP	Pn	17	50	43.9		−0.6	98	2.93	69			
MJZ								2.94	69		4.6	4.6
OMZ	Pn	17	50	45.5		0.1	100	3.01	90		4.1	4.3
	Sn		51	20.1		−0.2	100					
KAI	Sn	17	51	51.9		0.4		4.30	54	4.3		
CMZ								4.55	72		3.8	4.0
COB	Pn	17	51	24.6		−1.7		6.00	50		4.6	4.6
	Sn		52	29.2		−3.0						
MNG	Pn	17	51	54.9		2.8		7.88	58		4.5	4.1

AMPLITUDES: OBZ 21 25 MJZ 6.1 8.0 OMZ 0.9 2.4
KAI 0.4 CMZ 0.2 0.6 COB 0.7 2.2
MNG 0.9 0.5

79/ 580

OCT 01 $19^h 18^m 09^s.2$ 45°.24S 166°.86E 12 km M = 3.5

± 0.8 0.02 0.07 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	19	18	22.5		−0.1	100	0.72	139			
	S*			32.8		0.4	100					
ROX	P*	19	18	38.6		−1.6	95	1.75	99		3.8	3.4
OBZ								1.88	153			2.7
DMP	Pn	19	18	45.8		0.2	100	2.27	70			
RHP	Pn	19	18	49.6		−0.1	100	2.56	65			
BSP	Pn	19	18	51.9		0.5	100	2.69	61			
MJZ	Pn	19	18	53.3		−0.4	100	2.86	65		3.8	3.9
	Sn		19	27.7		0.4	100					
OMZ	Pn	19	18	54.6		0.7	100	2.87	88		3.5	3.2
	Sn		19	27.5		−0.1	100					

AMPLITUDES: ROX 1.3 1.1 OBZ 0.3 MJZ 1.0 1.7
OMZ 0.2 0.2

79/ 581

OCT 01 $19^h32^m13^s.4$ 45°.36S 166°.59E 33 km M = 3.6

± 0.9 0.04 0.07 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P	19	32	28.1		0.4	100	0.79	123			
	S			37.5		−0.8	100					
OBZ								1.87	146			2.8
ROX	P	19	32	44.4		1.1	99	1.93	94		3.9	3.7
	S		33	06.0		0.3	100					
THP	P	19	32	49.7		−1.1	99	2.48	72			
	i			51.5								
RHP	iP	19	32	55.2		0.1	100	2.79	64			
BSP	P	19	32	57.3		0.5	100	2.92	61			
OMZ	S	19	33	33.8		0.6	100	3.07	86		4.0	3.2
MJZ	P	19	32	58.7		−0.4	100	3.09	65			3.9
	S		33	33.3		−0.3	100					
COB								6.20	49		3.8	3.6

AMPLITUDES: OBZ 0.4 ROX 1.3 1.9 OMZ 0.6 0.2
MJZ 1.4 COB 0.1 0.2

79/ 582

OCT 02 $01^h20^m34^s.9$ 44°.10S 168°.85E 12 km M = 3.4

± 0.5 0.02 0.03 R S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
HGP	iP*	01	20	47.7		−0.6	100	0.72	91			
DMP	iP*	01	20	49.1	D	−0.1	100	0.77	114			
THP	iP*	01	20	50.8		−0.1	100	0.86	121			
	S*		21	01.9		−0.7	100					
RHP	iP*	01	20	51.1		−0.1	100	0.89	90			
	S*		21	02.5		−0.7	100					
BSP	iP*	01	20	51.4	U	−0.6	100	0.94	76			
TMP	P*	01	20	52.3		0.2	100	0.94	104			
	S*		21	04.7		0.0	100					
MMP	iP*	01	20	53.7	U	0.1	100	1.03	93			
MJP	iP*	01	20	56.2		0.2	100	1.17	85			
MJZ								1.17	85		3.3	3.2
ROX	P*	01	21	00.6		0.3	100	1.41	166		4.0	
	S*			17.9		−1.1	98					
OMZ	P*	01	21	06.9		0.7	100	1.76	124		3.2	3.3
	S*			30.5		1.0	99					

AMPLITUDES: MJZ 2.0 2.2 ROX 2.8 OMZ 0.3 0.8

79/ 583

OCT 02 $16^h32^m46^s.3$ 44°.87S 168°.53E 33 km M = 2.9

± 0.4 0.03 0.03 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	16	32	56.2		−0.3	100	0.49	295		2.8	3.0
	S*		33	05.2		1.2	100					
ROX								0.82	137			2.6
THP	iP*	16	33	07.5	D	2.2	98	1.03	72			
	S*			23.7		4.4						
BRZ	P*	16	33	06.2		−1.0	100	1.14	217			
	S*			22.7		−0.0	100					
HGP	iP*	16	33	08.6	U	0.1	100	1.21	51			
TMP	iP*	16	33	09.8	D	0.4	100	1.27	64			

	S*			27.6		1.2	100					
RHP	iP*	16	33	10.5	D	−0.3	100	1.36	56			
	S*			29.3		0.3	100					
MMP	P*	16	33	11.7	D	−0.7	100	1.45	60			
	S*			31.5		−0.3	100					
BSP	iP*	16	33	12.1	U	−1.3	100	1.51	49			
	S*			32.4		−1.2	100					
MJP	P*	16	33	13.7	D	−1.9	99	1.64	58			
MJZ								1.65	58		2.7	2.9
OMZ	iP*	16	33	17.6	D	0.9	100	1.70	97		3.6	2.4

AMPLITUDES: MSZ 3.7 11 ROX 0.9 MJZ 0.3 0.6
OMZ 0.8 0.1

79/ 584

OCT 02 $18^h08^m46^s.6$ 46°.08S 167°.00E 106 km M = 4.0
± 0.5 0.02 0.05 5 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iP	18	09	02.5	D	−0.6	100	0.49	52			
OBZ	P	18	09	09.9		0.7	100	1.13	137		4.5	4.4
	S			25.5		−0.8	99					
MSZ	P	18	09	14.2		−0.1	100	1.55	25		3.8	3.7
	S			35.5		0.2	100					
ROX	P	18	09	17.8		1.3	97	1.74	70		4.2	3.9
	S			39.8		0.8	99					
THP	iP	18	09	27.4	D	−0.1	100	2.56	54			
	S			58.2		0.2	100					
HGP	P	18	09	31.4		0.3	100	2.83	47			
TMP	P	18	09	30.8	D	−0.3	100	2.83	52			
	S		10	04.3		−0.4	100					
OMZ								2.93	71		3.5	3.6
RHP	P	18	09	32.6		−0.2	100	2.95	49			
MMP	P	18	09	33.2		−0.7	100	3.02	51			
	S		10	08.6		−0.9	99					
BSP	P	18	09	35.2	D	0.0	100	3.12	46			
	e			45.0								
	S		10	11.8		0.0	100					
MJZ								3.23	51		3.7	4.1

AMPLITUDES: OBZ 14 24 MSZ 4.4 5.6 ROX 2.8 2.8
OMZ 0.2 0.4 MJZ 0.6 1.6

79/ 585

OCT 03 $02^h07^m47^s.0$ 38°.31S 176°.18E 159 km M = 3.6
± 1.2 0.05 0.08 9 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	02	08	11.7		1.4	99	0.64	306		2.8*	
WTZ	S	02	08	27.2		−1.6	99	0.71	63			2.8
GNZ	S	02	08	41.8		1.0	100	1.48	104			
MNG	iP	02	08	28.2	U	0.6	100	2.38	193		4.6	3.5
	S			58.9		0.2	100					
KIW	P	02	08	32.0		−0.1	100	2.74	201			
	S		09	06.6		−0.0	100					
MTW	P	02	08	33.8		−0.3	100	2.90	190			
TCW	P	02	08	38.2		−0.5	100	3.26	206			
BHW	P	02	08	37.9		−0.9	100	3.27	198			
COB								3.85	223			2.5*

AMPLITUDES: KRP 0.8 WTZ 0.3 MNG 12 1.2

COB 0.2

79/ 586

OCT 03 $14^h07^m44^s.0$ 39°.80S 173°.65E 33 km M = 3.7

± 1.1 0.03 0.12 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	14	07	57.3		−1.7	99	0.84	43		3.2	3.5
	S		08	10.2		0.1	100					
KIW	P	14	08	05.5		−1.6	99	1.43	138			
TCW	P	14	08	07.4		−0.5	100	1.48	162			
	S			25.4		−0.3	100					
	e			32.7								
MNG	P	14	08	09.0		−0.7	100	1.62	121		4.0	3.8
	S			28.9		−0.1	100					
WEL	S	14	08	32.0		0.9	100	1.71	150	3.6		
BHW	P	14	08	14.1		1.2	100	1.85	150			
MTW	P	14	08	14.9		0.6	100	1.95	134			
KRP	P	14	08	22.1		1.9	99	2.38	39		3.6	3.2
WTZ								3.18	56			4.2
GNZ	S	14	09	20.3		4.0		3.59	73			4.0

AMPLITUDES: TNZ 0.7 1.9 MNG 6.4 5.5 WEL 0.6
KRP 1.0 0.5 WTZ 0.2 GNZ 0.5

79/ 587

OCT 03 $21^h27^m02^s.3$ 41°.13S 174°.58E 33 km M = 3.3

± 0.2 0.01 0.02 R S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MRW	iP*	21	27	08.5	D	0.2	100	0.13	135			
WEL	P*	21	27	08.9		0.0	100	0.21	136			
	S*			13.8		0.1	100					
TCW	iP*	21	27	09.3	U	0.1	100	0.24	251			
WDW	iP*	21	27	10.6	U	0.1	100	0.34	113			
BHW	iP*	21	27	10.5	U	−0.1	100	0.35	141			
CAW	iP*	21	27	11.1	D	0.2	100	0.37	86			
KIW	iP*	21	27	11.4		0.5	100	0.37	43			
MOW	P*	21	27	14.0		−0.1	100	0.58	120			
MTW	iP*	21	27	15.7	U	−0.2	100	0.70	92			
BLW	iP*	21	27	15.8	D	−0.4	100	0.72	109			
MNG	P*	21	27	18.1		−0.4	100	0.85	53		3.1	3.3
	S*			30.0		−0.5	100					
COB	S*-P*			17.4		−1.3	79	1.39	271		3.6	3.2
TNZ								1.95	356			3.2
CNZ	eP*.	21	27	39.3		0.4	100	2.07	21			
	eS*		28	10.7		4.5						

AMPLITUDES: WEL 4.4 MNG 3.0 6.6 COB 1.3 1.7
TNZ 0.2

79/ 588

OCT 04 $08^h46^m02^s.1$ 45°.06S 167°.67E 98 km M = 4.0

± 0.4 0.02 0.03 3 S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	08	46	18.0		0.5	100	0.43	24			
	S			28.8		−0.4	100					
BRZ	iP	08	46	19.5		−0.3	100	0.72	187			
ROX	P	08	46	26.4		1.0	98	1.23	110		4.0	4.3
	S			43.6		0.5	100					

THP	iP	08	46	30.8	D	0.1	100	1.66	73			
	S			52.3		0.0	100					
OBZ	P	08	46	33.2		−0.2	100	1.87	171		4.1	4.3
	S			56.3		−0.4	100					
RHP	iP	08	46	34.6	D	−0.2	100	1.98	62			
HHP	iP	08	46	35.1	D	−0.6	100	2.04	70			
	S		47	00.0		−0.5	100					
BSP	iP	08	46	36.4	D	−0.2	100	2.12	56			
	S		47	02.6		0.5	100					
MJZ								2.27	63		3.6	4.3
OMZ	P	08	46	39.8		0.6	100	2.30	91		3.7	3.9
	S		47	06.1		−0.6	100					
CMZ								3.86	69			3.7
COB								5.44	45		3.8	3.8

AMPLITUDES: ROX 3.2 11 OBZ 3.2 9.2 MJZ 1.2 5.4
OMZ 0.6 1.5 CMZ 0.3 COB 0.1 0.2

79/ 589

OCT 04 $18^h57^m28^s.0$ 40°.41S 176°.39E 12 km M = 3.4

± 0.7 0.03 0.06 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iP*	18	57	41.7	U	0.2	100	0.72	253			
	S*			52.7		1.4	99					
TRZ	P*	18	57	44.0		−0.8	100	0.92	21		3.5	3.5
	S*			59.4		2.2	98					
MTW	iP*	18	57	46.0	D	−0.3	100	1.01	222			
CAW	P*	18	57	49.1	D	−0.9	100	1.22	235			
NGZ	P*	18	57	51.7		−0.7	100	1.37	334			
CNZ	P*	18	57	52.0		−0.6	100	1.38	332			
	S*		58	10.0		−0.8	100					
	e			14.0								
WEL								1.52	235	3.0		
TUA								1.70	20		3.3	
	(P*)			03.2		4.9						
TNZ								2.00	307		3.6	3.2
WTZ								2.47	11		3.2	
KRP								2.58	344		3.7	
COB	eP*	18	58	21.9		3.9		2.86	255			
	S*			55.9		0.2	100					

AMPLITUDES: TRZ 1.7 2.2 WEL 0.1 TUA 0.2
TNZ 0.3 0.2 WTZ 0.3 KRP 0.3

79/ 590

OCT 05 $03^h06^m20^s.7$ 40°.34S 174°.30E 33 km M = 3.9

± 0.3 0.01 0.04 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KIW	iP	03	06	34.4	U	0.5	100	0.70	139			
TCW	iP	03	06	36.2	U	0.0	100	0.88	181			
MNG	iP	03	06	36.8	U	−0.4	100	0.94	108		3.8	4.1
	S			50.0		0.6	100					
WEL	P	03	06	37.8		−0.3	100	1.02	159	3.9		
	S			51.9		0.9	99					
WDW	iP	03	06	38.4	U	−0.5	100	1.07	151			
TNZ	P	03	06	40.8		0.9	99	1.15	3		3.8	4.1
MTW	P	03	06	40.1	U	−0.9	99	1.23	132			
COB	S-P			17.0		0.0	100	1.40	237			

GSZ	eP*	03 06 45.8		−1.0	99	1.45	44				
CNZ	P	03 06 45.0		0.4	100	1.49	41				
	S	07 02.3		−0.1	100						
KRP	P	03 06 58.8		−0.8	100	2.59	22			3.7	3.8
	S	07 29.8		0.8	100						
KAI	e	03 07 37.4				3.09	224	4.0			
	eS	39.8		−0.9							
CMZ						3.47	200				4.5
MJZ						4.63	217			3.9	3.8
RHP	P	03 07 36.2		5.2		4.90	218				

AMPLITUDES: MNG 13 34 WEL 2.9 TNZ 1.4 4.1
KRP 1.2 1.7 KAI 0.4 CMZ 2.8
MJZ 0.5 0.5

79/ 591

OCT 05 $08^h50^m31^s.3$ 39°.23S 178°.64E 35 km M = 3.8
± 1.2 0.03 0.10 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iP	08	50	44.6	U	−0.5	100	0.76	320			
	S			53.5		−1.9	98					
TUA	P	08	50	51.3		−0.3	100	1.23	289		3.7	3.9
TRZ	P	08	50	55.4		0.8	100	1.45	256		3.3	3.5
ECZ								1.53	357		3.1	
WTZ	eP	08	50	59.1		−0.2	100	1.79	313		4.3	4.2
	i			59.6								
	eS		51	20.3		0.0	100					
	S			21.4		1.1	100					
GSZ	P	08	51	08.7		1.5	99	2.37	268			
CNZ	P	08	51	08.8		1.2	100	2.40	270			
KRP	S	08	51	44.0		0.5	100	2.75	297		3.8	3.6
MNG	P	08	51	12.4		−0.6	100	2.80	239		4.0	3.9
	S			43.6		−0.9	100					
TNZ	P	08	51	22.0		2.0		3.31	269		3.9	3.8
WEL	S	08	52	03.3		−0.6	100	3.61	234	3.8		

AMPLITUDES: TUA 1.0 1.8 TRZ 0.4 0.9 ECZ 0.1
WTZ 7.0 4.2 KRP 0.5 0.3 MNG 2.4 2.3
TNZ 0.1 0.1 WEL 0.2

79/ 592

OCT 05 $17^h02^m09^s.9$ 40°.25S 176°.66E 70 km M = 3.4
± 0.7 0.04 0.07 9 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	P	17	02	25.4	U	0.2	100	0.70	10		3.3	3.4
CAZ	S-P			12.7		0.9	100	0.74	207			
MNG	P	17	02	28.5		0.0	100	0.97	247		3.6	3.3
	e			33.6								
	S			41.0		−1.5	98					
GSZ	P	17	02	33.4		1.1	99	1.27	319			
MTW	P	17	02	32.5	U	0.2	100	1.27	224			
CNZ	P	17	02	34.1		0.7	100	1.35	320			
KIW	P	17	02	35.5		0.5	100	1.47	245			
TUA								1.48	15			3.6
WDW	P	17	02	36.9	U	−0.2	100	1.63	231			
WEL								1.77	233	3.1		
GNZ								1.92	34		3.0	3.5
TCW	P	17	02	42.8		−0.2	100	2.05	241			
	S		03	07.8		0.5	100					

TNZ							2.05	300			2.9*
WTZ	P	17	02	45.3		−0.7	100	2.28	7	3.6	3.9
KRP	P	17	02	48.3		−0.6	100	2.47	339	2.8*	

AMPLITUDES: TRZ 1.0 2.9 MNG 8.4 4.6 TUA 0.5
WEL 0.1 GNZ 0.2 1.0 TNZ 0.2
WTZ 0.5 1.1 KRP 0.4

79/ 593

OCT 05 $17^h52^m30^s.3$ 39°.15S 175°.14E 12 km M = 3.6
± 0.2 0.01 0.01 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	iP*	17	52	37.3	U	0.3	100	0.31	99			
	Pg			38.0		0.8	99					
GSZ	iP*	17	52	37.9	D	0.1	100	0.37	110			
	Pg			38.9		0.8	100					
	Sg			43.6		0.3	100					
TNZ	P*	17	52	41.9	D	0.3	100	0.59	266		3.0	3.2
	Sg			51.3		0.7	100					
KRP	P*	17	52	52.5	D	−0.6	100	1.26	14		4.3	4.4
	S*		53	09.2		−0.7	100					
TRZ	ePg	17	52	57.6		−0.4	100	1.37	108		3.5	3.6
MNG	ePn	17	52	55.7		−0.5	100	1.49	170		3.0	3.9
	iP*			56.6	U	−0.3	100					
	Sn		53	14.2		−1.3	98					
MTW	ePn	17	53	04.4		0.9	99	2.02	172			
	P*			05.8		−0.3	100					
WDW	ePn	17	53	05.2		0.4	100	2.12	183			
	P*			07.0		−0.7	100					
WEL								2.15	188	3.5		
TCW	ePn	17	53	05.4		0.0	100	2.17	198			
	P*			06.7		−1.8						

AMPLITUDES: TNZ 0.8 2.0 KRP 6.0 7.6 TRZ 0.4 0.5
MNG 0.8 6.9 WEL 0.2

79/ 594

OCT 05 $19^h17^m12^s.3$ 44°.75S 167°.57E 126 km M = 3.3
± 0.8 0.08 0.05 4 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	19	17	29.8		−0.3	100	0.26	73			
	S			43.9		0.3	100					
THP	iP	19	17	42.2	U	−0.3	100	1.67	84			
RHP	P	19	17	45.7	U	0.3	100	1.92	71			
BSP	P	19	17	47.6		0.9	99	2.02	65			
MMP	iP	19	17	46.8	U	−0.1	100	2.03	74			
	S		18	13.3		0.3	100					
HHP	iP	19	17	46.3	U	−0.5	100	2.03	79			
	S		18	12.0		−0.9	99					
MJZ								2.21	71		3.0	3.3
OMZ	S	19	18	21.9		0.5	100	2.40	99			3.6

AMPLITUDES: MSZ 6.6 5.9 MJZ 0.2 0.4 OMZ 0.4

79/ 595

OCT 05 $20^h06^m30^s.4$ 37°.25S 177°.01E 225 km M = 4.0
± 1.0 0.05 0.08 6 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	20	07	01.1		−0.4	100	0.74	181		3.3	3.3

	e			11.1								
	S			25.9		0.2	100					
KRP	P	20	07	05.3		−0.1	100	1.35	239		2.8*	
GNZ	P	20	07	08.5		0.8	99	1.61	150		4.4	4.5
	S			35.7		−0.6	99					
MNG	P	20	07	28.2		−0.3	100	3.57	199		4.3	4.0
	S		08	13.8		0.1	100					

AMPLITUDES: WTZ 0.4 0.5 KRP 0.5 GNZ 3.8 6.7
MNG 2.4 1.6

79/ 596

OCT 06 $06^h52^m45^s.9$ 43°.56S 170°.65E 6 km M = 3.4
± 0.4 0.03 0.04 6 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MJZ	iPg	06	52	56.0	U	1.0	100	0.45	197		3.4	3.3
	Sg		53	01.8		0.7	100					
BSP	iPg	06	52	56.5	U	0.4	100	0.50	232			
	Sg		53	02.6		−0.3	100					
MMP	iPg	06	52	59.2		0.3	100	0.64	205			
RHP	iPg	06	52	59.8	U	0.1	100	0.67	217			
HHP	iPg	06	53	02.0	U	−0.1	100	0.80	196			
TMP	iPg	06	53	02.8	U	−0.2	100	0.85	207			
DMP	iPg	06	53	06.2	U	−0.7	100	1.04	215			
THP	iPg	06	53	07.7	U	−1.0	100	1.13	209			
KAI	Pg	06	53	10.5		0.8	100	1.18	29	3.1		
	e			18.6								
CMZ	Pg	06	53	14.2		−1.0	100	1.45	92		3.2	3.2
OMZ	P*	06	53	15.4		1.8	98	1.52	173		3.4	3.5
	iPg			16.1	U	−0.6	100					
ROX	P*	06	53	22.9		−1.3	99	2.14	206		3.7	3.3
MSZ								2.26	240		3.3	3.5

AMPLITUDES: MJZ 18 18 KAI 0.4 CMZ 0.5 0.8
OMZ 0.6 1.6 ROX 0.6 0.7 MSZ 0.6 1.6

79/ 597

OCT 06 $15^h15^m03^s.8$ 44°.99S 167°.58E 103 km M = 3.4
± 0.4 0.02 0.03 3 S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	15	15	19.6	U	0.1	100	0.40	37		3.3	3.3
	S			31.0		−0.4	100					
BRZ	P	15	15	22.3		−0.1	100	0.79	182			
	e			29.6								
ROX	P·	15	15	29.1		0.6	99	1.32	112		3.6	3.5
	S			47.6		0.4	100					
THP	iP	15	15	33.1	D	−0.1	100	1.71	76			
	S			55.0		−0.3	100					
RHP	iP	15	15	37.0	D	0.1	100	2.01	64			
HHP	P	15	15	37.5	D	−0.6	99	2.09	72			
BSP	P	15	15	38.8		0.1	100	2.13	59			
	S		16	05.4		0.8	99					
MJZ								2.30	65		2.6	3.5
OMZ	P	15	15	41.7		−0.3	100	2.37	93		3.7	3.4
	S		16	09.7		−0.7	99					

AMPLITUDES: MSZ 6.3 11 ROX 1.1 1.7 MJZ 0.1 0.8
OMZ 0.5 0.4

79/ 598

OCT 06 $17^h36^m32^s.3$ 45°.38S 167°.56E 119 km M = 3.4

± 0.8 0.04 0.06 5 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iP	17	36	50.6	D	0.8	100	0.40	183			
	S		37	03.4		0.2	100					
MSZ	P	17	36	52.6	U	0.4	100	0.76	20		3.7	3.5
	i			53.1	U							
	S		37	06.0		−1.3	99					
ROX	S	17	37	15.5		−0.4	100	1.24	95			3.2
THP	iP	17	37	04.5	D	0.2	100	1.85	64			
	S			29.3		0.9	100					
RHP	iP	17	37	08.9	D	0.1	100	2.20	55			
HHP	iP	17	37	09.1	D	−0.2	100	2.24	63			
	S			37.3		0.2	100					
BSP	iP	17	37	11.0	D	0.1	100	2.36	51			
	S			40.6		0.7	100					
OMZ	P	17	37	09.6		−1.7	97	2.39	84		3.1	3.3
MJZ								2.49	57		3.0	4.0

AMPLITUDES: MSZ 7.0 8.3 ROX 0.7 OMZ 0.1 0.2
MJZ 0.2 1.5

79/ 599

OCT 07 $05^h30^m17^s.5$ 37°.85S 177°.83E 33 km M = 3.4

± 0.6 0.04 0.04 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P*	05	30	29.6		0.2	100	0.58	74			
WTZ	P*	05	30	30.7		−0.2	100	0.68	259		3.2	4.0
	e			34.2								
	e			38.0								
	S*			41.9		1.3	100					
	e			42.3								
GNZ	Pn	05	30	32.0		−0.1	100	0.80	169			
	e			36.3								
	S*			45.4		1.3	100					
KRP	Pn	05	30	45.5		−0.4	100	1.82	267		3.6	3.5
	Sn		31	08.0		0.8	100					
NGZ	Pn	05	30	51.2		0.2	100	2.19	232			
GBZ	Pn	05	30	54.4		−0.7	100	2.49	310			
MNG	ePn	05	31	02.4		−3.9		3.31	213		3.1	3.3
	eSn			40.2		−2.8	95					

AMPLITUDES: WTZ 3.5 18 KRP 0.6 0.4 MNG 0.2 0.4

79/ 600

OCT 07 $07^h33^m22^s.5$ 44°.86S 167°.83E 78 km M = 3.4

± 0.2 0.01 0.02 1 S.E. of RES. 0.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	07	33	34.5	U	−0.0	100	0.21	19			
	iS			43.5		−0.0	100					
BRZ	iP	07	33	40.9		−0.2	100	0.94	192			
	S			55.0		−0.0	100					
ROX	P	07	33	45.0		0.4	99	1.22	121		3.9	3.3
	S		34	01.4		−0.0	100					
THP	iP	07	33	48.5	D	0.1	100	1.50	79			
	S		34	07.6		−0.3	100					

RHP	P	07 33 52.2		0.2	100	1.79	66				
HHP	P	07 33 52.8	D	−0.5	98	1.88	74				
BSP	iP	07 33 54.0	D	0.2	100	1.92	60				
MJZ						2.09	66			3.1	3.3
OMZ	P	07 33 57.6		−0.2	100	2.20	96			3.3	3.2

AMPLITUDES: MSZ 33 ROX 3.1 1.6 MJZ 0.6 1.0
OMZ 0.3 0.5

79/ 601

OCT 07 $12^h42^m28^s.6$ 39°.33S 174°.54E 245 km M = 3.8
± 0.6 0.03 0.05 6 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	P	12	43	00.7		0.3	100	0.19	319			
MNG	iP	12	43	06.8	U	0.3	100	1.48	151		4.2	4.2
	S			36.1		0.2	100					
KIW	P	12	43	07.2		0.1	100	1.57	170			
KRP	eP	12	43	07.5		−0.0	100	1.60	30			
TRZ	P	12	43	10.4		1.4	95	1.78	98		3.4	3.9
TCW	P	12	43	09.7		−0.3	100	1.90	186			
WEL	S	12	43	42.9		−0.2	100	1.96	175	3.3		
MTW	P	12	43	10.6		−0.1	100	1.97	158			
WDW	iP	12	43	10.3	U	−0.4	100	1.97	170			
TUA	P	12	43	12.4		0.5	100	2.10	77		3.7	3.7
WTZ	P	12	43	13.3		−1.0	99	2.34	56		3.9	3.0
GNZ	P	12	43	19.3		0.3	100	2.80	77		4.4	4.5
	S			57.6		−0.6	100					
CMZ								4.49	198			3.1*

AMPLITUDES: TNZ 0.3 0.2 MNG 5.4 6.3 TRZ 0.1 0.7
WEL 0.1 TUA 0.2 0.2 WTZ 0.6 0.1
GNZ 1.7 3.7 CMZ 0.3

79/ 602

OCT 08 $03^h03^m02^s.4$ 44°.88S 167°.88E 75 km M = 3.3
± 0.2 0.01 0.02 2 S.E. of RES. 0.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	03	03	13.9	U	−0.2	100	0.22	7			
	iS			23.0		0.2	100					
BRZ	P	03	03	20.8		0.1	100	0.93	195			
	S			34.5		0.1	100					
THP	iP	03	03	28.1	D	0.4	99	1.48	77			
	S			47.0		0.2	100					
RHP	P	03	03	31.7		0.2	100	1.76	64			
HHP	P	03	03	32.4		−0.3	99	1.84	73			
	S			54.9		−0.3	99					
BSP	iP	03	03	33.5	U	0.2	100	1.89	58			
OBZ	P	03	03	35.2		−0.0	100	2.02	175		3.3	3.6
	S			59.3		−0.0	100					
MJZ								2.06	65		3.0	3.3

AMPLITUDES: MSZ 21 27 OBZ 0.5 2.3 MJZ 0.5 1.1

79/ 603

OCT 10 $06^h55^m51^s.0$ 38°.12S 176°.81E 5 km M = 3.5
± 0.7 0.04 0.03 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Sg-Pg			02.3		−0.4	100	0.20	46			
TUA	Pg	06	56	04.9		−1.0	100	0.74	159		3.6	3.7

	Sg			17.0		1.1	99					
KRP	Pg	06	56	12.4		0.7	100	1.03	281		3.1	3.1
GNZ	iPg	06	56	12.6	U	−0.4	100	1.09	119		4.0	3.5
	Sg			28.7		1.0	100					
TRZ	Pg	06	56	19.2		−0.7	100	1.43	180		3.6	3.4
	Pg			20.1		0.1	100					
MNG	e(Pg)	06	56	42.6		−3.0		2.70	202		3.5	

AMPLITUDES: TUA 2.0 2.8 KRP 0.8 0.7 GNZ 6.0 3.2
TRZ 0.8 0.6 MNG 0.8

79/ 604

OCT 10 $09^h53^m21^s.0$ 40°.61S 173°.76E 31 km M = 3.9
± 0.3 0.02 0.02 2 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	iP*	09	53	36.2	U	1.4	99	0.72	147			
KIW	iP*	09	53	38.3	U	0.3	100	0.91	106			
COB	P*	09	53	37.9		−0.1	100	0.91	238		4.2	4.0
	S*			50.8		0.3	100					
WEL	eS*	09	53	53.2		−0.4	100	1.02	132	3.9		
WDW	iPn	09	53	40.5	U	0.2	100	1.14	125			
MNG	Pn	09	53	42.8		0.2	100	1.31	91		3.5	4.2
	P*			45.4		0.7	100					
	S*		54	01.1		−1.1	99					
MTW	Pn	09	53	43.7	U	−0.6	100	1.43	113			
TNZ	P*	09	53	47.0		−0.9	100	1.50	19		4.3	4.4
	S*		54	07.2		−0.7	100					
NGZ	Pn	09	53	54.2		1.9	97	2.02	46			
TRZ	eP*	09	54	05.9		−0.3	100	2.57	67		3.5	3.5
KAI	Sn	09	54	28.6		−1.3	99	2.60	222	4.3		
KRP	Pn	09	54	06.1		0.1	100	3.02	28		3.9	4.3
	Sn			40.7		0.8	100					
GNZ	Sn	09	54	58.8		−0.7	100	3.83	61		3.7	4.3
MJZ								4.17	215		3.8	3.3
RHP	Pn	09	54	25.8		0.6		4.43	217			
	Sn		55	10.2		−3.5						
MSZ								5.92	225		3.9	3.9

AMPLITUDES: COB 10 23 WEL 2.9 MNG 3.6 19
TNZ 2.9 5.2 TRZ 0.2 0.3 KAI 1.1
KRP 1.4 3.8 GNZ 0.3 1.6 MJZ 0.5 0.2
MSZ 0.3 0.6

79/ 605

OCT 10 $11^h11^m08^s.9$ 36°.68S 177°.96E 256 km M = 4.0
± 1.3 0.08 0.15 11 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	11	11	51.6		−0.2	100	1.96	179		4.5	4.1
	S		12	24.9		−0.2	100					
KRP	P	11	11	54.3		−0.6	100	2.30	237		3.0*	
TRZ	P	11	12	03.6		1.4	99	3.01	197		4.0	3.6
NGZ	P	11	12	04.6		1.2	99	3.11	216			
MNG	P	11	12	17.7		−0.4	100	4.39	206		4.1	3.7
KIW	P	11	12	22.7		−0.4	100	4.81	209			
MTW	P	11	12	23.3		−0.6	100	4.87	202			
WHW	S	11	13	30.8		−0.0	100	5.26	208			

AMPLITUDES: GNZ 3.2 2.0 KRP 0.5 TRZ 0.2 0.2
MNG 1.2 0.5

79/ 606

OCT 10 $22^h14^m47^s.0$ 38°.20S 177°.74E 33 km M = 4.4

± 0.3 0.02 0.03 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iP*	22	14	58.1		0.6	100	0.49	154			
WTZ	S*-P*			10.0		0.8	100	0.63	290		4.2	4.6
TUA	iP*	22	15	01.8	D	0.1	100	0.76	217		4.3	4.5
	S*			13.6		1.1	99					
ECZ	P*	22	15	02.7		0.2	100	0.81	52			
WNZ	P*	22	15	11.7		0.1	100	1.36	251		4.3	
TRZ	Pn	22	15	11.0		−0.5	100	1.53	208		4.4	4.4
	Sn			30.1		0.3	100					
KRP	iPn	22	15	14.3	U	−0.3	100	1.76	278		4.2	4.0
	Sn			35.3		0.0	100					
NGZ	iPn	22	15	17.1	D	0.1	100	1.93	239			
CNZ	iPn	22	15	17.6	D	−0.1	100	1.99	239			
GBZ	Pn	22	15	26.8		−0.3	100	2.68	317			
	e			54.4								
TNZ	Pn	22	15	29.7		0.8	100	2.81	248		4.7	
MNG	iPn	22	15	27.7	D	−3.6	0	2.99	215		4.4	4.4
	Sn		16	02.8		−1.9	89					
WEL	Sn	22	16	21.6		−3.7		3.84	216	4.6		
COB								4.82	232		4.4	4.3
MJZ								7.97	221		4.8	4.6
RHP	Pn	22	16	39.0		−4.2		8.25	222			
MSZ	Sn	22	18	42.8		−5.9		9.81	226			4.6

AMPLITUDES:

WTZ	40	96	TUA	11	19	WNZ	0.7		
TRZ	4.7	6.6	KRP	3.0	1.7	TNZ	0.8		
MNG	5.1	6.6	WEL	1.1		COB	0.6	1.8	
MJZ	1.3	1.2	MSZ		1.1				

79/ 607

OCT 11 $08^h12^m35^s.0$ 45°.04S 168°.45E 12 km M = 3.3

± 0.5 0.04 0.04 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	Pg	08	12	46.2		0.2	100	0.53	314		3.7	3.5
	Sg			53.6		0.3	100					
BRZ	ePg	08	12	54.6		−0.4	100	0.98	221			
	e			58.0								
	Sg		13	08.3		0.0	100					
THP	iPg	08	13	01.1	U	3.0	97	1.13	65			
RHP	iPg	08	13	04.8	D	−0.6	100	1.49	52			
HHP	Pg	08	13	05.5	U	−0.5	100	1.53	63			
BSP	Pg	08	13	06.5	D	−2.2	99	1.66	46			
OMZ	Pg	08	13	10.5		0.1	100	1.75	92		3.8	2.9
MJZ								1.78	55		3.2	3.0

AMPLITUDES:

MSZ	25	27	OMZ	1.1	0.3	MJZ	0.8	0.6	

79/ 608

OCT 11 $09^h25^m59^s.5$ 37°.31S 177°.31E 306 km M = 4.2

± 0.7 0.08 0.11 7 S.E. of RES. 0.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ								0.72	201		4.0	3.6
GNZ	P	09	26	43.5		0.4	100	1.44	157			
	e		27	14.9								

	S			16.7		−0.4	100				
TRZ	P	09	26	50.0		0.7	99	2.27	190	4.4	4.2
	eS		27	30.6		2.5					
CNZ	P	09	26	49.7		−0.1	100	2.34	216		
GSZ	P	09	26	50.4		0.2	100	2.38	214		
MNG	P	09	27	02.5		0.4	100	3.60	203	4.6	4.2
	S			51.4		0.4	100				
KIW	P	09	27	06.3		−0.3	100	4.00	207		
MTW	P	09	27	07.2		−0.3	100	4.09	200		
TCW	P	09	27	12.1		−0.5	100	4.55	210		
COB								5.18	222		3.2*

AMPLITUDES: WTZ 1.0 0.5 TRZ 0.7 1.0 MNG 4.2 2.2
COB 0.6

79/ 609

OCT 12 $05^h31^m00^s.8$ 38°.17S 176°.82E 12 km M = 3.8
± 0.5 0.03 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	iP*	05	31	11.7	U	−1.9	99	0.68	158		4.0	3.8
	eS*			23		−0.0	100					
KRP	eP*	05	31	18		−1.7	99	1.04	283		3.5	3.6
	Pn			19.0		−1.5	100					
	eS*			34		0.3	100					
GNZ	iP*	05	31	19.6	U	−0.3	100	1.05	117			
TRZ	ePn	05	31	25		−0.1	100	1.39	180		4.1	3.8
	P*			26.9		1.4	100					
	eSg			48		0.6	100					
GSZ	ePn	05	31	26.5		0.2	100	1.47	221			
	eSg			50		−0.3	100					
TNZ	eP*	05	31	41		2.1	99	2.17	241			4.0
GBZ	eP*	05	31	41		1.1	100	2.22	331			
COB	ePn	05	32	06		1.1	100	4.30	226			3.5
	ePg			28.5		0.9	100					
	eS*		33	09		−2.3	99					
	eSg			26		0.5	100					

AMPLITUDES: TUA 6.0 5.0 KRP 2.0 2.0 TRZ 2.7 1.6
GSZ 2.3 2.6 TNZ 0.2 GBZ 0.6
COB 0.3

79/ 610

OCT 12 $05^h43^m21^s.0$ 34°.14S 178°.47W 320 km M = 4.9
± 2.0 0.19 0.31 60 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	05	44	43.0		−0.4	100	5.31	211		5.0	4.7
	eS		45	48		−0.0	100					
GBZ	eP	05	44	45		1.0	99	5.37	246			
TUA	P	05	44	49.6		−0.0	100	5.84	216		5.1	
ONE	eP	05	44	52		−0.7	99	6.11	252	3.7*		
KRP	eP	05	44	53		−0.2	100	6.15	230		3.8*	
	e			59								
TRZ	eP	05	44	59		0.5	100	6.59	214		4.8	

AMPLITUDES GNZ 2.2 1.7 GBZ 1.2 TUA 1.0
ONE 0.5 KRP 1.5 TRZ 0.4

79/ 611

OCT 12 $05^h45^m31^s.8$ 38°.04S 176°.97E 12 km M = 4.1

± 0.8 0.03 0.05 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Sg-Pg			03		1.4	100	0.05	15			
TUA	iP*	05	45	44.3	U	−2.0	99	0.78	170		4.3	4.4
	eS*			54.5		−2.3	99					
GNZ	iP*	05	45	53.0	D	2.5	99	1.03	126			
KRP	iP*	05	45	52.3	UW	−0.1	100	1.13	275		3.9	4.0
	eS*		46	07		−0.6	100					
TRZ	ePn	05	45	58.5		0.5	100	1.52	184		4.3	4.0
	P*		46	00.1		1.2	100					
	eSg			24.5		1.5	100					
GSZ	ePn	05	46	00		0.3	100	1.65	221			
	eS*			23		0.3	100					
GBZ	ePg	05	46	14.5		−1.3	100	2.18	326			
CAZ	eSn	05	46	50		−1.3	100	2.92	191			
WEL	eSn	05	47	07.5		−1.7	100	3.66	207	4.2		
COB	eSn	05	47	31		2.3	99	4.47	226			3.8
	eSg		48	03		0.5	100					

AMPLITUDES:

TUA		10	15	KRP		4.0	3.5	TRZ		3.6	2.5
GSZ		5.0	7.5	GBZ		1.3		CAZ			0.5
WEL	0.4			COB			0.7				

79/ 612

OCT 12 $07^h22^m35^s.3$ 46°.27S 166°.00E 12 km M = 3.7

± 1.3 0.04 0.09 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	07	22	57		0.4	100	1.18	66			
	ePg			58.1		−1.1	100					
	eS*		23	11		−1.3	100					
OBZ	ePn	07	23	01		−1.5	100	1.59	114		3.9	3.7
	eP*			03.2		−0.4	100					
	ePg			10		2.5	99					
	eSn			21		−1.9	99					
	eSg			29.5		0.5	100					
MSZ	ePn	07	23	09		−0.4	100	2.10	41		3.7	3.7
	eP*			13		0.8	100					
	eS*			39		−0.7	100					
ROX	Pn	07	23	15.8		1.5	100	2.46	72		3.8	3.8
	eSn			45		1.4	100					
	eS*			50		−0.5	100					
RHP	eP*	07	23	36		−2.1	99	3.62	55			
	e(Pg)			45		−3.3						
	eSn		24	14		2.5	99					
MJZ	e(P*)	07	23	47		4.0		3.90	56		3.9	3.5
	eSn		24	18		−0.4	100					
	e(S*)			37.5		3.6						

AMPLITUDES:

BRZ		1.0	2.5	OBZ		2.3	4.0	MSZ		1.7	3.0
ROX		0.6	1.4	RHP		0.7	0.6	MJZ		0.7	0.4

Foreshock of Puysegur Bank earthquake

79/ 613

OCT 12 $10^h25^m22^s.1$ 46°.70S 166°.03E 12 km M = 6.5

± 0.7 0.04 0.10 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iPn	10	25	47.4	U	0.7	100	1.39	49			
	i!			47.9								
OBZ	Pn	10	25	47.0		−0.4	100	1.45	99			
MSZ	Pn	10	26	00.1		−0.6	100	2.42	34			
	e			01.8								
ROX	iPn	10	26	03.2	U	0.1	100	2.60	63			
	e			03.6								
OMZ	iPn	10	26	18.0	U	−1.2	100	3.78	66		6.2	
	eP*			27.5		−0.3	100					
	e?			49								
RHP	Pn	10	26	19.9		−0.4	100	3.86	49			
MJZ	iPn	10	26	22.9	UN	−1.2	100	4.14	51			
KAI	ePn	10	26	46		1.0	100	5.67	45			
CBZ	Pn	10	26	51.8		−0.4	100	6.20	162			
	eSn		28	01.5		1.0	100					
COB	ePn	10	27	07.5		−1.3	100	7.42	43		6.8	
	eSn		28	33		3.4	82					
WEL	ePn	10	27	22		1.0	100	8.31	52			
	eSn		28	50		−1.1	100					
MCQ	ePn	10	27	31		0.4	100	9.01	207			
KRP	eP	10	28	00		−1.0		11.24	42		6.5	
	eS		30	05		3.3						
GNZ	eP	10	28	09		−1.6		11.94	52		6.4	
	eS		30	18		−0.5						
ONE	eP	10	28	18		−1.4		12.59	33	6.5		
	e			32								
	eS		30	34		0.1						
	e			49.5								
WAM	iP	10	29	09.3	U	−4.5		16.58	303			
CAN	iP	10	29	16.5	U	−4.9		17.14	306			

AMPLITUDES: OMZ 70 CBZ 21 22 COB 64
KRP 39 GNZ 14 ONE 12

Puysegur Bank earthquake. Felt throughout the southern two-thirds of the South Island and in Stewart Island, maximum intensity MM V

79/ 614

OCT 12 $10^h30^m10^s.6$ 46°.50S 166°.00E 12 km M = 4.7
± R R R R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	10	30	36		−0.7	100	1.51	106		4.9	4.5
	eSg		31	01		−0.6	100					
CBZ	eSn	10	32	55		1.2	99	6.40	162			

AMPLITUDES: OBZ 26 27 CBZ 0.4

Records of early aftershocks severely degraded by overwriting. Ambiguous aftershock observations interpreted to bring epicentres into a compact group close to the mainshock epicentre.

79/ 615

OCT 12 $10^h32^m07^s.9$ 46°.70S 165°.80E 12 km M = 4.7
± R R R R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	10	32	34		−1.3	100	1.60	98		4.8	4.6

	eSn			55.5		−0.3	100					
CBZ	ePn	10	33	40.5		1.8	99	6.25	161			

AMPLITUDES: OBZ 21 34 CBZ 0.4

79/ 616

OCT 12 $10^h37^m35^s.9$ 46°.80S 166°.32E 12 km M = 4.6

± 2.0 0.06 0.19 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePg	10	38	03		2.0	100	1.23	96		4.7	4.4
	eSn			15		0.0	100					
MSZ	eP*	10	38	18		−0.1	100	2.40	28		5.1	5.0
	eSn			45		1.9	100					
OMZ	eSn	10	39	10		−2.8	99	3.64	63		4.5	4.2
CBZ	e?	10	38	54				6.05	163			
	eP*		39	18		−2.3	100					
	eS*		40	40		1.1	100					

AMPLITUDES: OBZ 27 35 MSZ 30 43 OMZ 1.3 1.5
CBZ 0.3

79/ 617

OCT 12 $10^h38^m06^s.3$ 47°.00S 165°.80E 12 km M = 4.7

± R R R R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	e(Sn)	10	38	52		−1.9	99	1.59	87		5.0	
OMZ	eSn	10	39	54		0.9	100	4.05	63			4.4
CBZ	eSn	10	40	40		0.8	100	5.97	160			

AMPLITUDES: OBZ 34 OMZ 1.7 CBZ 0.3

79/ 618

OCT 12 $10^h39^m38^s.3$ 46°.80S 165°.60E 12 km M = 3.9

± R R R R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	eSn	10	40	30		0.7	100	1.73	94			3.9
CBZ	e(Pn)	10	41	17		8.5		6.21	159			
	eSn		42	16		−0.8	100					

AMPLITUDES: OBZ 6.0 CBZ 0.3 0.4

79/ 619

OCT 12 $10^h44^m58^s.3$ 46°.76S 165°.74E 12 km M = 4.0

± 5.8 0.14 0.32 R S.E. of RES. 3.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	10	45	26		−0.1	100	1.64	96		4.2	3.5
	eSg			55		1.4	100					
MSZ	eSg	10	46	27		1.4	100	2.59	37			4.0
OMZ	eS*	10	46	57		−2.5	99	3.99	67		4.3	

AMPLITUDES: OBZ 5.0 2.5 MSZ 3.5 OMZ 0.8

79/ 620

OCT 12 $10^h46^m03^s.7$ 46°.30S 165°.58E 12 km M = 4.9

± 2.4 0.09 0.22 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	eP*	10	46	38		1.6	100	1.85	110		5.1	
MSZ	Pn	10	46	42.0		1.2	100	2.31	46			

OMZ	ePg	10	47	21		−2.3	99	3.94	74		4.7
	eSn			48		0.3	100				
CBZ	ePn	10	47	39		−1.4	100	6.68	161		
	eSn		48	54		0.4	100				

AMPLITUDES: OBZ 31 OMZ 3.5 CBZ 0.2 0.3

79/ 621

OCT 12 $10^h50^m36^s.8$ 47°.00S 166°.33E 12 km M = 4.5

± 2.0 0.06 0.16 R S.E. of RES. 2.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePg	10	51	03		1.3	100	1.23	86		4.4	4.4
	eS*			16		0.7	100					
MSZ	ePn	10	51	16		−1.5	100	2.58	26			
OMZ	ePn	10	51	36		2.7	99	3.73	61			4.8
	eS*		52	28		−2.4	100					
CBZ	e(Pn)	10	52	07		4.8		5.86	163			
	eSn		53	08		1.1	100					
	eS*			32		−2.0	100					
	e(Sg)			48		−6.0						

AMPLITUDES: OBZ 14 35 OMZ 5.0 CBZ 0.3 0.3

79/ 622

OCT 12 $10^h52^m35^s.9$ 46°.72S 166°.54E 12 km M = 4.4

± 1.1 0.04 0.10 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	eP*	10	52	57		1.2	100	1.10	100		4.4	4.1
	eSg		53	15		1.9	100					
MSZ	ePn	10	53	13		0.7	100	2.27	26			
	eSn			40		0.3	100					
OMZ	ePn	10	53	27.5		−1.3	100	3.47	63		4.7	4.5
	e(P*)			40		3.6						
	eSg		54	31		−1.9	100					
CBZ	ePn	10	54	05		0.6	100	6.08	165			
	eSn		55	13		1.5	100					
	e(S*)			33		−6.9						
	eSg			58		−2.8	99					

AMPLITUDES: OBZ 16 23 OMZ 2.6 2.8 CBZ 0.4 0.3

79/ 623

OCT 12 $10^h56^m15^s.7$ 46°.52S 165°.67E 12 km M = 5.1

± 1.0 0.04 0.12 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	10	56	43.8		−1.0	100	1.73	104			
MSZ	Pn	10	56	56.0		1.6	100	2.43	41			
OMZ	Pn	10	57	14.2		−0.9	100	3.95	70		5.2	
	P*			23.5		−0.7	100					
	eSn			58		−1.9	100					
	e(Sg)		58	32		3.3						
MJZ	ePn	10	57	18		−0.9	100	4.23	55			
CBZ	Pn	10	57	48.0		−1.3	100	6.45	161			
	e(Sn)		58	55		−5.1						
	e		59	10								
	eS*			33		2.2	99					
COB	ePn	10	58	03		0.0	100	7.46	46		5.3	5.0
	eSn		59	27		2.7	99					
MCQ	ePn	10	58	24		−0.9	100	9.06	206			

KRP	eP	10 58 56		0.8	100	11.29	44		4.8		

AMPLITUDES: OMZ 6.0 CBZ 1.8 1.8 COB 2.3 4.0
KRP 0.8

FELT: Puysegur Point (146) MM III

79/ 624

OCT 12 $11^h04^m30^s.1$ 46°.69S 166°.19E 12 km M = 4.1
± 0.5 0.02 0.04 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn?	11	04	54		0.1	100	1.34	100			4.4
	eSn		05	12.5		0.8	100					
MSZ	ePn	11	05	07		−0.7	100	2.36	32			
	eS*?			43		0.6	100					
OMZ	ePn	11	05	25		−0.8	100	3.68	66		4.0	4.0
	e(Sn)		06	16		8.1						
	eSg			34		0.0	100					
CBZ	ePn	11	06	00		0.1	100	6.18	163			
	eSn		07	07		−0.9	99					
	e(S*)			47		10.0						
MCQ	eP*	11	07	07		0.9	99	9.07	208			

AMPLITUDES: OBZ 29 OMZ 0.4 0.9

79/ 625

OCT 12 $11^h08^m05^s.4$ 46°.67S 165°.85E 12 km M = 4.2
± 0.9 0.04 0.09 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	Pn	11	08	46.1		1.5	99	2.47	37			
	eSn?		09	13		−1.1	100					
OMZ	ePn	11	09	03		−0.9	100	3.89	67		4.3	4.2
	eSn			49		0.9	100					
	eSg		10	16		−0.2	100					
CBZ	ePn	11	09	36		−0.4	100	6.27	161			
	eSn		10	45.5		0.1	100					

AMPLITUDES: OMZ 0.7 1.3 CBZ 0.3

79/ 626

OCT 12 $11^h13^m02^s.2$ 46°.72S 165°.73E 12 km M = 5.0
± 1.1 0.03 0.13 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	11	13	30		−0.2	100	1.65	97			
MSZ	ePn.	11	13	43		0.3	100	2.56	38			
OMZ	ePn	11	14	01.1		−0.9	99	3.98	67		5.0	
	eP*			12		0.7	99					
CBZ	ePn	11	14	33		0.0	100	6.25	160			
	eSn		15	42		0.2	100					
	e(S*)		16	22		10.8						

AMPLITUDES: OMZ 3.5 CBZ 0.8 2.5

FELT: Puysegur Point (146) MM II

79/ 627

OCT 12 $11^h22^m37^s.1$ 47°.02S 165°.60E 12 km M = 3.9
± 2.6 0.13 0.16 R S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	11	23	06		−0.2	100	1.73	87			

	eSn			27	−1.0	100					
MSZ	Pn	11	23	23.8	2.2	99	2.85	35			
	eSn			53	−2.1	99					
OMZ	e(P*)	11	23	45	−4.7		4.18	64		4.0	3.8
	eS*		24	44	−0.2	100					
	eSg		25	00	1.9	100					

AMPLITUDES: OMZ 0.3 0.4

79/ 628

OCT 12 $11^h24^m34^s.2$ 46°.79S 165°.49E 12 km M = 4.3

± 1.8 0.05 0.14 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	eP*	11	25	08		1.8	100	1.81	95		4.3	4.1
	eSn			29		2.0	100					
MSZ	Pn?	11	25	18.0		1.2	100	2.72	40		4.6	5.1
	eP*			21		−0.7	100					
	eS*			58		0.6	100					
OMZ	eP*	11	25	44		−2.3	99	4.16	68		4.0	4.0
	e(Sn)		26	31		7.5						
	eSg			53		−1.3	100					
CBZ	e	11	26	17				6.25	159			
	eS*		27	42		−1.0	100					

AMPLITUDES: OBZ 5.0 8.8 MSZ 7.0 41 OMZ 0.3 0.7
CBZ 0.3 0.3

79/ 629

OCT 12 $11^h30^m40^s.2$ 46°.62S 165°.41E 12 km M = 3.8

± 2.7 0.12 0.27 R S.E. of RES. 2.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	11	31	08.5		−2.9	99	1.88	100			
MSZ	eP*	11	31	26		−0.2	100	2.63	43		3.8	4.0
	eSg		32	08		−0.7	100					
OMZ	eP*	11	31	55		2.8	99	4.15	70			3.7
	eS*		32	46.5		0.2	100					
CBZ	ePn?	11	32	14		0.7	100	6.43	159			

AMPLITUDES: MSZ 1.2 3.5 OMZ 0.3

79/ 630

OCT 12 $11^h32^m38^s.2$ 46°.80S 165°.72E 12 km M = 3.7

± 2.4 0.04 0.23 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	11	33	04		−2.1	99	1.65	95			
MSZ	Pn	11	33	20.5		1.0	100	2.63	37			
	eSn			51		0.3	100					
OMZ	eP*	11	33	47		−0.9	100	4.01	66		3.7	3.7
	eSn		34	25		0.9	100					
CBZ	e?	11	35	31				6.18	160			
	eSg		36	07		0.7	100					
	e			54								

AMPLITUDES: OMZ 0.2 0.4 CBZ 0.2

79/ 631

OCT 12 $11^h35^m07^s.0$ 46°.34S 166°.01E 12 km M = 4.1

± 1.9 0.06 0.18 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn?	11	35	32		−1.7	100	1.56	112			
MSZ	ePn	11	35	44		2.2	99	2.14	39			
	eSg		36	18		−1.3	100					
OMZ	ePn?	11	36	01.5		−1.0	100	3.66	71		4.2	4.1
	ePg			21		−0.1	100					
	eS*		37	00		1.5	100					
CBZ	eSn	11	37	54		0.3	100	6.54	163			
	e(S*)		38	29.5		4.6						
	e(Sg)			54		6.5						

AMPLITUDES: OMZ 0.7 1.0 CBZ 0.3

79/ 632

OCT 12 $11^h43^m13^s.5$ 47°.15S 166°.05E 12 km M = 3.7

± 0.8 0.02 0.07 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	11	43	38		−0.5	100	1.43	81		3.6	
	eSn			57		−0.2	100					
MSZ	Pn	11	43	56.7		−0.5	100	2.80	28		3.9	3.7
	eSn		44	30		−0.1	100					
OMZ	eP*	11	44	24		1.6	96	3.97	60			3.4
	eSg		45	27		−0.2	100					
CBZ	eSg	11	46	28		0.0	100	5.78	161			

AMPLITUDES: OBZ 1.5 MSZ 1.6 1.8 OMZ 0.2

79/ 633

OCT 12 $11^h47^m23^s.5$ 46°.51S 165°.95E 12 km M = 4.3

± 1.8 0.05 0.15 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	11	47	50.8	U	0.7	100	1.54	106		4.1	4.5
	eSn		48	12		2.1	100					
MSZ	Pn	11	48	03.0		2.6	100	2.30	38			
	eSg			40		−1.1	100					
OMZ	eP*	11	48	26		−2.8	99	3.76	69		4.3	4.4
	ePg			42		2.5	100					
	eS*		49	15		−2.9	99					
	eSg			31		0.8	100					
CBZ	ePn	11	48	55		−1.4	100	6.40	162			
	eSn		50	05		−1.7	100					
	eS*			38		1.0	100					

AMPLITUDES: OBZ 4.6 26 OMZ 0.8 1.9 CBZ 0.3 0.3

79/ 634

OCT 12 $11^h48^m59^s.2$ 46°.95S 165°.93E 12 km M = 4.0

± 0.5 0.02 0.03 R S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	11	49	25		−0.2	100	1.50	89		4.1	3.9
	Sn			44.8		0.2	100					
MSZ	ePn?	11	49	41		−0.1	100	2.67	32			
	eSn?		50	13		0.2	100					
OMZ	eS*?	11	50	59		−0.3	99	3.95	63			3.9

AMPLITUDES: OBZ 5.0 8.0 OMZ 0.6

79/ 635

OCT 12 $12^h04^m53^s.5$ 46°.73S 165°.81E 12 km M = 4.5

± 0.8 0.03 0.08 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	12	05	20.5		−0.2	100	1.59	97		4.5	4.4
	eSn			42		0.9	100					
MSZ	Pn	12	05	34.5		0.9	100	2.54	36		4.5	
	P*			36.8		−1.1	100					
OMZ	ePn	12	05	54		1.3	100	3.93	67		4.4	4.6
	e(P*)		06	06		4.2						
	e(Pg)			19		6.0						
	eS*			52.5		−0.6	100					
	e		07	33								
MJZ	ePn	12	05	56		−1.4	99	4.28	52		4.8	
	eP*		06	08		0.3	100					
CBZ	ePn	12	06	25		1.1	100	6.22	161			
	e			35								
	eSn		07	31		−1.3	100					
	e			42								
	e			55								
	e		08	44								

AMPLITUDES: OBZ 9.5 22 MSZ 7.0 OMZ 1.0 3.0
MJZ 5.5 CBZ 0.3 0.4

79/ 636

OCT 12 $12^h08^m11^s.9$ 46°.84S 166°.35E 12 km M = 3.7

± 0.9 0.03 0.07 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	eS*	12	08	50		0.1	100	1.21	94			3.3
MSZ	ePn	12	08	50		−0.6	100	2.43	27		3.8	3.9
	eSn		09	21		1.2	99					
OMZ	eP*	12	09	14		−1.3	99	3.64	63		3.7	3.7
	e			35								
	eS*		10	03		0.2	100					
CBZ	eSn	12	10	46		0.4	100	6.00	163			

AMPLITUDES: OBZ 2.7 MSZ 1.4 3.5 OMZ 0.2 0.4
CBZ 0.2

79/ 637

OCT 12 $12^h11^m46^s.2$ 46°.67S 166°.06E 12 km M = 3.6

± 2.4 0.09 0.18 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	12	12	10.3		−0.9	100	1.43	100		3.5	3.3
	eSn			31		1.0	100					
MSZ	Pn	12	12	27.0		2.7	99	2.38	34		3.6	3.7
	e(Sn)			49		−4.0						
	eSg		13	06		−0.7	100					
OMZ	ePn	12	12	40.5		−2.4	99	3.75	66		3.7	3.7
	e			56								
	e		13	32								
	eSg			53		0.4	100					

AMPLITUDES: OBZ 1.4 2.0 MSZ 1.1 2.3 OMZ 0.2 0.4

79/ 638

OCT 12 $12^h15^m04^s.0$ 46°.84S 165°.85E 12 km M = 3.9

± 2.3 0.10 0.15 R S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	12	15	30.2		−0.5	100	1.56	93		3.9	3.8
	eSn			50		−0.8	100					
MSZ	Pn	12	15	42.8		−2.3	99	2.61	34		4.1	4.1
	P*			49.0		−0.7	100					
	eSn		16	17		0.9	100					
OMZ	ePn	12	16	06.5		3.0	99	3.95	65			3.8
	eSn			49.5		1.1	100					
	eS*		17	03		−1.2	100					

AMPLITUDES: OBZ 2.5 5.0 MSZ 2.7 5.0 OMZ 0.5

79/ 639

OCT 12 $12^h42^m35^s.4$ 46°.59S 165°.95E 12 km M = 4.4

± 1.1 0.04 0.09 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	12	43	01		−0.7	100	1.52	103		4.5	4.5
	ePg			08		1.8	99					
	eSn			22		0.6	100					
MSZ	Pn	12	43	13.2		0.0	100	2.37	36			
OMZ	ePn	12	43	31		−1.6	99	3.79	68		4.2	4.2
	e			46								
	e		44	22								
	eSg			42.5		−0.6	100					
MJZ	ePn	12	43	37		−0.1	100	4.12	52		4.7	
	e(Pg)			55		−3.6						
CBZ	ePn	12	44	09		1.8	99	6.33	162			
	e		45	09								
	eS*			45		−1.6	99					

AMPLITUDES: OBZ 10 30 OMZ 0.7 1.3 MJZ 4.5
CBZ 0.3 0.3

79/ 640

OCT 12 $12^h51^m34^s.3$ 46°.52S 166°.55E 12 km M = 3.5

± 0.6 0.02 0.04 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	eP*	12	51	55		0.0	100	1.14	110		3.3	3.3
	eSg		52	14		1.0	99					
MSZ	ePn	12	52	09		0.7	100	2.09	28		3.7	3.7
	eSn			34		0.2	100					
	eSg			44.5		−0.1	100					
OMZ	ePg	12	52	42		−0.7	100	3.38	66		3.6	3.5
	eSg		53	27.5		−0.7	100					
CBZ	eP*	12	53	22		−0.5	100	6.27	165			

AMPLITUDES: OBZ 1.3 3.0 MSZ 1.5 3.0 OMZ 0.2 0.3
CBZ 0.3

79/ 641

OCT 12 $12^h56^m41^s.7$ 46°.49S 166°.73E 12 km M = 4.1

± 1.0 0.04 0.09 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	eP*	12	57	01		0.4	100	1.04	114		3.7	

MSZ	Pn	12	57	15.0	0.5	100	2.01	25		4.1	
	P*			18.9	1.8	99					
	eSg			49	−0.2	100					
OMZ	ePn	12	57	32	0.4	100	3.26	66		4.1	4.0
	ePg			45	−2.5	99					
	eSn		58	10	0.7	100					
	eSg			32.5	1.1	100					
	e			52							
MJZ	eP*	12	57	42.5	−2.5	99	3.64	48		4.3	4.4
	eS*		58	32.5	0.1	100					
CBZ	ePn	12	58	13	0.2	100	6.27	166			

AMPLITUDES: OBZ 3.8 MSZ 4.8 OMZ 0.7 1.1
MJZ 2.2 3.8

79/ 642

OCT 12 $13^h35^m19^s.1$ 46°.76S 165°.64E 12 km M = 5.6
± 1.5 0.05 0.17 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	iPn	13	35	48.1	D	0.2	100	1.70	96			
MSZ	Pn	13	36	01.2		0.8	100	2.63	38			
	e			02.2								
	eP*			05		−0.1	100					
OMZ	iPn	13	36	19.5	U	−0.3	100	4.05	67		5.6	5.9
	eP*			29		−0.3	100					
	eSn		37	08.5		2.7	99					
MJZ	iPn	13	36	24.0	U	−0.4	100	4.38	53		6.0	
	P*			33.0		−2.1	99					
CBZ	ePn	13	36	51.0		1.3	100	6.24	160			
	eSn		37	57		−1.3	100					
	e(S*)		38	37		9.3						
WEL	ePn	13	37	23		1.7	100	8.55	54	5.2		
	eSn		38	52		−2.0	99					
	e		39	48								
ONE	eP	13	38	23		4.0		12.78	34	5.2		
	eS		40	37		1.4						
	e		41	32.5								

AMPLITUDES: OMZ 13 55 MJZ 70 CBZ 2.2 3.7
WEL 0.8 ONE 0.6

FELT: Puysegur Point (146) and Invercargill (149)

79/ 643

OCT 12 $13^h47^m02^s.0$ 46°.55S 165°.55E 12 km M = 4.4
± 1.5 0.05 0.12 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	13	47	31		−1.1	100	1.80	102		4.4	4.8
	eSn			52.5		−2.1	99					
	e(Sg)		48	06		3.2						
MSZ	Pn	13	47	42.8		1.0	100	2.51	42			
	eSn		48	13		1.3	100					
OMZ	ePn	13	48	01		−1.6	100	4.03	70		4.1	4.3
	eP*			11		−1.0	100					
	e(Sn)			52		3.7						
	eS*		49	04		−0.6	100					
	eSg			20		2.1	99					
MJZ	e(P*)	13	48	20.5		3.7		4.32	55		4.5	4.4
	eS*		49	14		0.9	100					

CBZ	e(Pn)	13	48	43		7.4		6.45	160				
	eS*		50	19		1.9	100						

AMPLITUDES: OBZ 6.0 36 OMZ 0.4 1.3 MJZ 2.3 2.3
CBZ 0.3

79/ 644

OCT 12 $13^h48^m28^s.4$ 47°.20S 165°.63E 12 km M = 4.2
± 1.9 0.08 0.13 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	13	48	58		0.5	100	1.73	81		4.2	4.2
	eSn		49	19.5		0.3	100					
MSZ	ePn?	13	49	14		−0.7	100	3.00	33		4.4	4.1
	eSn			50.5		0.8	100					
OMZ	eSn	13	50	19		−0.9	100	4.25	62			3.9
	e		51	08								

AMPLITUDES: OBZ 4.0 11 MSZ 3.7 4.0 OMZ 0.5

79/ 645

OCT 12 $13^h53^m51^s.6$ 46°.79S 165°.42E 12 km M = 4.2
± 1.2 0.03 0.09 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	13	54	23.7		1.3	100	1.85	95		4.3	4.4
	ePg			31		1.9	99					
	e			40.3								
	eSn			45		−0.5	100					
	eS*			49.5		0.6	100					
MSZ	Pn	13	54	35.0		0.4	100	2.75	40		4.2	4.4
	P*			38.8		−0.9	100					
	eSn		55	06		−1.0	100					
	eS*			17		1.3	100					
OMZ	eP*	13	55	02		−2.5	98	4.20	68		4.0	4.0
	e(Pg)			10		−6.6						
	e			22								
	e(Sn)			46		4.0						
	eS*			58		−1.3	100					
MJZ	(Pn)	13	55	03.0		4.1		4.53	54		4.3	
	eP*			11		0.9	100					
CBZ	eSg	13	57	22		−0.4	100	6.26	159			
	e			49								

AMPLITUDES: OBZ 5.0 16 MSZ 3.2 8.8 OMZ 0.3 0.7
MJZ 1.5 CBZ 0.4

79/ 646

OCT 12 $14^h01^m01^s.7$ 46°.36S 166°.27E 12 km M = 4.6
± 1.1 0.03 0.09 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	14	01	25.7		−0.4	100	1.39	114		4.6	4.5
	ePg			32		2.2	100					
	eSn			42.5		−1.9	100					
	eSg			48.5		−0.0	100					
MSZ	iPn	14	01	33.9	U	−1.2	100	2.04	35		4.6	4.7
	ePg			45		1.9	100					
	eSg		02	09		−1.7	100					
OMZ	ePn	14	01	55		0.0	100	3.50	70		4.3	4.4
	ePg		02	10.5		−2.0	100					
	eS*			50		1.7	100					

	e		03	12							
RHP	Pn	14	01	57.8		2.6	99	3.52	51		
MJZ	ePn	14	02	01		1.9	100	3.80	53	4.9	4.8
	e(P*)			11		3.3					
	eS*			56		−1.2	100				
CBZ	ePn	14	02	33.5		−2.2	100	6.49	164		
	eSn		03	45		−1.9	100				
	e			59							
	eS*		04	20		2.3	100				

AMPLITUDES: OBZ 16 33 MSZ 12 30 OMZ 1.0 2.5
RHP 24 MJZ 7.5 7.5 CBZ 0.5 0.3

79/ 647

OCT 12 $14^h 11^m 27^s.5$ 46°.70S 166°.03E 12 km M = 3.6
± 1.4 0.05 0.11 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	14	11	53		0.2	100	1.45	99		3.5	3.6
	eSn		12	13		1.2	100					
MSZ	ePn	14	12	05		−1.1	100	2.43	34		3.7	3.7
	eS*			43.5		1.6	99					
OMZ	eP*	14	12	33		−0.3	100	3.79	66		3.7	3.4
	ePg			44		−0.1	100					
	eS*		13	21		−1.7	99					
RHP	ePn	14	12	26		0.2	100	3.87	49			

AMPLITUDES: OBZ 1.2 3.6 MSZ 1.3 2.3 OMZ 0.2 0.2
RHP 0.8

79/ 648

OCT 12 $14^h 21^m 32^s.2$ 46°.93S 165°.94E 12 km M = 3.9
± 3.1 0.12 0.24 R S.E. of RES. 2.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	14	21	56		−2.1	100	1.49	90		3.8	
MSZ	ePg	14	22	24		−1.8	100	2.65	32		4.0	4.0
	eSg		23	01		−0.5	100					
OMZ	ePg	14	22	54		2.2	100	3.93	64		3.7	3.8
	eSg		23	44		−0.8	100					
	e		24	03								
RHP	eP*	14	22	45		2.3	100	4.06	47			
	e(Pg)			59		4.7						

AMPLITUDES: OBZ 2.5 MSZ 2.2 3.8 OMZ 0.2 0.5
RHP 2.6

79/ 649

OCT 12 $14^h 27^m 45^s.9$ 46°.59S 166°.12E 12 km M = 4.4
± 1.0 0.04 0.09 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	14	28	08.8		−1.8	99	1.41	104		4.4	4.2
	ePg			13		−1.4	100					
	e			20.0								
	eSg			34		0.5	100					
MSZ	ePn	14	28	21		−1.7	100	2.29	34		4.5	4.3
	eP*			24		−2.2	99					
	e(Pg)			27.6		−4.7						
	eSg		29	04		0.7	100					
OMZ	ePn	14	28	43		1.4	100	3.68	67		4.1	4.2
	ePg		29	00		−0.3	100					

	e(S*)		33		−4.9						
RHP	Pn	14	28	44.7	2.2	99	3.74	50			
MJZ	ePn	14	28	47	0.7	100	4.02	51		4.5	4.6
	eP*			56.5	0.8	100					
	eS*		29	48	−0.1	100					
CBZ	ePn	14	29	18.5	1.2	100	6.29	163			
	e(Sn)		30	32	5.5						

AMPLITUDES: OBZ 10 18 MSZ 8.5 11 OMZ 0.6 1.4
RHP 8.0 MJZ 3.0 4.5 CBZ 0.3 0.2

79/ 650

OCT 12 $14^h36^m44^s.5$ 46°.60S 166°.35E 12 km M = 3.6
± 1.0 0.04 0.08 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	e?	14	36	57				1.26	105		3.5	3.7
	eS*		37	24		0.2	100					
MSZ	ePn	14	37	21		0.7	100	2.22	30		3.8	3.7
	eSg		38	00		0.6	100					
OMZ	eP*	14	37	46		−0.1	100	3.54	66			3.5
	e		38	05								
	eSg			44		0.2	100					
RHP	ePn	14	37	37		−2.6	98	3.63	48			
CBZ	e?	14	37	33				6.24	164			
	ePn		38	17		1.8	99					
	eSn		39	23		−0.8	100					

AMPLITUDES: OBZ 1.5 7.0 MSZ 2.0 2.5 OMZ 0.3
RHP 1.3

79/ 651

OCT 12 $14^h56^m07^s.8$ 46°.72S 165°.37E 12 km M = 3.7
± 1.3 0.05 0.09 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	14	56	39		−0.1	100	1.90	97		3.8	3.8
	Pg			45		−1.1	100					
	eSn		57	03.5		0.8	100					
MSZ	ePn	14	56	50.5		0.1	100	2.72	42		3.7	3.6
	eP*			57		1.7	99					
	eS*		57	30		−0.9	100					
OMZ	e	14	57	28				4.21	69			
	eS*		58	16		0.4	100					
RHP	ePn	14	57	10		−1.0	100	4.23	53			

AMPLITUDES: OBZ 1.6 3.5 MSZ 1.0 1.4

79/ 652

OCT 12 $15^h49^m16^s.7$ 46°.54S 166°.30E 12 km M = 3.6
± 1.1 0.04 0.11 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	15	49	40		0.0	100	1.30	107		3.7	3.7
	eSn			59		1.6	100					
MSZ	ePn	15	49	51		−1.1	100	2.19	32		3.7	3.5
	eP*			57		1.8	100					
	eS*		50	23		−0.9	100					
OMZ	ePg	15	50	28		−0.4	100	3.55	67		3.6	3.6
	eS*		51	04		−0.7	100					
RHP	ePn	15	50	12		0.4	100	3.62	49			
CBZ	ePn	15	50	50		1.8	100	6.30	164			

	eSn	51	55		−2.5	99							

AMPLITUDES: OBZ 2.5 6.0 MSZ 1.4 1.6 OMZ 0.2 0.4
RHP 0.8 CBZ 0.2 0.2

79/ 653

OCT 12 $15^h53^m05^s.8$ 46°.77S 165°.73E 12 km M = 3.8
± 2.8 0.09 0.23 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	15	53	33.2		−0.5	100	1.64	95		3.8	3.9
	Pg			40.2		1.1	100					
	eSn			54		−0.6	100					
MSZ	eP*	15	53	50		−1.4	100	2.60	37		3.9	3.7
	eSn		54	18		0.3	100					
OMZ	ePn	15	54	05		−0.9	100	4.00	67			3.7
	e(Sn)			57		5.7						
RHP	ePn	15	54	09		2.1	99	4.07	50			

AMPLITUDES: OBZ 2.0 5.5 MSZ 1.8 2.0 OMZ 0.4
RHP 1.3

79/ 654

OCT 12 $15^h55^m22^s.3$ 46°.75S 165°.99E 12 km M = 5.1
± 0.8 0.03 0.08 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	iPn	15	55	48.7	D	0.9	100	1.47	97		4.8	4.6
	eSn		56	08		1.2	100					
MSZ	iPn	15	56	02.1	D	0.5	100	2.48	34			
	e			03.9								
	eP*			07		1.2	100					
	e			10								
OMZ	ePn	15	56	20		0.0	100	3.82	66		5.1	5.2
	eP*			30		1.3	100					
	ePg			36		−3.6	78					
	eS*		57	19		0.4	100					
RHP	ePn	15	56	22.0		0.8	100	3.91	49			
MJZ	ePn	15	56	24		−1.0	100	4.19	50		5.4	5.4
	eP*			34		−1.0	100					
	ePg			46.5		−0.5	100					
	(Sn)		57	20		7.6						
CBZ	Pn	15	56	52.0		0.1	100	6.16	162			
	eSn		57	59		−0.7	100					
	e		58	09								

AMPLITUDES: OBZ 23 38 OMZ 4.5 12 MJZ 19 27
CBZ 0.4 0.8

79/ 655

OCT 12 $16^h28^m25^s.3$ 47°.26S 165°.41E 12 km M = 3.7
± 1.4 0.06 0.10 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P*	16	28	58.2		−0.4	100	1.89	80		3.9	3.6
	eSn		29	19.5		−0.5	100					
MSZ	Pn	16	29	13		−0.5	100	3.13	35		3.7	3.6
	eP*			21		1.1	99					
	eS*		30	00		−0.8	100					
OMZ	e(P*)	16	29	38		−3.8		4.41	62			
	eSn		30	22		1.3	99					
RHP	Pn	16	29	32.8		−0.2	100	4.55	48			

AMPLITUDES: OBZ 1.8 2.3 MSZ 0.7 1.0 RHP 1.0

79/ 656

OCT 12 $16^h36^m20^s.6$ 46°.46S 165°.68E 12 km M = 4.3

± 1.4 0.05 0.13 R S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	16	36	50.3		0.6	100	1.74	106		4.8	4.4
	ePg			56		0.3	100					
	eSn		37	11.5		−0.1	100					
MSZ	Pn	16	36	56.0		−2.6	99	2.38	42		4.2	4.2
	ePg		37	09		0.2	100					
	eSg			39		−2.0	100					
RHP	eP*	16	37	28.5		0.1	100	3.91	54			
	e			34								
OMZ	ePn	16	37	22		2.4	99	3.92	71		4.0	4.0
	eS*?		38	24		4.2						
	eSg			33		0.3	100					
MJZ	e(Pn)	16	37	27		3.7		4.19	55		4.3	
	eP*			35		1.7	100					
	e		38	02								
CBZ	ePn	16	37	57		2.2	100	6.51	161			
	eSn		39	03		−3.2	99					
	e(S*)			30		−7.2						

AMPLITUDES: OBZ 16 19 MSZ 4.0 6.5 RHP 5.5
OMZ 0.4 0.8 MJZ 1.7 CBZ 0.3

79/ 657

OCT 12 $16^h41^m15^s.0$ 46°.76S 165°.82E 12 km M = 3.9

± 1.7 0.04 0.18 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	16	41	42		−0.1	100	1.58	96		3.9	4.0
	eSn		42	03		0.6	100					
MSZ	ePn	16	41	55.5		0.1	100	2.56	36		4.1	4.0
	Pg		42	07.3		0.6	100					
	eSg			40		−1.1	100					
OMZ	ePn	16	42	13		−1.3	100	3.94	66		3.9	3.8
	eP*			25		1.6	100					
	e(Sn)		43	06		7.0						
RHP	ePn	16	42	15.5		0.2	100	4.01	50			
CBZ	e(Pn)	16	42	53		8.0		6.19	161			
	ePg		43	23		2.9	99					
	eSn			50		−3.2	98					

AMPLITUDES: OBZ 2.5 8.0 MSZ 2.5 3.6 OMZ 0.3 0.5
RHP 1.8 CBZ 0.3

79/ 658

OCT 12 $16^h46^m31^s.5$ 46°.62S 166°.06E 12 km M = 3.6

± 1.3 0.04 0.10 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	16	46	55		−1.6	99	1.44	102		3.6	3.6
	eSn		47	16		0.6	100					
MSZ	ePn	16	47	09		0.0	100	2.35	34		3.5	3.6
	eS*			44		0.5	100					
	eSg			49.5		−1.1	100					
OMZ	eS*	16	48	25		0.1	100	3.73	67			3.7
RHP	ePn	16	47	30		1.2	99	3.80	50			

MJZ	e(P*)	16	47	37		−5.2		4.08	51		3.8	

AMPLITUDES: OBZ 1.5 4.2 MSZ 0.8 2.0 OMZ 0.4
RHP 1.0 MJZ 0.5

79/ 659

OCT 12 $17^h15^m52^s.3$ 46°.65S 166°.34E 12 km M = 3.5
± 1.5 0.05 0.09 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P*	17	16	13.8		−1.0	100	1.25	103		3.4	3.4
	eS*			32		0.6	100					
	eSg			35		0.4	100					
MSZ	ePn	17	16	26		−2.7	99	2.27	30		3.4	3.6
	eP*			34		1.9	100					
	eSn			57		0.9	100					
	e		17	36								
	e		18	02								
OMZ	eP*	17	16	53		−1.3	100	3.56	65			3.6
	e(S*)		17	47		6.1						
RHP	ePn	17	16	48		0.1	100	3.67	47			
	eS*		17	43		−0.9	100					
MJZ	ePn	17	16	54		2.3	99	3.94	49		3.5	3.6
	eSg		18	05		−0.2	100					

AMPLITUDES: OBZ 1.3 3.7 MSZ 0.7 2.0 OMZ 0.4
RHP 0.9 0.9 MJZ 0.3 0.5

79/ 660

OCT 12 $17^h38^m57^s.1$ 46°.80S 165°.70E 12 km M = 3.7
± 1.3 0.05 0.10 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	17	39	25.5		0.2	100	1.66	95		3.5	3.8
	ePg			32		1.3	100					
	eSn			46.5		0.1	100					
MSZ	Pn	17	39	37.8		−0.7	100	2.64	37		3.7	3.6
	eP*			44		0.8	100					
	eS*		40	19		1.3	100					
OMZ	eP*	17	40	07		0.0	100	4.03	66			3.7
	eS*			58		−1.5	99					
RHP	ePn	17	39	57		−1.5	99	4.10	50			

AMPLITUDES: OBZ 1.0 4.6 MSZ 1.1 1.5 OMZ 0.4
RHP 0.7

79/ 661

OCT 12 $17^h39^m54^s.8$ 46°.67S 166°.18E 12 km M = 3.9
± 2.0 0.06 0.14 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	17	40	18		−0.7	100	1.35	101		3.7	3.7
	ePg			22		−0.2	100					
	eSn			37.5		0.8	100					
MSZ	ePn	17	40	33.7		1.4	100	2.34	32		4.2	3.9
	eS*		41	06		−0.6	100					
OMZ	eS*	17	41	46		−0.6	100	3.67	66			3.8
RHP	eP*?	17	40	58		−2.2	99	3.76	48			
MJZ	eSn	17	41	43.5		2.2	99	4.04	50			4.1

AMPLITUDES: OBZ 2.0 6.0 MSZ 3.8 4.0 OMZ 0.6
MJZ 1.4

79/ 662

OCT 12 $17^h42^m22^s.4$ 46°.75S 165°.92E 12 km M = 3.6

± 1.1 0.04 0.07 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	17	42	49.0		0.4	100	1.51	97		3.4	3.8
	eSn		43	07.5		−0.6	100					
	eS*			10		0.6	100					
MSZ	Pn	17	43	01.0		−1.1	99	2.51	35		3.5	3.6
	ePg			13		−0.1	100					
	eS*			40.5		1.2	99					
OMZ	e(Sg)	17	44	41		8.2		3.87	66			3.6
RHP	ePn	17	43	22.5		0.6	100	3.95	49			
MJZ	e(P*)	17	43	41		5.2		4.23	51		3.8	3.7
	eSg		44	44		−0.9	100					

AMPLITUDES: OBZ 0.9 5.5 MSZ 0.8 1.6 OMZ 0.3
RHP 0.6 MJZ 0.5 0.5

79/ 663

OCT 12 $17^h44^m44^s.8$ 46°.55S 165°.32E 12 km M = 4.5

± 1.3 0.06 0.11 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	17	45	16		−1.0	100	1.95	101		4.4	4.4
	ePg			22.5		−1.9	100					
	eSn			39.5		−1.7	100					
MSZ	Pn	17	45	25.0		−1.1	100	2.62	45		4.7	4.4
	eP*			32		1.3	100					
	eS*		46	05		−0.0	100					
RHP	ePn	17	45	46.2		−0.9	100	4.16	56			
	eP*			56.3		−0.7	100					
	eS*		46	52		0.8	100					
OMZ	ePn	17	45	46		−1.4	100	4.18	71		4.2	4.4
	eP*			58		0.6	100					
	e(Sn)		46	40		5.2						
	eSg		47	08		2.2	100					
MJZ	ePn	17	45	49		−2.0	100	4.45	57		4.6	4.6
	eP*		46	04		2.1	100					
	e(Sn)			50		8.9						
CBZ	ePn	17	46	23		3.9	97	6.51	159			
	e(Sn)		47	37.5		6.9						
	e(S*)		48	12		10.5						

AMPLITUDES: OBZ 5.5 14 MSZ 10 10 RHP 10 10
OMZ 0.5 1.5 MJZ 3.0 3.7 CBZ 0.3

79/ 664

OCT 12 $17^h52^m57^s.8$ 46°.41S 166°.00E 12 km M = 4.8

± 0.9 0.03 0.08 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	17	53	24.1		−0.2	100	1.54	110		4.7	4.6
	ePg			30.5		1.5	100					
	eSn			45		0.8	100					
MSZ	Pn	17	53	32.8		−0.5	100	2.20	38		4.7	4.8
	ePg			40.5		−1.8	100					
	eS*		54	08		2.5	99					
OMZ	ePn	17	53	54		0.3	100	3.70	71		4.5	4.7
	e(P*)		54	07		5.0						

	eS*			48		−2.2	99				
	eSg		55	03		0.7	100				
RHP	Pn	17	53	54.0		0.2	100	3.70	53		
MJZ	Pn	17	53	57.5		−0.1	100	3.98	54	5.1	5.1
	eP*		54	05		−1.9	99				
	e(Sn)			51		8.1					
CBZ	ePn	17	54	34		2.2	99	6.49	163		
	eSn		55	43		−0.0	100				
	eSg		56	35		−1.2	100				

AMPLITUDES: OBZ 18 33 MSZ 16 34 OMZ 1.5 3.8
RHP 0.7 MJZ 11 15 CBZ 0.3 0.4

79/ 665

OCT 12 $18^h28^m05^s.4$ 45°.46S 166°.45E 12 km M = 3.7
± 1.4 0.05 0.11 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	Pn	18	28	27.0		−1.7	100	1.30	53		3.7	3.7
	eSn			47		0.8	100					
OBZ	ePn	18	28	34		−2.2	99	1.85	142		3.5	3.3
	eS*		29	04		1.4	100					
RHP	ePn	18	28	49.5		−1.3	100	2.92	64			
	eP*			59		2.5	99					
	eS*		29	33		−1.7	100					
OMZ	ePn	18	28	54		−0.3	100	3.18	85			3.5
	eSg		29	51.5		−1.0	100					
MJZ	ePn	18	28	57		2.1	99	3.22	64		4.1	3.8
	eS*		29	44		0.4	100					

AMPLITUDES: MSZ 4.1 7.0 OBZ 0.8 1.3 RHP 3.7 4.0
OMZ 0.4 MJZ 1.7 1.2

79/ 666

OCT 12 $18^h31^m55^s.4$ 37°.43S 177°.32E 12 km M = 4.1
± 0.6 0.02 0.04 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Sg-P*			11		1.7	100	0.61	205		4.0	4.0
GNZ	iPn	18	32	20.8	D	1.7	100	1.33	156		4.5	3.9
	eSg			41		0.5	100					
TUA	Pn	18	32	19.9		0.1	100	1.39	185		4.1	4.0
	eSn			39.5		1.5	100					
KRP	Pn	18	32	18.9		−2.5	99	1.50	250		4.1	4.2
	ePg			24.5		−1.3	100					
	eSg			47		1.0	100					
GBZ	ePn	18	32	26		−0.9	100	1.91	309			
	ePg			34.0		−0.0	100					
	e			37.5								
	eS*			56		1.7	100					
TRZ	ePn	18	32	29		−1.3	100	2.16	190		4.0	4.0
	eP*			33.5		0.1	100					
	ePg			37		−2.0	99					
	eSg		33	08		−0.1	100					
	e			17								
NGZ	ePn	18	32	33		2.0	99	2.20	217			
	ePg			39.5		−0.5	100					
	eSn			58		0.2	100					
ONE	eP*	18	32	47		1.0	100	2.90	304	4.2		
	eSg		33	33		−0.1	100					
WEL	eSn	18	33	47		−1.8	99	4.33	206	4.1		

AMPLITUDES:											
	WTZ	28	23	GNZ	13	5.6	TUA	2.0	2.0		
	KRP	2.5	2.2	GBZ	2.0	1.7	TRZ	0.8	1.2		
	NGZ	1.5	1.5	ONE	0.3		WEL	0.2			

79/ 667

OCT 12 $19^h25^m45^s.0$ 37°.67S 176°.90E 12 km M = 3.4
± 0.8 0.05 0.09 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	eP*	19	26	04		−1.1	100	1.11	256		3.0	3.1
	e			29								
TUA	eP*	19	26	05		−0.9	100	1.15	170		3.6	3.5
	eSg			26		1.9	99					
GNZ	Pn	19	26	06.1		−2.4	99	1.31	138		3.9	
	eSn			27		0.9	100					
GBZ	ePn	19	26	17		1.3	100	1.84	322			
	ePg			23		0.7	100					
TRZ	eP*	19	26	19		0.7	100	1.88	182			3.5
	ePg			22		−1.1	100					

AMPLITUDES:											
	KRP	0.5	0.5	TUA	0.8	0.6	GNZ	3.2			
	GBZ		0.4	TRZ		0.3					

79/ 668

OCT 12 $19^h57^m05^s.6$ 46°.60S 166°.01E 12 km M = 3.6
± 0.8 0.03 0.05 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	19	57	30.5		−0.8	99	1.48	103		3.8	3.7
	eSn			51		0.5	100					
MSZ	ePn	19	57	44		0.8	99	2.35	35		3.3	3.5
	eSn		58	10.8		−0.6	100					
OMZ	eSg	19	59	12		−0.1	100	3.75	68			3.8
RHP	ePn	19	58	03		−0.1	100	3.81	50			
	eSn			47		0.5	100					

AMPLITUDES:									
	OBZ	2.3	4.5	MSZ	0.5	1.5	OMZ	0.5	
	RHP		2.0						

Interpretation of this and the following earthquake doubtful: the recordings overlapped each other and an earlier, smaller shock.

79/ 669

OCT 12 $19^h57^m37^s.8$ 46°.58S 166°.06E 12 km M = 4.0
± 1.8 0.04 0.14 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	19	58	04		0.9	100	1.45	104			3.9
	eSn			22		0.0	100					
MSZ	eSg	19	58	57		1.1	100	2.31	35			4.0
RHP	ePn	19	58	33.5		−1.3	99	3.77	50			
	eSn		59	18		0.2	100					
	eSg?			44		−0.9	100					
MJZ	e(Pn)	19	58	44.5		5.9		4.05	52		4.0	

AMPLITUDES:								
	OBZ		7.5	MSZ	4.5	RHP	2.5	
	MJZ	0.9						

79/ 670

OCT 12 $20^h07^m35^s.6$ 46°.71S 166°.11E 12 km M = 4.7
± 0.8 0.03 0.08 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	iPn	20	08	00.3	D	0.2	100	1.39	99		4.6	4.4
	eSn			19		0.6	100					
MSZ	ePn	20	08	14		0.1	100	2.40	32		4.8	4.9
	eSn			45		2.3	98					
OMZ	ePn	20	08	31.5		−0.6	100	3.73	66		4.4	4.5
	eP*			40		−0.5	100					
	e(Sn)		09	23		8.2						
	eSg			41		−0.5	100					
RHP	Pn	20	08	34.0		0.6	100	3.82	48			
MJZ	ePn	20	08	37		−0.1	100	4.10	50		4.9	5.0
	eP*			45		−1.8	99					
	e(Sn)		09	29		5.3						
CBZ	ePn	20	09	05		−0.4	100	6.17	162			
	eSn		10	12		−1.4	100					
	eS*			44		1.6	99					

AMPLITUDES: OBZ 17 27 MSZ 16 32 OMZ 1.1 2.6
RHP 25 MJZ 6.3 11 CBZ 0.3 0.3

79/ 671

OCT 12 $21^h33^m48^s.6$ 46°.71S 165°.79E 12 km M = 3.8
± 1.5 0.06 0.12 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Sn-Pn			20		0.2	100	1.53	53		3.7*	3.6*
OBZ	Pn	21	34	16.4		0.3	100	1.61	98		3.7	3.8
	eSn			36.2		−0.4	100					
MSZ	ePn	21	34	28		−0.6	100	2.53	37		3.8	3.8
	eSn			57		−1.7	99					
ROX	ePn	21	34	31		−0.6	100	2.75	65		3.9	3.7
	eSn		35	03		−1.1	100					
RHP	ePn	21	34	49		0.3	100	4.00	51			
	eP*		35	00		2.0	99					
	eSn			36		2.0	99					

AMPLITUDES: BRZ 1.4 3.0 OBZ 1.5 5.3 MSZ 1.5 2.3
ROX 0.6 1.0 RHP 1.0 0.8

79/ 672

OCT 12 $22^h20^m39^s.6$ 46°.44S 165°.76E 12 km M = 4.1
± 1.9 0.07 0.16 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	22	21	08.2		0.1	100	1.69	107		3.9	4.0
	eSn			30		0.4	100					
MSZ	ePn	22	21	16		−0.9	100	2.33	41			4.2
	eSg		22	00		1.9	100					
ROX	ePn	22	21	23		1.5	100	2.66	70		4.3	4.2
	eSn			54		1.0	100					
RHP	ePn	22	21	38		0.4	100	3.84	54			
	eS*		22	34		−2.5	99					
OMZ	eP*	22	21	44.5		−2.1	99	3.86	71		3.9	

AMPLITUDES: OBZ 2.2 7.2 MSZ 7.7 ROX 1.5 3.0
OMZ 0.3

Interpretation of this and the following earthquake doubtful: the recordings overlapped each other.

79/ 673

OCT 12 $22^h20^m46^s.6$ 46°.54S 165°.73E 12 km M = 4.1
± 2.3 0.07 0.15 R S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	22	21	14		−1.1	100	1.68	103		3.9	4.0
	eSn			37		0.6	100					
	eSg			43.7		0.3	100					
MSZ	ePn	22	21	23.5		−1.6	100	2.42	40		4.1	4.2
	eSg		22	09.5		1.3	100					
RHP	ePn	22	21	48.5		2.8	99	3.92	53			
	eS*		22	44		−1.9	100					

AMPLITUDES: OBZ 2.2 7.0 MSZ 3.5 7.5 RHP 7.0 6.2

79/ 674

OCT 12 $22^h21^m51^s.1$ 46°.80S 166°.18E 12 km M = 3.7
± 0.6 0.02 0.04 R S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	22	22	14.8		0.0	100	1.33	95		3.7	3.8
	Sg			36.3		0.1	100					
MSZ	eS*	22	23	06.5		0.2	100	2.46	30			3.6
RHP	eS*?	22	23	48		−0.3	99	3.85	47			

AMPLITUDES: OBZ 2.3 6.5 MSZ 1.7 RHP 1.3

79/ 675

OCT 13 $02^h21^m05^s.1$ 46°.67S 165°.25E 12 km M = 4.1
± 1.5 0.06 0.12 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(S*-Pn			25		)−0.9		1.83	62		4.2*	4.0*
OBZ	Pn	02	21	37.3		−0.4	100	1.99	98		4.2	4.0
	eSn		22	01		−1.2	100					
MSZ	Pn	02	21	47.7		−0.3	100	2.74	44		4.2	4.1
	eS*		22	28		−0.8	100					
ROX	ePn	02	21	53		0.4	100	3.08	69		4.4	4.5
	eP*		22	00.5		1.7	99					
	eSn			30		1.6	99					
RHP	Pn	02	22	08.9		0.0	100	4.27	55			
	eP*			18		−1.1	100					
OMZ	e(P*)	02	22	14		−5.2		4.27	70		3.8	3.7
	e(Sn)		23	04		6.9						

AMPLITUDES: BRZ 3.6 5.0 OBZ 3.0 5.6 MSZ 3.0 4.5
ROX 1.7 5.0 RHP 4.5 OMZ 0.2 0.3

79/ 676

OCT 13 $02^h27^m34^s.5$ 46°.63S 165°.75E 12 km M = 4.5
± 1.9 0.09 0.14 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			23.5		)−1.4		1.51	56		4.4*	4.4*
OBZ	iPn	02	28	03.2	D	0.6	100	1.66	100		4.3	4.3
	eSn			25		1.4	100					
MSZ	ePn	02	28	12		−1.9	100	2.48	39		4.5	4.6
	eP*			18		−0.1	100					
	eSn			47		3.4	97					
ROX	iPn	02	28	17.2	D	−0.3	100	2.74	66		4.7	4.6
	eSn			50		0.1	100					

OMZ	e(Pn)	02	28	37			3.2		3.93	69		4.4	4.4
	eS*		29	32			−2.2	99					
RHP	iPn	02	28	33.8		D	−0.4	100	3.97	52			
	eP*			43			−0.4	100					

AMPLITUDES: BRZ 7.2 17 OBZ 6.5 14 MSZ 7.5 15
ROX 4.0 7.0 OMZ 0.9 1.7 RHP 16

79/ 677

OCT 13 $02^h30^m38^s.1$ 46°.65S 165°.05E 12 km M = 4.7
± 1.1 0.05 0.10 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			32		)−1.3		1.93	64		4.7*	4.7*
OBZ	Pn	02	31	11.8		−0.8	100	2.12	98		4.6	4.5
	ePg			22		0.9	100					
	eSn			36		−2.5	98					
MSZ	ePn	02	31	21.5		−0.6	100	2.82	47		4.7	4.8
	Sg		32	12.5		−0.6	100					
ROX	ePn	02	31	27		−0.2	100	3.19	70		5.0	4.9
	eSn		32	07		2.7	98					
RHP	Pn	02	31	43.8		0.6	100	4.36	56			
	eP*			53		−0.8	100					
OMZ	e(Pn)	02	31	48		4.4		4.39	71		4.5	4.8
	ePg		32	07		0.1	100					
	eS*			52		0.6	100					
CBZ	ePn	02	32	13		0.8	100	6.49	157			
	e		33	37								

AMPLITUDES: BRZ 9.0 21 OBZ 6.6 16 MSZ 9.5 19
ROX 6.1 12 RHP 26 OMZ 1.0 3.5
CBZ 0.2 0.5

79/ 678

OCT 13 $04^h38^m06^s.8$ 46°.94S 165°.70E 12 km M = 4.2
± 1.1 0.05 0.07 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	04	38	35.0		0.0	100	1.66	90		4.2	4.2
	ePg			42		1.6	99					
	eSn			56		−0.1	100					
	eSg		39	03		0.2	100					
	e			12								
BRZ	(S*-Pn			24		)−0.3		1.72	48		4.2*	4.1*
MSZ	Pn	04	38	48.0		−1.8	99	2.74	35		4.4	4.2
	eP*			57		2.1	99					
	eSn		39	24		1.8	99					
	eSg			39		−0.4	100					
ROX	Pn	04	38	51.3		−0.7	100	2.91	61		4.4	4.5
	Sn		39	25.9		−0.2	100					
OMZ	eP*	04	39	17		−0.8	100	4.09	65		3.9	4.1
	eS*		40	10		−1.0	100					
RHP	ePn	04	39	09		−0.5	100	4.19	49			

AMPLITUDES: OBZ 5.0 11 BRZ 4.0 6.6 MSZ 4.5 5.6
ROX 1.9 6.0 OMZ 0.3 0.8 RHP 5.6

79/ 679

OCT 13 $06^h13^m20^s.8$ 46°.83S 165°.23E 12 km M = 4.2
± 1.4 0.07 0.11 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sn-P*			20.5		)−1.0		1.92	58		4.3*	4.0*
OBZ	ePn	06	13	55.5		2.1	99	1.98	93		4.3	4.1
	eSn		14	16		−1.8	100					
MSZ	ePn	06	14	04		−1.4	100	2.86	42		4.3	4.3
	eP*			09		−1.9	99					
	eSn			40		1.0	100					
	eS*			49		0.6	100					
ROX	Pn	06	14	09.8		0.5	100	3.15	66		4.5	4.1
	eP*			15		−0.7	100					
	eSn			44		−1.9	99					
OMZ	ePn	06	14	27		1.5	100	4.34	68		4.0	3.9
	e(Sn)		15	11		−3.5						
	eS*			34		1.4	100					
RHP	ePn	06	14	26		0.0	100	4.37	53			
	eP*			37.5		0.9	100					

AMPLITUDES: BRZ 3.8 4.6 OBZ 4.0 6.5 MSZ 3.9 5.8
ROX 1.8 2.0 OMZ 0.3 0.5 RHP 5.5

79/ 680

OCT 13 $06^h54^m55^s.6$ 46°.50S 166°.31E 12 km M = 4.2
± 1.8 0.06 0.12 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	06	55	19.5		0.6	100	1.30	109		4.2	4.4
	e			28								
	eSn			35		−1.4	100					
	eSg			39		−0.8	100					
MSZ	ePn	06	55	28		−2.5	99	2.15	32		4.1	4.3
	eSg		56	07		−1.1	100					
ROX	Pn	06	55	34.2		1.2	100	2.34	65		4.4	4.4
	ePg			40		−2.9	99					
	eSn		56	03.5		2.4	99					
OMZ	ePn	06	55	51		1.8	100	3.53	68		3.8	3.9
	eS*		56	44		1.0	100					
RHP	ePn	06	55	51		0.9	100	3.59	49			

AMPLITUDES: OBZ 8.0 28 MSZ 4.4 10 ROX 2.5 6.5
OMZ 0.3 0.8 RHP 7.5

79/ 681

OCT 13 $07^h10^m49^s.8$ 46°.84S 165°.77E 12 km M = 4.2
± 2.0 0.09 0.14 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	07	11	16.6		−0.7	100	1.61	93		4.0	4.0
	Sn			37.8		−0.1	100					
BRZ	(S*-Pn			23.8		) 1.1		1.63	50		3.9*	4.1*
MSZ	ePn	07	11	30		−1.4	100	2.65	36		4.2	4.2
	eSn		12	03		0.3	100					
ROX	ePn	07	11	36		2.2	99	2.83	62		4.3	4.3
	eSn		12	05		−2.0	99					
OMZ	eS*	07	12	52		0.5	100	4.00	66			4.0

AMPLITUDES: OBZ 3.5 8.0 BRZ 2.2 7.0 MSZ 3.0 5.8
ROX 1.6 4.0 OMZ 0.7

79/ 682

OCT 13 $08^h10^m43^s.5$ 46°.47S 165°.59E 12 km M = 4.1
± 1.3 0.06 0.10 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			27		) 1.9		1.52	64		3.8*	3.9*
OBZ	ePn	08	11	12.5		−1.0	100	1.79	105		3.9	3.9
	Sn			35.0		−0.9	100					
MSZ	ePn	08	11	21		−1.2	100	2.43	43		4.0	4.2
	eP*			28		1.8	99					
	eSg		12	03		−2.5	99					
ROX	ePn	08	11	27		−0.0	100	2.79	70		4.5	4.2
	eSn		12	00		0.2	100					
RHP	ePn	08	11	43		−0.1	100	3.96	55			
	eP*			54		1.7	99					
OMZ	eP*	08	11	52		−0.5	100	3.99	71		3.9	4.0
	e(S*)		12	39		−5.5						
	eSg			59		1.3	100					

AMPLITUDES: BRZ 2.0 5.8 OBZ 2.0 4.7 MSZ 2.3 6.6
ROX 2.5 3.2 RHP 3.7 OMZ 0.3 0.7

79/ 683

OCT 13 $08^h23^m45^s.5$ 46°.54S 165°.40E 12 km M = 4.1
± 1.0 0.04 0.07 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(S*-Pn			24		) 0.5		1.67	64		4.2*	3.9*
OBZ	ePn	08	24	17.5		0.4	100	1.91	102		4.1	4.1
	ePg			23		−1.1	100					
	eSn			39		−1.7	99					
	eSg			51		1.1	100					
MSZ	ePn	08	24	26		−0.1	100	2.57	44		3.3	4.2
	ePg			38		0.4	100					
	e			48								
	eS*		25	03		−1.3	99					
ROX	Pn	08	24	31.1		0.0	100	2.93	70		4.6	4.3
	eSn		25	07		1.6	99					
RHP	Pn	08	24	48.0		0.9	100	4.11	55			
	e		25	03								
OMZ	eP*	08	24	57		−0.2	100	4.13	71		3.9	3.9
	eS*		25	51		−0.0	100					

AMPLITUDES: BRZ 3.7 5.0 OBZ 2.6 7.0 MSZ 0.4 6.5
ROX 2.8 3.2 RHP 4.5 OMZ 0.3 0.6

79/ 684

OCT 13 $08^h24^m45^s.2$ 46°.61S 165°.55E 12 km M = 4.1
± 2.3 0.07 0.17 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sn-Pn			20		)−0.6		1.61	60		3.9*	3.9*
OBZ	ePn	08	25	16.5		1.4	100	1.79	101		4.1	4.2
	ePg			20.5		−0.9	100					
	eSn			36.5		−1.0	100					
MSZ	ePg	08	25	39		2.2	99	2.55	41		4.1	4.1
	eSg		26	09.5		−1.7	100					
ROX	e?	08	25	49				2.86	68		4.3	4.3
	eSn		26	05		1.7	100					
OMZ	eS*	08	26	49		0.6	100	4.05	70			3.9
RHP	ePn	08	25	43.5		−2.6	99	4.06	54			
	eP*			56		0.3	100					

AMPLITUDES. BRZ 2.0 4.5 OBZ 3.6 10 MSZ 3.0 4.8
ROX 1.3 3.6 OMZ 0.6 RHP 4.5

79/ 685

OCT 13 $11^h08^m58^s.8$ 46°.61S 165°.93E 12 km M = 3.9
± 1.0 0.05 0.08 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			22.5		)−0.0		1.39	54			
OBZ	Pn	11	09	25.0		−0.2	100	1.53	102		3.7	3.8
	eSn			45.5		0.5	100					
MSZ	ePn	11	09	36		−0.9	100	2.39	36		4.0	3.9
	eP*			42		1.2	100					
	eS*		10	12		−0.1	100					
	e(Sg)			27.5		8.1						
ROX	ePn	11	09	39		−1.1	100	2.62	66		4.1	3.9
	ePg			54.5		2.7	96					
	eSn		10	10		−1.1	100					
	eSg			26		−1.1	100					
OMZ	eP*	11	10	05		0.0	100	3.82	68		3.7	
RHP	ePn	11	09	56		−0.9	100	3.86	51			
	eSg		11	09		0.2	100					

AMPLITUDES: BRZ 2.0 5.7 OBZ 1.6 5.7 MSZ 2.7 3.6
ROX 1.0 1.6 OMZ 0.2 RHP 2.2

79/ 686

OCT 13 $13^h28^m09^s.7$ 44°.48S 166°.78E 12 km M = 5.0
± 0.8 0.04 0.05 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP*	13	28	25.6	D	0.5	100	0.84	104			
ROX	iPn	13	28	43.9	D	0.6	100	2.06	120			
	i!			46.2								
RHP	iPn	13	28	49.2	D	1.2	100	2.40	82			
	e(P*)			57		5.1						
	eSg		29	29		−1.7	99					
OBZ	Pn	13	28	50.0		−0.7	100	2.60	159		5.1	4.9
	eSn		29	21		−0.6	100					
MJZ	iPn	13	28	52.0	DS	0.0	100	2.70	81		5.3	5.3
	eP*		29	00		3.1	92					
	e			10								
	e			16								
	eSg			41		0.4	100					
OMZ	Pn	13	28	57.0		0.8	100	3.01	103		4.9	5.0
	e(P*)		29	07.2		5.0						
	eS*			42		0.6	100					
CMZ	ePn·	13	29	14		−0.2	100	4.32	80		4.9	4.9
	eP*			23		−1.6	99					
	ePg			35.5		−1.5	99					
	e			47								
	eSg		30	36		0.7	100					
COB	ePn	13	29	30		−0.8	100	5.54	54		5.1	4.6
	eSn		30	32.5		0.2	100					

AMPLITUDES: OBZ 14 27 MJZ 43 49 OMZ 5.0 12
CMZ 3.2 5.0 COB 2.5 2.8

79/ 687

OCT 13 $13^h39^m43^s.5$ 46°.66S 165°.66E 12 km M = 3.9
± 2.0 0.07 0.13 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sn-Pn			20.5		) 0.3		1.57	57			
OBZ	Pn	13	40	14.0		1.7	100	1.71	99		3.9	3.8
	ePg			20		2.0	100					
	eSn			32		−1.8	100					
	eS*			34.5		−1.8	100					
MSZ	ePn	13	40	22		−1.7	100	2.55	39		4.0	3.9
	eP*			29		0.9	100					
	eSn			52		−2.0	100					
	eS*		41	02		0.6	100					
OMZ	e(P*)	13	41	00		7.0		4.00	68		3.7	3.7
	eS*			47		1.8	100					
RHP	Pn	13	40	43.8		−0.3	100	4.03	52			
	e(P*)		41	00		6.5						

AMPLITUDES: BRZ 2.8 5.2 OBZ 2.2 4.5 MSZ 2.5 3.5
OMZ 0.2 0.4 RHP 2.2 2.5

79/ 688

OCT 13 $14^h40^m51^s.8$ 46°.78S 165°.59E 12 km M = 3.9
± 2.7 0.08 0.23 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sn-Pn			20		)−1.3		1.68	54			
OBZ	Pn	14	41	21.9		0.9	100	1.74	95		4.0	3.9
	Pg			27.2		0.2	100					
	eSn			42		−0.9	100					
MSZ	ePn	14	41	33		−0.7	100	2.66	39		4.3	4.1
	eP*			40.5		2.0	100					
	eSn		42	07		1.7	100					
	eSg			21		−0.7	100					
OMZ	eP*	14	42	06		3.2	99	4.09	67		3.8	3.6
	e(Sn)			47.5		8.0						
RHP	Pn	14	41	52.0		−1.9	100	4.15	51			
	eP*		42	00		−3.7	99					

AMPLITUDES: BRZ 2.1 4.6 OBZ 2.5 5.0 MSZ 4.0 4.3
OMZ 0.2 0.3 RHP 2.8 3.2

79/ 689

OCT 13 $14^h56^m58^s.8$ 46°.98S 166°.01E 12 km M = 3.8
± 1.8 0.08 0.11 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	14	57	24.5		0.6	100	1.44	88		3.9	3.9
	eSn			41		−1.8	100					
	eS*			44		0.4	100					
BRZ	(Sn-Pn			21.5		) 1.0		1.60	42			
MSZ	ePn	14	57	38		−2.6	99	2.66	31		3.9	3.8
	eP*			47		1.6	100					
	eS*		58	19		−1.3	100					
OMZ	eP*	14	58	08		1.3	100	3.91	63		3.7	3.9
	eS*			57		−0.7	100					
RHP	ePn	14	57	58		−1.6	100	4.06	46			
	eP*		58	11		1.8	100					
	eSn			47		1.4	100					

AMPLITUDES: OBZ 2.8 7.3 BRZ 1.3 3.6 MSZ 1.5 2.4
OMZ 0.2 0.6 RHP 2.0 1.5

79/ 690

OCT 13 $19^h14^m32^s.7$ 46°.90S 165°.62E 12 km M = 3.8

± 1.8 0.06 0.15 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	19	15	00.8		−0.8	100	1.72	91		4.1	3.9
	Pg			08		0.6	100					
	Sn			23.0		−0.3	100					
BRZ	Sn-Pn			22		0.1	100	1.74	51			
MSZ	ePn	19	15	14.5		−1.2	100	2.74	37		3.7	3.6
	eSn			51		2.9	99					
	eSg		16	03		−2.3	99					
OMZ	eP*	19	15	44		−0.2	100	4.12	66			3.6
	e(S*)		16	32		−6.0						
RHP	ePn	19	15	37		1.4	100	4.21	50			
	eP*			44		−1.7	100					
	eSn		16	25		1.8	100					

AMPLITUDES: OBZ 3.5 5.5 BRZ 1.2 1.8 MSZ 1.0 1.4
OMZ 0.3 RHP 0.8 0.8

79/ 691

OCT 13 $19^h38^m44^s.8$ 46°.43S 165°.66E 12 km M = 4.4

± 0.9 0.04 0.08 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(S*-Pn			22		) 2.0		1.46	64			
OBZ	Pn	19	39	13.5		−0.8	100	1.75	107		4.4	4.3
	P*			14.3		−1.6	99					
	eSn			35.5		−0.9	100					
MSZ	Pn	19	39	22.8		0.1	100	2.37	43		4.5	4.2
	P*			26.0		−0.4	100					
	Pg			32.0		−0.7	100					
	eSn			51.5		0.4	100					
RHP	Pn	19	39	44.3		0.8	100	3.90	55			
	ePg		40	02.5		−1.1	100					
OMZ	e	19	39	49				3.92	72		4.1	4.3
	eSn?		40	30		1.5	99					
	eS*			46		1.9	99					
MJZ	ePn	19	39	49		1.6	99	4.18	56		4.6	4.5
	eP*			57		−0.4	100					
	eSn		40	34		−0.7	100					
CBZ	ePn	19	40	21		1.4	100	6.54	161			
	e(Sn)		41	38		6.7						

AMPLITUDES: BRZ 6.6 12 OBZ 7.0 12 MSZ 9.0 8.0
RHP 13 OMZ 0.5 1.4 MJZ 3.6 3.6

79/ 692

OCT 13 $20^h05^m54^s.2$ 46°.79S 165°.19E 12 km M = 3.9

± 1.0 0.04 0.08 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			31		)−2.0		1.92	59			
OBZ	ePn	20	06	27.5		0.3	100	2.02	94		4.0	3.9
	eSn			51		−0.9	99					
MSZ	ePn	20	06	38		−0.7	100	2.85	43		3.9	3.9
	eSg		07	30		−0.4	100					
OMZ	e(Pg)	20	07	19		−3.1		4.36	69			3.8
	eS*		08	07		0.7	100					

RHP	ePn	20	07	00		0.6	100	4.37	54			
	e(P*)			15		5.0						

AMPLITUDES: BRZ 1.2 2.0 OBZ 1.8 4.0 MSZ 1.3 2.3
OMZ 0.4 RHP 2.5

79/ 693

OCT 13 $21^h55^m15^s.6$ 46°.79S 165°.25E 12 km M = 4.0
± 1.0 0.04 0.07 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(S*-Pn			28		) 1.1		1.88	58			
OBZ	Pn	21	55	48.3		0.3	100	1.97	94		4.1	3.8
	Pg			56.2		0.7	100					
	eSn		56	10.5		−1.8	99					
MSZ	Pn	21	55	59.6		−0.1	100	2.83	42		3.9	3.7
	eSg		56	50		−0.9	100					
ROX	Pn	21	56	04.3		0.6	100	3.12	67		4.1	3.9
	eSn			40		0.0	100					
	eSg		57	02		1.2	100					
RHP	Pn	21	56	21.2		0.9	100	4.34	53			
	e(P*)			36		5.2						
	eSn		57	10		0.8	100					
MJZ	ePn	21	56	23		−1.2	100	4.63	55		4.3	

AMPLITUDES: BRZ 1.6 2.8 OBZ 2.8 3.7 MSZ 1.5 1.7
ROX 0.8 1.1 RHP 2.0 1.0 MJZ 1.5

79/ 694

OCT 14 $01^h29^m59^s.2$ 46°.64S 165°.76E 12 km M = 3.8
± 1.8 0.06 0.13 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sn-Pn			21		) 1.5		1.50	56			
OBZ	Pn	01	30	26.4		−0.7	100	1.64	100		3.8	3.9
	ePg			34		1.6	100					
	eSn			46		−2.0	100					
MSZ	ePn	01	30	39		0.4	100	2.48	38		3.8	3.7
	eS*		31	15		−0.3	100					
ROX	ePn	01	30	41		−1.1	100	2.74	66		4.0	3.7
	eSn		31	13		−1.4	100					
OMZ	e(P*)	01	31	13		5.5		3.93	68			3.4
	eS*		32	02		3.3	98					
RHP	ePn	01	31	00		1.1	100	3.97	52			
	e(P*)			13		4.9						
	eSn			45		1.1	100					
	eSg		32	11		−1.9	100					

AMPLITUDES: BRZ 1.8 3.5 OBZ 2.0 6.5 MSZ 1.5 2.0
ROX 0.7 1.0 OMZ 0.2 RHP 1.2 1.0

79/ 695

OCT 14 $01^h41^m41^s.8$ 46°.75S 165°.31E 12 km M = 4.0
± 2.1 0.08 0.16 R S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sn-P*			20		)−0.9		1.83	59			
OBZ	e?	01	42	08.3				1.93	96		4.2	4.1
	ePn			15		1.3	100					
	ePg			21		0.1	100					
	eSn			36		−1.6	100					
MSZ	ePn	01	42	25		−0.1	100	2.77	42		3.9	3.9

	ePg			35		−2.8	99					
	e			48								
	eS*		43	06		−0.5	100					
ROX	ePn	01	42	30		0.8	100	3.07	67		4.1	4.0
	eSn		43	02		−2.9	99					
OMZ	e(P*)	01	43	05		9.3		4.26	69			3.7
	eS*			53		1.8	100					
RHP	ePn	01	42	46		0.3	100	4.28	53			
	e(P*)		43	02		6.0						
	eSn			37		2.9	99					

AMPLITUDES: BRZ 1.3 3.0 OBZ 3.5 7.5 MSZ 1.5 3.0
ROX 0.7 1.6 OMZ 0.3 RHP 2.0 1.6

79/ 696

OCT 14 $02^h27^m13^s.6$ 47°.08S 165°.47E 12 km M = 3.9
± 1.3 0.06 0.11 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	02	27	43.1		−0.9	100	1.83	85		4.1	4.1
	eP*			46		0.1	100					
	eSn		28	07		0.2	100					
BRZ	(S*-Pn			28		) 0.2		1.93	49			
MSZ	ePn	02	28	00		0.5	100	2.96	36		3.9	3.8
	eS*			43		−0.9	100					
ROX	ePn	02	28	02		0.3	100	3.12	60		4.3	3.9
	eSn			41		3.1	95					
OMZ	ePn	02	28	17		−0.7	100	4.29	64			3.5
	eS*		29	22		−2.0	99					
RHP	ePn	02	28	19		−0.2	100	4.40	49			
	eP*			29		−0.9	100					
	eSn		29	10		1.2	100					

AMPLITUDES: OBZ 2.9 7.5 BRZ 1.2 1.9 MSZ 1.2 2.0
ROX 1.2 1.3 OMZ 0.2 RHP 1.5 1.5

79/ 697

OCT 14 $03^h39^m12^s.9$ 46°.78S 165°.63E 12 km M = 4.1
± 1.4 0.07 0.09 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			25		)−2.8		1.66	54			
OBZ	iPn	03	39	40.2	D	−1.5	100	1.71	95		4.5	4.3
	e(Pg)			50		2.5						
	eS*		40	05		−0.8	100					
MSZ	ePn	03	39	55		0.5	100	2.65	38		4.0	4.0
	eS*		40	32		−1.9	100					
ROX	ePn	03	39	59		1.3	100	2.88	64		4.5	4.2
	eSn		40	33		1.6	100					
	e(S*)			46		5.2						
OMZ	e(Pn)	03	40	17		3.1		4.07	67		3.9	3.9
	eSn			59		−0.9	100					
	eSg		41	31		1.2	100					
RHP	Pn	03	40	16.0		1.3	100	4.12	51			
	e		41	09								
MJZ	ePn	03	40	16		−2.5	99	4.41	52		4.0	3.9
	eP*			31		1.8	100					
	eSg		41	41		−0.3	100					

AMPLITUDES: BRZ 2.5 4.6 OBZ 8.5 15 MSZ 2.2 4.1
ROX 2.0 2.5 OMZ 0.3 0.5 RHP 4.0 2.5

MJZ 0.8 0.8

79/ 698

OCT 14 03h48m56s.4 46°.72S 165°.65E 12 km M = 4.3
± 1.3 0.06 0.11 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(S*-Pn			24		) 1.5		1.61	55			
OBZ	iPn	03	49	25.3	D	0.1	100	1.70	97		4.4	4.5
	eSn			47		0.2	100					
MSZ	Pn	03	49	36.9		−0.4	100	2.59	39		4.1	4.1
	eS*		50	16.5		0.7	100					
ROX	Pn	03	49	41.0		0.3	100	2.84	65		4.4	4.3
	eP*			47		0.9	100					
	eSn		50	15		0.9	100					
OMZ	e(Pn)	03	50	01		4.0		4.03	68			3.9
	eSn			41		−1.7	99					
RHP	ePn	03	49	57		−0.6	100	4.08	52			
	e		50	51								
MJZ	ePn	03	50	03		1.6	99	4.36	53			4.2
	eP*			10		−2.0	99					
	e			37								

AMPLITUDES: BRZ 3.6 7.3 OBZ 7.0 23 MSZ 3.0 4.8
ROX 2.0 4.0 OMZ 0.6 RHP 4.0 4.5
MJZ 1.5

79/ 699

OCT 14 04h13m39s.6 46°.59S 165°.33E 12 km M = 4.5
± 1.3 0.05 0.11 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(S*-Pn			25.5		) 1.0		1.74	63			
OBZ	Pn	04	14	12.3		0.7	100	1.94	100		4.4	4.4
	ePg			18.5		−0.4	100					
	eSn			34		−1.6	100					
MSZ	ePn	04	14	20		−1.2	100	2.65	44		4.6	4.5
	ePg			32		−1.0	100					
	eS*		15	01		0.5	100					
ROX	Pn	04	14	27.2		1.2	100	3.00	70		4.8	4.8
	eP*			32		0.1	100					
	ePg			42		1.8	99					
	eSn		15	03		2.0	99					
RHP	iPn	04	14	42.0	D	−0.1	100	4.18	55			
	eP*			53		0.9	100					
	eSn		15	27		−2.3	99					
OMZ	ePn	04	14	41.5		−0.8	100	4.19	71		4.2	4.1
	eP*			54		1.7	99					
	eSn		15	29		−0.7	100					
MJZ	ePn	04	14	45.5		−0.5	100	4.46	56		4.8	
	e(P*)		15	02		5.0						
CBZ	e(Pn)	04	15	22		8.6		6.47	159			

AMPLITUDES: BRZ 7.5 14 OBZ 5.9 14 MSZ 9.0 13
ROX 4.5 9.3 RHP 9.0 8.0 OMZ 0.5 0.9
MJZ 4.7 CBZ 0.2

79/ 700

OCT 14 04h18m45s.7 46°.60S 165°.13E 12 km M = 4.3
± 1.2 0.06 0.11 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(S*-Pn			26.5		)−0.1		1.86	65			
OBZ	ePn	04	19	20		0.5	100	2.08	100		4.3	4.1
	eSn			43.5		−1.4	100					
MSZ	ePn	04	19	28		−0.7	100	2.74	46		4.3	4.3
	eS*		20	09		−0.7	100					
ROX	ePn	04	19	34		0.1	100	3.13	70		4.7	4.4
	eP*			38.5		−1.8	99					
	eSn		20	12		1.7	99					
RHP	ePn	04	19	49		−0.8	100	4.29	56			
	eP*		20	00		−0.2	100					
	eS*			56		−0.1	100					
OMZ	e(Pn)	04	19	54		3.8		4.33	71			3.7
	eP*		20	03		2.3	98					
MJZ	ePn	04	19	54		0.2	100	4.59	57			4.3
	eP*		20	06		0.9	100					

AMPLITUDES: BRZ 3.5 5.6 OBZ 4.0 5.5 MSZ 4.1 6.5
ROX 3.2 3.8 RHP 5.0 4.5 OMZ 0.3
MJZ 1.8

79/ 701

OCT 14 $05^h36^m04^s.7$ 46°.51S 165°.97E 12 km M = 3.7
± 1.3 0.0α 0.10 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			21		) 0.1		1.31	57			
OBZ	Pn	05	36	30.2		−0.9	100	1.53	106		3.7	3.8
	eSn			51		0.1	100					
MSZ	Pn	05	36	41.0		−0.5	100	2.29	37		3.7	3.7
	P*			44.8		−0.2	100					
	Pg			49.8		−1.3	100					
	S*		37	15.8		0.7	100					
ROX	Pn	05	36	45.2		0.1	100	2.56	67		3.9	3.7
	P*			52.2		2.7	99					
	eSn		37	12		−3.5	97					
	eS*			22		−1.0	100					
	Sg			32.0		1.2	100					
	e			47								
OMZ	eP*	05	37	12		2.1	99	3.75	69		3.7	
RHP	ePn	05	37	01		−0.7	100	3.77	52			
	eP*			11		0.7	100					

AMPLITUDES: BRZ 1.4 2.3 OBZ 1.6 5.7 MSZ 1.3 2.6
ROX 0.7 1.2 OMZ 0.2 RHP 0.9

79/ 702

OCT 14 $06^h43^m54^s.2$ 46°.91S 166°.17E 12 km M = 3.9
± 1.8 0.08 0.13 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	06	44	19.8		1.9	100	1.33	90		3.6	3.6
	eSn			36		0.4	100					
BRZ	(Sn-Pn			18		)−1.2		1.48	40			
MSZ	Pn	06	44	32.2		−2.3	99	2.56	29		4.0	4.0
	eS*		45	14		1.6	100					
ROX	Pn	06	44	35.2		−0.2	100	2.62	58		4.2	4.0
	eSn		45	05		−1.5	100					
	eSg			21		−1.4	100					
OMZ	e(P*)	06	45	06		6.0		3.79	63			

RHP	ePn	06	44	53		−0.4	100	3.93	46				
	e(P*)		45	07.5		5.0							
	eSn			40		1.9	100						

AMPLITUDES: OBZ 1.8 4.7 BRZ 2.2 3.6 MSZ 2.1 4.0
ROX 1.5 1.9 RHP 2.3 1.6

79/ 703

OCT 14 $06^h44^m53^s.3$ 46°.85S 165°.87E 12 km M = 4.2
± 1.8 0.06 0.12 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	06	45	19		−0.8	100	1.54	93		4.1	4.2
	Sn			38.8		−0.9	100					
	S*			42.4		1.2	100					
BRZ	(Sn-P*			18		)−1.2		1.57	48			
MSZ	eS*	06	46	13.5		0.3	100	2.61	34			4.0
ROX	ePn	06	45	36.5		−0.0	100	2.76	61		4.4	4.4
	eSn		46	07		−2.1	99					
	eS*			20		2.1	99					
OMZ	ePg	06	46	14.5		1.5	100	3.94	65			3.8
	eS*			51		−2.2	99					
RHP	ePn	06	45	55		1.0	100	4.04	49			
	eSn		46	39		−0.9	100					

AMPLITUDES: OBZ 4.2 15 BRZ 2.0 4.7 MSZ 4.0
ROX 2.1 4.8 OMZ 0.5 RHP 2.0 2.0

79/ 704

OCT 14 $07^h20^m58^s.3$ 41°.33S 174°.67E 32 km M = 3.9
± 0.6 0.04 0.06 3 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WEL	P*	07	21	05.0		1.2	100	0.08	59			
	eS*			07.7		−0.0	100					
	e			10								
TCW	P*	07	21	05.6		−0.5	100	0.31	291			
KIW	Pn	07	21	07.2		−1.6	100	0.50	21			
MTW	Pn	07	21	11.1		0.3	100	0.65	75			
MNG	iPn	07	21	13.3	D	−1.5	100	0.94	41			
CAZ	e(P*)	07	21	26		5.0		1.25	71			
	eSn			35		0.5	100					
	e(S*)			46		8.1						
KKY	(P*)	07	21	29		6.9		1.31	214			
TNZ	ePn	07	21	31		−0.3	100	2.15	354		3.8	3.8
	eSn			56		−0.1	100					
GSZ	ePn	07	21	32		0.5	100	2.17	19			
	eSn		22	00		3.5	92					
CMZ	eSn	07	22	10		0.4	100	2.71	213			3.3
KRP	(P*)	07	21	54.9		−3.7		3.46	11		4.3	4.5
	e(S*)		22	37		−6.9						
GNZ	eSn	07	22	32		−1.8	99	3.72	45			3.7

AMPLITUDES: WEL 13 CAZ 1.7 3.0 TNZ 0.4 0.7
CMZ 0.3 KRP 0.7 1.0 GNZ 0.5

FELT: Kelburn, Lower Hutt and Tawa (68)

79/ 705

OCT 14 $08^h49^m48^s.5$ 46°.78S 165°.27E 12 km M = 4.1
± 1.6 0.07 0.12 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sn-P*			20		)−1.2		1.86	58			
OBZ	iPn	08	50	22.2	U	1.5	100	1.96	95		3.9	4.0
	ePg			30		1.9	100					
	eSn			43		−1.9	100					
MSZ	ePn	08	50	32		−0.3	100	2.81	42		4.0	4.0
	P*			36.8		−0.8	100					
	eS*		51	16		1.6	100					
ROX	Pn	08	50	36.1		−0.3	100	3.10	67		4.4	4.1
	eP*			43		0.3	100					
	eSn		51	10		−2.5	99					
	eS*			25		1.7	100					
RHP	ePn	08	50	53		0.0	100	4.32	53			
	eP*		51	02		−1.4	100					
	eSn			44		2.3	99					
MJZ	eS*	08	52	06		−2.3	99	4.61	55			4.1

AMPLITUDES: BRZ 1.7 3.8 OBZ 1.7 5.8 MSZ 2.0 3.3
ROX 1.6 1.7 RHP 1.8 1.7 MJZ 1.0

79/ 706

OCT 14 $09^h38^m31^s.9$ 46°.96S 165°.81E 12 km M = 3.7
± 1.0 0.04 0.08 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	09	38	59.0		−0.1	100	1.58	89		3.7	3.4
	eSn		39	19		−0.4	100					
BRZ	e(Sn-Pn			22		) 0.6		1.68	46			
MSZ	ePn	09	39	15		0.3	100	2.73	34		3.6	3.5
	eP*			20		0.3	100					
	eSn			46		−0.9	99					
ROX	iPn	09	39	16.2	U	−0.3	100	2.86	60		4.1	4.0
	Sn			50.9		0.9	99					

AMPLITUDES: OBZ 1.5 1.9 BRZ 1.0 2.0 MSZ 0.7 1.2
ROX 1.0 1.9

79/ 707

OCT 14 $11^h54^m37^s.5$ 46°.79S 165°.57E 12 km M = 4.0
± 1.4 0.06 0.10 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sn-Pn			22		) 0.5		1.70	54			
OBZ	Pn	11	55	07.8		0.9	100	1.75	95		4.1	4.2
	Pg			12.2		−0.8	100					
	eSn			28		−0.9	100					
MSZ	ePn	11	55	18.5		−1.1	100	2.68	39		4,0	4.0
	P*			23.0		−1.5	100					
	e(Pg)			28		−3.8						
	eSn			51.5		0.1	100					
ROX	Pn	11	55	23.4		0.5	100	2.92	65		4.3	4.0
	eP*			31		2.5	98					
	ePg			37		0.4	100					
	eSn			55		−2.1	99					
OMZ	e(P*)	11	55	56		7.2		4.11	67			3.5
	eS*		56	43		0.7	100					
RHP	ePn	11	55	40		0.2	100	4.17	51			
	e(P*)			55		5.3						
	eSn		56	28		1.1	100					

AMPLITUDES: BRZ 2.0 4.6 OBZ 3.4 9.5 MSZ 2.0 3.5

ROX 1.3 1.8 OMZ 0.2 RHP 2.2 1.8

79/ 708

OCT 14 $13^h03^m01^s.4$ 46°.50S 165°.84E 12 km M = 3.9

± 1.3 0.05 0.10 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sn-Pn			19		) 0.8		1.39	59			
OBZ	Pn	13	03	29.8		0.9	100	1.62	105		3.8	3.9
	e			42								
	Sn			49.7		0.1	100					
	e		04	02								
MSZ	ePn	13	03	36		−2.8	96	2.34	39		3.8	3.9
	eP*			44		1.5	100					
	eS*		04	14		0.8	100					
ROX	Pn	13	03	43.0		0.2	100	2.64	68		4.3	3.9
	eSn		04	14		−0.0	100					
OMZ	eP*	13	04	07		−0.8	100	3.82	70		3.7	
	eS*			57		−0.8	100					
RHP	ePn	13	04	00		0.7	100	3.84	53			
	e(Sn)			52		9.0						

AMPLITUDES: BRZ 2.3 4.0 OBZ 2.2 5.6 MSZ 1.7 3.8
ROX 1.5 1.7 OMZ 0.2 RHP 1.0 1.5

79/ 709

OCT 14 $16^h05^m27^s.9$ 46°.38S 165°.74E 12 km M = 3.8

± 1.2 0.05 0.08 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			21		)−1.5		1.39	65			
OBZ	ePn	16	05	55		−1.9	99	1.72	109		3.8	3.7
	e(Sn)		06	14		−4.6						
	Sg			27.2		1.3	100					
MSZ	ePn	16	06	04		−0.7	100	2.29	43		3.8	3.8
	eP*			09		0.7	100					
	S*			39.0		0.6	100					
ROX	ePn	16	06	09		−0.7	100	2.65	71		4.1	4.0
	eP*			15		0.6	100					
	eSn			42.7		1.5	100					
	eS*			49		−0.3	100					
RHP	ePn	16	06	26		0.4	100	3.82	55			
	e(P*)			38		3.7						
	eS*		07	24		−0.2	100					
OMZ	eP*	16	06	36		1.1	100	3.85	72			3.6
	eS*		07	22		−3.1	96					

AMPLITUDES: BRZ 3.0 4.0 OBZ 1.6 3.8 MSZ 1.7 3.2
ROX 1.0 2.0 RHP 1.2 1.5 OMZ 0.3

79/ 710

OCT 14 $18^h30^m08^s.9$ 46°.58S 166°.17E 12 km M = 3.6

± 2.0 0.07 0.17 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			21		) 1.5		1.24	50			
OBZ	Pn	18	30	31.3		−1.9	100	1.38	104		3.4	3.7
	Sn			52.0		0.6	100					
MSZ	ePn	18	30	46		0.6	100	2.27	33		3.5	3.3
	eS*		31	18		−0.6	100					
ROX	ePn	18	30	46.5		−1.4	100	2.46	64		3.9	3.7

	eSn		31	19		1.7	100					
RHP	ePn	18	31	05		−0.1	100	3.71	49			
	eS*		32	00		−1.8	100					
MJZ	eP*	18	31	21		2.8	99	3.99	51		3.7	

AMPLITUDES: BRZ 0.9 2.0 OBZ 1.0 6.0 MSZ 0.9 1.1
ROX 0.8 1.3 RHP 0.5 MJZ 0.5

79/ 711

OCT 14 $21^h35^m55^s.2$ 46°.70S 165°.88E 12 km M = 3.9
± 1.4 0.05 0.09 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(Sg-Pn			22		)−2.2		1.48	52			
OBZ	Pn	21	36	22.7		0.8	100	1.55	98		3.6	3.9
	eSn			41.5		−0.3	100					
	eS*			43.5		0.2	100					
MSZ	ePn	21	36	33.5		−1.1	100	2.48	36		3.9	3.9
	eP*			37.5		−1.3	100					
	eS*		37	13		1.7	99					
ROX	ePn	21	36	38.8		1.3	100	2.69	64		4.1	4.0
	eSn		37	11		1.8	99					
OMZ	e(P*)	21	37	08		5.4		3.88	67			
	eS*			51		−2.1	99					
RHP	ePn	21	36	54		−0.5	100	3.94	50			
	e(P*)		37	10		6.3						
	eSn			39		−0.3	100					

AMPLITUDES: BRZ 1.5 4.8 OBZ 1.3 7.0 MSZ 2.0 3.7
ROX 0.9 2.0 RHP 1.3 1.0

79/ 712

OCT 14 $22^h27^m48^s.2$ 46°.30S 165°.77E 12 km M = 4.4
± 1.1 0.04 0.09 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	22	28	15.0		−2.3	99	1.73	111		4.2	4.2
	eP*			21		2.1	99					
	Pg			24.8		1.6	100					
	eSn			37		−2.1	99					
MSZ	Pn	22	28	22.8		−1.2	100	2.22	44		4.6	4.6
	P*			29		1.7	100					
	eSn			50		−1.0	100					
	eSg		29	01.5		−1.6	100					
ROX	iPn	22	28	29.5	U	0.1	100	2.62	73		4.9	4.5
	P*			34.0		0.0	100					
	e(Pg)			38		−3.1						
	e			53								
	eSn			58.5		−1.9	99					
	eS*		29	08.5		0.3	100					
RHP	iPn	22	28	44.1	D	−0.9	100	3.76	56			
	eP*			54		0.4	100					
	eSn		29	30		2.0	99					
OMZ	e(Pn)	22	28	49		3.3		3.82	73		4.2	4.1
	e(P*)		29	00		5.6						
	eS*			45		0.9	100					
MJZ	ePn	22	28	48		−1.0	100	4.05	57		4.6	4.6
	eP*			59		0.5	100					
	eSn		29	36		1.1	100					
CMZ	ePn	22	29	11.3		1.4	100	5.58	63		4.2	

AMPLITUDES:											
	OBZ	4.7	12	MSZ	11	19	ROX	6.0	6.6
	RHP	11	10	OMZ	0.7	1.0	MJZ	3.7	4.0
	CMZ	0.4							

FELT: Dunedin (140)

79/ 713

OCT 15 $01^h23^m13^s.3$ 46°.80S 165°.99E 12 km M = 4.1

± 1.1 0.04 0.08 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	01	23	38.0		−0.8	100	1.47	95		3.8	4.1
	ePg			45		2.0	99					
	Sn			58		0.1	100					
BRZ	(Sn-Pn			20		) 0.8		1.48	47			
MSZ	ePn	01	23	53		−0.2	100	2.52	33		4.0	4.1
	eP*			55		−2.5	98					
	Sn		24	24.8		1.5	100					
	eS*			32		1.5	100					
ROX	Pn	01	23	55.0		−0.2	100	2.66	61		4.3	4.3
	P*		24	00.8		0.8	100					
	Sn			27.2		0.4	100					
	Sg			41.8		−1.4	100					
OMZ	eP*	01	24	19		−1.1	100	3.85	65		4.0	3.8
	e			38								
	eS*		25	10		−0.3	100					
RHP	ePn	01	24	13.5		0.8	100	3.95	48			
	e			37								
	eSn			57		−0.6	100					

AMPLITUDES:									
	OBZ	2.4	11	BRZ	2.3	4.5	MSZ	2.5	4.7
	ROX	1.6	4.5	OMZ	0.4	0.5	RHP	3.4	2.8

79/ 714

OCT 15 $04^h00^m53^s.6$ 47°.06S 166°.01E 12 km M = 3.6

± 1.6 0.07 0.12 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	04	01	18.5		−0.4	100	1.45	85		3.5	3.4
	eSn			39.5		1.7	100					
BRZ	(S*-Pn			24		) 0.7		1.66	40			
MSZ	ePn	04	01	36		−0.5	100	2.74	30		3.7	3.8
	eS*		02	18		0.7	100					
ROX	Pn	04	01	35.0		−2.2	99	2.79	57		3.9	3.7
	eSn		02	08		−2.0	99					
OMZ	e(P*)	04	02	08		5.8		3.95	62			3.4
	eS*			53		−0.8	100					
RHP	ePn	04	01	56		0.7	100	4.12	45			
	eP*		02	07		2.0	99					
	eSn			42		0.1	100					

AMPLITUDES:									
	OBZ	1.2	2.6	BRZ	1.2	2.2	MSZ	1.0	2.0
	ROX	0.6	1.0	OMZ		0.2	RHP	1.1	1.1

79/ 715

OCT 15 $06^h18^m23^s.3$ 38°.11S 176°.02E 12 km M = 3.6

± 0.6 0.03 0.05 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP*	06	18	29.8	UNW	−1.9	99	0.42	295		3.0	
	S*			36.0		−1.6	99					
	eSg			40		2.0	99					

WNZ	P*	06	18	32.6	−0.9	100	0.53	173		3.7	
WTZ	S*-P*			11	0.5	100	0.77	81		3.7	3.4
NGZ	P*	06	18	43.8	0.2	100	1.13	196			
TNZ	eP*	06	18	54	0.9	100	1.67	229		3.8	
GBZ	ePn	06	18	55	−0.2	100	1.93	347			
	eSn		19	20	0.8	100					
MNG	Pn	06	19	03.2	−0.3	100	2.55	189		3.8	
	P*			09.0	1.1	100					

AMPLITUDES: KRP 6.0 WNZ 1.0 WTZ 4.6 1.9
NGZ 9.0 TNZ 0.4 GBZ 0.4 0.8
MNG 0.7

FELT: Te Ranga (26)

79/ 716

OCT 15 $13^h51^m43^s.2$ 37°.23S 179°.26E 121 km M = 4.9
± 1.2 0.05 0.10 15 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	13	52	01		−2.0	100	0.74	230			
GNZ	P	13	52	13.0		−0.6	100	1.72	214			
	i			13.9								
WTZ	S-P			26		1.0	100	1.96	247		5.1	5.4
TUA	P	13	52	22.2		1.2	100	2.29	226		4.7	4.9
	e			40.5								
	eS			51		1.5	100					
WNZ	eP	13	52	30		1.4	100	2.87	240		5.0	5.2
	e		53	14								
TRZ	P	13	52	29.9		−0.7	100	3.01	219		4.8	4.8
	eS		53	09		2.5	99					
KRP	P	13	52	30.7		−0.3	100	3.04	256		3.9*	3.9*
	eS		53	07		−0.2	100					
GBZ	iP	13	52	33.0	U	−0.1	100	3.20	287			
	eS		53	09		−2.0	100					
NGZ	P	13	52	37.8		1.0	100	3.47	235			
	e			41.9								
	eS		53	18		0.4	100					
ONE	eP	13	52	47		0.4	100	4.20	289	3.7*		
	e		53	56								
TNZ	eP	13	52	51		3.0	99	4.32	242		3.9*	3.8*
	eS		53	36		−1.8	100					
CAZ	eP	13	52	46.5		−2.2	100	4.37	212			
	eS		53	39		−0.1	100					
MNG	eP	13	52	47.5		−2.9	99	4.49	220		4.4	4.8
	e(S)		53	34		−8.1						
WEL	eP	13	53	05		3.0	99	5.35	219	4.8		
	eS		54	00		−3.0	99					
	e			17								
	e			32								
CRZ	eP	13	53	13		1.7	100	6.03	296		3.7*	

AMPLITUDES: WTZ 21 42 TUA 2.5 4.6 WNZ 0.5 0.7
TRZ 2.0 4.6 KRP 4.5 4.7 GBZ 4.0 4.5
NGZ 10 ONE 0.7 TNZ 0.7 0.7
CAZ 0.8 4.7 MNG 2.6 8.0 WEL 0.7
CRZ 0.4

79/ 717

OCT 15 $16^h26^m54^s.2$ 40°.93S 175°.60E 0 km M = 3.8
± 0.6 0.02 0.03 5 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MTW	Pg	16	26	59.7		0.6	100	0.24	198			
MNG	iPg!	16	27	00.1		−0.5	100	0.32	343			
CAZ	iP*	16	27	04.1	D	−0.5	100	0.48	88			
	S*			13		1.3	100					
KIW	P*	16	27	04.9		−0.6	100	0.53	277			
WEL	eP*	16	27	08		−0.9	100	0.73	240	3.5		
	eS*			19.5		0.3	100					
TCW	iP*	16	27	13.9	D	−0.4	100	1.04	254			
TRZ	e(Pn)	16	27	21		−2.9		1.66	35		3.5	3.4
	e		28	02								
NGZ	Pn	16	27	25.1		0.1	100	1.75	0			
	ePg			30.5		1.1	100					
	eS*			50		0.3	100					
TNZ	eP*	16	27	31		0.8	100	1.97	331		3.6	3.8
	eS*			59		2.3	98					
GNZ	eP*	16	27	48		1.2	100	2.94	40			3.3
	eSn		28	15		−1.9	99					
KRP	P*	16	27	48.0		0.3	100	3.00	359		4.2	4.7
	eS*		28	28		0.6	100					
	eSg			33		−2.2	99					

AMPLITUDES: CAZ 15 39 WEL 2.7 TRZ 0.5 0.5
NGZ 8.7 7.2 TNZ 0.3 0.8 GNZ 0.3
KRP 0.9 2.0

FELT: Eastbourne (68) MM III

79/ 718

OCT 15 $16^h28^m45^s.7$ 46°.95S 165°.74E 12 km M = 4.7
± 0.9 0.03 0.09 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	16	29	14.1		0.6	100	1.63	89		4.7	4.6
	eSn			34		−0.2	100					
BRZ	(Sn-Pn			23		) 1.4		1.71	47			
ROX	iPn	16	29	31.1	D	0.4	100	2.89	61		5.3	5.1
	eSn		30	05.5		0.9	100					
OMZ	ePn	16	29	46		−0.7	100	4.07	64		4.2	4.4
	eS*		30	49		−0.3	100					
RHP	Pn	16	29	48.2		−0.0	100	4.18	49			
	eSn		30	34		−1.5	99					
MJZ	ePn	16	29	51		−1.0	100	4.45	50		4.6	4.7
	eP*		30	02		−0.9	100					
	eSn			44		1.8	99					
CBZ	ePn	16	30	15		1.5	99	6.03	160			
	eSn		31	19		−1.0	100					

AMPLITUDES: OBZ 16 30 BRZ 10 17 ROX 15 20
OMZ 0.6 1.7 RHP 7.5 9.0 MJZ 2.9 4.6
CBZ 0.3 0.4

79/ 719

OCT 15 $22^h00^m05^s.2$ 32°.84S 179°.88E 33 km M = 4.3
± 3.9 0.23 0.47 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	S-P			59		−2.1	99	5.65	204		4.2	
GNZ	eS	22	02	36		0.9	100	5.99	194			
TUA	e(S)	22	02	50		6.0		6.36	200			
MNG	eP	22	02	03		−2.2	99	8.53	203		4.2	4.7

	eS		03	36			−0.2	100					
COB	e?	22	02	48					10.03	213			4.3
	eS		04	13			0.9	100					

AMPLITUDES: WTZ 0.4 MNG 0.3 1.1 COB 0.3

79/ 720

OCT 16 $03^h18^m30^s.9$ 45°.60S 166°.60E 12 km M = 4.4

± 1.1 0.05 0.09 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(S*-P*			09		)−0.3		0.68	105			
OBZ	Pn	03	19	00.3		1.0	100	1.67	142		4.4	4.3
	e(Pg)			09		4.2						
	eSn			21		0.5	100					
ROX	iPn	03	19	02.0	U	−0.6	100	1.92	87		4.6	4.7
	P*			04.7		−0.1	100					
	eSn			24		−2.3	98					
RHP	Pn	03	19	15.0		−1.0	100	2.90	60			
	eP*			23		1.4	100					
	eSn			51		1.1	100					
OMZ	ePn	03	19	17		−1.6	99	3.09	82		4.3	4.0
	e(Sn)		20	00		5.4						
	eSg			16		0.9	100					
MJZ	ePn	03	19	20.5		0.5	100	3.19	61		4.3	4.4
	eSn			57		0.0	100					

AMPLITUDES: BRZ 31 51 OBZ 7.0 16 ROX 6.2 18
RHP 20 20 OMZ 1.1 1.3 MJZ 3.0 4.7

79/ 721

OCT 16 $04^h33^m29^s.2$ 46°.74S 166°.35E 12 km M = 3.7

± 1.8 0.08 0.12 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P*	04	33	50.5		−0.8	100	1.22	98		3.5	3.8
	eS*		34	08		0.4	100					
BRZ	(Sg-Pn			19		)−1.0		1.27	41			
ROX	ePn	04	34	09		1.2	99	2.42	60		3.9	3.7
	ePg			19		0.7	100					
	eSn			36		−0.8	100					
RHP	Pn	04	34	25		−0.6	100	3.73	46			

AMPLITUDES: OBZ 1.9 8.0 BRZ 1.3 3.6 ROX 0.8 1.2
RHP 0.9

79/ 722

OCT 16 $07^h41^m34^s.3$ 46°.91S 165°.68E 12 km M = 3.9

± 1.8 0.07 0.15 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	07	42	02.2		−0.4	100	1.67	91		4.2	3.9
	eSn			25.0		1.1	100					
BRZ	(Sn-Pn			23.5		) 1.8		1.72	49			
MSZ	ePn	07	42	18		0.8	100	2.74	36		3.8	3.7
	e(P*)			26		3.8						
	eS*			58		−0.0	100					
ROX	ePn	07	42	19		−0.6	100	2.92	62		4.0	4.0
	eSn			53		−0.6	100					
OMZ	eP*	07	42	44		−1.3	100	4.09	65			3.6
	e(Sn)		43	27		5.0						
RHP	ePn	07	42	35		−1.9	99	4.18	49			

	eP*			50.5			3.6	95					
	eS*		43	41			−0.5	100					

AMPLITUDES: OBZ 4.3 6.0 BRZ 1.8 2.6 MSZ 1.2 1.8
ROX 0.7 1.6 OMZ 0.3 RHP 0.7 1.2

79/ 723

OCT 16 $20^h12^m28^s.1$ 46°.84S 165°.53E 12 km M = 3.9
± 1.8 0.08 0.11 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	(S*-Pn			24		)−0.8		1.75	53			
OBZ	Pn	20	12	58.3		0.4	100	1.78	93		3.7	3.9
	eSn		13	20.5		0.3	100					
	eSg			30.5		2.4	99					
MSZ	Pn	20	13	10		−1.0	100	2.74	39		3.9	4.1
	eP*			17.5		1.4	100					
	eS*			54		2.0	100					
ROX	eP*	20	13	18.5		−1.5	100	2.97	64		4.2	4.1
	eSn			48		−0.9	100					
OMZ	ePg	20	13	51		−1.1	100	4.16	67			3.9
	eSg		14	45		−3.1	99					
RHP	P*	20	13	41		−0.3	100	4.22	51			
	eSn		14	20.5		1.6	100					
	e(S*)			32		−4.3						

AMPLITUDES: BRZ 1.5 3.5 OBZ 1.2 5.1 MSZ 1.4 4.0
ROX 1.0 2.1 OMZ 0.5 RHP 0.9 1.5

79/ 724

OCT 16 $20^h24^m52^s.5$ 46°.83S 165°.17E 12 km M = 3.9
± 1.9 0.08 0.13 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Sn-Pn			23		−1.1		1.95	58			
OBZ	ePn	20	25	26.5		0.9	100	2.02	93		3.8	4.0
	eSn			50		−0.5	100					
MSZ	ePn	20	25	38		0.5	100	2.90	43		3.8	3.7
	eP*			42		−1.0	100					
	eS*		26	21.5		0.6	100					
ROX	eP*	20	25	47		−1.1	100	3.19	66		4.1	3.8
	ePg			56.5		−0.5	100					
	eSn		26	16		−2.5	99					
	eSg			39.5		−0.5	100					
OMZ	eSn?	20	26	51		3.9	95	4.38	68			3.9
	e(S*)		27	13		7.5						
RHP	e(Pn)	20	26	04		5.8		4.41	54			
	eSn			48		0.2	100					

AMPLITUDES: BRZ 1.0 2.2 OBZ 1.3 5.0 MSZ 1.1 1.6
ROX 0.8 1.0 OMZ 0.5 RHP 0.6 1.0

79/ 725

OCT 17 $03^h17^m03^s.5$ 46°.97S 165°.95E 12 km M = 4.1
± 1.9 0.09 0.14 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	03	17	30.6		1.3	100	1.48	88		4.0	4.0
	ePg			35		1.4	100					
	eSn			47		−1.6	100					
BRZ	(Sn-P*			18		)−1.5		1.62	43			
MSZ	ePn	03	17	44		−1.6	100	2.68	32		3.9	

	eP*			48		−2.5	99					
	eSn		18	19		1.6	100					
ROX	Pn	03	17	47.9		0.9	100	2.78	59		4.3	4.3
	eSn		18	18		−1.7	100					
	eS*			27.5		−1.0	100					
OMZ	e(S*)	03	18	57		−6.6		3.95	63			3.8
RHP	ePn	03	18	04.5		−0.3	100	4.09	47			
	eP*			15		0.6	100					
	eSn			54		2.9	99					

AMPLITUDES: OBZ 4.0 8.8 MSZ 1.8 ROX 1.4 3.7
OMZ 0.5 RHP 1.8 2.0

79/ 726

OCT 17 $07^h16^m52^s.7$ 38°.31S 176°.98E 33 km M = 5.1
± 0.4 0.02 0.05 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	iPn	07	17	04.2	U	0.9	100	0.51	165			
WNZ	iPn	07	17	07.3	D	0.7	100	0.76	245		5.0	4.9
	e?			23								
GNZ	iPn!	07	17	08.4		0.1	100	0.88	113			
KRP	iPn	07	17	12.2	DE	−0.4	100	1.21	288		4.9	5.0
	e			24								
	eSn			27		−0.5	100					
TRZ	iPn	07	17	13.2	U	−0.1	100	1.25	186		4.9	5.2
	eP*			16		0.6	100					
	eS*			33		0.7	100					
NGZ	iPn	07	17	16.0	D	0.9	100	1.38	230			
ECZ	ePn	07	17	15		−0.1	100	1.39	64			
TNZ	Pn	07	17	28.7		2.2	99	2.21	246			
AUC	iPn	07	17	27.3	D	0.0	100	2.27	309			
GBZ	iPn	07	17	27.8	D	−1.3	100	2.41	330			
	eS*		18	06		−0.7	100					
MNG	ePn	07	17	29		−2.5	99	2.58	206			
	eP*			36		−2.0	99					
CAZ	ePn	07	17	30.5		−2.0	99	2.65	192			
	eP*			41		1.7	100					
	eSn		18	03		0.5	100					
	e			24								
ONE	ePn	07	17	42		0.9	100	3.28	320	4.8		
	eP*			52		2.1	99					
	eSn		18	18		0.4	100					
WEL	ePn	07	17	41		−2.0	99	3.43	209	5.4		
	e			48								
	eSn		18	23		2.0	99					
	eS*			36		−1.1	100					
COB	ePn	07	17	52		−2.9	98	4.29	228		5.6	5.3
	e			57								
	e		18	50								
CRZ	ePn	07	18	07		−0.2	100	5.20	317		4.7	

AMPLITUDES: WNZ 9.6 12 KRP 32 36 TRZ 23 56
GBZ 7.3 6.8 CAZ 11 32 ONE 1.0
WEL 8.7 COB 12 20 CRZ 0.3

FELT: From Whakatane (27) to Kelburn (68). Maximum intensity MM V at Wairoa (53).

79/ 727

OCT 18 $05^h08^m16^s.0$ 46°.98S 165°.25E 12 km M = 4.2
± 1.3 0.08 0.11 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	05	08	49.2		0.9	100	1.97	89		4.2	4.1
	eSn		09	11		−1.6	100					
BRZ	Pn	05	08	48.3		−0.3	100	1.99	54			
	ePg			56		−0.2	100					
	eSn		09	14		0.9	100					
MSZ	ePn	05	09	01.5		−0.5	100	2.97	40		4.2	4.1
	eS*			44		−2.6	99					
ROX	Pn	05	09	05.8		0.6	100	3.20	63		4.5	4.5
	eSn			40.5		−1.8	100					
	eS*			55		1.4	100					
OMZ	eP*	05	09	29		−3.0	99	4.38	66		4.1	3.9
	e(Sn)		10	07		−3.7						
	eS*			30		0.9	100					
RHP	ePn	05	09	22		−0.2	100	4.45	51			
	e(P*)			37		3.8						
	eSn		10	12.5		0.1	100					
MJZ	ePn	05	09	27		0.9	100	4.73	53		4.1	4.2
	eP*			41		3.0	98					
	e(Sn)		10	23		3.9						
	eS*			41		1.4	100					

AMPLITUDES: OBZ 3.0 7.0 BRZ 3.0 1.8 4.7 MSZ 2.6 4.0
ROX 1.7 4.8 OMZ 0.4 0.5 RHP 2.8 4.5
MJZ 0.9 1.2

79/ 728

OCT 18 $23^h22^m47^s.3$ 46°.98S 165°.98E 12 km M = 3.9
± 1.4 0.06 0.10 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	23	23	13.3		0.5	100	1.47	88		3.7	3.8
	(Pg)			21.8		4.8						
	eSn			30.5		−1.4	100					
	eS*			33		0.1	100					
BRZ	Pn	23	23	13.8		−1.0	100	1.62	43			
	eSn			36		0.5	100					
MSZ	ePn	23	23	27		−2.4	99	2.68	31		3.8	3.7
	eP*			36		1.8	99					
	eS*		24	08		−1.3	100					
ROX	ePn	23	23	31		0.4	100	2.76	58		4.0	4.2
	eSn		24	04		0.9	100					
OMZ	e(Sg)	23	25	12		12.2		3.93	63			3.7
RHP	ePn	23	23	49		0.6	100	4.08	47			
	e(P*)		24	05		7.0						
	ePg			12		2.3	99					
	eSn			34		−0.6	100					

AMPLITUDES: OBZ 2.0 6.5 BRZ 1.0 1.6 2.7 MSZ 1.2 2.0
ROX 0.8 3.2 OMZ 0.4 RHP 1.0 0.8

79/ 729

OCT 19 $09^h12^m42^s.9$ 46°.82S 165°.43E 12 km M = 3.9
± 1.5 0.06 0.12 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	ePn	09	13	12.5		−0.3	100	1.79	55			
	eSn			35		−0.3	100					
OBZ	Pn	09	13	13.7		0.1	100	1.84	94		4.0	3.8
	Pg			20.2		−0.1	100					
	eSn			35		−1.6	99					
MSZ	ePn	09	13	26		−0.1	100	2.76	40		3.8	3.8
	eS*		14	06.5		−0.9	100					
ROX	ePn	09	13	30.7		1.1	100	3.02	65		4.2	4.1
	eP*			37		1.4	100					
	eSn		14	07		2.2	99					
OMZ	e(Sn)	09	14	27		−6.4		4.21	67			3.8
RHP	ePn	09	13	45		−1.5	100	4.26	52			
	e(P*)		14	02		5.3						
	e(Sn)			40		5.5						

AMPLITUDES: BRZ 1.5 1.3 3.2 OBZ 2.6 3.7 MSZ 1.3 2.2
ROX 1.0 1.8 OMZ 0.4 RHP 0.8 0.8

79/ 730

OCT 19 $10^h32^m35^s.4$ 47°.45S 166°.49E 12 km M = 3.7
± 1.4 0.07 0.08 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P*	10	32	57.4		−0.2	100	1.23	65		3.8	3.9
	e(Pg)		33	04		3.6						
	eS*			13		−1.0	100					
BRZ	Pn	10	33	05.9		0.2	100	1.82	24			
	eSn			29		0.6	100					
ROX	e(Pg)	10	33	37		5.4		2.78	46		3.7	3.6
	eSg		34	10.5		1.5	99					
MSZ	ePn	10	33	21.5		0.3	100	2.95	20		3.6	3.7
	eS*		34	04		−1.5	99					
OMZ	eSg?	10	34	43		−3.1		3.88	54			3.4
RHP	eP*?	10	33	53		5.0		4.18	38			

AMPLITUDES: OBZ 3.5 10 BRZ 0.7 0.6 1.1 ROX 0.4 0.7
MSZ 0.7 1.5 OMZ 0.2 RHP 0.4

79/ 731

OCT 19 $13^h24^m38^s.3$ 39°.72S 177°.76E 12 km M = 4.0
± 1.3 0.05 0.08 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	iP*	13	24	51.1	U	−1.0	100	0.74	282		4.2	4.6
	ePg			55		1.5	100					
	eS*		25	01.5		−0.7	100					
TUA	P*	13	24	55.9		−1.0	100	1.03	332		4.2	3.9
	e(Pg)		25	02.5		3.4						
	eS*			09.0		−1.6	100					
	Sg			13.7		0.7	100					
	e			18								
GNZ	iP*	13	24	58.8	U	0.7	100	1.09	11			
GSZ	Pn	13	25	09.9		2.4	99	1.74	284			
	ePg			14.5		1.0	100					
	eSn			28		−1.4	100					
WTZ	Sn-Pn			21		−1.9	100	1.83	341		3.8	4.1
KRP	ePn	13	25	16		−1.8	100	2.49	315		3.7	3.8
	eSg		26	05		2.7	99					
TNZ	ePg	13	25	31		−1.3	100	2.67	280			3.7

WEL	e	13	25	47				2.77	235	3.8			

AMPLITUDES: TRZ 12 42 TUA 5.5 3.0 GSZ 7.8 8.7
WTZ 2.0 3.6 KRP 0.5 0.5 TNZ 0.3
WEL 0.3

79/ 732

OCT 19 $15^h08^m40^s.3$ 46°.74S 165°.47E 12 km M = 3.8
± 1.5 0.07 0.11 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	15	09	07.5		−1.9	100	1.73	57			
	P*			10.0		−1.0	100					
	eSg			37		−1.6	100					
OBZ	Pn	15	09	10.2		−0.5	100	1.83	96		3.8	3.6
	Pg			17.4		0.1	100					
	eSn			33		−0.5	100					
	e(Sg)			46		4.1						
MSZ	ePn	15	09	21		−1.5	100	2.69	41		3.8	3.7
	eSg		10	11		0.1	100					
ROX	Pn	15	09	27.1		0.8	100	2.96	66		4.2	3.9
	e(P*)			37		5.0						
	Sn		10	03.0		2.1	100					
	eSg			23		2.8	99					
OMZ	e(P*)	15	09	58		5.7		4.16	68			3.7
	eSg		10	58		−2.2	100					
RHP	ePn	15	09	46		3.0	99	4.18	53			
	e(P*)			57		4.1						

AMPLITUDES: BRZ 1.2 2.5 OBZ 1.6 2.5 MSZ 1.2 2.0
ROX 1.0 1.2 OMZ 0.3 RHP 1.3

79/ 733

OCT 20 $05^h04^m04^s.3$ 47°.03S 165°.07E 12 km M = 3.8
± 1.5 0.07 0.10 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	05	04	39.5		1.2	100	2.09	88		3.8	3.6
	ePg			47		0.4	100					
	eSn		05	02		−1.8	100					
	eSg			16		1.3	100					
BRZ	ePn	05	04	37.5		−1.2	100	2.12	55			
	P*			39.8		−1.8	100					
	Sn		05	06.0		1.4	100					
MSZ	ePn	05	04	53		1.0	100	3.09	41		3.8	3.6
	eSn		05	28		0.1	100					
	eSg			48		−0.4	100					
ROX	ePn	05	04	54		−1.3	100	3.34	64		4.2	4.0
	eP*		05	02		−0.4	100					
	eSn			32		−1.8	100					
RHP	ePn	05	05	12		−0.4	100	4.58	52			
	eP*			27.5		3.8	95					
	e(Sn)		06	12		8.2						

AMPLITUDES: OBZ 1.1 1.7 BRZ 1.2 1.5 MSZ 1.0 1.2
ROX 0.8 1.3 RHP 0.7 0.7

79/ 734

OCT 20 $12^h24^m15^s.4$ 37°.36S 176°.97E 216 km M = 3.8
± 2.2 0.14 0.17 17 S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	S-P			23.5		0.7	100	0.62	178		3.4	3.4
KRP	P	12	24	48.0		−0.8	100	1.27	243		2.7*	
TUA	eP	12	24	51		0.7	100	1.46	174		3.8	4.1
	eS		25	18.5		1.1	100					
GNZ	iP	12	24	51.7	USE	0.7	100	1.53	147			
	eS		25	15		−3.6	97					
TRZ	eP	12	24	59		1.6	100	2.20	183		3.7	4.0
	eS		25	32		2.1	100					
WEL	eS	12	26	12		−1.3	100	4.27	203	4.1		
COB	eS	12	26	28		−0.7	100	4.97	220			2.7*

AMPLITUDES: WTZ 0.6 0.7 KRP 0.4 TUA 0.4 0.9
TRZ 0.2 0.8 WEL 0.2 COB 0.2

79/ 735

OCT 20 $14^h12^m26^s.6$ 45°.29S 166°.81E 12 km M = 5.0
± 1.3 0.04 0.12 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iP*!	14	12	40.6		0.7	100	0.71	134			
	eS*			48		−1.5	100					
MSZ	iP*	14	12	42.2	U	−2.6	99	1.00	52			
ROX	iPn	14	12	55.2	U	−1.2	100	1.78	97			
OBZ	Pn	14	12	59.2		1.8	100	1.85	151		5.0	4.8
	eSn		13	22		1.5	100					
RHP	iPn	14	13	07.0	U	−0.9	100	2.62	64			
OMZ	Pn	14	13	11.2		−0.6	100	2.92	87		5.1	5.1
	eP*			18		0.5	100					
	e			37.5								
	e(Sn)			50.5		4.5						
MJZ	ePn	14	13	10		−1.9	100	2.92	65		5.3	5.2
	eP*			17		−0.6	100					
	e(Sn)			51		4.9						
KAI	eP*	14	13	43		1.4	100	4.32	52	4.7		
	e			48.5								
	ePg			56		2.0	100					
	eS*		14	40		2.1	99					
CMZ	ePn	14	13	31		−2.7	99	4.51	70		5.0	5.0
	e(P*)			49		4.2						
	eS*		14	43		−0.5	100					
COB	ePn	14	13	55.0		0.5	100	6.04	48		4.8	4.4
	eSn		15	02		1.0	100					

AMPLITUDES: OBZ 26 37 OMZ 8.3 18 MJZ 35 33
KAI 1.2 CMZ 4.0 5.5 COB 1.0 1.5

FELT: From Te Anau Downs (130) to Gore (150), maximum intensity MM IV

79/ 736

OCT 20 $17^h37^m34^s.5$ 38°.07S 178°.04E 12 km M = 3.5
± 1.2 0.06 0.07 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iP*	17	37	45.7	W	0.1	100	0.58	182			
WTZ	S*-P*			12.3		1.0	100	0.84	275		3.8	3.8
TUA	eP*	17	37	52.5		−0.6	100	1.02	223		3.5	3.6
	eS*		38	06		−0.8	100					
TRZ	ePg	17	38	12		1.7	98	1.76	212		3.4	3.3
	e			46								

KRP	Pn	17	38	07.2		0.0	100	1.99	273		3.4	
GSZ	ePg	17	38	20		−0.5	100	2.28	237			

AMPLITUDES: WTZ 9.0 8.8 TUA 1.0 1.3 TRZ 0.3 0.4
KRP 0.4 GSZ 0.8

79/ 737

OCT 20 $19^h26^m28^s.6$ 37°.66S 176°.78E 12 km M = 3.7
± 0.7 0.03 0.04 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	S*-P*			04	U	−1.2	100	0.36	153		3.6	3.8
KRP	P*	19	26	47.0		−0.2	100	1.02	255		3.6	3.5
	eSg		27	03		−0.1	100					
TUA	eP*	19	26	48.5		−1.5	100	1.19	166		3.9	
GNZ	ePn	19	26	53		−0.0	100	1.39	135		4.0	3.9
	eSg		27	17		1.5	99					
GBZ	ePg	19	27	05		0.4	100	1.78	324			
GSZ	ePg	19	27	07		0.6	100	1.87	210			
	eSg?			33		1.4	100					
TRZ	ePg	19	27	05		−1.9	99	1.89	179		3.6	

AMPLITUDES: WTZ 23 33 KRP 2.3 1.8 TUA 1.2
GNZ 3.0 3.5 GBZ 1.1 GSZ 0.5 0.6
TRZ 0.3

79/ 738

OCT 20 $23^h51^m33^s.2$ 46°.51S 166°.56E 12 km M = 4.7
± 0.8 0.04 0.07 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	23	51	51.8		0.4	100	1.00	43			
	ePg			55.5		2.0	99					
	eSg		52	08		1.0	100					
OBZ	iP*	23	51	52.8	U	−1.1	100	1.14	111		4.3	4.3
	Pg			56.8		0.4	100					
	eSg		52	12		0.1	100					
MSZ	Pn	23	52	05.0		−2.0	99	2.07	28			
ROX	iPn	23	52	08.9	U	0.3	100	2.19	63		5.1	5.0
	e			24								
	eSn			33.5		−1.6	100					
	eS*			42		1.6	100					
OMZ	ePn	23	52	24.5		−0.2	100	3.37	66		4.5	4.6
	eSg		53	26		−0.8	100					
RHP	iPn	23	52	25.8	U	−0.2	100	3.46	47			
	e(P*)			40		6.5						
MJZ	ePn	23	52	34		4.3	87	3.73	49		5.1	4.9
	ePg			48		−0.8	100					
	e(Sn)		53	19		6.6						
CMZ	ePn	23	52	50		0.2	100	5.21	58			4.5
	e(P*)		53	10		6.7						
	eSg		54	27.5		−1.1	100					
KAI	e(P*)	23	53	00		−4.5		5.28	43	4.9		
	e		54	03								
	e			42.5								
CBZ	ePn	23	53	05		0.5	100	6.28	165			
	e(P*)			27		5.4						
	e(Sn)		54	04		−9.6						
	e(S*)			35.5		−7.8						
COB	ePn	23	53	12		−2.6	99	7.03	42		4.8	4.6
	e(Sn)		54	38		6.6						

AMPLITUDES:											
	BRZ	27			OBZ		14	33	ROX	16	34
	OMZ		1.5	4.5	RHP		33		MJZ	12	11
	CMZ			1.5	KAI	1.1			CBZ	0.5	0.7
	COB		0.7	1.5							

79/ 739

OCT 21 $00^h37^m40^s.7$ 46°.85S 165°.65E 12 km M = 4.0

± 1.1 0.05 0.09 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	00	38	09.1		−0.2	100	1.69	93		4.1	4.0
	ePg			16		1.0	100					
	eSn			30		−0.7	100					
BRZ	iPn	00	38	08.6	U	−0.7	100	1.69	51			
	eS*			32		−1.1	100					
MSZ	Pn	00	38	23.5		0.5	100	2.70	37		4.1	4.0
	eS*		39	02		−1.2	100					
ROX	Pn	00	38	25.3		−0.5	100	2.90	63		4.3	4.3
	Sn		39	00.8		1.1	100					
OMZ	ePn	00	38	41		−0.9	100	4.09	66		3.8	3.8
	eS*		39	44		−0.7	100					
RHP	ePn	00	38	43		0.0	100	4.16	50			
	e(P*)			57.5		4.7						
	eSn		39	34		4.0	73					

AMPLITUDES:											
	OBZ	3.3	7.5	BRZ	2.0	2.0	4.0	MSZ	2.5	3.8
	ROX	1.4	3.2	OMZ		0.2	0.4	RHP	2.0	2.0

79/ 740

OCT 21 $01^h48^m59^s.5$ 36°.70S 177°.55E 252 km M = 4.9

± 0.7 0.03 0.07 6 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	S-P			29.5		0.2	100	1.36	199		5.0	4.7
GBZ	iP!	01	49	38.1		−2.0	97	1.74	285			
GNZ	iPn	01	49	42.7	W	0.5	100	1.98	169			
KRP	iP	01	49	43.9	USW	1.3	99	2.02	232		3.9*	3.4*
	eS		50	16		0.1	100					
TUA	iP	01	49	43.7	U	0.1	100	2.13	188		4.8	5.0
	S		50	16.4		−1.4	99					
AUC	iP	01	49	44.9	D	0.4	100	2.23	265			
ONE	eP	01	49	50		0.3	100	2.74	289	3.6*		
TRZ	eP	01	49	51		−0.5	100	2.91	191			
	eS		50	33		1.1	100					
GSZ	iP	01	49	54.0	U	1.4	99	3.01	210			
	e		50	41								
CRZ	iP	01	50	11.0	U	0.3	100	4.57	298		4.1*	
WEL	P	01	50	16.2		−0.5	100	5.07	204	5.0		
	eS		51	16		−1.0	100					
COB	iP	01	50	25.1	D	−0.4	100	5.78	219		4.1*	3.8*
	eS		51	33		0.4	100					

AMPLITUDES:										
	WTZ	11	7.2	GBZ		1.0		KRP	4.6	1.7
	TUA	2.7	3.7	ONE	0.7			GSZ	12	3.7
	CRZ	1.3		WEL	1.5			COB	1.3	2.3

79/ 741

OCT 21 $20^h06^m03^s.8$ 46°.48S 165°.41E 12 km M = 4.3

± 1.3 0.05 0.09 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	ePn	20	06	31		−0.7	100	1.64	65			
	P*			33.6		0.7	100					
	eS*			56		1.4	100					
OBZ	Pn	20	06	33.6		−1.8	100	1.91	104		4.5	4.4
	eP*			39		1.4	100					
	Pg			45.3		2.8	99					
	e			55.5								
	eSn			57		−2.1	100					
	eSg		07	09		0.7	100					
MSZ	ePn	20	06	42.9		−0.9	100	2.53	45		4.2	4.2
	ePg			56		1.1	100					
	eS*		07	23		1.8	100					
ROX	Pn	20	06	49.8		0.8	100	2.91	71		4.7	4.5
	e(P*)			58		3.4						
	eSn		07	26		3.0	99					
RHP	Pn	20	07	05.0		0.2	100	4.07	56			
	e(P*)			19		4.6						
	eSn			51		0.1	100					
OMZ	e(P*)	20	07	10		−5.0		4.10	72		4.1	4.1
	eSn			49		−2.8	99					
	eS*		08	06		−2.5	99					
MJZ	ePn	20	07	07		−1.8	100	4.36	57		4.5	4.3
	e(Pg)			28		−3.9						
	e			42								
	eSg		08	29		−1.6	100					

AMPLITUDES:

BRZ	3.5	4.5	6.3	OBZ	6.7	14	MSZ	3.6	7.0
ROX		3.6	5.0	RHP	8.0	6.5	OMZ	0.4	0.8
MJZ		2.5	2.0						

79/ 742

OCT 21 $21^h42^m09^s.0$ 37°.10S 179°.59W 12 km M = 4.5

± 1.6 0.10 0.13 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	Pn	21	42	48.3		0.5	100	2.44	230			
	eSn		43	18		1.0	100					
WTZ	Sn-Pn			35		1.4	100	2.86	251		4.4	4.7
TUA	ePn	21	42	55		−1.7	100	3.10	236		4.3	4.7
	e		43	16								
	e			23								
	eSn			35		2.3	99					
TRZ	eP*	21	43	16		2.0	100	3.73	228		4.1	4.7
	e(Sn)			52		3.8						
KRP	Pn	21	43	08.9		0.3	100	3.96	257		4.3	4.5
	eSn			53		−0.6	100					
GBZ	ePn	21	43	10		0.1	100	4.06	281			
GSZ	ePn	21	43	17		2.7	99	4.38	239			
	eP*			24		−0.9	100					
	ePg			35		−2.5	99					
	eSn		44	04.5		0.9	100					
WEL	eSn	21	44	43		−1.0	100	6.06	225	4.7		
COB	ePn?	21	43	52		−0.5	100	7.18	234		4.4	4.2
	e			59								
	eSn		45	08		−2.9	99					

AMPLITUDES:

WTZ		3.2	5.6	TUA	0.7	1.8	TRZ	0.4	2.0
KRP		0.7	0.8	GBZ	1.6		GSZ	0.7	2.3
WEL	0.5			COB	0.3	0.7			

79/ 743

OCT 21 $22^h16^m46^s.5$ 46°.00S 165°.95E 12 km M = 3.9

± 1.3 0.04 0.10 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	22	17	05		−1.9	99	1.13	79			
	eS*			22		−0.0	100					
OBZ	Pn	22	17	15.9		0.1	100	1.75	122		4.0	3.8
	ePg			22		0.1	100					
	eSn			38		0.1	100					
MSZ	ePn	22	17	18.5		0.2	100	1.93	47		3.7	3.6
	eSn			41		−1.1	100					
	eSg			50.9		−0.4	100					
	e			59.5								
ROX	Pn	22	17	25.3		0.3	100	2.42	79		4.3	3.9
	eSn			55		1.0	100					
RHP	ePn	22	17	41.3		1.6	100	3.49	58			
	e(P*)			53		5.7						
	eSn		18	22		2.2	99					
OMZ	eP*	22	17	47		−2.3	99	3.61	77		4.3	

AMPLITUDES: BRZ 2.3 1.8 3.5 OBZ 2.5 4.5 MSZ 2.2 3.0
ROX 2.0 1.8 RHP 2.3 1.5 OMZ 0.8

79/ 744

OCT 21 $22^h19^m03^s.0$ 46°.77S 165°.31E 12 km M = 4.7

± 0.4 0.02 0.04 R S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	22	19	33.0		−0.6	100	1.84	58			
	eSn			57		0.5	100					
OBZ	iPn	22	19	35.3	U	0.4	100	1.93	95		4.6	4.3
	ePg			43		0.9	99					
	e			46								
	e			51								
	eSn			58		−0.8	99					
MSZ	ePn	22	19	46		−0.5	100	2.78	42		4.8	4.8
	e(P*)			56		4.3						
	eSn		20	19		−0.3	100					
	eS*			29		0.9	99					
	e			45.5								
ROX	Pn	22	19	50.8		0.3	100	3.08	67		5.1	4.9
	eP*			57		0.3	100					
	eSn		20	26.5		0.2	100					
OMZ	ePn	22	20	06		−0.7	99	4.27	69		4.7	4.7
	e(P*)			22		5.0						
	eS*		21	12		−0.6	100					
RHP	Pn	22	20	07.2		0.1	100	4.29	53			
MJZ	Pn	22	20	10.6		−0.4	100	4.58	54		4.2	4.8
	e			44.5								
	e(S*)		21	32		10.1						
CBZ	ePn	22	20	35		0.4	100	6.31	158			
	eSn		21	38		−5.9	0					

AMPLITUDES: BRZ 12 9.5 20 OBZ 8.5 10 MSZ 11 21
ROX 7.7 12 OMZ 1.5 3.0 RHP 23
MJZ 1.0 5.0 CBZ 0.2 0.3

79/ 745

OCT 21 $23^h 11^m 48^s.9$ 46°.72S 165°.94E 12 km M = 3.7

± 1.4 0.04 0.11 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iPn	23	12	14.3	D	0.1	100	1.45	50			
	S*			35.7		1.6	99					
OBZ	Pn	23	12	14.3		−0.6	100	1.50	98		3.7	3.7
	eSn			33.5		−0.9	100					
MSZ	ePn?	23	12	21		−7.1		2.47	35		3.4	3.5
	eP*			33		0.8	100					
	eS*		13	02.5		−2.1	98					
	eSg			12		−0.2	100					
ROX	Pn	23	12	31.2		0.5	100	2.65	63		3.9	4.0
	eSn		13	03		0.9	100					
RHP	e(Pg)	23	13	05		−3.1		3.92	50			
MJZ	eSn	23	13	39		−0.1	100	4.20	51			

AMPLITUDES: BRZ 0.9 0.8 1.8 OBZ 2.0 4.4 MSZ 0.6 1.2
ROX 0.6 1.9 RHP 0.5

79/ 746

OCT 22 $06^h 27^m 35^s.9$ 46°.35S 165°.51E 12 km M = 3.9

± 1.0 0.04 0.08 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	06	28	01.7		−0.5	100	1.52	69			
	P*			04		0.9	100					
	eS*			24.5		1.2	100					
OBZ	Pn	06	28	06.0		−1.1	100	1.88	108		4.0	3.8
	eP*			12		2.8	97					
	Pg			13.2		−0.7	100					
	eSn			28		−2.4	98					
MSZ	ePn	06	28	14		0.0	100	2.38	46		4.1	3.7
	ePg			23		−1.1	100					
	eS*			48		−1.1	100					
	eSg			56.5		0.2	100					
ROX	ePn	06	28	20.5		0.9	100	2.80	73		3.9	3.7
	P*			26.1		1.2	100					
	e(Pg)			37		4.4						
	eSn			53		0.4	100					
	eSg		29	11		0.7	100					
RHP	ePn	06	28	36		0.8	100	3.94	57			
	ePg			55		−0.5	100					
	e(S*)		29	31		−4.6						

AMPLITUDES: BRZ 1.2 2.9 OBZ 2.2 3.3 MSZ 3.1 2.3
ROX 0.6 0.9 RHP 2.0 1.4

79/ 747

OCT 22 $07^h 15^m 58^s.5$ 46°.36S 165°.61E 12 km M = 3.7

± 1.8 0.06 0.15 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	07	16	22.8		−1.2	100	1.47	67			
	eP*			25		0.3	100					
	eSn			44		0.9	100					
OBZ	Pn	07	16	27.4		−1.3	100	1.81	108		3.8	3.5
	P*			33.3		2.7	99					
	Pg			36.5		1.3	100					

	Sn			48		−3.4	97				
MSZ	Pn	07	16	36.2		0.2	100	2.34	45	3.8	3.6
	eS*		17	10		−0.4	100				
ROX	Pn	07	16	41.6		0.2	100	2.74	72	4.0	3.5
	eP*			47		0.6	100				
	eSn		17	15		1.3	100				
RHP	ePn	07	16	57		−0.1	100	3.89	56		
	ePg		17	15		−2.1	99				
	e(S*)			52		−4.7					

AMPLITUDES: BRZ 1.3 2.3 OBZ 1.7 2.0 MSZ 1.5 2.0
ROX 0.7 0.6 RHP 0.8 0.8

79/ 748

OCT 22 $11^h50^m47^s.4$ 45°.28S 166°.59E 12 km M = 3.7
± 0.9 0.03 0.07 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	11	51	02.2		−0.6	100	0.84	127			
	Pg			05.7		1.3	99					
	eS*			16		1.9	98					
MSZ	iP*	11	51	08.0	D	0.3	100	1.13	58		3.5	3.5
	ePg			11		0.8	100					
	eS*			22		−0.7	100					
ROX	iPn	11	51	19.3	U	−0.0	100	1.93	97		3.7	3.7
	Sn			42.0		−1.3	99					
OBZ	Pn	11	51	19.6		0.2	100	1.94	147		4.3	3.8
	P*			21.1		−0.6	100					
	eSn			42		−1.4	99					
RHP	Pn	11	51	31.3		0.7	100	2.76	66			
	e			32.6								
OMZ	ePn	11	51	35		0.2	100	3.07	88		3.5	3.2
	eSn		52	10		−0.5	100					

AMPLITUDES: BRZ 2.8 3.0 3.5 MSZ 4.1 7.0 ROX 0.8 2.1
OBZ 4.1 3.7 RHP 5.8 OMZ 0.2 0.2

79/ 749

OCT 22 $12^h27^m17^s.1$ 46°.89S 165°.68E 12 km M = 4.2
± 1.5 0.08 0.11 R S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	12	27	45		−0.4	100	1.66	91		3.8	4.1
	eSn		28	07		0.4	100					
BRZ	ePn	12	27	46		0.2	100	1.70	50			
	ePg			51		−0.5	100					
	eSg		28	14		−0.5	100					
MSZ	ePn	12	28	02		2.3	100	2.72	36		4.2	4.1
	eP*			06		1.4	100					
	eS*			39		−1.2	100					
ROX	ePn	12	28	03		0.8	100	2.90	62		4.5	4.6
	P*			08.2		0.5	100					
	eSn			39		2.9	99					
	eS*			47		1.4	100					
OMZ	eP*	12	28	25		−2.9	99	4.08	65		3.8	4.1
	eSg		29	33		−1.5	100					
RHP	e?	12	28	12				4.17	50			
	eP*			26		−3.4	99					
	e		29	18								
MJZ	eP*	12	28	32		−2.2	100	4.45	51		4.3	4.1
	eSn		29	16		2.6	99					

AMPLITUDES:									
	OBZ	1.8	8.8	BRZ	2.5	5.0	MSZ	3.5	4.0
	ROX	2.0	7.0	OMZ	0.2	0.8	RHP	3.0	3.7
	MJZ	1.6	1.3						

79/ 750

OCT 24 $06^h10^m26^s.1$ 41°.65S 173°.64E 78 km M = 4.3

± 0.4 0.03 0.05 10 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	iP	06	10	40.8	D	−0.6	100	0.65	48			
KKY	P	06	10	43.0		0.2	100	0.77	177			
COB	iP	06	10	43.8	U	−0.1	100	0.88	309			
	eS			54		−3.4	99					
MRW	iP	06	10	44.1	D	−0.1	100	0.90	63			
WEL	P	06	10	44.4		0.0	100	0.92	67	4.1		
	e			45.4								
	eS			57		−1.3	100					
BHW	iP	06	10	44.8	D	−0.1	100	0.95	76			
WDW	iP	06	10	46.3	D	−0.1	100	1.09	70			
CAW	iP	06	10	47.7	D	−0.3	100	1.21	64			
MOW	iP	06	10	48.1	D	−0.2	100	1.23	80			
KIW	iP	06	10	48.5	D	0.1	100	1.24	51			
MTW	iP	06	10	51.0		−0.6	100	1.48	71			
KAI	eP	06	10	59		2.1	100	1.88	241	4.1*		
	e		11	04.7								
	e			10.9								
	eS			22		2.3	100					
CMZ	eP	06	11	00.2		0.7	100	2.08	201		3.6*	4.3*
	e			19.3								
	eS			24.7		0.5	100					
TNZ	P	06	11	07.2		1.4	100	2.52	13		3.8*	4.1*
	eS			37		1.4	100					
GSZ	P	06	11	11.3		1.6	100	2.80	33			
	eS			46		3.6	98					
TRZ	(P)	06	11	26.0		10.6		3.20	50		4.3	4.2
	e(S)		12	10		17.5						
MJZ	P	06	11	19.4		2.5	99	3.31	224		3.7*	3.6*
	e			25								
	eS			55.5		0.3	100					
	e		12	00								
RHP	P	06	11	22.6		1.9	100	3.59	226			
	eS		12	02		−0.1	100					
TUA	e(S)	06	12	33		22.9		3.91	45			4.3
OMZ	eP	06	11	28		2.1	100	3.96	209		3.3*	3.4*
	eS		12	09		−2.4	100					
KRP	iP	06	11	26.9	D	0.5	100	4.00	22		3.7*	3.7*
	i			27.8								
	eS		12	12		−0.3	100					
GNZ	S	06	12	20.0		−4.9	92	4.51	50			4.5
ROX	S	06	12	34.3		−1.8	100	4.95	218			3.3*
MSZ	P	06	11	44.8		2.2	100	5.17	232		3.8*	3.5*
	eS		12	40		−1.4	100					
GBZ	eP	06	11	49		0.3	100	5.62	15			
ONE	eS	06	12	56		−3.5	99	5.89	6	3.6*		
BRZ	e(P)	06	12	00		5.2		6.06	225			
	eS		13	01		−2.5	99					
OBZ	eS	06	13	14		−2.7	99	6.59	215			3.3*
CRZ	eP	06	12	12		0.6	100	7.24	354			3.6*
	e(S)		13	25		−7.9						

AMPLITUDES:											
	WEL	4.6			KAI	3.0			CMZ	1.5	13
	TNZ		0.8	2.5	GSZ		8.7	16	TRZ	0.6	1.0
	MJZ		2.3	2.3	RHP		8.0	10	TUA		0.4
	OMZ		0.3	0.9	KRP		2.0	2.2	GNZ		2.2
	ROX			0.7	MSZ		1.9	1.6	GBZ	0.3	
	ONE	0.4			BRZ	0.3			OBZ		0.7
	CRZ			0.3							

FELT: Ashdown (77) and Waitaria (78)

79/ 751

OCT 24 $11^h23^m36^s.6$ 46°.92S 165°.23E 12 km M = 4.0

± 1.5 0.07 0.11 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	ePn	11	24	09		0.1	100	1.96	55			
	eSn			32		−1.2	100					
OBZ	Pn	11	24	09.9		0.8	100	1.98	91		4.0	4.0
	ePg			18		1.4	100					
	eSn			33.5		−0.0	100					
MSZ	ePn	11	24	20		−2.1	99	2.93	41		3.9	3.8
	eP*			29		1.2	100					
	eSn			59		2.5	98					
	e(S*)		25	11		4.8						
ROX	Pn	11	24	25.8		0.2	100	3.19	65		4.2	4.0
	eSn		25	02		−0.6	100					
OMZ	eP*	11	24	50.5		−1.9	99	4.37	67			3.7
	eSn		25	31		−0.1	100					
RHP	ePn	11	24	43		0.5	100	4.43	52			
	e(P*)			56.5		3.2						
	eSn		25	32		−0.4	100					

AMPLITUDES:											
	OBZ		2.3	5.5	MSZ		1.3	2.0	ROX	1.0	1.3
	OMZ			0.3	RHP		1.6	0.8			

79/ 752

OCT 24 $11^h16^m25^s.9$ 46°.61S 165°.68E 12 km M = 3.9

± 1.2 0.06 0.09 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	ePn	11	16	51		−1.4	100	1.54	58			
	P*			54.3		1.0	100					
	eSn		17	11		−1.2	100					
OBZ	Pn	11	16	56.9		2.3	99	1.70	101		3.8	3.8
	eSn		17	16.5		0.4	100					
MSZ	ePn	11	17	04.5		−1.0	100	2.49	40		3.7	3.9
	eP*			10		0.3	100					
	eSn			36		0.7	100					
ROX	ePn	11	17	10		0.7	100	2.78	67		4.3	4.0
	eP*			15		0.5	100					
	ePg			20		−2.1	99					
	eSn			41		−1.0	100					
	e(Sg)		18	06.5		6.9						
OMZ	eP*	11	17	34		−0.8	100	3.97	69		3.7	3.6
	eS*		18	26		−0.6	100					
RHP	ePn	11	17	26		0.1	100	4.00	53			
	eP*			35		−0.2	100					
	eS*		18	30		2.7	98					

AMPLITUDES:											
	OBZ		1.8	4.2	MSZ		1.3	3.6	ROX	1.5	1.8
	OMZ		0.2	0.3	RHP		2.3	1.9			

79/ 753

OCT 24 $11^h58^m04^s.9$ 46°.32S 166°.43E 12 km M = 5.4

± 1.1 0.04 0.13 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	11	58	21.9		−0.2	100	0.94	55			
OBZ	Pn	11	58	28.7		0.6	100	1.30	117			
	e			35								
MSZ	Pn	11	58	34.9		−2.1	99	1.95	33			
ROX	Pn	11	58	40.7		0.4	100	2.19	68			
	e			41.2								
OMZ	ePn	11	58	56		−0.6	100	3.38	70		5.3	5.4
	eP*		59	05.5		1.7	100					
	e(Sn)			31		−4.6						
	eS*			46.5		−1.5	100					
	e	12	00	07								
RHP	iPn	11	58	56.9	U	0.0	100	3.41	51			
MJZ	Pn	11	58	59.2	UN	−1.5	100	3.69	52		5.6	5.8
	eP*		59	11		2.0	100					
	e			50								
CMZ	ePn	11	59	20		−1.2	100	5.19	60			5.4
	ePg			48		−1.7	100					
	e	12	01	05								
KAI	ePn	11	59	25		3.5	98	5.21	45	5.3		
	e			44								
	e	12	00	36								
CBZ	Pn	11	59	37.3		−1.6	100	6.49	165			
	eSn	12	00	49		−1.1	100					
	eS*		01	23		2.0	100					
COB	ePn	11	59	45		−0.2	100	6.95	43		5.2	5.2
	eSn	12	01	03		1.8	100					

AMPLITUDES: BRZ 99 OMZ 9.0 25 MJZ 46 91
CMZ 10 KAI 3.2 CBZ 1.8 1.1
COB 2.1 7.5

79/ 754

OCT 24 $12^h00^m30^s.7$ 47°.00S 166°.00E 12 km M = 4.0

± R R R R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	12	00	55		−1.0	100	1.45	87		4.3	3.8
	eSn		01	16		1.0	100					

AMPLITUDES: OBZ 7.0 6.0

Records of this shock obscured by coda of previous earthquake at all stations except OBZ.

79/ 755

OCT 24 $12^h05^m39^s.1$ 46°.57S 165°.77E 12 km M = 3.8

± 0.9 0.04 0.07 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	12	06	01.8		−2.8	83	1.47	58			
	eP*			05.5		0.3	100					
	eS*			24		−0.6	100					
OBZ	ePn	12	06	08		0.9	100	1.65	103		3.7	
	eSn			28		−0.1	100					
MSZ	Pn	12	06	18.8		1.1	100	2.43	39		4.0	4.1
	eP*			21.5		−0.1	100					

	eS*			54		0.5	100					
OMZ	eP*	12	06	47		0.2	100	3.90	69		3.7	3.7
	eS*		07	38		0.3	100					
RHP	ePn	12	06	38		−0.1	100	3.92	53			

AMPLITUDES: BRZ 2.5 2.5 OBZ 1.5 MSZ 2.3 5.0
OMZ 0.2 0.4 RHP 2.5

79/ 756

OCT 24 $12^h20^m23^s.8$ 46°.42S 165°.55E 12 km M = 4.7
± 1.3 0.06 0.10 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iPn	12	20	49.2	D	−0.9	100	1.53	66			
	eP*			52		1.0	100					
	eSn		21	07		−2.8	97					
OBZ	ePn	12	20	55		0.7	100	1.84	106		4.6	4.4
	eSn		21	17		−0.2	100					
MSZ	Pn	12	21	01.5		−0.8	100	2.41	44		4.9	4.9
	eP*			08		1.8	99					
	eS*			38		0.1	100					
RHP	iPn	12	21	24.2	D	0.9	100	3.96	56			
	eP*			31.5		−1.0	100					
	e(S*)		22	27		3.0						
OMZ	ePn	12	21	24		0.2	100	4.00	72		4.6	4.8
	eP*			33		−0.1	100					
	eS*		22	27		1.8	99					
	e			52								

AMPLITUDES: BRZ 33 20 OBZ 10 17 MSZ 22 35
RHP 41 42 OMZ 1.3 4.7

79/ 757

OCT 24 $12^h34^m56^s.6$ 46°.79S 165°.28E 12 km M = 4.0
± 2.6 0.10 0.20 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	ePn	12	35	26		−1.6	100	1.86	58			
	eSn			48		−2.8	99					
OBZ	eP*	12	35	32		0.9	100	1.95	94		4.0	4.0
	eSn			52		−0.8	100					
MSZ	ePn	12	35	40		−0.5	100	2.82	42		4.0	3.9
	eP*			45		−0.8	100					
	eSn		36	15		1.4	100					
OMZ	eP*	12	36	14		3.0	99	4.29	68			
RHP	ePn	12	36	01		−0.1	100	4.32	53			
	eSn			51		1.2	100					

AMPLITUDES: BRZ 1.4 1.5 2.0 OBZ 2.4 5.0 MSZ 2.0 2.8
RHP 1.4 0.7

79/ 758

OCT 24 $14^h21^m17^s.7$ 46°.31S 165°.95E 12 km M = 3.8
± 1.7 0.06 0.14 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	14	21	38.9		−0.9	100	1.22	65			
	ePg			41		−1.6	100					
	eS*			55		−1.2	100					
OBZ	Pn	14	21	45.0		−0.2	100	1.61	113		3.8	3.8
	e(Pg)			53		2.7						
	eSn		22	06		0.2	100					

MSZ	eP*	14	21	55	−0.5	100	2.14	41		3.9	3.8
	ePg			59	−2.1	99					
	eSg		22	31	0.9	100					
RHP	ePn	14	22	14	0.7	100	3.66	54			
	eP*			21	−0.4	100					
	eSn			58	2.8	99					
OMZ	ePn	14	22	16	2.3	99	3.70	72		3.7	3.7
	e(S*)		23	05	−5.2						

AMPLITUDES: BRZ 2.0 3.0 3.5 OBZ 1.8 5.6 MSZ 2.3 3.5
RHP 3.2 1.5 OMZ 0.2 0.4

79/ 759

OCT 24 $18^h16^m08^s.7$ 46°.28S 165°.93E 12 km M = 4.2
± 1.0 0.03 0.08 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iP*	18	16	29.2	U	−1.6	100	1.23	66			
	eS*			48		0.8	100					
OBZ	Pn	18	16	35.2		−1.3	100	1.63	113		4.4	4.3
	eP*			38.5		0.8	100					
	e(Pg)			46		4.2						
	eSn			56		−1.3	100					
	eSg		17	05		1.2	100					
	e			12								
MSZ	Pn	18	16	43.2		−0.1	100	2.13	42		4.4	4.1
	P*			48.7		2.4	99					
	Pg			50.4		−1.4	100					
	eSn		17	09.2		−0.1	100					
	eS*			13.7		−0.6	100					
RHP	Pn	18	17	04.2		0.1	100	3.66	55			
	eSn			46		0.0	100					
OMZ	ePn	18	17	05		0.3	100	3.70	73		4.1	3.9
	e			17								
	e			39								
	eS*		18	01		−0.3	100					
MJZ	ePn	18	17	08		−0.1	100	3.95	56		4.3	4.3
	eP*			20.5		3.3	94					
	eSn			52		−0.9	100					

AMPLITUDES: BRZ 5.8 5.0 10 OBZ 6.9 17 MSZ 7.3 7.3
RHP 5.8 5.6 OMZ 0.5 0.7 MJZ 2.0 2.4

79/ 760

OCT 24 $18^h27^m36^s.2$ 46°.60S 165°.47E 12 km M = 4.5
± 1.2 0.06 0.10 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iPn	18	28	03.0	D	−1.3	100	1.66	61			
	eSn			23.5		−1.8	99					
OBZ	ePn	18	28	08.7		1.8	99	1.84	101		4.5	4.3
	ePg			15		1.4	100					
	eSn			27.5		−2.5	99					
	e			40								
MSZ	ePn	18	28	16.5		−0.4	100	2.58	43		4.7	4.6
	eP*			21		−0.4	100					
	eSn			49		1.4	100					
OMZ	ePn	18	28	37.5		−0.2	100	4.10	70		4.3	4.3
	eP*			47.5		0.1	100					
	eS*		29	43		2.1	99					
RHP	iPn	18	28	38.0	D	0.3	100	4.10	54			

	e			44							
	e			55							
MJZ	Pn	18	28	41.1		−0.5	100	4.39	55	4.7	4.6
	eP*			53		0.7	100				
	eSn		29	32		0.9	100				
	eS*			48		−1.4	100				

AMPLITUDES: BRZ 9.0 6.8 13 OBZ 7.0 11 MSZ 11 16
OMZ 0.7 1.3 RHP 16 13 MJZ 4.0 3.8

79/ 761

OCT 24 $20^h27^m54^s.2$ 46°.44S 166°.28E 12 km M = 3.6
± 1.0 0.04 0.07 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	20	28	14.3		0.2	100	1.10	53			
	eSg			32		0.6	100					
OBZ	Pn	20	28	17.4		−0.7	100	1.35	111		3.8	3.5
	(Pg)			24.6		3.1						
	eSn			36		0.1	100					
MSZ	ePn	20	28	28.5		−0.0	100	2.12	34		3.8	3.6
	ePg			35		−1.9	99					
	eS*			58		−1.2	100					
OMZ	eP*	20	28	55		−0.5	100	3.53	69			3.3
	eS*		29	40		−1.5	99					
RHP	ePn	20	28	50		1.7	99	3.56	50			
	eP*			57		0.8	100					
	eSg		29	55		0.7	100					

AMPLITUDES: BRZ 1.7 2.2 2.2 OBZ 2.7 3.8 MSZ 2.2 2.5
OMZ 0.2 RHP 1.8 0.8

79/ 762

OCT 25 $02^h12^m53^s.5$ 46°.41S 166°.02E 12 km M = 5.1
± 0.8 0.04 0.08 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iP*	02	13	14.2	D	−1.4	100	1.23	60			
	eSg			35		−0.0	100					
OBZ	iPn	02	13	20.0	U	0.2	100	1.52	110			
	eSn			38		−1.5	99					
MSZ	iPn	02	13	27.3	D	−1.6	99	2.19	38			
OMZ	Pn	02	13	48.7		−0.5	100	3.68	70		5.0	5.0
	eP*			57		−0.4	100					
	e		14	48								
RHP	iPn	02	13	49.0	U	−0.2	100	3.68	53			
	P*.			58		0.5	100					
MJZ	Pn	02	13	52.2		−0.9	100	3.97	54		5.4	5.4
	eP*		14	03		0.6	100					
	eSn			40		1.8	99					
KAI	e(Pn)	02	14	17		3.3		5.47	47	4.9		
	e			36								
	e(Sn)		15	20		5.6						
	e(Sg)			53		−4.8						
CMZ	ePn	02	14	14		0.2	100	5.48	61		4.9	5.0
	e			36								
	eSn		15	16		1.5	99					
CBZ	Pn	02	14	29.2		1.8	99	6.48	163			
	e			32								
	e(Sn)		15	46		7.4						

AMPLITUDES: BRZ 61 OMZ 4.0 8.8 MJZ 24 28
KAI 1.0 CMZ 1.8 3.5 CBZ 1.1 0.9

79/ 763

OCT 25 $02^h15^m12^s.4$ 46°.32S 166°.08E 12 km M = 3.5
± 1.8 0.07 0.13 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eS*	02	15	49		0.6	100	1.15	63			
OBZ	ePn	02	15	38		−0.6	100	1.52	114		3.6	3.5
	eSn			59		0.7	100					
MSZ	ePn	02	15	47		0.6	100	2.09	39			
OMZ	eSn?	02	16	47		−1.5	99	3.61	72			3.4

AMPLITUDES: BRZ 0.5 OBZ 1.5 2.7 OMZ 0.2

Phases partially obscured by coda of previous shock.

79/ 764

OCT 25 $02^h24^m14^s.7$ 46°.42S 165°.82E 12 km M = 3.6
± 1.4 0.04 0.12 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	02	24	36.2		−2.5	98	1.36	63			
	eP*			40		1.0	100					
	eSn			56.5		−0.2	100					
OBZ	Pn	02	24	43.1		0.3	100	1.66	108		3.6	3.6
	ePg			49		0.8	100					
	Sn		25	03.0		−0.8	100					
MSZ	Pn	02	24	51.9		0.5	100	2.29	41		3.5	3.6
	P*			56.7		1.8	99					
	eS*		25	25		0.1	100					
RHP	ePn	02	25	11		−1.0	100	3.81	54			
	eP*			20		−0.7	100					
	eSn			54.5		−0.9	100					
	e(S*)		26	16		5.7						
OMZ	e?	02	25	01				3.82	71			3.4
	ePg			33		1.2	100					

AMPLITUDES: BRZ 1.3 1.4 2.0 OBZ 1.3 3.0 MSZ 0.9 2.1
RHP 1.2 0.7 OMZ 0.2

79/ 765

OCT 25 $03^h39^m48^s.1$ 46°.31S 165°.96E 12 km M = 3.7
± 1.4 0.05 0.12 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iP*	03	40	08.3	D	−1.8	100	1.21	65			
	ePg			11.5		−1.3	100					
	eSg			30		0.7	100					
OBZ	Pn	03	40	14.1		−1.4	100	1.60	113		3.9	3.7
	Pg			22.8		2.2	99					
	eSn			35		−0.9	100					
MSZ	Pn	03	40	22.0		−0.8	100	2.14	41		3.8	3.5
	eP*			28.2		2.4	99					
	eS*			53		−0.9	100					
RHP	ePn	03	40	43		−0.5	100	3.65	54			
	eP*			53		1.3	100					
	e		41	17								
OMZ	ePn	03	40	45		1.0	100	3.69	72		3.7	3.5
	e(Sn)		41	33		6.9						

AMPLITUDES: BRZ 2.1 1.7 3.6 OBZ 2.5 4.2 MSZ 1.8 1.7
RHP 1.8 1.1 OMZ 0.2 0.3

79/ 766

OCT 25 $04^h25^m08^s.9$ 46°.57S 165°.60E 12 km M = 3.8
± 1.7 0.05 0.14 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	04	25	33.9		−1.8	99	1.57	60			
	P*			37.0		0.2	100					
	eSn			54		−1.8	99					
OBZ	Pn	04	25	39.7		1.2	100	1.76	102		3.9	3.9
	Pg			45.7		1.1	100					
	eSn		26	00		−0.6	100					
MSZ	Pn	04	25	47.9		−0.6	100	2.50	41		3.8	3.7
	Pg			59.0		−0.5	100					
	eSn		26	20		1.6	100					
	eS*			27.8		2.2	99					
OMZ	ePn	04	26	11		1.9	99	4.01	70		3.7	3.6
	e			46								
RHP	ePn	04	26	09		−0.2	100	4.01	54			
	eP*			18		−0.6	100					
	e			42								
	eSn			53		−1.7	100					

AMPLITUDES: BRZ 1.3 1.0 3.0 OBZ 2.2 4.8 MSZ 1.5 2.3
OMZ 0.2 0.3 RHP 1.7 0.9

79/ 767

OCT 25 $08^h54^m46^s.6$ 46°.27S 166°.15E 12 km M = 3.6
± 1.3 0.04 0.10 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	08	55	05.1		−1.2	100	1.09	63			
	Pg			08.3		−0.4	100					
	eS*			21		0.1	100					
OBZ	Pn	08	55	11.8		−0.7	100	1.49	116		3.6	3.7
	eSn			31.5		−0.4	100					
	S*			33.9		0.8	100					
MSZ	ePn	08	55	19.5		−0.3	100	2.03	38		3.5	3.6
	eSg			55		−0.1	100					
RHP	ePn	08	55	43		2.7	95	3.54	53			
	e(Sn)		56	25		4.1						

AMPLITUDES: BRZ 0.9 1.2 2.2 OBZ 1.5 4.3 MSZ 1.0 2.3
RHP 0.8 0.5

79/ 768

OCT 25 $15^h46^m27^s.5$ 46°.52S 165°.62E 12 km M = 3.8
± 1.4 0.05 0.11 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iPn	15	46	51.9	U	−1.9	99	1.53	62			
	eP*			55		0.3	100					
	eS*		47	15.5		0.6	100					
OBZ	Pn	15	46	57.6		0.6	100	1.75	104		3.8	3.7
	Pg		47	03.3		0.2	100					
	eSn			17.5		−1.6	100					
MSZ	ePn	15	47	05.9		−0.6	100	2.46	42		3.9	3.8
	eS*			42		−0.7	100					
RHP	ePn	15	47	27		−0.2	100	3.97	54			

	eP*			37		0.6	100					
	eS*			48 28		−0.2	100					
OMZ	eP*	15	47	40		3.5	91	3.98	71			3.6
	e(Sn)			48 20		7.5						

AMPLITUDES: BRZ 1.0 1.6 3.0 OBZ 1.8 3.3 MSZ 2.0 2.8
RHP 1.7 0.7 OMZ 0.3

79/ 769

OCT 25 $15^h54^m44^s.7$ 46°.42S 166°.34E 12 km M = 3.8
± 1.3 0.04 0.10 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iP*	15	55	03.0	D	−0.8	100	1.05	53			
	eS*			18		0.1	100					
OBZ	ePn	15	55	08		−0.2	100	1.32	112		4.0	4.0
	ePg			14		2.6	98					
	eSn			24.3		−1.4	100					
MSZ	iPn	15	55	16.8	U	−1.6	100	2.07	33		3.9	3.7
	eS*			50		1.6	100					
OMZ	eP*	15	55	46		0.8	100	3.48	69		3.6	3.6
	eSg		56	41		−0.8	100					
	e			50								
RHP	e(Pn)	15	55	38.7		0.5	100	3.52	50			
	ePg			55		−0.8	100					
	e(S*)		56	29		−2.8						

AMPLITUDES: BRZ 2.3 1.8 4.2 OBZ 4.7 11 MSZ 2.6 3.2
OMZ 0.2 0.4 RHP 3.0 2.7

79/ 770

OCT 26 $01^h06^m38^s.1$ 37°.15S 177°.70E 33 km M = 4.8
± 0.8 0.04 0.06 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP*	01	06	55		0.5	100	0.86	129			
GNZ	Pn	01	07	01.8		−0.5	100	1.51	170			
TUA	ePn	01	07	03.3		−1.7	100	1.71	194		4.7	4.7
	eP*			08.0		−0.6	100					
	e			13.0								
	eSn			25.6		0.5	100					
KRP	Pn	01	07	05.3		−2.0	99	1.88	245		4.9	5.3
	iP*			09.0		−2.5	99					
	Sn			29.0		−0.3	100					
WNZ	ePn	01	07	08.0		−0.2	100	1.94	220		4.4	
	eP*			15		2.5	99					
	eS*			35		−3.2						
AUC	ePn	01	07	13		−0.8	100	2.36	276			
	i(P*)			24.5		4.9						
TRZ	ePn	01	07	16.0		0.3	100	2.49	196		4.8	
	eP*			22.0		0.1	100					
	e			26.8								
NGZ	ePn	01	07	17.3		0.0	100	2.61	218			
	e			20.2								
	eP*			25.0		1.1	100					
CNZ	ePn	01	07	18.8		0.9		2.65	219			
	i			21.5								
	iP*			24.0		−0.6						
ONE	ePn	01	07	24.0		1.1	100	3.02	296			
	eP*			30.0		−0.8	100					
TNZ	ePn	01	07	28.0		1.1	100	3.31	231		5.2	

	eP*			38.5		2.7	99					
MNG	Pn	01	07	32.4		−2.1	99	3.87	206		4.9	
	i			40.5								
	iP*			47.6		2.3						
	i			56.4								
CRZ	ePn	01	07	50.0		1.4	100	4.90	302			
	e			54.2								
	eSn		08	46		4.1						
CMZ	ePn	01	08	29		5.0		7.50	209		4.4	4.4
	eSn		09	40		−4.3						

AMPLITUDES:

TUA	6.1	6.0	KRP	8.8	15	WNZ	0.4		
AUC	3.2		TRZ	4.6		NGZ	10		
CNZ	5.0		TNZ	1.1		MNG	9.0		
CMZ	0.3	0.5							

79/ 771

OCT 26 $01^h10^m25^s.8$ 33°.36S 179°.49W 376 km M = 5.0

± 1.9 0.32 0.60 41 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	S-P		1	08.5		1.0	100	5.44	211		4.9	5.1
GNZ	P	01	11	55.5		1.3	100	5.65	200		5.0	
	e		12	58.0								
	S		13	03.2		−0.4	100					
TUA	eS	01	13	10		−2.3	99	6.08	206			5.0
TRZ	(P)	01	12	17.5		9.5		6.87	205		5.1	5.1
	eS		13	31		2.6	99					
NGZ	P	01	12	10.8		0.8	100	7.03	213			
TNZ	eP	01	12	17		0.0	100	7.64	219		3.8*	
MNG	P	01	12	23.9		−0.6	100	8.29	208		5.1	5.0
	S		13	56.0		−2.2	99					
WEL	eP	01	12	34		−0.5	100	9.14	208	4.9		
	S		14	18		1.7	100					

AMPLITUDES:

WTZ	1.5	2.7	GNZ	2.0		TUA		0.7	
TRZ	0.6	1.3	NGZ	1.1		TNZ	0.3		
MNG	3.7	3.5	WEL	0.3					

79/ 772

OCT 26 $07^h04^m53^s.2$ 33°.60S 179°.34W 273 km M = 4.6

± 1.7 0.08 0.14 30 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	S-P		1	04		0.9	100	5.30	213		5.0	4.6
GNZ	P	07	06	14.7		−1.2	100	5.47	202			
	S		07	18.0		−2.7	99					
TUA	eP	07	06	21.8		0.3	100	5.92	208		4.9	4.8
	eS		07	32		1.4	100					
KRP	eP	07	06	24		1.6	100	6.00	223			3.2*
CRZ	eP	07	06	32.0		1.1	100	6.69	261			
	eS		07	45.9		−1.6	100					
TRZ	eP	07	06	30		−1.1	100	6.70	206		4.5	4.5
	S		07	51		3.2	99					
NGZ	eP	07	06	35.5		1.9	100	6.90	215			
MNG	eP	07	06	48.0		−1.0	100	8.14	209		4.2	4.3
	eS		08	18.0		−2.0	100					
WEL	eS	07	08	38		−1.1	100	8.99	210	4.6		
COB	eS	07	08	58		1.0	100	9.78	218			3.1*

AMPLITUDES:

WTZ	2.4	1.0	TUA	0.7	0.5	KRP		0.5	

TRZ		0.2	0.4	NGZ		0.7		MNG		0.5	0.7
WEL	0.2			COB			0.3				

79/ 773

OCT 26 $17^h45^m56^s.7$ 31°.01S 176°.89W 420 km M = 5.0

± 2.8 0.50 0.82 32 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	S-P		1	37		−0.2	100	8.60	214		4.9	5.1
GNZ	eP	17	48	03.0		2.2	99	8.69	207		4.5	5.3
	S		49	36.2		−2.7	99					
TUA	eS	17	49	49.5		0.3	100	9.20	211			5.3
TRZ	eS	17	50	06.8		1.9	100	9.95	209			5.1
NGZ	eS	17	50	10.2		0.0	100	10.21	215			
MNG	eP	17	48	29.5		−2.3	99	11.41	211		4.3	5.2
	e		50	30.4								
	S			35.0		−0.3	100					
WEL	S	17	50	53.8		0.9	100	12.28	211	5.2		
COB	eP?	17	48	52		1.6		13.09	217			3.6*
	eS		51	09		−0.3	100					
CMZ	eS	17	51	48		0.5		15.06	211			3.6*

AMPLITUDES:										
WTZ		0.6	1.1	GNZ		0.3	3.0	TUA		0.6
TRZ			0.7	NGZ			0.4	MNG	0.3	2.8
WEL	0.4			COB			0.6	CMZ		0.3

79/ 774

OCT 26 $17^h50^m20^s.6$ 40°.25S 179°.03E 33 km M = 3.9

± 1.8 0.07 0.12 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	17	50	47.5		−1.0	100	1.79	334			
	S		51	08.8		−0.7	100					
TRZ	eS	17	51	13.5		2.8	98	1.84	292			3.5
TUA	P	17	50	51.5		−0.6	100	2.05	314		4.1	
	eS		51	11		−4.8						
MNG	P	17	51	02.2		0.7	100	2.74	261		3.9	3.8
	eS			30		−2.2	99					
WTZ	S-P			30		−1.1	100	2.77	324		4.1	3.8
NGZ	P	17	51	04.5		1.5	100	2.84	291			
CNZ	P	17	51	04.6		1.1		2.89	290			
WEL	eS	17	51	48		−0.2	100	3.40	251	3.9		
COB	eS	17	52	23		−0.4	100	4.86	258			3.8

AMPLITUDES:										
TRZ			0.6	TUA		1.0		MNG	1.8	2.1
WTZ		1.6	0.7	NGZ		4.1	2.6	CNZ	1.1	0.8
WEL	0.2			COB			0.5			

79/ 775

OCT 27 $11^h58^m36^s.3$ 34°.18S 178°.99W 375 km M = 4.9

± 2.8 0.25 0.40 30 S.E. of RES. 2.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	S-P		1	04.7		0.8	100	5.00	219		5.0	4.9
GNZ	P	11	59	58.0		−0.3	100	5.07	208		4.9	5.0
	i	12	00	02.0								
	S		01	03.5		0.7	100					
TUA	eS	12	01	08.5		−4.0	99	5.57	213			4.9
KRP	eP	12	00	04.5		−1.8	100	5.80	228		3.5*	
	eS		01	19		1.8	100					
TRZ	eP	12	00	15		2.6	100	6.33	211		4.7	5.0

	S		01	31.0		3.1	99						
NGZ	P	12	00	16.1		0.4	100	6.61	219				
CNZ	eP	12	00	17		0.8		6.66	220				
	S		01	34.0		−0.7	100						
GSZ	P	12	00	15.8		−0.7		6.70	219				
WEL	eS	12	02	13		−3.2	99	8.65	213	5.0			
CMZ	eS	12	03	17		1.1	100	11.43	212				3.4*

AMPLITUDES: WTZ 2.0 2.1 GNZ 1.8 4.0 TUA 0.7
KRP 0.7 TRZ 0.3 1.4 NGZ 1.1
CNZ 0.3 0.9 GSZ 2.6 WEL 0.5
CMZ 0.3

79/ 776

OCT 27 $19^h10^m36^s.9$ 37°.27S 176°.82E 274 km M = 4.5
± 1.2 0.06 0.10 7 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	S-P			27.5		−1.1	100	0.73	169		4.5	4.0
KRP	P	19	11	16.2		0.3	100	1.21	237		3.3*	3.3*
	S			46.3		0.1	100					
GBZ	P	19	11	16.9		−0.9	100	1.50	314			
TUA	P	19	11	18.6		0.3	100	1.56	170		4.9	4.5
	eS			48.8		−1.4	100					
GNZ	P	19	11	19.8		0.7	100	1.67	146			
	S			50.0		−1.7	99					
NGZ	P	19	11	24.1		1.2	100	2.13	206			
	eS			59.5		0.8	100					
CNZ	P	19	11	24.2		0.9		2.17	207			
GSZ	P	19	11	25.0		1.2		2.23	205			
TRZ	P	19	11	24.7		0.4	100	2.28	180		4.6	4.5
	eS		12	04		3.0	97					
WEL	eP	19	11	45		−1.0	100	4.32	201	4.5		
	S		12	40		0.1	100					
CMZ	eS	19	13	38		−1.8	99	7.07	205			3.5*

AMPLITUDES: WTZ 4.5 1.6 KRP 1.4 1.5 GBZ 2.0
TUA 3.7 1.6 NGZ 11 30 CNZ 4.2
GSZ 11 TRZ 1.3 2.0 WEL 0.6
CMZ 0.5

79/ 777

OCT 27 $19^h15^m13^s.4$ 38°.13S 175°.96E 220 km M = 4.5
± 1.0 0.04 0.07 6 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	19	15	42.9		0.3	100	0.39	302		3.4*	
	S		16	04.5		−0.6	100					
WTZ	S-P			22.8		−1.2	100	0.83	80		4.3	4.3
NGZ	P	19	15	48.0		2.1	99	1.09	194			
	S		16	13.0		1.8	99					
CNZ	P	19	15	48.0		1.9		1.12	197			
	eS		16	13		1.5						
TUA	P	19	15	46.8		0.4	100	1.16	126		4.5	4.4
	S		16	11.0		−1.1	100					
GSZ	P	19	15	48.9		2.3		1.18	194			
	S		16	13.3		0.9						
TRZ	P	19	15	51.0		1.3	100	1.57	155		5.0	4.3
	S		16	18.0		0.1	100					
GNZ	P	19	15	51.2		0.3	100	1.70	108			
	S		16	18.5		−1.4	100					

GBZ	eP	19	15	52.0	−1.2	100	1.94	349			
WEL	P	19	16	08.8	1.0	100	3.28	196	4.6		
	S			50.0	0.0	100					
	i			52.2							
KAI	eS	19	17	40	−1.3	100	5.61	217	3.7*		
CMZ	eS	19	17	49	−1.6	99	6.00	204			3.9*

AMPLITUDES: KRP 2.5 WTZ 4.0 4.5 NGZ 5.6 7.2
CNZ 3.5 1.8 TUA 2.7 2.1 GSZ 3.9 2.6
TRZ 5.7 2.6 GBZ 0.2 WEL 1.2
KAI 0.4 CMZ 1.6

79/ 778

OCT 27 $19^h43^m44^s.1$ 31°.23S 179°.78W 534 km M = 5.1
± 1.9 0.17 0.44 31 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	eP	19	45	25		−1.1	100	6.35	217			
WTZ	S-P		1	28.7		0.7	100	7.24	201		5.5	5.0
GNZ	eP	19	45	39.0		0.6	100	7.61	193		5.4	5.1
	S		47	06.8		−2.6	99					
KRP	eP	19	45	41.2		1.8	100	7.71	209		3.5*	
TRZ	eP	19	45	50		0.1	100	8.76	198		5.0	5.2
	eS		47	33		2.8	99					
WEL	eP	19	46	12		−0.5	100	10.96	202	4.8		
	eS		48	11		−0.5	100					
COB	eS	19	48	22		−0.6	100	11.55	210			3.2*

AMPLITUDES: GBZ 0.2 WTZ 3.0 1.0 GNZ 2.7 2.1
KRP 0.6 TRZ 0.3 1.0 WEL 0.2
COB 0.3

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OCT 27 $22^h52^m09^s.1$ 41°.26S 175°.05E 22 km M = 3.1
± 0.2 0.02 0.01 1 S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WDW	iP*	22	52	13.1		0.2	100	0.04	258			
CAW	iP*	22	52	13.8		0.0	100	0.15	5			
BHW	iP*	22	52	14.3		−0.1	100	0.20	222			
WEL	P*	22	52	14.0		−0.5	99	0.22	263			
	S*			18.6		0.2	100					
MOW	iP*	22	52	14.8		0.1	100	0.22	137			
WHW	iP*	22	52	14.7		−0.2	100	0.23	261			
MRW	iP*	22	52	15.0		−0.2	100	0.26	276			
MTW	iP*	22	52	16.4		−0.2	100	0.35	74			
COB	ePn	22	52	38		0.3	100	1.75	275		3.3	2.9
	eP*			41		0.7	97					
	eSn			59		−0.1	100					

AMPLITUDES: WEL 12 COB 0.4 0.5

FELT: Eastbourne, Lower Hutt (68), maximum intensity MM IV

79/ 780

OCT 28 $02^h49^m05^s.2$ 46°.66S 165°.44E 12 km M = 3.9
± 1.8 0.07 0.14 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	02	49	34.0		−1.4	100	1.70	60			
	iPg			37.2		−2.5	99					
	eS*		50	00		2.1	100					

OBZ	ePn	02	49	36.8	0.8	100	1.85	99		3.8	3.6
	iP*			40.0	1.9	100					
	eS*		50	02.3	−0.2	100					
MSZ	Pn	02	49	47.3	0.5	100	2.65	42		3.9	4.2
	eP*			55	3.5	98					
	eS*		50	27	0.9	100					
OMZ	eP*	02	50	16	−1.1	100	4.15	69		3.8	
RHP	ePn	02	50	07.8	0.4	100	4.16	54			
	eP*			15	−2.3	100					
	i			20.8							
MJZ	eP*	02	50	21.0	−1.1	100	4.45	55		4.2	
	i			29.8							
	eSn			59.8	−1.5	100					

AMPLITUDES: BRZ 3.1 5.6 OBZ 1.6 2.3 MSZ 1.8 5.5
OMZ 0.2 RHP 4.0 MJZ 1.3

79/ 781

OCT 28 $12^h00^m48^s.3$ 46°.01S 165°.91E 12 km M = 3.9
± 1.4 0.05 0.11 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	12	01	07.0		−2.3	99	1.16	79			
	iPg			10.0		−1.9	99					
	e			19								
	iS*			25.2		0.4	100					
OBZ	Pn	12	01	16.5		−1.4	100	1.77	121		4.1	4.1
	iP*			21.0		1.3	100					
	e			36.6								
	iSn			41.0		0.8	100					
MSZ	ePn	12	01	19.0		−1.4	100	1.95	47		4.0	3.7
	iP*			24.7		1.9	99					
	S*			48.0		−0.4	100					
RHP	Pn	12	01	42.0		0.1	100	3.53	59			
	i			47.2								
	iP*			49.0		−0.6	100					
MJZ	ePn	12	01	48.0		2.1	99	3.82	60		3.7	4.0
	eP*			55		0.4	100					
	Sn		02	30.3		0.9	100					

AMPLITUDES: BRZ 3.5 OBZ 3.1 8.1 MSZ 3.7 3.8
MJZ 0.5 1.2

79/ 782

OCT 28 $15^h05^m33^s.6$ 46°.01S 165°.89E 12 km M = 4.3
± 1.1 0.04 0.09 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	15	05	53.0		−1.8	99	1.18	79			
	iPg			57.3		−0.1	100					
	i		06	05.2								
	iS*			11.0		0.5	100					
OBZ	Pn	15	06	02.4		−1.0	100	1.78	121		4.6	4.3
	iP*			06.9		1.7	99					
	e			23.0								
	eSn			26.0		0.2	100					
MSZ	Pn	15	06	05.0		−0.8	100	1.96	48		4.4	4.2
	iP*			10.9		2.7	98					
	S*			35.2		1.2	100					
	iSg			38.0		−1.7	99					
RHP	Pn	15	06	28.1		0.8	100	3.54	59			

	eP*			33.8		−1.3	100				
OMZ	ePn	15	06	28.5		−0.5	100	3.65	77	4.0	3.7
	eP*			36		−1.1	100				
	e(S*)		07	20		−4.8					
MJZ	ePn	15	06	30.8		−0.5	100	3.82	60	4.3	5.2
	eP*			41.0		0.9	100				
	eSn		07	15.5		0.6	100				

AMPLITUDES: OBZ 11 14 MSZ 9.6 9.8 RHP 8.6
OMZ 0.4 0.4 MJZ 2.0 20

79/ 783

OCT 28 $15^h22^m20^s.3$ 46°.20S 165°.85E 12 km M = 4.0
± 1.7 0.05 0.13 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	15	22	40.8		−2.0	100	1.25	71			
	iPg			43.9		−1.8	100					
	e			52.8								
	iS*			58.7		−0.7	100					
OBZ	P*	15	22	50.0		−0.7	100	1.72	115		4.0	3.9
	iPg			54.8		−0.2	100					
	iS*		23	15.0		1.7	100					
MSZ	ePn	15	22	53.8		−0.8	100	2.12	44		4.2	3.9
	iP*			59.0		1.5	100					
	Sn		23	22.0		1.6	100					
	iS*			25.2		−0.1	100					
RHP	ePn	15	23	15.0		−0.7	100	3.66	56			
	iP*			21.2		−2.7	99					
MJZ	ePn	15	23	22.0		2.3	99	3.95	58		4.0	
	eP*			31		2.1	99					

AMPLITUDES: BRZ 3.5 5.0 OBZ 3.0 5.8 MSZ 5.5 4.7
RHP 3.2 MJZ 1.0

79/ 784

OCT 28 $17^h35^m50^s.5$ 46°.97S 165°.04E 12 km M = 4.0
± 2.6 0.12 0.23 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	ePn	17	36	20.8		−3.3	99	2.10	56			
	iP*			28.8		1.3	100					
	eSn			51.0		0.7	100					
	e		37	01.8								
OBZ	ePn	17	36	21.7		−3.0	99	2.11	89		4.0	3.7
	e			32.0								
	eSn			50.5		0.0	100					
MSZ	ePn	17	36	37.7		0.0	100	3.06	42		4.1	4.3
	e			46								
	i			48								
	eS*		37	22		−1.7	100					
OMZ	ePn	17	36	59		1.4	100	4.51	67		4.0	
	eP*		37	11		2.4	100					
RHP	ePn	17	37	00.5		2.3	100	4.56	53			
	iP*			09.7		0.2	100					

AMPLITUDES: BRZ 3.0 6.2 OBZ 2.0 2.2 MSZ 2.1 6.0
OMZ 0.3 RHP 2.6

79/ 785

OCT 28 $18^h41^m38^s.2$ 37°.13S 177°.79E 182 km M = 5.3

± 0.9 0.04 0.08 8 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	18	42	09.8		−1.0	100	1.52	173			
TUA	P	18	42	12.8		−0.2	100	1.75	197		5.0	5.6
	S			41.0		1.0	100					
KRP	iP	18	42	16.0		0.7	100	1.96	245		4.6*	4.5*
	eS			43		−0.9	100					
WNZ	P	18	42	17.0		1.2	100	2.01	221		5.4	
GBZ	P	18	42	15.5		−1.0	100	2.07	295			
AUC	(P)	18	42	26.7		6.1		2.43	275			
TRZ	P	18	42	21.8		−0.1	100	2.54	197		5.2	
NGZ	P	18	42	25.4		1.9	99	2.67	219			
CNZ	P	18	42	25.5		1.4		2.72	220			
GSZ	eP	18	42	25.8		1.2		2.76	218			
ONE	P	18	42	27.8		−0.7	100	3.08	295	4.5*		
	S		43	06.5		−0.7	100					
TNZ	P	18	42	34.8		2.6	97	3.38	232		4.1*	
	e			39.7								
MNG	P	18	42	37.8		−1.3	100	3.92	207			
WEL	eP	18	42	50		0.0	100	4.77	209	5.4		
	S		43	45.0		−0.5	100					
CRZ	P	18	42	52.0		−0.3	100	4.95	301			
	S		43	51.2		1.5	99					
KAI	S	18	44	44		−0.9	100	7.29	220	4.2*		
CMZ	eP	18	43	28		1.5		7.56	210		3.8*	4.5*
	S		44	49.5		−1.5						
CIZ	eP	18	43	35.0		1.9		8.06	150			
	i			39.0								
	eS		45	03		0.0						
RHP	eP	18	43	48.0		1.2		9.10	218			
	S		45	25.3		−2.1						

AMPLITUDES:

TUA		6.2	29	KRP		29	22	WNZ		1.6	
TRZ		5.4		NGZ		42		CNZ		17	
GSZ		23		ONE	6.0			TNZ		1.2	
WEL	4.6			KAI	1.0			CMZ		0.6	5.5
CIZ		4.0		RHP		3.6	9.5				

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OCT 29 $02^h01^m11^s.8$ 46°.53S 165°.84E 12 km M = 3.7

± 2.8 0.10 0.21 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	02	01	35.8		−1.1	100	1.40	58			
	ePg			38.6		−1.6	100					
OBZ	P*	02	01	38.2		−2.3	99	1.61	104		3.7	3.5
	e			40.0								
	ePg			45.5		1.1	100					
	S*		02	02.2		0.4	100					
MSZ	eP*	02	01	51.5		−1.8	99	2.37	39		3.8	
	ePg		02	00.5		0.9	100					
RHP	Pn	02	02	11.0		1.0	100	3.86	52			
	eP*			19.0		0.2	100					
MJZ	ePn	02	02	15.2		1.4	100	4.14	54			
	eP*			25		1.4	100					
	e(Pg)			31.8		−3.7						

AMPLITUDES: BRZ 1.1 OBZ 1.5 2.8 MSZ 1.6
RHP 1.3

79/ 787

OCT 29 08h41m51s.6 45°.18S 167°.53E 120 km M = 4.1
± 0.8 0.03 0.06 5 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	08	42	10.6		0.4	100	0.58	28		3.7	4.0
	S			24.8		0.3	100					
BRZ	P	08	42	10.6		0.2	100	0.59	180			
	S			24.5		−0.2	100					
OBZ	P	08	42	22.9		0.3	100	1.77	167		4.7	4.8
	S			45.3		−0.8	100					
RHP	P	08	42	27.0		0.0	100	2.12	60			
	S			53.6		0.0	100					
OMZ	eP	08	42	32.0		1.3	99	2.40	89		3.6	3.9
	S		43	01.0		0.8	100					
MJZ	P	08	42	29.7		−1.2	99	2.41	61		3.6	4.3
	S			59.5		−1.1	99					

AMPLITUDES: MSZ 10 32 OBZ 10 23 RHP 22 20
OMZ 0.3 0.8 MJZ 0.7 3.7

79/ 788

OCT 29 08h56m55s.9 38°.29S 179°.04W 33 km M = 5.4
± 0.7 0.05 0.06 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	08	57	31.3		−0.0	100	2.33	260			
TUA	P	08	57	40.0		−0.8	100	3.03	259		5.3	6.0
	i			50.0								
	S		58	16.0		1.2	100					
WTZ	S-P			36.0		0.9	100	3.15	274		5.5	5.9
TRZ	P	08	57	46.2		−0.6	100	3.46	247		5.1	5.7
	i			51.2								
	eS		58	26		0.8	100					
WNZ	eP	08	57	52.7		1.0	100	3.83	263		5.1	5.4
	eS		58	35		1.1						
NGZ	eP	08	57	58.5		0.7	100	4.27	256			
KRP	P	08	57	57.2		−0.9	100	4.29	273		5.4	
	S		58	45.5		0.4	100					
GSZ	P	08	57	59.8		1.4	100	4.32	255			
CNZ	P	08	57	59.8		1.2		4.33	256			
MNG	P	08	58	03.7		−1.8	99	4.84	240			
GBZ	P	08	58	04.2		−1.3	100	4.84	294			
AUC	P	08	58	09.8		0.5	100	5.12	284			
WEL	eP	08	58	14.5		−1.8	99	5.63	236	5.7		
	S		59	16.0		−1.2	100					
ONE	eP	08	58	19.8		0.5	100	5.85	293			
CIZ	P	08	58	22.7		1.9	99	5.97	163			
KAI	eS	09	00	25		0.6		8.43	237	5.4		
MJZ	P	08	59	13.0		0.4		9.76	231		5.7	5.6
	i			22.2								
	S	09	00	55.0		−1.2						
OMZ	eP	08	59	18		0.5		10.12	225		5.2	5.2
	e			28								
	S	09	01	05		0.0						
MSZ	eP	08	59	40		1.2		11.68	233		5.1	5.1
	eS	09	01	40		−2.5						

AMPLITUDES:											
	TUA	6.5	44	WTZ	34	66	TRZ	4.0	23		
	WNZ	0.6	1.8	NGZ	22		KRP	7.2			
	GSZ	17		CNZ	15		GBZ	11			
	AUC	20		WEL	6.2		KAI	1.5			
	MJZ	7.1	7.2	OMZ	0.8	1.6	MSZ	1.3	2.2		

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OCT 29 $10^h35^m52^s.4$ 46°.16S 166°.31E 12 km M = 3.9

± 1.3 0.04 0.11 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	10	36	08.4		−1.2	100	0.94	66			
	e			10.1								
	ePg			12.0		0.5	100					
	eS*			22.3		0.1	100					
OBZ	ePn	10	36	18.0		0.3	100	1.45	122		4.1	4.0
	ePg			22.0		0.2	100					
	eSn			36.4		−0.2	100					
MSZ	ePn	10	36	21.3		−2.1	99	1.87	38		3.8	4.0
	iP*			25.9		0.4	100					
	S*			51.2		1.0	100					
RHP	Pn	10	36	45.0		1.0	100	3.37	54			
	iP*			53.0		1.9	99					
OMZ	ePn	10	36	47		2.5	99	3.41	73		3.8	
	ePg		37	00		−1.4	100					
MJZ	ePn	10	36	47		−0.9	100	3.66	55		3.9	
	eP*			56		−0.0	100					
	ePg		37	04.0		−2.4	99					

AMPLITUDES:									
	BRZ	4.2	OBZ	5.3	9.5	MSZ	2.9	7.5	
	RHP	3.7	OMZ	0.3		MJZ	0.8		

79/ 790

OCT 29 $16^h51^m29^s.3$ 46°.04S 166°.26E 12 km M = 4.6

± 1.2 0.04 0.10 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	16	51	45.8		−0.6	100	0.93	74			
	iPg			48.3		0.1	100					
	i			50.0								
	eS*			57.2		−1.6	100					
	e		52	03.8								
OBZ	Pn	16	51	55.1		−0.8	100	1.55	125		4.7	4.5
	eP*			57.3		0.4	100					
	iPg		52	00.0		−0.6	100					
	Sn			15.8		−0.0	100					
MSZ	Pn	16	51	58.0		−1.4	100	1.80	41		4.7	4.7
	iP*		52	00.8		−0.4	100					
	iPg			03.2		−2.6	98					
	eSg			29		−1.1						
RHP	Pn	16	52	21.0		0.7	100	3.33	56			
	i			25.0								
	iP*			27.7		0.3	100					
OMZ	Pn	16	52	23.0		1.6	100	3.41	75		4.3	
	eP*			29.7		1.0	100					
	e			34.0								
MJZ	ePn	16	52	24.0		−0.2	100	3.62	57		4.7	
	iP*			34.0		1.7	99					
	Sn		53	08.0		2.3	99					
KAI								5.10	48			

AMPLITUDES:	OBZ	17	29	MSZ	22	38	RHP	27
	OMZ	1.1		MJZ	6.0		KAI	0.3

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OCT 29 $16^h55^m04^s.2$ 46°.08S 166°.29E 12 km M = 4.1

± 1.2 0.04 0.10 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	16	55	21.5		0.4	100	0.92	72			
	ePg			24		1.1	100					
	S*			32.7		−0.7	100					
OBZ	ePn	16	55	30.0		−0.3	100	1.51	124		4.2	4.2
	iP*			31.2		0.1	100					
	iPg			35.7		0.9	100					
	S*			50.2		−0.9	100					
MSZ	Pn	16	55	33.0		−1.4	100	1.82	40		4.2	4.0
	eP*			35.3		−1.0	100					
	iPg			39.0		−1.9	99					
	eS*		56	02		1.8	100					
RHP	Pn	16	55	56.5		1.3	100	3.34	55			
	iP*		56	00.5		−1.8	100					
OMZ								3.40	74		3.8	
MJZ	ePn	16	56	01		1.8	99	3.63	56		4.2	
	eP*			09.2		2.0	99					
	ePg			16.0		−1.4	100					
	Sn			44		3.3						

AMPLITUDES:	BRZ	5.5		OBZ	6.3	14	MSZ	7.0	7.3
	RHP	5.0		OMZ	0.3		MJZ	1.6	

Preceded by a small foreshock 23 seconds earlier.

79/ 792

OCT 29 $16^h59^m50^s.3$ 36°.78S 177°.48E 284 km M = 4.4

± 1.1 0.06 0.10 8 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ								1.27	198		4.2	
GBZ	P	17	00	31.4		−2.2	98	1.71	289			
GNZ	P	17	00	37.0		1.8	99	1.91	167			
	eS		01	08.5		−1.6	99					
KRP	P	17	00	35.6		0.3	100	1.93	233		3.4*	
	eS		01	12		1.7	99					
TUA	eP	17	00	36.5		0.2	100	2.04	187		4.2	4.7
	e		01	07								
	S			12.0		−0.1	100					
TRZ	eP	17	00	43.5		0.0	100	2.82	190		4.1	4.5
	S		01	26.0		1.0	100					
NGZ	P	17	00	45.0		1.5	99	2.82	211			
	e		01	34.2								
CNZ	eP	17	00	46.1		2.2		2.86	212			
GSZ	P	17	00	45.2		0.8	100	2.91	210			
	eS		01	26.1		−0.5	100					
	e			34.0								
MNG	P	17	00	57.5		−0.3	100	4.14	202		4.8	4.7
	eS		01	50		−0.5	100					
WEL	eP	17	01	07		−0.4	100	4.98	204	4.4		
	eS		02	07		−0.8	100					

AMPLITUDES:	WTZ	1.6		GBZ	2.3		KRP	1.5	
	TUA	0.5	1.6	TRZ	0.3	1.4	NGZ	1.5	2.0

		CNZ		0.4		GSZ		1.1	0.8	MNG	5.3 6.3
		WEL	0.3								

79/ 793

OCT 29 $17^h01^m22^s.2$ 46°.10S 165°.95E 12 km M = 4.1

± 1.2 0.04 0.09 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	17	01	41.8		−1.3	100	1.15	74			
	ePg			45.0		−0.6	100					
	eSg		02	02.8		1.5	100					
OBZ	Pn	17	01	51.5		0.6	100	1.70	119		4.1	4.1
	eP*			53.7		1.3	100					
	iPg			56.8		0.2	100					
	Sn		02	11.0		−1.4	100					
	iS*			13.8		−1.0	100					
MSZ	Pn	17	01	54.2		−0.7	100	1.99	45		4.1	4.4
	iP*			56.7		−0.7	100					
	iPg		02	00.0		−2.5	99					
	eS*			23.0		−0.6	100					
RHP	Pn	17	02	17.0		0.9	100	3.55	57			
	i			20.8								
	iP*			26.5		2.6	99					
OMZ								3.64	75		3.8	
MJZ	ePn	17	02	20.0		−0.1	100	3.83	58		4.1	
	e			28.4								
	eP*			30.8		1.9	99					
	e(S*)		03	24		5.1						

AMPLITUDES:	OBZ		3.7	8.2	MSZ		4.3	15	RHP	5.2	
	OMZ		0.3		MJZ		1.3				

79/ 794

OCT 29 $17^h09^m53^s.6$ 46°.10S 166°.38E 12 km M = 3.9

± 1.2 0.04 0.10 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	17	10	08.5		−1.1	100	0.87	69			
	ePg			11.9		0.6	100					
	i			13.0								
	eS*			20.5		−0.8	100					
	e			25.0								
OBZ	Pn	17	10	19.0		0.2	100	1.45	125		3.9	3.6
	iPg			24.0		1.1	100					
	S*			38.2		−0.4	100					
MSZ	Pn	17	10	20.8		−2.7	96	1.79	38		4.2	3.9
	iP*			26.8		1.5	100					
	iPg			33.8		3.9						
	iS*			49.7		0.7	100					
OMZ	ePn	17	10	45		0.2		3.35	74		3.8	
	eP*			57		5.1						
MJZ	ePn	17	10	48		0.0	100	3.59	55		4.2	
	eP*			56.7		0.8	100					

AMPLITUDES:	BRZ		4.0	6.0	OBZ		3.2	3.8	MSZ	7.5	6.5
	OMZ		0.3		MJZ		1.6				

79/ 795

OCT 30 $12^h39^m21^s.1$ 39°.72S 176°.94E 33 km M = 3.3

± 0.5 0.03 0.04 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	P*	12	39	27.0		−0.5	100	0.20	331			
	iS*			33.2		1.0	99					
TUA	eP*	12	39	37.0		−1.5	99	0.93	10		3.1	
	e			49.0								
GSZ	P*	12	39	42.0		0.0	100	1.14	293			
	i			44.1								
	eS*			56.8		−0.6	100					
CNZ	P*	12	39	42.1		−0.9	100	1.20	295			
	i			44.8								
WNZ	eP*	12	39	45.0		0.8	100	1.27	329			
GNZ	eP*	12	39	46		0.2	100	1.37	38			
	e			54.5								
	e			59								
	eSn		40	02		2.1						
MNG	Pn	12	39	44.3		0.1	100	1.43	231		3.3	
	i			53.0								
KRP	P*	12	39	59.2		0.9	100	2.11	328		3.4	
WEL	eSn	12	40	22		0.2	100	2.28	226	3.5		

AMPLITUDES: TRZ 10 16 TUA 0.5 GSZ 4.5 4.6
CNZ 8.5 MNG 1.6 KRP 0.3
WEL 0.2

79/ 796

OCT 30 $16^h21^m17^s.1$ 46°.56S 166°.09E 12 km M = 4.1
± 1.4 0.09 0.15 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	16	21	39.0		−1.1	100	1.28	53			
	ePg			43.0		−0.0	100					
	e			45.2								
	Sg		22	01.0		0.7	100					
MSZ	ePn	16	21	52.0		−1.8	99	2.29	35		4.2	4.1
	iP*			59.0		1.7	99					
	iSn		22	21.2		−0.2	100					
	iS*			26.7		−0.6	100					
OMZ	eP*	16	22	20.0		−1.3	100	3.69	68		3.8	
	e			26.5								
RHP	Pn	16	22	15.0		1.3	100	3.74	50			
	i(P*)			27.0		4.8						
MJZ	ePn	16	22	19.0		1.4	100	4.02	52		4.0	

AMPLITUDES: MSZ 4.7 6.8 OMZ 0.3 RHP 5.5
MJZ 0.9

79/ 797

OCT 30 $17^h23^m35^s.7$ 46°.32S 165°.36E 12 km M = 4.2
± 1.7 0.12 0.15 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	17	24	02.0		−2.4	99	1.61	71			
	e			05.5								
	ePg			09.7		1.3	100					
	S*			24.1		−1.6	100					
MSZ	ePn	17	24	13.3		−1.2	100	2.45	48		4.3	4.3
	eP*			19.2		0.6	100					
	iPg			23.0		−2.1	100					
	Sn			46.0		2.2	99					
	iS*			50.0		−0.6	100					

RHP	Pn	17	24	35.2		−0.8	100	4.01	58		
	iP*			46.0		0.7	100				
OMZ	ePn	17	24	36		−1.0	100	4.09	74		3.9
	e			39							
	eP*			50		3.3	98				
MJZ	ePn	17	24	39.5		−0.4	100	4.30	59		4.3
	eP*			52		1.7	100				
	eSn		25	29		0.5	100				

AMPLITUDES: MSZ 4.7 9.2 RHP 10 OMZ 0.3
MJZ 1.7

79/ 798

OCT 31 $05^h07^m48^s.9$ 40°.54S 175°.05E 96 km M = 4.4
± 0.5 0.04 0.07 9 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	P	05	08	02.2		−1.3	100	0.34	104			
WEL	P	05	08	08.0		1.1	100	0.77	196	5.0		
	S			20.2		−0.3	100					
GSZ	P	05	08	13.2		−0.0	100	1.33	18			
	S			30.3		−1.4	100					
CNZ	P	05	08	14.8		0.8	100	1.39	16			
	eS			32.8		−0.3						
NGZ	P	05	08	15.2		0.8		1.42	18			
TRZ	P	05	08	17.7		−0.0	100	1.68	55		4.1	4.2
	e			24.5								
	S			41.8		2.5	99					
	e			46.5								
COB	P	05	08	22.0		2.3	99	1.84	252			
TUA	eP	05	08	28.0		1.1	100	2.38	44		4.3	
	e			34.0								
KRP	P	05	08	31.0		0.4	100	2.64	8		4.1*	4.0*
	i			48.0								
	i			52.2								
	S		09	01.2		−0.7	100					
WTZ	eP	05	08	34.3		−0.8	100	2.96	31		4.3	
	i			52.4								
	iS		09	02.4		−7.4						
GNZ	P	05	08	34.2		−1.1	100	2.98	51		4.2	4.5
	e			49								
	S		09	09.0		−1.2	100					
KAI	e(P)	05	08	49		8.2		3.37	233	4.2*		
	eS		09	20		−0.0						
CMZ	eP	05	08	43		−0.0	100	3.54	210		3.4*	4.4*
	S		09	23		−0.9	100					
RHP	eP	05	09	06.7		2.0	99	5.12	224			
	S		10	00.8		−2.2	99					
OMZ	eP	05	09	09		−0.2		5.45	213		3.4*	3.7*
	eS		10	07.2		−4.1						
MSZ	eP	05	09	29.6		3.4		6.69	230		3.8*	3.8*
	S		10	32.5		−9.1						

AMPLITUDES: WEL 40 GSZ 28 CNZ 18
TRZ 1.1 3.5 TUA 1.0 KRP 7.0 6.0
WTZ 1.6 GNZ 1.5 4.7 KAI 2.0
CMZ 0.6 8.7 RHP 3.0 12 OMZ 0.3 1.1
MSZ 1.5 2.6

FELT: Wellington province, maximum intensity MM IV

79/ 799

OCT 31 $14^h08^m47^s.8$ 46°.21S 166°.27E 12 km M = 3.6

± 1.8 0.05 0.14 R S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	14	09	05.0		−0.8	100	0.98	65			
	iPg			08.1		0.3	100					
	S*			17.0		−2.0	100					
OBZ	P*	14	09	15.2		1.4	100	1.46	119		3.6	3.4
	iPg			19.2		1.9	100					
	eS*			32.8		−0.3	100					
	iSg			36.2		−0.7	100					
MSZ	ePn	14	09	17.0		−2.6	99	1.93	38		3.9	3.5
	iP*			23.0		1.1	100					
	Sn			44.5		1.0	100					
	eS*			49		1.8	100					
RHP	ePn	14	09	37		−3.1	99	3.43	53			
	eP*			43.8		−3.6	99					
OMZ	ePn	14	09	45		4.5		3.46	72		3.6	
	eP*			53		5.1						
MJZ	ePn	14	09	46		2.0	100	3.71	55		3.6	3.5
	eP*			54		1.7	100					
	eSn		10	27.5		1.1	100					

AMPLITUDES: BRZ 1.8 OBZ 1.6 2.5 MSZ 2.8 2.2
RHP 0.7 OMZ 0.2 MJZ 0.4 0.4

79/ 800

OCT 31 $14^h45^m36^s.9$ 45°.27S 165°.74E 33 km M = 3.7

± 0.8 0.03 0.06 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	14	45	58.8		−0.4	100	1.37	113			
	iP*		46	00.2		−1.5	98					
	Sn			15.8		0.0	100					
	eS*			20		−0.0	100					
MSZ	ePn	14	46	03		−0.1	100	1.66	70		3.4	3.3
	e			20.2								
	eS*			28		−0.6	100					
OBZ	Pn	14	46	12.0		−0.3	100	2.33	136		4.3	4.5
	Sn			40.0		1.1	99					
RHP	Pn	14	46	25.9		0.2	100	3.31	71			
	i			39.9								
MJZ	eP*	14	46	41		1.2	99	3.61	71		3.4	3.6
	Sn		47	10.2		0.5	100					
OMZ	eP*	14	46	44		3.3		3.67	89		3.7	3.5
	eSn		47	11		−0.1	100					

AMPLITUDES: BRZ 2.0 MSZ 1.3 2.1 OBZ 3.1 13
MJZ 0.3 0.6 OMZ 0.2 0.3

79/ 801

NOV 01 $05^h28^m19^s.3$ 40°.06S 173°.72E 175 km M = 4.3

± 0.6 0.05 0.07 8 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
COB	P	05	28	51.0		2.1	99	1.27	216		4.3*	4.2*
	eS		29	11.8		0.1	100					
MNG	iP	05	28	52.8		2.1	99	1.46	113			
	eS		29	14.7		−0.2	100					

WEL	P	05	28	53.2		2.5	99	1.47	147	4.6	
	i		29	14.9							
	S			16.0		1.1	100				
GSZ	P	05	28	53.8		1.3	100	1.65	62		
	S		29	16.8		−1.4	100				
CNZ	P	05	28	54.0		1.3	100	1.66	59		
	i		29	12.0							
	eS			17.0		−1.4					
TRZ	e	05	29	26.0				2.45	79		
	eS			32.8		−1.2	100				
KRP	P	05	29	04.0		1.1	100	2.56	34		3.3* 3.2*
	S			34.0		−2.5	99				
TUA	eP	05	29	07.5		−0.1	100	2.94	66		4.2 4.4
	eS			43		−1.7	100				
KAI	eS	05	29	45		−1.4	100	3.01	214	3.8*	
WTZ	P	05	29	11.3		−0.6	100	3.28	52		4.2 4.3
	eS			53.0		0.7	100				
CMZ	P	05	29	16.8		0.8	100	3.62	193		3.8* 4.8*
	e			54.2							
	S			57.8		−2.0	99				
GNZ	P	05	29	17.0		0.8	100	3.63	68		
	e			57.0							
	S			59.0		−1.1	100				
GBZ	eP	05	29	23.2		1.2	100	4.09	20		
RHP	eP	05	29	33.4		1.3	100	4.86	213		
MSZ	eP	05	29	50.0		−1.1	100	6.30	221		3.8* 3.3*
	S		31	00.0		−2.4	99				

AMPLITUDES:										
COB	6.5	18	WEL	4.2			GSZ	9.2	35
CNZ	7.5	22	KRP	1.1	1.1		TUA	0.5	0.8
KAI	0.8		WTZ	1.0	1.2		CMZ	1.4	19
GBZ	0.4		RHP	4.8			MSZ	1.7	0.9

79/ 802

NOV 01 $08^h21^m01^s.2$ 46°.65S 165°.79E 12 km M = 3.9

± 1.7 0.07 0.12 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	08	21	26.3		−1.6	100	1.49	55			
	iPg			29.1		−2.4	99					
	e			40								
	Sg			52.3		0.6	100					
OBZ	P*	08	21	29.8		−0.2	100	1.62	100		4.1	3.9
	ePg			34.2		0.2	100					
	S*			51.0		−0.4	100					
MSZ	ePn	08	21	38.9		−1.6	100	2.48	38		3.8	3.4
	i			42.9								
	iP*			44.7		0.0	100					
	Sn		22	09.8		−0.3	100					
OMZ	ePn	08	22	03		2.8		3.91	68		3.7	
RHP	ePn	08	22	00.3		−0.4	100	3.96	51			
	i(P*)			15.0		5.1						
MJZ	ePn	08	22	07		2.4	99	4.24	53		4.5	
	eP*			18		3.3	98					

AMPLITUDES:										
BRZ	3.0	2.6	OBZ	3.6	5.8		MSZ	1.6	1.1
OMZ	0.2		RHP	2.6			MJZ	2.6	

79/ 803

NOV 01 $09^h32^m21^s.7$ 38°.08S 175°.80E 302 km M = 5.6

± 0.4 0.02 0.03 3 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	09	33	00.7		0.5	100	0.26	307			
	eS			29.8		−0.5	100					
WNZ	eP	09	33	01.5		0.6	100	0.60	157		5.5	
WTZ	P	09	33	01.0		−1.2	99	0.94	85		5.6	
	i			27.2								
NGZ	P	09	33	04.2		1.2		1.12	187			
CNZ	P	09	33	04.1		1.0		1.13	190			
GSZ	P	09	33	04.2		0.7	100	1.21	188			
TUA	iP	09	33	04.4		0.4	100	1.29	125		5.6	
	i			27.0								
	e			33.2								
	eS			36.5		−0.5	100					
AUC	P	09	33	05.5		0.4	100	1.47	326			
TRZ	P	09	33	07.7		1.2	99	1.67	152			
GNZ	P	09	33	07.6		0.0	100	1.84	109			
GBZ	iP	09	33	06.8		−1.1	99	1.88	352			
ECZ	eP	09	33	10.7		0.1	100	2.20	81			
MNG	P	09	33	14.0		0.3	100	2.55	185			
ONE	P	09	33	14.0		0.1	100	2.57	333			
	eS			55.0		0.4	100					
WEL	P	09	33	21.0		0.0	100	3.30	194	5.8		
	S		34	07.2		−0.1	100					
COB	P	09	33	23.7		−2.9	2	3.82	217			
CRZ	P	09	33	33.0		−0.3	100	4.43	324		5.0*	
KAI	P	09	33	46.7		0.2	100	5.57	216	4.7*		
	S		34	53.5		0.5	100					
CMZ	P	09	33	51.0		−0.7	100	6.00	203		5.1*	5.0*
	e		34	59.1								
	S		35	02.0		−0.3	100					
MJZ	P	09	34	05.0		−0.7		7.15	213		5.0*	
	S		35	26.0		−1.3						
RHP	P	09	34	08.0		−0.8		7.41	214			
	eS		35	31		−1.9						
OMZ	P	09	34	15.3		0.7		7.89	206		4.7*	4.2*
	S		35	47.0		3.5						
CIZ	eP	09	34	20.0		1.1		8.23	138			
	e(S)		36	16		25.0						
MSZ	eP	09	34	24.8		−1.8		8.86	219		4.8*	4.4*
	eS		36	03.3		−1.6						

AMPLITUDES:												
	WNZ		2.0		WTZ		45		TUA		17	
	AUC		22		WEL	13			CRZ		9.7	
	KAI	4.0			CMZ		16	20	MJZ		20	
	RHP		38	27	OMZ		4.1	2.6	MSZ		12	7.0

FELT: Hawkes Bay and Manawatu, maximum intensity MM IV

79/ 804

NOV 01 $09^h59^m55^s.5$ 36°.89S 176°.25E 12 km M = 3.3

± 0.7 0.02 0.05 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	ePg	10	00	13.0		−1.1	99	0.92	317			
	Sg			27.0		0.5	100					
KRP	Sg	10	00	35.3		−0.1	100	1.18	209			3.1

WTZ	ePg	10	00	21		0.3	100	1.24	152		3.2
ONE	eSg	10	00	59		−0.2	100	1.89	306	3.5	
	e		01	06							

AMPLITUDES: GBZ 1.0 9.1 KRP 0.4 WTZ 0.4
ONE 0.4

79/ 805

NOV 01 $13^h40^m12^s.4$ 38°.01S 176°.66E 12 km M = 4.1
± 0.6 0.04 0.04 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P*	13	40	16.7		−1.3	100	0.26	85			
TUA	P*	13	40	29		0.3	100	0.88	154		4.3	4.2
	S*			39.7		−0.9	100					
KRP	P*	13	40	28.1		−0.7	100	0.89	275		3.9	3.9
	S*			42.8		2.0	99					
GNZ	P*	13	40	35.7		0.9	100	1.24	121			
	S*			54.0		2.6	99					
NGZ	eP*	13	40	37.7		−0.3		1.43	215			
	eS*			59.5		2.5						
CNZ	eP*	13	40	37.8		−0.9		1.48	216			
	e			39.8								
	eS*			57.5		−0.7						
TRZ	Pn	13	40	38.0		−1.0	100	1.55	175		4.1	
	iP*			40.6		0.6	100					
GBZ	eP*	13	40	47.8		−0.3	100	2.02	332			
	e			51.8								
MNG	ePn	13	40	53.5		−2.1	99	2.76	199		4.0	
	eP*		41	01.0		0.3	100					

AMPLITUDES: WTZ 47 TUA 6.2 5.0 KRP 6.7 7.0
NGZ 2.6 3.5 CNZ 1.0 1.1 TRZ 1.7
GBZ 0.7 MNG 1.6

FELT: Te Teko (34) MM V

79/ 806

NOV 01 $18^h11^m07^s.8$ 46°.84S 165°.04E 12 km M = 3.9
± 2.8 0.13 0.19 R S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P*	18	11	45.6		0.6	100	2.11	93		4.0	3.8
	ePg			52.2		1.7	100					
	eS*		12	11		−1.7	100					
MSZ	ePn	18	11	52.5		−1.3	100	2.96	44		4.0	3.9
	eP*			58.5		−1.0	100					
	Sn		12	29		0.6	100					
	e			33.5								
OMZ	eP*	18	12	23		−2.2		4.46	69		3.8	
RHP	Pn	18	12	14.0		−0.5	100	4.48	54			
	eP*			25		−0.5	100					
	i			31.0								
MJZ	ePn	18	12	17		−1.4	100	4.77	55		3.9	
	eP*			34		3.6	97					

AMPLITUDES: OBZ 1.7 3.0 MSZ 1.5 2.1 OMZ 0.2
RHP 1.6 MJZ 0.5

79/ 807

NOV 01 $19^h07^m45^s.8$ 33°.91S 178°.39W 33 km M = 4.6
± 1.9 0.10 0.12 R S.E. of RES. 2.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	19	09	03.6		−1.3	100	5.53	221		4.6	4.5
	eS		10	08		3.3	99					
GBZ	eP	19	09	07.0		2.1	100	5.53	244			
GNZ	P	19	09	05.0		−0.0	100	5.54	210		4.6	4.6
	S		10	09		4.0	99					
TUA	eP	19	09	11.5		−0.7	100	6.07	215		4.8	4.8
	eS		10	17.8		0.1	100					
	e			24.0								
ONE	eP	19	09	14		−0.6	100	6.25	251			
	e			21								
KRP	e(P)	19	09	20		3.9		6.35	229		5.0	
	eS		10	26		1.6	100					
	e			30								
NGZ	eP	19	09	26.7		−0.1	100	7.15	221			
	eS		10	47		3.6						
CNZ	e(P)	19	09	32.0		4.5		7.19	221			
	eS		10	45		0.4	100					
	e			52								
CRZ	eP	19	09	30		−0.7	100	7.42	263		5.2	
MNG	eP	19	09	39.5		−3.0	99	8.29	214		4.1	4.7
	e		10	04.5								
	eS		11	10		−1.0	100					
WEL	S	19	11	29		−2.6	100	9.15	214	4.8		
COB	eS	19	11	50		−3.4	99	10.05	222			4.2
CIZ	eP	19	10	12		4.3	99	10.13	172			
	eS		11	53		−2.3	100					
CMZ	eS	19	12	36		−2.5		11.93	213			4.4
MSZ	eP	19	11	12		−3.2		15.08	221		4.7	

AMPLITUDES:

WTZ		1.5	1.0	GBZ	1.0		GNZ	1.1	1.6
TUA		0.6	0.6	KRP	0.6		NGZ	0.5	0.6
CNZ		0.4	0.4	CRZ	0.3		MNG	0.3	1.5
WEL	0.3			COB		0.3	CIZ	0.3	0.5
CMZ			0.2	MSZ	0.3				

79/ 808

Nov 02 $01^h22^m24^s.5$ 38°.10S 178°.02E 69 km M = 3.8

± 1.7 0.07 0.10 12 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	01	22	38.2		0.1	100	0.54	179			
	eS			47.4		−1.0	100					
WTZ	iP	01	22	41.3		0.1	100	0.82	278		4.1	4.0
	S			53.8		0.2	100					
TUA	P	01	22	43.3		0.1	100	0.98	224		3.4	3.7
	e			53.3								
	iS			58.0		0.9	100					
TRZ	e	01	23	03.0				1.73	212		3.8	3.6
	eS			15.8		1.5	100					
KRP	P	01	22	56.8		0.5	100	1.97	274		3.2*	
	S		23	18.8		−1.0	100					
NGZ	P	01	23	02.0		2.9	98	2.17	239			
	eS			23.4		−1.4	100					
CNZ	eP	01	23	03.0		3.1		2.22	240			
MNG	eP	01	23	11.0		−2.6	99	3.19	217			
	e			23.4								

AMPLITUDES:

WTZ	11	11	TUA	0.7	1.7	TRZ	0.6	0.8
KRP	1.3		NGZ	0.8	1.1	CNZ	0.3	

79/ 809

NOV 02 $13^h28^m28^s.1$ 46°.02S 166°.14E 12 km M = 4.8

± 0.9 0.04 0.06 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	iP*	13	28	47.6	D	1.1	100	1.01	77			
	Sg		29	04		1.7	100					
OBZ	iPn	13	28	55.4	U	−0.5	100	1.63	124			
	Pg		29	00		−1.2	100					
	Sn			13.5		−3.2						
MSZ	Pn	13	28	58.5		−0.3	100	1.84	44		4.9	4.7
	P*			59.5		−1.2	100					
	Pg		29	05		−0.4	100					
	S*			27.0		2.0	99					
DNZ	Pn	13	29	16		0.6	100	3.06	89			
	Sn			50		−1.1	100					
	S*		30	01.5		−0.1	100					
	Sg			12.5		1.2	100					
RHP	iPn	13	29	21.1		1.1	100	3.39	57			
	S*		30	09.5		−2.0	99					
MJZ	Pn	13	29	24.0		0.1	100	3.68	58		5.2	5.0
	P*			34.0		1.8	100					
	Sn		30	03.5		−2.5	99					
	S*			22.0		1.8	100					
	Sg			29.5		−2.7	99					
KAI								5.15	49	4.7		
CMZ	ePn	13	29	45		−0.0	100	5.23	65			
MNG	ePn	13	30	33		0.7	100	8.69	55		4.2	

AMPLITUDES: MSZ 34 40 MJZ 15 12 KAI 0.8
MNG 0.4

79/ 810

NOV 02 $15^h28^m30^s.3$ 38°.86S 175°.73E 132 km M = 4.0

± 1.1 0.03 0.06 10 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P	15	28	50.8		1.7	100	0.37	203			
KRP	eP	15	28	54		1.0	100	0.95	351			
	eS		29	10		−0.4	100					
TRZ	P	15	28	56.6		2.2	99	1.09	130		3.9	3.9
	S		29	11.3		−1.6	100					
TUA	P	15	28	55.7		1.1	100	1.11	88		3.9	4.1
	S		29	14		0.9	100					
WTZ	iP	15	28	55.4	D	−1.4	100	1.32	49		4.0	3.6
	e		29	11								
	eS			16.5		−0.6	100					
MNG	iP	15	29	01.8	U	−0.1	100	1.76	186		4.2	4.1
	S			25.3		−0.6	100					
GNZ	P	15	29	02.2	SE	−0.1	100	1.80	84			
	S			25.4		−1.3	100					
CAZ	P	15	29	06.1	U	0.4	100	2.08	170			
	S			34.4		2.0	99					
WEL	P	15	29	10.5		−1.2	100	2.53	197	4.2		
	S			41		−1.9	99					

AMPLITUDES: TRZ 1.2 2.8 TUA 1.3 2.2 WTZ 3.1 1.4
MNG 8.9 8.8 WEL 0.8

79/ 811

NOV 02 $20^h57^m19^s.3$ 38°.48S 175°.91E 165 km M = 4.0

± 1.1 0.04 0.07 9 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iP	20	57	43.8	U	0.7	100	0.63	332		3.3*	3.0*
	S		58	01		−0.5	100					
CNZ	iP	20	57	46.2		2.3	99	0.77	202			
WTZ	P	20	57	45.0	D	−0.5	100	0.98	60		3.5	3.6
	S		58	04		−1.7	100					
TRZ	P	20	57	50.0		1.9	100	1.29	147		3.7	4.3
	S		58	12.5		2.2	99					
GNZ	P	20	57	54		2.0	99	1.66	96		3.8	4.0
	S		58	15		−2.1	99					
MNG	P	20	57	58.8	U	1.3	100	2.16	189		4.3	4.2
	e		58	20								
	S			26.8		−0.1	100					
GBZ	P	20	57	58.2	D	−0.9	100	2.29	351			
CAZ	S	20	58	30.8		−1.9	100	2.43	174			
WEL	eS	20	58	42		−1.8	100	2.93	197	4.3		
COB	eP	20	58	15		−0.2	100	3.57	222		3.8*	3.4*
	eS			58.5		0.2	100					
RHP	P	20	59	00.6		−1.4	100	7.13	216			

AMPLITUDES:											
KRP	2.6	1.2	WTZ	0.9	1.4	TRZ	0.5	4.7			
GNZ	1.3	2.9	MNG	7.0	7.1	WEL	0.8				
COB	1.0	1.5									

79/ 812

NOV 03 $12^h56^m50^s.7$ 46°.77S 165°.69E 12 km M = 4.9

± 1.2 0.06 0.10 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	12	57	18.9		0.6	100	1.62	53			
	Pg			26		2.5	99					
	e			35								
	Sn			39.5		0.5	100					
OBZ	iPn	12	57	19.0	D	0.0	100	1.67	95			
	Sn			42		1.8	100					
MSZ	iPn	12	57	31.9	U	−0.0	100	2.62	37		5.0	4.9
	P*			34.5		−2.0	100					
	Sn		58	04		1.0	100					
	S*			15		4.2	97					
DNZ	Pn	12	57	44.0		0.5	100	3.46	77			
	eSn		58	23		−0.3	100					
	eS*			34		−2.2	100					
OMZ	Pn	12	57	50		−1.1	100	4.02	67			
	P*		58	01.5		1.0	100					
	e			18								
	Sn			38.5		1.7	100					
RHP	Pn	12	57	55.5	U	3.5	98	4.09	51			
	P*			59		−2.6	99					
	Sn		58	36		−2.3	100					
	S*			55.8		0.9	100					
	Sg		59	06		−2.4	99					
MJZ	iPn	12	57	54.0		−1.8	100	4.37	52		5.1	5.2
	P*		58	06		−0.4	100					
	Pg			19		0.0	100					
	Sn			44		−1.0	100					

CMZ	ePn	12	58	16		−0.1	100	5.86	60		
	P*			31		−0.8	100				
MNG	ePn	12	59	02		−2.3	100	9.39	53	4.4	4.5
CIZ	ePn	12	59	52		1.1	100	12.81	84		

AMPLITUDES: MSZ 22 30 MJZ 10 14 MNG 0.5 0.8

79/ 813

NOV 04 $06^h11^m28^s.6$ 34°.04S 178°.26W 222 km M = 5.0

± 1.6 0.11 0.20 16 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	06	12	50.0		−0.5	100	5.49	212		4.8	5.0
	S		13	53		−1.1	100					
WTZ	P	06	12	48		−2.7	99	5.51	223		4.9	4.9
TUA	eP?	06	12	57		−0.3	100	6.03	217		5.0	5.2
	e		13	07								
	eS		14	07		0.6	100					
ONE	eP	06	13	01		0.1	100	6.31	252			
KRP	eP	06	13	00		−1.4	100	6.35	231			
	S		14	15.2		1.4	100					
TRZ	P	06	13	06.6		−0.2	100	6.78	214		4.8	5.1
	S		14	25		1.5	100					
GSZ	eP	06	13	13		0.7	100	7.20	222			
	eS?		14	34		0.7	100					
CAZ	S	06	14	56.8		1.8	100	8.14	211			
MNG	eP	06	13	27		1.2	100	8.24	215			5.1
	eS		14	58		0.5	100					
WEL	S	06	15	15		−2.3	99	9.11	215	5.4		
MJZ	eS	06	16	49		−3.1	99	13.25	218			4.0*
RHP	eS	06	16	58.5		0.2	100	13.52	219			
MSZ	eP	06	14	55		3.4	98	15.06	221			

AMPLITUDES: GNZ 1.7 3.8 WTZ 1.7 1.8 TUA 0.8 1.3
TRZ 0.4 1.6 MNG 4.3 WEL 1.1
MJZ 1.6

79/ 814

NOV 04 $21^h15^m46^s.1$ 36°.71S 177°.55E 33 km M = 3.9

± 0.9 0.06 0.05 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iPn	21	16	08.2	U	0.1	100	1.35	199		4.1	3.7
	eP*			11		0.4	100					
	Sn			24.9		0.3	100					
GNZ	iPn	21	16	16.0		−0.6	100	1.97	169		3.8	
	eP*			20.0		−1.0	99					
	Sn			36.0		−3.4						
KRP	iPn	21	16	17.6	U	0.4	100	2.02	232		4.0	4.1
	Sn			39.0		−1.5	99					
TUA	ePn?	21	16	18.8		0.2	100	2.12	189			4.2
	eSn			43.4		0.3	100					
TRZ	eP*?	21	16	36		−0.8	100	2.90	191			
NGZ	eP	21	16	29.5		0.1	100	2.91	211			
	eS?		17	02.5		0.5	100					
MNG	iPn	21	16	48.9		1.5	99	4.23	202		3.7	4.0
	e		17	22.0								
	iSn			37.6		3.9						

AMPLITUDES: WTZ 5.3 1.6 GNZ 1.0 KRP 0.7 0.6
TUA 0.8 MNG 0.4 0.9

79/ 815

NOV 05 $10^h17^m31^s.9$ 46°.73S 166°.04E 12 km M = 4.1

± 1.3 0.04 0.12 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	10	17	57		0.3	100	1.41	48			
	Pg		18	00		−0.5	100					
	Sn			15.5		0.3	100					
OBZ	Pn	10	17	58		0.9	100	1.44	98			
	Sn		18	14.8		−1.1	100					
MSZ	ePn	10	18	11		0.2	100	2.45	33		4.2	4.0
	ePg			20		−1.4	100					
	Sn			38		−2.0	99					
	S*			48		1.1	100					
OMZ	ePn?	10	18	29		−0.1	100	3.79	66			
RHP	ePn	10	18	31		0.6	100	3.88	49			
	Sn		19	16		1.5	99					
MJZ	eP*?	10	18	40		−4.0		4.16	50			

AMPLITUDES: MSZ 3.8 4.8

79/ 816

NOV 05 $14^h06^m53^s.1$ 46°.74S 165°.48E 12 km M = 4.0

± 1.3 0.04 0.10 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	ePn	14	07	22.5		0.4	100	1.72	57			
	e			35								
	eSn			44.5		0.7	100					
OBZ	Pn	14	07	23.0	U	−0.4	100	1.82	96			
	ePg			30		0.2	100					
	Sn			45		−1.1	100					
MSZ	ePn	14	07	35		−0.2	100	2.68	40		4.0	4.0
	S*		08	13.5		−1.7	99					
RHP	Pn	14	08	00.5		4.8		4.18	52			
	eS*		09	01		0.9	100					
MJZ	ePn	14	08	05.5		6.0		4.46	54			

AMPLITUDES: MSZ 2.2 3.5

79/ 817

NOV 05 $14^h55^m19^s.5$ 34°.42S 178°.21W 33 km M = 4.5

± 0.9 0.08 0.10 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	ePn	14	56	34.3		0.3	100	5.19	215		4.4	4.4
	Sn		57	29.7		−0.6	100					
WTZ	Pn	14	56	35.0		0.0	100	5.26	226		4.3	4.7
	Sn		57	31.4		−0.7	100					
TUA	ePn	14	56	41.2		−0.4	100	5.76	219		4.6	4.6
	Sn		57	44.6		0.8	100					
KRP	ePn	14	56	48.0		1.0	99	6.16	234		4.8	4.9
	Sn		57	53.0		−0.3	100					
TRZ	eSn	14	58	02.3		0.9	99	6.49	216			
MNG	ePn	14	57	10.9		−0.9	100	7.96	217			4.3
	Sn?		58	34.4		−2.5						

AMPLITUDES: GNZ 0.7 1.2 WTZ 0.7 1.5 TUA 0.4 0.4
KRP 0.4 0.4 MNG 0.7

79/ 818

NOV 05 $22^h33^m06^s.1$ 37°.88S 177°.77E 33 km M = 4.0
± 1.2 0.06 0.07 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iPn	22	33	17.7	D	−0.5	100	0.63	260		3.9	4.0
	eSn			28.0		0.9	100					
GNZ	iPn	22	33	20.1		−0.3	100	0.79	165			
	Sn			32.1		1.1	100					
TUA	Pn	22	33	25.6		1.6	99	1.04	208		3.6	4.0
	S*			42.6		2.9						
KRP	iPn	22	33	32.0	DNE	−1.8	99	1.76	268		4.5	
	eSn			55.9		1.4	100					
TRZ	eSn?	22	34	00.0		4.0		1.83	204			4.0
NGZ	P	22	33	38.6		−0.2	100	2.13	232			
	S		34	06.2		2.8						
MNG	Pn	22	33	50.8		−3.4		3.27	212			4.0
	eSn		34	30		−0.5	100					
WEL	Sn	22	34	49.8		−1.2	100	4.12	213	4.3		

AMPLITUDES: WTZ 21 24 TUA 1.1 3.2 KRP 5.4
TRZ 1.8 MNG 2.2 WEL 0.5

79/ 819

NOV 06 $04^h36^m11^s.1$ 47°.30S 165°.34E 12 km M = 4.4
± 3.4 0.15 0.24 R S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	04	36	40.9		−2.2	99	1.94	79			
	ePg			52		1.6	100					
	Sn		37	07		−0.1	100					
MSZ	ePn	04	37	00		−0.2	100	3.19	35		4.4	4.4
	eP*			09		2.3	99					
	eSn?			36		−1.1	100					
OMZ	ePn?	04	37	21		3.3		4.47	62			
RHP	ePn	04	37	20.9		1.2	100	4.62	48			
MJZ	eP*	04	37	33.5		−2.3	99	4.90	49		4.4	

AMPLITUDES: MSZ 3.8 6.0 MJZ 1.5

79/ 820

NOV 06 $08^h04^m57^s.6$ 38°.59S 178°.56W 33 km M = 4.0
± 0.8 0.06 0.06 R S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	Pn	08	05	38.1		0.4	100	2.67	268		3.8	4.0
	Sn		06	07.7		−0.2	100					
TUA	eSn?	08	06	24.6		0.2	100	3.37	265			4.3
WTZ	iPn	08	05	49.0		−0.6	99	3.55	278		4.1	4.3
TRZ	Sn	08	06	33.3		0.3	100	3.72	254			4.0
MNG	ePn	08	06	10.0		0.2	100	5.03	244		3.6	3.9
	eSn?		07	03.7		−0.6	99					

AMPLITUDES: GNZ 0.8 1.8 TUA 0.7 WTZ 1.1 1.3
TRZ 0.4 MNG 0.3 0.7

79/ 821

NOV 07 $01^h00^m41^s.8$ 38°.97S 179°.30E 33 km M = 3.8
± 1.3 0.05 0.09 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	Pn	01	00	58.8		−0.9	100	1.05	287		3.4	3.7
	P*		01	02		0.8	100					
	Sn			11		−2.0	99					
	S*			15		−0.5	100					
TUA	ePn	01	01	08.5		0.1	100	1.68	275			
WTZ	Pn	01	01	13		−0.5	100	2.06	298		3.8	4.0
	eP*			18		−0.3	100					
	eSn			39		1.6	99					
	eS*			45		−0.5	100					
CNZ	ePn	01	01	28		2.6	98	2.93	264			
KRP	e(P*)	01	01	34		−2.5		3.13	288			
	eSn		02	04.2		1.1	100					
MNG	iPn	01	01	29.5		−1.9	99	3.37	239		3.8	3.9
	e			33								
	eSn		02	09.5		0.6	100					
TNZ	ePn?	01	01	38		0.2	100	3.83	265			
WEL	eSn	01	02	28		−0.2	100	4.18	235			

AMPLITUDES: GNZ 1.8 5.5 WTZ 1.6 2.2 MNG 1.1 1.7

79/ 822

Nov 08 $15^h56^m45^s.8$ 32°.92S 179°.91W 502 km M = 6.3

± 0.9 0.06 0.10 9 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	eP	15	58	17		4.0		4.93	194		5.1	5.3
	eS?		59	23.7		1.7	100					
	e			26.4								
GBZ	iP	15	58	14.0	D	0.1	100	5.03	228			
	S		59	23.8		0.1	100					
ONE	P	15	58	18.0	W	−0.6	100	5.53	237	5.4*		
	i		59	28.9								
	iS			32.0		−0.0	100					
WTZ	P	15	58	20.7		1.0	100	5.65	206		6.7	6.6
	eS		59	32		−2.1	99					
AUC	iP	15	58	21.5	D	−0.4	100	5.88	226			
GNZ	iP	15	58	23.2		0.5	100	5.96	196			
KRP	iP	15	58	26.0	D	0.7	100	6.23	215		5.0*	
	eS?		59	47		2.8	98					
TUA	P	15	58	25.8		−0.7	100	6.34	201		6.6	6.9
	i			27.7								
	S		59	45		−1.4	100					
CRZ	iP	15	58	25.0	U	−1.7	100	6.36	254		5.1*	
	iS		59	46.2	S	−0.3	100					
WNZ	eP	15	58	30		1.4	100	6.56	208		6.7	7.1
	e			36								
	eS?		59	51		0.9	100					
TRZ	P	15	58	34.0		−0.4	100	7.13	201			
	i			36.0								
CNZ	P	15	58	35.9		0.1	100	7.27	209			
	S	16	00	01		−2.1	99					
TNZ	eP	15	58	42.2		1.1	100	7.78	215		5.0*	5.1*
	i			43.9								
	e			54								
	S	16	00	15		2.4	99					
MNG	P	15	58	46.5		−2.4	99	8.53	204		5.5	
	i			48.1								
CAZ	P	15	58	50.0	U	0.8	100	8.55	200			

	e		59	30						
	S	16	00	25	−2.2	99				
WEL	P	15	58	57.3	−0.5	100	9.38	205	6.8	
	S	16	00	42.5	−0.4	100				
KAI	P	15	59	25	1.8	100	11.80	213	5.1*	
	S	16	01	30	0.4	100				

AMPLITUDES: ECZ 1.0 1.4 ONE 22 WTZ 75 65
KRP 22 TUA 20 46 CRZ 7.8
WNZ 3.5 7.9 TNZ 4.3 7.1 MNG 7.5
WEL 21 KAI 4.5

FELT: In Hawkes Bay and Gisborne, maximum intensity MM IV.
PcP, ScS on WEL, MJZ, RHP.

79/ 823

Nov 09 $10^h39^m24^s.0$ 46°.82S 165°.46E 110 km M = 4.1
± 1.0 0.05 0.11 10 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P	10	39	54.2		−0.4	100	1.78	55			
	S		40	18.2		0.6	100					
OBZ	P	10	39	56.0		0.8	100	1.83	94		4.4	4.4
	S		40	18.0		−0.6	100					
MSZ	P	10	40	07.0		−0.6	100	2.75	40		3.7	3.8
	eS			40.5		−0.0	100					
	e			47								
RHP	P	10	40	28.8		1.0	99	4.24	52			
	e			44.0								
	S		41	20.0		3.4						
MJZ	eP	10	40	31		−0.6	100	4.53	53		3.8	4.3
	eS		41	23.5		−0.0	100					

AMPLITUDES: BRZ 1.5 4.0 OBZ 4.7 10 MSZ 1.1 2.6
RHP 0.7 1.6 MJZ 0.3 0.7

79/ 824

Nov 09 $15^h50^m09^s.8$ 46°.12S 165°.91E 12 km M = 4.0
± 1.4 0.04 0.10 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	15	50	29.8		−1.4	100	1.19	74			
	e			33.0								
	iPg			35.0		1.1	100					
	e			43.3								
	iS*			44.8		−2.2	99					
OBZ	Pn	15	50	39.6		0.9	100	1.72	118		3.7	3.8
	iP*			41.8		1.6	100					
	ePg			44.8		0.3	100					
	Sn			58.5		−1.8	100					
	iS*		51	02.8		−0.1	100					
MSZ	Pn	15	50	42.2		−0.7	100	2.02	45		4.2	4.2
	iP*			44.5		−1.0	100					
	iPg			48.0		−2.8	99					
	S*		51	12.2		0.0	100					
RHP	Pn	15	51	04.9		0.7	100	3.58	57			
	iP*			11.0		−1.1	100					
	i(Pg)			15.0		−7.2						
	Sn			48.0		2.8	99					
	eS*		52	02.2		3.4	98					
OMZ	ePn	15	51	06		0.6		3.67	75		3.8	

	eP*		17		3.4						
MJZ	ePn	15 51	08		−0.1	100	3.87	58		4.1	4.1
	eP*		17.7		0.7	100					
	Sn		51.5		−0.7						
	eS*		52 05.5		−2.0	100					

AMPLITUDES: BRZ 7.2 9.1 OBZ 1.3 4.7 MSZ 5.5 9.8
RHP 5.2 4.0 OMZ 0.3 MJZ 1.2 1.5

79/ 825

NOV 09 $17^h43^m20^s.7$ 38°.60S 175°.74E 162 km M = 3.9
± 1.5 0.04 0.07 12 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	17	43	45.6		1.0	100	0.69	347		3.2*	
	S		44	03.2		0.1	100					
TUA	eP	17	43	47.8		−0.0	100	1.13	101		3.5	4.1
	S		44	08.0		−0.7	100					
WTZ	P	17	43	47.8		−0.3	100	1.16	58		3.7	3.6
	S		44	08.0		−1.3	100					
TNZ	eP	17	43	49.0		0.4	100	1.21	241		3.1*	
TRZ	P	17	43	51.0		1.8	100	1.27	139		3.7	3.7
	S		44	14.0		2.9	98					
GNZ	P	17	43	55.0		0.4	100	1.79	92		4.1	4.1
	S		44	19.0		−1.6	100					
MNG	P	17	43	57.0		−0.1	100	2.02	186		4.2	4.3
	i		44	22.8								
	S			24.0		−1.3	100					
CAZ	S	17	44	33.2		1.6	100	2.33	171			
WEL	S	17	44	39		−2.5	99	2.78	195	4.0		
KAI	eS	17	45	31		−4.7		5.12	219	3.5*		
CMZ	eS	17	45	38		−6.6		5.51	204			3.3*

AMPLITUDES: KRP 2.0 TUA 0.4 1.7 WTZ 1.3 1.3
TNZ 0.3 TRZ 0.5 1.2 GNZ 2.5 4.0
MNG 5.6 10 CAZ 1.0 WEL 0.4
KAI 0.3 CMZ 0.5

79/ 826

NOV 10 $17^h34^m33^s.3$ 36°.96S 177°.65E 216 km M = 4.0
± 2.3 0.11 0.22 21 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	17	35	05.0		−0.9	100	1.14	207		3.9	
GNZ	P	17	35	10.0		−0.5	100	1.70	170		4.3	4.1
	e			34.0								
	S			38.1		−1.1	100					
TUA	P	17	35	14.2		2.0	99	1.88	192		4.3	
KRP	P	17	35	12.8		0.1	100	1.93	240		3.2*	
TRZ	eP	17	35	21		0.6	100	2.66	194		4.0	3.7
	eS			59		2.1	99					
MNG	P	17	35	35.8		−0.7	100	4.02	204		4.5	3.6
	S		36	24.0		−1.5	100					

AMPLITUDES: WTZ 1.6 GNZ 2.6 3.0 TUA 1.0
KRP 1.1 TRZ 0.3 0.3 MNG 3.2 0.6

79/ 827

NOV 10 $22^h24^m36^s.8$ 45°.06S 167°.83E 5 km M = 3.2
± 0.6 0.03 0.06 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	Pg	22	24	44.0		−0.9	100	0.40	9		2.6	2.8
	Sg			51.7		1.3	100					
BRZ	Pg	22	24	50.0		−1.9	99	0.75	196			
	Sg		25	03.8		1.9	99					
RHP	P*	22	25	11.1		0.3	100	1.88	60			
	iPg			13.0		−1.8	99					
	eSg			40		−0.2	100					
MJZ	eP*	22	25	14.7		−1.1	100	2.18	61		3.5	
	ePg			22.0		1.2	100					
	eSg			51		0.9	100					
	e			54								
OMZ	P*	22	25	16.3		0.2	100	2.19	91		3.8	

AMPLITUDES: MSZ 3.8 11 BRZ 3.9 4.3 RHP 5.2 6.0
MJZ 0.9 OMZ 0.7

79/ 828

NOV 11 $00^h51^m54^s.0$ 40°.08S 176°.94E 33 km M = 4.1
± 0.6 0.04 0.06 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TRZ	P*	00	52	05.7		0.6	100	0.53	351			
MNG	iPn	00	52	14.6		0.2	100	1.23	244			
TUA	Pn	00	52	16.9		1.8	99	1.29	8		3.9	4.0
	iP*			19.0		1.7	99					
	eSn			30.3		−0.5	100					
	e			49.0								
WNZ	Pn	00	52	20.0		0.8	100	1.58	336		4.4	
	eP*			22.6		0.2	100					
	e			25.3								
GNZ	Pn	00	52	21.5		1.2	100	1.66	31		4.0	4.1
	eP*			23.2		−0.6	100					
	S*			44.0		−1.9	99					
WEL	ePn	00	52	26		0.6	100	2.04	233	4.0		
	Sn			48.0		−1.0	100					
WTZ	Pn	00	52	26.1		−0.1	100	2.10	1		4.2	4.3
	eP*			29.0		−2.0	99					
	Sn			50.9		0.6	100					
TNZ	ePn	00	52	27.2		0.1	100	2.17	294		4.4	
	eP*			31.2		−1.1	100					
KRP	Pn	00	52	30.0		−0.5	100	2.41	333		4.3	
	iP*			36.9		0.4	100					
COB	ePn	00	52	41.9		−1.5	99	3.36	251		4.2	3.9
	eP*			53.5		1.0	100					
	Sn		53	20.7		0.1	100					
KAI	eSn	00	53	54		−2.0		4.83	238	4.2		
RHP	ePn	00	53	26		−0.2		6.49	230			
	e			35.2								
	Sn		54	35.2		−0.8						

AMPLITUDES: TUA 1.7 2.0 WNZ 0.6 GNZ 2.8 6.0
WEL 0.9 WTZ 3.8 4.6 TNZ 1.6
KRP 1.6 COB 0.8 1.5 KAI 0.3
RHP 0.6 1.3

FELT: Waipawa (60) MM IV

79/ 829

NOV 11 $12^h50^m34^s.3$ 37°.75S 178°.21E 110 km M = 3.8

± 1.3 0.05 0.09 9 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	12	50	54.2		−0.5	100	0.90	189		3.9	
	eS		51	09.5		−0.7	100					
WTZ	P	12	50	55.0		−0.6	100	0.99	256		4.1	4.1
	S		51	10.2		−1.7	99					
TUA	P	12	51	01.8		2.2	99	1.34	218		3.7	3.9
	S			21.2		2.3	99					
KRP	P	12	51	10.2		0.8	100	2.12	265		2.8*	2.8*
	S			35.6		0.1	100					
GBZ	eP	12	51	16.8		0.1	100	2.67	304			
TNZ	e(P)	12	51	30		4.2		3.33	243			
MNG	P	12	51	27.7		−1.2	100	3.56	216		3.3	3.4
	S		52	10.5		0.2	100					
WEL	eS	12	52	30		−1.3	100	4.42	216	4.0		

AMPLITUDES: GNZ 4.5 WTZ 6.5 7.7 TUA 0.7 1.2
KRP 0.5 0.5 GBZ 0.3 MNG 0.3 0.5
WEL 0.2

79/ 830

NOV 12 $06^h51^m36^s.1$ 35°.61S 178°.78E 403 km M = 4.7

± 2.2 0.10 0.26 23 S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	P	06	52	41.0		3.1	99	2.75	256			
WTZ	P	06	52	36.7		−1.4	100	2.78	211		5.2	4.9
	e		53	13.0								
GNZ	P	06	52	40.2		−0.5	100	3.10	191		4.9	
	e		53	22								
TUA	eP	06	52	45.0		1.2	100	3.46	202		4.8	4.8
	e			48.2								
	e		53	25								
	eS			36		−1.0	100					
KRP	P	06	52	45.0		0.9	100	3.49	227		3.2*	
	e		53	31								
ONE	eP	06	52	43		−2.1	100	3.61	266			
TRZ	eP	06	52	50		−1.1	100	4.24	201		4.7	4.8
	e		53	48.8								
	S			50.2		0.1	100					
CRZ	P	06	52	59.8		−0.6	100	5.15	281		3.6*	
MNG	P	06	53	08.9		3.4	98	5.64	206		4.2	4.5
	S		54	15.8		−0.1	100					
WEL	eP	06	53	12		−2.8	99	6.49	208	4.6		
	eS		54	33		0.3	100					

AMPLITUDES: GBZ 1.5 WTZ 6.3 3.7 GNZ 2.8
TUA 0.8 0.9 KRP 0.5 TRZ 0.5 1.5
CRZ 0.3 MNG 0.8 2.0 WEL 0.3

79/ 831

NOV 13 $07^h40^m16^s.4$ 38°.14S 176°.60E 12 km M = 3.3

± 0.5 0.03 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pg	07	40	22.0		−1.6	99	0.34	63		2.9	3.4
	Sg			29.0		0.5	100					

TUA	Pg	07 40 32.0		−0.6	100	0.79	147		3.5	3.5
	Sg	42.9		−0.5	100					
KRP	Pg	07 40 34.0		−0.1	100	0.87	284		3.1	
	Sg	46.8		0.8	100					
GNZ	Pg	07 40 40.8		−0.4	100	1.22	115		3.9	
	Sg	59.8		2.0	99					
TRZ	ePg	07 40 44.0		−1.3		1.42	173		3.1	3.2
	e(Sg)	41 09		4.5						
MNG	ePg	07 41 06.2		−3.3		2.63	199		3.0	3.1
	eSg	48		3.1						

AMPLITUDES: WTZ 5.5 15 TUA 1.5 1.3 KRP 1.1
GNZ 4.0 TRZ 0.2 0.3 MNG 0.2 0.3

FELT: Te Teko (34) MM IV

79/ 832

NOV 13 $14^h01^m25^s.7$ 47°.00S 165°.26E 33 km M = 3.9
± 0.7 0.05 0.05 R S.E. of RES. 0.4

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P	14 01 56.4		0.4	99	1.96	88		3.6	3.7
	S	02 18.5		−0.3	100					
MSZ						2.99	40		4.0	3.8
ROX	eP	14 02 12.8		−0.2	100	3.21	63		4.2	4.1
	S	49.0		0.2	100					
RHP	P	14 02 30.0		−0.2	100	4.46	51			
	i	38.0								
MJZ	eP	14 02 37		3.0		4.75	52		4.1	
	e	51								
	eS	03 25		−0.7						

AMPLITUDES: OBZ 0.9 2.5 MSZ 1.8 1.9 ROX 0.8 1.8
RHP 1.4 MJZ 0.8

79/ 833

NOV 14 $17^h21^m03^s.9$ 44°.90S 166°.64E 12 km M = 3.9
± 1.1 0.03 0.07 R S.E. of RES. 1.1

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	Pg	17 21 24.8		1.8	98	0.94	76		3.5	3.8
	Sg	35.2		−0.6	100					
BRZ	Sg-Pg	16.0		1.3	99	1.08	144			
ROX	Pg	17 21 44.8		0.8	100	1.98	108		4.0	4.3
	Sg	22 10.0		−0.7	100					
OBZ	Pg	17 21 49.0		−0.5	100	2.25	153		3.7	3.8
	Sg	22 19.8		−0.1	100					
RHP	P*	17 21 49.0		−0.3	100	2.59	73			
	ePg	56		−0.3	100					
MJZ	e(Pn)	17 21 52.2		3.3		2.89	73		3.9	
	ePg	22 02		−0.4						
	e	09.5								
	eS*	34		1.8						
OMZ	e(Pn)	17 21 55		4.1		3.04	95			
	eSn	22 26		−0.3						
	iSg	43.8		−2.6						

AMPLITUDES: MSZ 4.7 17 ROX 1.6 7.5 OBZ 0.9 2.5
RHP 9.5 MJZ 1.5

This shock is the largest member of a swarm which started at 14h 05m and ended at 19h 25m. Eight other shocks with magnitudes from 3.0 to 3.5 occurred; three preceded this event and five followed it.

79/ 834

Nov 14 $22^h58^m36^s.9$ 38°.67S 176°.17E 5 km M = 2.8

± 0.4 0.03 0.04 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	22	58	31.9		−6.6		0.07	305			
	Sg			33.3		−6.3						
CNZ	ePg	22	58	52		0.5	100	0.72	223			
	eSg		59	05.0		3.8						
GSZ	ePg	22	58	52		−0.3	100	0.76	217			
	eSg		59	03		0.5	100					
TUA	ePg	22	58	53		0.4	100	0.77	101			2.8
KRP	ePg	22	58	55		−0.0	100	0.90	326		2.5	
MNG	eP*	22	59	12		−1.2	99	2.02	195		3.0	

AMPLITUDES: CNZ 0.2 GSZ 0.2 0.3 TUA 0.3
KRP 0.3 MNG 0.3

FELT: Wairakei (41) MM IV, duration 90 seconds. This is one of six events recorded at WNZ. The readings from WNZ probably belong to an earlier event.

79/ 835

Nov 15 $12^h27^m51^s.8$ 38°.57S 176°.13E 5 km M = 3.0

± 0.5 0.02 0.04 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	Pg	12	27	52.8		−0.6	100	0.06	199			
NGZ	ePg	12	28	04.5		−2.1	99	0.74	213			
	e			08.5								
CNZ	ePg	12	28	06		−1.5	100	0.77	216			
	eSg			19.4		1.4	100					
KRP	Pg	12	28	08.0		0.1	100	0.79	324		3.0	
	i			08.7								
	eSg			18.0		−0.6	100					
GSZ	ePg	12	28	09.8		1.3	100	0.83	211			
	eSg			20.2		0.6	100					
TUA	ePg	12	28	09.5		0.8	100	0.84	107		2.9	
	e			12.0								
WTZ	ePg	12	28	10.3		0.4	100	0.89	49		2.6	
	e			13.0								
TRZ	ePg	12	28	15		0.5	100	1.13	151		2.9	3.0
	e			33								
	e(Sg)			35.7		6.1						
GNZ	e(S*)	12	28	34		−4.9		1.48	93			
TNZ	ePg	12	28	24.0		1.9	99	1.50	245		3.5	
MNG	P*	12	28	29.8		0.2	100	2.11	194		3.1	
	iPg			32.0		−2.4	99					
	eSg		29	07		4.2						

AMPLITUDES: NGZ 0.4 CNZ 0.2 0.3 KRP 1.2
GSZ 0.3 0.4 TUA 0.3 WTZ 0.3
TRZ 0.2 0.3 TNZ 0.2 MNG 0.3

79/ 836

NOV 15 $23^h19^m01^s.4$ 44°.65S 166°.88E 12 km M = 3.8

± 1.2 0.06 0.09 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP*	23	19	13.3		−1.9	99	0.74	92		3.5	3.7
	S*			24.8		−0.5	100					
ROX	Pn	23	19	34.2		1.1	100	1.92	116		4.1	4.4
	iP*			36.3		1.0	100					
	S*		20	00.2		−0.3	100					
RHP	Pn	23	19	38.1		−1.0	100	2.37	78			
	eP*			45.5		2.6	99					
OBZ	ePn	23	19	39.0		−0.9	100	2.42	159		3.6	3.8
	Sn		20	09.5		0.7	100					
MJZ	ePn	23	19	41.2		−2.0	99	2.66	77		3.6	3.8
	eP*			50		2.0	99					
OMZ	ePn	23	19	45.3		−1.2	100	2.90	100		3.8	3.5
	eP*			52.8		0.7	100					
	eSn		20	20		−0.5	100					
	e			25								

AMPLITUDES:

MSZ	8.0	25	ROX	1.8	9.0	RHP	10				
OBZ	0.6	2.0	MJZ	0.8	1.6	OMZ	0.4	0.4			

79/ 837

NOV 16 $01^h36^m32^s.5$ 38°.42S 175°.76E 218 km M = 4.4

± 0.9 0.04 0.05 6 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	01	37	01.2		−0.7	100	0.52	340		4.0*	3.1*
	S			24.0		−0.5	100					
NGZ	P	01	37	03.9		1.0	100	0.77	188			
CNZ	P	01	37	04.1		1.0	100	0.80	192			
	e			33.3								
GSZ	P	01	37	04.2		0.7	100	0.87	189			
WTZ	P	01	37	05.3		0.6	100	1.06	66		4.0	4.2
	e			19								
	e			24								
TUA	P	01	37	05.8		0.4	100	1.16	110		3.9	4.4
	S			30.2		−0.7	100					
TNZ	eP	01	37	07.5		0.9	100	1.32	234		3.1*	3.1*
	e(S)			37		4.0						
TRZ	P	01	37	08.0		0.8	100	1.40	144		4.8	4.6
	S			36.0		1.8	99					
GNZ	P	01	37	10.8		0.1	100	1.79	98		4.3	4.5
	S			37.7		−2.4	95					
MNG	P	01	37	15.0		0.2	100	2.21	185		4.5	4.6
	S			47.0		−0.5	100					
WEL	eP	01	37	23.0		−0.1	100	2.97	195	4.7		
	S		38	02.2		−0.3	100					
COB	eP	01	37	28.5		−1.5	99	3.55	220		3.6*	3.8*
	S		38	13.7		−0.8	100					
KAI	eS	01	38	49		−4.1		5.28	218	3.6*		
CMZ	eS	01	38	59		−3.2		5.68	204			4.2*

AMPLITUDES:

KRP	8.7	1.2	NGZ	15		CNZ	3.6	1.3			
GSZ	6.0		WTZ	2.0	3.5	TUA	0.6	1.8			
TNZ	0.2	0.3	TRZ	4.1	5.0	GNZ	2.5	7.0			
MNG	9.0	15	WEL	1.6		COB	0.7	4.0			
KAI	0.3		CMZ	3.1							

79/ 838

NOV 16 $04^h22^m08^s.4$ 44°.62S 166°.88E 12 km M = 3.3

± 1.4 0.05 0.09 R S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	04	22	21.2		−1.1	100	0.75	94		2.9	3.0
	S*			31.3		−1.1	100					
BRZ	P*	04	22	29.8		−1.1	100	1.25	158			
	S*			46.0		−1.5	100					
ROX	P*	04	22	43.0		0.4	100	1.93	117		3.6	3.8
	S*		23	09.5		1.5	100					
RHP	Pn	04	22	47.0		0.9	100	2.36	78			
	e		23	15.8								
	iS*			25.3		4.5						
OBZ	ePn	04	22	47.5		0.2	100	2.45	160		3.5	3.3
	eSn		23	18.2		1.7	99					

AMPLITUDES: MSZ 2.0 4.2 ROX 0.6 2.2 RHP 1.7
OBZ 0.4 0.7

79/ 839

NOV 16 $19^h43^m21^s.0$ 43°.54S 167°.87E 12 km M = 3.7

± 3.1 0.13 0.16 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	19	43	42.3		0.8	100	1.13	178		3.1	3.6
	S*			55.7		−0.9	100					
RHP	P*	19	43	50.0		−1.1	100	1.70	110			
	i			57.4								
MJZ	P*	19	43	53.7		−1.5	100	1.93	104		4.2	
	i		44	00.9								
	S*			21.0		0.3	100					
BRZ	eSn	19	44	27.5		3.0		2.25	186			
	e			42.5								
OMZ	eP*	19	44	10		2.3	99	2.67	126		3.7	
KAI	e	19	44	25				2.79	70	3.9		
	eS*			51		4.8						
OBZ	Sn	19	44	53.0		1.6		3.37	177		4.0	

AMPLITUDES: MSZ 1.4 7.3 RHP 24 MJZ 6.2
OMZ 0.4 KAI 0.4 OBZ 0.7

79/ 840

NOV 17 $06^h29^m39^s.6$ 38°.04S 176°.53E 163 km M = 4.0

± 0.9 0.04 0.06 6 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	06	30	01.2		−0.8	100	0.37	81		4.1	3.7
	e			15.0								
	iS			17.2		−2.1	99					
KRP	iP	06	30	04.9		0.7	100	0.79	278		3.3*	2.6*
	S			23.7		0.6	100					
TUA	P	06	30	05.7		0.7	100	0.91	148		4.1	3.7
	eS			24.8		0.3	100					
GNZ	P	06	30	09.2		0.7	100	1.32	117			
	S			30.2		−0.6	100					
NGZ	P	06	30	10.4		1.6	99	1.34	212			
CNZ	P	06	30	10.9		1.7		1.39	213			
GSZ	P	06	30	11.2		1.5	100	1.44	211			
TRZ	P	06	30	11.8		1.1	100	1.52	171		4.1	3.5

	eS			36.0		1.4	100					
GBZ	P	06	30	15.0		−0.9	100	2.01	335			
MNG	P	06	30	23.8		−0.5	100	2.70	197		4.7	3.8
	S			57.5		−1.1	100					
CAZ	P	06	30	27.0		0.6	100	2.87	185			
WEL	eP	06	30	33.2		−1.5	100	3.51	202	4.1		
	eS		31	15		−2.0	99					
RHP	P	06	31	29.7		−1.2		7.77	217			

AMPLITUDES:											
WTZ	6.0	2.6	KRP	2.1	0.5	TUA	1.9	0.8
NGZ	3.7		CNZ	0.6		GSZ	2.7	
TRZ	1.1	0.5	GBZ	0.7		MNG	11	2.1
CAZ	1.1		WEL	0.3				

79/ 841

Nov 17 $12^h09^m42^s.9$ 33°.79S 179°.02W 307 km M = 4.5

± 1.9 0.20 0.43 36 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	12	11	02.2		−2.5	99	5.30	217		5.4	4.5
	i			04.3								
	e		12	02.5								
	eS			07.6		−1.1	100					
GNZ	P	12	11	06.0		0.1	100	5.41	205			
	eS		12	10		−1.1	100					
TUA	eP	12	11	12		0.3	100	5.89	211		4.6	4.6
	eS		12	23		1.7	100					
KRP	P	12	11	14.0		0.4	100	6.05	225		3.1*	
TRZ	eP	12	11	21		0.2	100	6.66	209		4.5	4.4
	eS		12	39		1.2	100					
NGZ	P	12	11	26.3		2.4	99	6.90	217			
MNG	eP	12	11	37.0		−1.6	100	8.11	211		4.1	4.1
	eS		13	08		−1.6	100					

AMPLITUDES:									
WTZ	5.0	0.7	TUA	0.3	0.3	KRP	0.3	
TRZ	0.2	0.3	NGZ	0.6		MNG	0.4	0.5

79/ 842

Nov 18 $09^h57^m24^s.6$ 37°.25S 177°.41E 156 km M = 3.9

± 1.8 0.09 0.20 10 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	09	57	46.9		−1.6	99	0.80	204		4.2	3.8
	S		58	06.0		−0.9	100					
TUA	eP	09	57	57.2		1.5	100	1.57	187		3.5	3.8
	eS		58	21		1.5	100					
KRP	P	09	57	57.0		0.6	100	1.63	245		3.3*	
TRZ	eP	09	58	03.8		−0.8	100	2.35	191		4.1	3.9
	e			12.0								
	e			39.0								
NGZ	eP	09	58	06.8		1.6	99	2.39	216			
CNZ	eP	09	58	07.0		1.2		2.44	216			
GSZ	P	09	58	07.0		0.6	100	2.48	215			
MNG	P	09	58	20.0		−1.7	99	3.68	203		3.8	3.7
	S		59	04.9		−0.7	100					
WEL	eS	09	59	25		−0.1	100	4.52	206	4.0		

AMPLITUDES:									
WTZ	6.0	3.0	TUA	0.3	0.6	KRP	1.8	
TRZ	0.5	0.7	NGZ	0.8		CNZ	0.3	
GSZ	1.0		MNG	0.8	0.8	WEL	0.2	

79/ 843

NOV 18 $15^h21^m05^s.5$ 41°.03S 174°.54E 33 km M = 3.5

± 0.2 0.01 0.02 R S.E. of RES. 0.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MRW	iP*	15	21	12.7		0.3	100	0.23	148			
TCW	iP*	15	21	13.0		0.2	100	0.27	227			
WEL	P*	15	21	13.2		−0.1	100	0.31	146	3.1		
	S*			19.4		0.5	99					
WHW	iP*	15	21	13.4		0.1	100	0.31	151			
KIW	iP*	15	21	13.5		−0.0	100	0.32	60			
CAW	iPn	15	21	14.5		−0.1	100	0.40	101			
WDW	Pn	15	21	14.5		−0.2	100	0.41	125			
BHW	iPn	15	21	15.0		−0.2	100	0.45	147			
MOW	Pn	15	21	17.9		−0.2	100	0.67	126			
MTW	iPn	15	21	18.7		−0.4	99	0.74	100			
BLW	Pn	15	21	19.3		−0.4	99	0.78	116			
MNG	Pn	15	21	20.1		−0.2	100	0.83	60		3.3	3.6
	Sn			31.8		0.5	99					
TNZ	ePn	15	21	35.5		1.2		1.84	356		3.5	3.6
	eSn			59		3.2						
	eS*		22	06		3.3						
GSZ	ePn	15	21	37.4		2.0		1.93	25			
	iP*			38.8		−0.9						
	eS*		22	02.5		−2.6						
CNZ	Pn	15	21	37.9		1.7		1.99	23			
	iP*			40.0		−0.7						
	eS*		22	07.5		0.6						
NGZ	ePn	15	21	38.2		1.5		2.02	24			
	iP*			40.2		−1.1						
	eS*		22	07		−1.0						
KAI	e(Sn)	15	22	25		6.7		2.78	236	3.6		

AMPLITUDES: WEL 5.9 MNG 5.4 13 TNZ 0.3 0.6
GSZ 1.1 2.8 CNZ 1.9 2.1 NGZ 2.7
KAI 0.2

FELT: Eastbourne, Tawa (68) MM III

79/ 844

NOV 18 $18^h53^m46^s.4$ 47°.41S 165°.18E 33 km M = 4.2

± 1.2 0.09 0.10 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	18	54	19.0		0.8	100	2.07	77		4.3	4.3
	Sn			41.8		−0.2	100					
BRZ	Pn	18	54	22.5		1.1	100	2.30	46			
	Sn			48.5		0.7	100					
MSZ	ePn	18	54	35.5		−0.0	100	3.34	36		4.1	3.9
	e(Sn)		55	08		−4.6						
ROX	Pn	18	54	37		−0.1	100	3.46	57		4.7	4.4
	Sn		55	14.8		−0.6	100					
OMZ	e(Pn)	18	54	57.5		4.5		4.62	62		3.9	
RHP	Pn	18	54	55.0		−0.1	100	4.77	48			
	eP*		55	04.8		−4.1						
	iSn			48.2		1.2						
MJZ	ePn	18	54	57		−1.8	98	5.05	49		4.4	
	eP*		55	11		−2.6						
	eSn			51.2		−2.4						
	e		56	04								

AMPLITUDES:	OBZ	3.5	10	MSZ	1.8	1.8	ROX	2.5	3.2
	OMZ	0.2		RHP	3.6	1.6	MJZ	1.3	

79/ 845

Nov 18 $22^h41^m37^s.3$ 38°.66S 175°.62E 166 km M = 4.2

± 1.0 0.04 0.06 7 S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	22	42	01.5		0.8	100	0.52	181			
CNZ	iP	22	42	01.5		0.7	100	0.54	186			
	iS			18.8		−0.1	100					
GSZ	P	22	42	02.2		1.0	100	0.61	183			
	iS			19.0		−0.6	100					
KRP	P	22	42	03.5		1.6	100	0.74	355		2.8*	
	S			20.0		−0.9	100					
TNZ	eP	22	42	05.8		1.2	100	1.10	241		3.5*	3.1*
	S			27.7		2.0	99					
TUA	P	22	42	06.0		0.5	100	1.21	97		4.0	4.3
	S			25.8		−1.4	100					
WTZ	P	22	42	05.6		−0.6	100	1.27	58		4.2	3.8
	eS			25		−3.3	97					
TRZ	P	22	42	08.0		1.7	100	1.29	134		4.3	4.4
	S			30.8		2.2	99					
GNZ	S-P			25		−2.1		1.88	90			
MNG	P	22	42	13.6		0.4	100	1.95	183		4.4	4.2
	S			40.0		−1.0	100					
CAZ	P	22	42	18.0		0.8	100	2.29	168			
	S			48.2		0.4	100					
WEL	eP	22	42	21.3		−0.9	100	2.70	194	4.2		
	S			55.5		−1.2	100					
COB	eP	22	42	28.7		−0.9	100	3.28	222		3.3*	3.7*
	S		43	07.0		−2.8	99					
CMZ	eS	22	43	53		−6.1		5.41	204			3.6*

AMPLITUDES:	NGZ	23		CNZ	14		GSZ	11	
	KRP	0.8		TNZ	0.7	0.4	TUA	1.1	2.1
	WTZ	3.5	1.6	TRZ	1.8	5.5	MNG	10	7.0
	CAZ	3.2	2.0	WEL	0.6		COB	0.4	3.6
	CMZ		0.9						

79/ 846

Nov 20 $04^h30^m24^s.7$ 41°.07S 174°.34E 105 km M = 5.2

± 0.6 0.04 0.07 9 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	P	04	30	40.0		0.4	100	0.15	197			
MRW	P	04	30	40.8		0.6	100	0.32	121			
WHW	P	04	30	41.2		0.7	100	0.38	128			
WEL	iP	04	30	41.0		0.5	100	0.40	124	5.0		
	S			50.2		−2.4	99					
KIW	P	04	30	41.8		0.7	100	0.48	65			
MOW	P	04	30	44.6		1.2	100	0.77	118			
MNG	iP	04	30	46.4		1.0	100	0.98	63			
COB	P	04	30	49.2		1.1	100	1.21	268			
CAZ	P	04	30	52.6		1.7	100	1.44	84			
	S		31	07.5		−3.3	99					
TNZ	P	04	30	58.7		2.4	99	1.88	1		4.8*	
GSZ	P	04	30	59.8		1.5	100	2.02	29			
CNZ	P	04	31	00.6		1.6	100	2.08	27			
NGZ	P	04	31	01.1		1.5	100	2.12	28			

TRZ	P	04	31	03.8	0.1	100	2.43	52			
KAI	eP	04	31	09.5	3.0	99	2.64	235			
	S			37	−0.9	100					
WNZ	P	04	31	09.0	0.3	100	2.79	30		5.1	5.6
	eS			42.5	0.8						
CMZ	P	04	31	09.4	0.3	100	2.82	206		4.5*	4.7*
	i			10.8							
	S			41.2	−1.2	100					
TUA	P	04	31	12.3	−1.0	100	3.12	45		4.9	5.3
	e			21.8							
	eS			49	−0.9						
KRP	P	04	31	15.9	0.6	100	3.28	17			
WTZ	P	04	31	19.7	−1.4	100	3.70	35		5.2	
	S		32	00.7	−3.2	99					
MJZ	P	04	31	26.8	0.4	100	4.09	223		4.6*	4.7*
	i			28.2							
	S		32	11.0	−2.4	99					
AUC	P	04	31	29.0	0.9	100	4.22	5			
RHP	P	04	31	30.0	−0.1	100	4.36	225			
	i			31.1							
	S		32	18.4	−1.9	100					
OMZ	P	04	31	35.4	0.4		4.72	211		4.3*	4.1*
	S		32	23	−6.0						
ONE	eP	04	31	44	1.3	100	5.28	0	3.9*		
	S		32	40	−2.8	99					
ROX	P	04	31	48	−0.7		5.73	218		4.5*	
MSZ	eP	04	31	50.0	−1.5		5.94	231		3.8*	4.6*
	S		32	54.0	−4.8						
CRZ	eP	04	32	05	2.2	100	6.76	348		3.8*	3.9*
	eS		33	15	−3.9	98					
CIZ	P	04	32	11.0	0.4		7.32	116			
	S		33	28.5	−4.1						
OBZ	eP	04	32	11.2	0.0		7.36	215		4.0*	3.8*
	S		33	31	−2.7						

AMPLITUDES:										
WEL	65		CAZ	40		TNZ	11	
WNZ	0.7	1.8	CMZ	9.0	23	TUA	2.7	6.5
WTZ	8.0		MJZ	16	26	RHP	49	50
OMZ	3.0	3.1	ONE	1.0		ROX	3.8	
MSZ	1.8	21	CRZ	0.5	0.7	OBZ	1.1	1.8

FELT: Widely throughout southern North Island and northern South Island, maximum intensity MM IV

79/ 847

Nov 20 $12^h08^m04^s.2$ 40°.52S 174°.49E 51 km M = 3.3

± 0.5 0.02 0.05 11 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KIW	P	12	08	15.1		−0.5	100	0.47	137			
TCW	P	12	08	18.2		−0.4	100	0.71	193			
MNG	P	12	08	19.1		−0.0	100	0.76	98		3.0	3.5
	S			30.2		−0.0	100					
WEL	P	12	08	19.8		0.2	100	0.79	165	3.3		
	S			31.0		−0.1	100					
WHW	P	12	08	19.9		0.3	100	0.80	167			
BHW	P	12	08	21.9		0.4	100	0.94	162			
TNZ	P	12	08	26.0		−0.9	99	1.33	356		3.3*	3.5*
	S			45.0		0.9	99					
CAZ	eS	12	08	42.0		−3.0		1.38	107			

GSZ	P	12	08	29.8		0.6	100	1.50	35			
	S			48.2		0.1	100					
CNZ	P	12	08	29.7		−0.2	100	1.55	32			
	i			31.7								
NGZ	P	12	08	32.0		1.5	97	1.59	33			
TRZ	e	12	08	45				2.03	62			
TUA	e	12	08	56				2.67	51			
KRP	e	12	08	58				2.72	18			3.1*
	eS		09	17		−1.2	99					
	e			23.0								

AMPLITUDES: MNG 3.7 15 WEL 1.1 TNZ 0.5 1.3
GSZ 2.1 8.6 CNZ 6.0 NGZ 6.6
KRP 0.9

79/ 848

Nov 21 $09^h08^m20^s.9$ 34°.97S 179°.93E 33 km M = 4.9
± 1.1 0.05 0.07 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	09	09	05.9		1.3	100	2.94	202		4.4	4.7
	eS			37.0		−0.5	100					
	e			54.2								
WTZ	P	09	09	16.2		−0.6	100	3.83	217		4.9	
	i			24.1								
GNZ	eP	09	09	17.8		−0.9	100	3.98	202		4.6	
	S		10	04.0		1.6	99					
TUA	eP	09	09	25.0		0.0	100	4.44	209		4.7	4.6
	e			33.8								
	e		10	37								
KRP	eP	09	09	28.0		0.6	100	4.61	229		5.3	
	i			31.0								
	e		10	14.5								
	eS			17		−0.6	100					
	e			22.5								
ONE	eP	09	09	28		0.4	100	4.63	258	5.0		
	eS		10	18		0.1	100					
TRZ	e(P)	09	09	40		4.5		5.21	208		4.6	4.6
	eS		10	34		2.0						
NGZ	eP	09	09	38.5		−0.2	100	5.44	218			
	i			45.9								
GSZ	eP	09	09	41		1.1	100	5.53	218			
	i			47.7								
CRZ	eP	09	09	46.5		0.1	100	6.00	273		4.9	5.1
	eS		10	51.0		−0.0	100					
TNZ	e(P)	09	09	53.0		5.0		6.12	225		5.7	
MNG	eP	09	09	52.0		−3.2	79	6.65	211		5.0	5.0
	i		10	05.0								
	i			07.0								
	e		11	30.2								

AMPLITUDES: ECZ 0.6 1.6 WTZ 5.0 GNZ 2.0
TUA 0.9 0.8 KRP 2.2 ONE 0.4
TRZ 0.6 0.8 NGZ 3.5 GSZ 3.8
CRZ 0.3 0.3 TNZ 1.0 MNG 3.9 4.8

79/ 849

Nov 21 $17^h06^m03^s.3$ 46°.62S 165°.74E 12 km M = 4.0
± 1.5 0.06 0.11 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	17	06	30.0		−0.1	100	1.50	57			
	S*			51.0		0.9	100					
OBZ	P*	17	06	31.8		−0.9	100	1.66	101		3.8	4.1
	S*			54.2		−0.4	100					
MSZ	ePn	17	06	41.0		−1.5	100	2.47	39		4.0	3.9
	e(P*)			51.7		5.0						
	eS*		07	18		−1.1	100					
ROX	ePn	17	06	46		−0.2	100	2.74	67		4.2	4.0
	eP*			54		2.7	98					
	eSn		07	18		−0.6	100					
OMZ	eP*	17	07	09		−2.6		3.93	69			
RHP	Pn	17	07	04.2		1.3	100	3.97	52			
	iP*			17.5		5.4						

AMPLITUDES: OBZ 2.0 8.6 MSZ 2.2 3.1 ROX 1.3 1.8
RHP 2.1

79/ 850

Nov 21 $19^h23^m53^s.8$ 31°.67s 179°.27w 570 km M = 5.0
± 1.3 0.20 0.41 22 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	19	25	38.0		1.4	99	6.27	196		4.8	4.8
	eS		26	58.8		0.6	100					
WTZ	P	19	25	42.6		−0.7	100	7.01	205		5.5	
GNZ	eP	19	25	45.3		−0.8	100	7.31	197		5.1	5.2
	S		27	14.5		−1.1	99					
TRZ	eS	19	27	37		0.6	100	8.49	201			
NGZ	eS	19	27	37		−1.0	100	8.59	208			
MNG	P	19	26	11.0		−0.4	100	9.89	204		4.9	4.8
	eS		28	01.1		−0.6	100					
WEL	eS	19	28	17		−0.1	100	10.73	205	4.8		
COB	eS	19	28	30		0.9	100	11.39	212			3.2*

AMPLITUDES: ECZ 0.3 0.3 WTZ 3.3 GNZ 1.3 2.8
MNG 1.3 1.3 WEL 0.2 COB 0.3

79/ 851

Nov 22 $06^h27^m43^s.1$ 46°.52s 166°.10E 12 km M = 4.1
± 1.8 0.06 0.13 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	eP*	06	28	04.8		−0.8	100	1.25	54			
	S*			20.3		−1.9	100					
OBZ	P*	06	28	10.4		1.5	100	1.44	106		3.8	4.1
	S*			28.3		0.3	100					
MSZ	Pn	06	28	18.0		−1.3	100	2.25	35		4.2	4.1
	iP*			22.8		0.1	100					
	S*			55		2.7	99					
ROX	eP*	06	28	24.5		−2.1	99	2.48	66		4.4	
RHP	Pn	06	28	40.9		1.6	100	3.72	51			
	eP*			50.0		2.3						
	eSn		29	24		2.3						
	i			29								
MJZ	eP*	06	28	51.8		−0.6	100	4.00	52		4.1	
	eSn		29	29		0.5	100					
	e			36								

AMPLITUDES: OBZ 2.5 13 MSZ 4.4 5.8 ROX 2.5
MJZ 1.2

79/ 852

NOV 22 $11^h43^m33^s.1$ 39°.12S 175°.14E 33 km M = 2.7

± 0.6 0.02 0.06 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P*	11	43	41.4		0.2	100	0.33	104			
	S*			46.3		−0.6	100					
NGZ	P*	11	43	42.2		0.4	100	0.38	100			
	S*			48.8		0.7	100					
GSZ	P*	11	43	41.9		0.0	100	0.39	115			
	S*			47.8		−0.5	100					
KRP	eP*	11	43	56.0		0.4	100	1.23	15			
	S*		44	11.0		−1.2	100					
MNG	ePn	11	43	57		−0.4	100	1.52	170		2.8	2.7
	eP*		44	02.5		2.1	98					
	eS*			19		−1.7	99					

AMPLITUDES: CNZ 9.2 30 NGZ 17 GSZ 3.6 35
MNG 0.4 0.4

79/ 853

NOV 24 $20^h24^m54^s.7$ 42°.94S 170°.97E 21 km M = 3.3

± 0.5 0.04 0.06 6 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KAI	e(P*)	20	25	08		3.0		0.53	38	3.2		
	S*			11.0		−1.5	100					
MJZ	Pn	20	25	14		−0.4	100	1.11	199		3.1	3.3
	P*			15		0.2						
	Sn			29.5		0.3	100					
	S*			32		2.4						
RHP	Pn	20	25	18.8		1.4	100	1.32	209			
	eS*			37		0.9	100					
CMZ	ePn	20	25	18.5		0.3		1.38	118		3.4	3.1
	P*			19.7		0.3	100					
	Sn			35		−0.7	100					
OMZ	iPn	20	25	28.3	U	−0.1	100	2.12	181		3.7	3.3
	P*			34		1.8						
	Sn			53.5		−0.2	100					
COB	Pn	20	25	30		−0.4	100	2.28	36		3.6	3.4
	e(Sn)			57		−0.3						
	S*		26	06		1.5	100					
MSZ	eP*	20	25	45		1.3	100	2.81	231		3.2	3.3
	S*		26	18		−2.4	98					
BRZ	eSn	20	26	38		5.2		3.75	220			
MNG	Pn	20	25	54		−1.3		4.10	57		3.7	3.2
	eS*		26	54.5		−4.6						

AMPLITUDES: KAI 2.4 MJZ 1.5 2.7 CMZ 0.9 0.8
OMZ 0.6 0.5 COB 0.4 0.9 MSZ 0.3 0.6
MNG 0.6 0.2

FELT: Ross (91) MM IV

79/ 854

NOV 24 $21^h57^m14^s.3$ 46°.63S 165°.61E 12 km M = 4.2

± 1.7 0.07 0.14 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	Pn	21	57	41		−0.5	100	1.58	58			
	e(Pg)			45		−1.4						

	e(Sn)		58	01.5		−0.3							
OBZ	P*	21	57	45		−0.2	100	1.75	100		4.1	4.1
	(Pg)			51		1.4						
	Sn		58	06		0.4	100					
MSZ	Pn	21	57	54		−0.5	100	2.55	40		4.6	4.4
	e(P*)		58	02		3.1						
	(Sn)			26.5		1.7	99					
	e(S*)			33		0.8						
ROX	Pn	21	58	00		1.6	99	2.83	67		4.5	
OMZ	ePn	21	58	14.5		−0.2	100	4.02	69		4.0	3.9
	P*			24		−0.1						
	e(S*)		59	19		2.4						
RHP	Pn	21	58	15.9	D	0.9	100	4.04	53			
	P*			26		1.5						
MJZ	Pn	21	58	17.6		−1.3	100	4.33	54		4.6	4.5
	eP*			29		−0.3						
	Pg			38		−3.8						
	Sn		59	06		−1.7	99					
	e(Sg)			39		−1.1						
COB	(Sn)	22	00	28.5		3.0		7.57	45		4.3	4.1
	Pn	21	59	04		0.9						
MNG	Pn	21	59	27.5		0.1		9.35	54		3.7	

AMPLITUDES: BRZ 5.1 OBZ 3.5 9.0 MSZ 9.0 11
ROX 2.5 OMZ 0.4 0.6 MJZ 2.9 2.9
COB 0.2 0.5 MNG 0.1

79/ 855

Nov 25 $10^h18^m55^s.9$ 45°.30S 166°.70E 12 km M = 3.7
± 1.2 0.03 0.08 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	10	19	10.7	D	0.6	100	0.76	129			
	S*			20.5		0.1	100					
MSZ	iP*	10	19	16.0	D	0.7	100	1.07	54		3.7	4.0
	Pg			17.5		−0.1						
	Sg			33		0.9	100					
ROX	P*	10	19	29		0.3	100	1.85	96		3.9	4.0
	Sn			51		1.1	100					
	iS*			54		0.8	100					
OBZ	eP*	10	19	30.5		1.3	100	1.88	149		3.4	3.4
	S*			53		−1.0	100					
RHP	iP*	10	19	42.5	D	−0.6	100	2.70	65			
	S*		20	17		−1.4	100					
OMZ	P*	10	19	46		−2.1	98	2.99	87		3.7	3.4
	e(S*)		20	26		−1.2						
MJZ	P*	10	19	45.5		−2.6		3.00	65		3.9	3.8
	Pg			53		−3.4						
	Sn		20	22		4.8						
	(Sg)			34		−2.8						
MNG								7.96	57		3.5	

AMPLITUDES: BRZ 9.5 MSZ 6.1 22 ROX 1.4 4.2
OBZ 0.6 1.3 OMZ 0.3 0.3 MJZ 1.3 1.3
MNG 0.1

79/ 856

Nov 25 $13^h02^m13^s.4$ 45°.29S 166°.72E 12 km M = 3.6
± 0.9 0.02 0.06 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
BRZ	P*	13	02	28.0	D	0.5	100	0.76	131			
	S*			37.5		−0.2	100					
MSZ	iP*	13	02	33.0	D	0.5	100	1.05	54		3.7	3.8
	Pg			34.5		−0.3						
	Sg			50		1.0	100					
ROX	P*	13	02	46.5		0.5	100	1.84	97		3.9	3.8
	Sn		03	07		−0.0	100					
	S*			10.5		0.2	100					
OBZ	eP*	13	02	47.5		0.7	100	1.89	149		3.1	3.1
	S*		03	11.5		−0.1	100					
RHP	iP*	13	02	59.4	D	−0.9	100	2.68	65			
	(Pg)		03	05		−2.6						
	S*			35		−0.4	100					
OMZ	P*	13	03	03		−2.3	89	2.98	87		3.5	3.4
	e(S*)			40		−4.3						
MJZ	P*	13	03	03		−2.3		2.98	65		3.9	3.8
	Pg			10		−3.6						
	Sn			39		4.7						
	Sg			55		1.3						

AMPLITUDES:											
BRZ	7.0		MSZ	6.0	16	ROX	1.4	2.5
OBZ	0.3	0.7	OMZ	0.2	0.3	MJZ	1.2	1.2

79/ 857

NOV 26 $11^h36^m16^s.6$ 32°.59S 178°.95W 33 km M = 4.8

± 2.4 0.09 0.23 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	ePn	11	37	40		−0.1	100	5.86	230			
WTZ	Pn	11	37	47.5		1.0	100	6.33	211		5.2	4.8
	Sn		38	54.5		−0.1	100					
ONE	ePn	11	37	48		0.6	100	6.39	238			
GNZ	Pn	11	37	49		−0.2	100	6.52	201		4.8	4.7
	e		38	56								
	Sn			59		−0.4	100					
TUA	ePn	11	37	56		0.7		6.97	206		4.7	4.9
	Sn		39	07.5		−2.6	99					
KRP	ePn	11	37	57		1.6	100	6.98	219		4.9	
	Sn		39	12.5		2.2	99					
CRZ	Pn	11	37	56.5		−2.4	99	7.24	253		5.2	
TRZ	e(Pn)	11	38	05.5		−0.4		7.75	205		4.2	4.7
	e(Sn)		39	27		−1.8						
NGZ	e(Pn)	11	38	09.5		1.2		7.93	212			
MNG	Pn	11	38	21		−4.5		9.18	208		4.7	4.6
	eSn		39	53		−10.2						
CIZ	Sn	11	41	04		4.9		11.51	171			

AMPLITUDES:											
GBZ	0.5		WTZ	3.8	1.3	GNZ	1.1	1.7
TUA	0.3	0.6	KRP	0.4		CRZ	0.2	
TRZ	0.1	0.5	MNG	1.2	1.0	CIZ	0.3	0.5

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NOV 26 $15^h43^m13^s.1$ 35°.82S 178°.01E 244 km M = 5.2

± 0.7 0.05 0.06 7 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
ECZ	P	15	43	55.4	U	0.8	100	1.92	167		5.2	5.6
	e		44	22.5								
	S			27.5		0.8	100					

GBZ	iP	15	43	55.6	D	−0.6	100	2.09	258			
	e(S)		44	28		−1.6						
WTZ	P	15	43	57.2	U	−1.1	99	2.31	200		5.1	
	S		44	32.5		−0.9	100					
GNZ	iP	15	44	03.3	DNW	−0.4	100	2.82	180		5.4	
	e(S)			40		−2.9						
KRP	P	15	44	05.1	USW	0.7	100	2.89	223		3.9*	3.6*
	S			45		0.7	100					
ONE	P	15	44	05.3	E	0.1	100	2.97	270	3.7*		
	S			45.5		−0.2	100					
TUA	P	15	44	05.5	U	−0.8	100	3.06	193		4.8	5.4
	S			47		−0.7	100					
WNZ								3.19	208		5.1	5.2
TRZ	iP	15	44	14.4	D	−0.9	100	3.84	194			
	e(S)		45	03		−0.7						
NGZ	P	15	44	16		0.5	100	3.86	209			
TNZ	P	15	44	23.5		1.1	99	4.44	220		3.9*	3.8*
	(S)		45	24		7.8						
CRZ	iP	15	44	24.1	DNE	−0.2	100	4.59	286		4.4*	
MNG	iP	15	44	28.7	U	−3.0		5.19	202		5.2	5.3
	eS		45	29.5		−3.4						
WEL	P	15	44	39		−3.0		6.02	204	5.2		
	S		45	47.5		−4.0						
KAI	S	15	46	43		−3.4		8.43	215	4.1*		
CMZ								8.79	206		3.7*	4.5*
CIZ	e(P)	15	45	25		3.4		9.13	155			
	e		47	05								
	S			11.5		9.2						
MJZ	P	15	45	29		−3.6		10.01	213		3.9*	4.2*
	S		47	17		−5.2						
OMZ								10.71	208		3.7*	3.5*
ROX								11.69	212			3.9*
MSZ								11.73	218		3.9*	3.8*

AMPLITUDES:												
	ECZ		6.5	17	GBZ	15	2.9	WTZ		10		
	GNZ		16		KRP	3.4	1.9	ONE	1.0			
	TUA		1.6	6.0	WNZ	0.4	0.4	TNZ		0.6	0.6	
	CRZ		2.7		MNG	10	18	WEL	1.5			
	KAI	0.7			CMZ	0.5	4.2	CIZ		0.3		
	MJZ		1.3	2.9	OMZ	0.3	0.4	ROX			1.0	
	MSZ		1.0	1.5								

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Nov 27 $15^h56^m22^s.2$ 49°.72S 164°.31E 12 km M = 5.1

± 1.8 0.04 0.22 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	15	57	18.5		−1.0	100	3.80	43		5.7	5.3
	Sn		58	02		−0.7	100					
CBZ	Pn	15	57	26.0		1.4	100	4.17	135			
	Sn		58	11.7		−0.0	100					
BRZ	Pn	15	57	29		−0.2	100	4.51	30			
	Sn		58	18		−1.9	100					
ROX	Pn	15	57	41.1		−0.8	100	5.44	40		5.5	5.0
	eSn		58	42		−0.2	100					
MSZ	Pn	15	57	43.5		−0.9	100	5.62	27		5.3	4.8
	Sn		58	51		4.4	88					
DNZ	Pn	15	57	45.3		−0.1	100	5.69	50			
	e(Sn)		58	49		0.7						
OMZ	Pn	15	57	54.3		−1.6		6.46	46		5.2	4.6

	e		58 02								
	e		59 25								
RHP	iPn	15	57 58.7	D	−2.8		6.88	37			
	P*		58 15		−5.7						
	Sn		59 22		5.2						
MJZ	Pn	15	58 01		−3.9		7.12	39		5.2	4.9
	e		14								
	P*		21		−3.9						
	Sn		59 23		0.3						
CMZ	Pn	15	58 22.5		0.2		8.40	46		4.9	4.5
CIZ	(Pn)	15	59 46		3.2		14.30	73			

AMPLITUDES: OBZ 27 29 BRZ 1.9 ROX 6.0 5.5
MSZ 8.6 5.5 DNZ 3.8 2.2 OMZ 2.1 1.2
MJZ 4.1 3.1 CMZ 0.9 0.5 CIZ 0.4

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NOV 27 $17^h32^m38^s.6$ 49°.92S 165°.08E 12 km M = 4.3
± 2.7 0.18 0.29 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	17	33	35		1.2	100	3.64	35		4.5	4.9
	Sn		34	17		1.7	100					
BRZ	Pn	17	33	45		−0.1	100	4.46	23			
	Sn		34	33		−2.3	99					
ROX	e(P*)	17	34	08		−2.1		5.29	34		4.2	4.4
	eSn			56		0.8	100					
DNZ	Sn	17	34	57.5		−1.8	100	5.46	44			
MSZ	ePn	17	33	59.5		−1.0	100	5.60	21		4.4	4.4
	Sn		35	04		1.4	100					
OMZ	Pn	17	34	09		−0.6		6.26	41		3.8	4.1
	(P*)			18		−8.6						
	e(Sn)		35	16		−2.5						
	(S*)			40.5		−7.5						
RHP	ePn	17	34	15		−1.3		6.76	32			
	(P*)			26		−9.1						
	e(Sn)		35	23		−7.3						
MJZ	e(P*)	17	34	38		−1.1		6.99	34		4.3	4.4
	e(Sn)		35	36		0.0						
CMZ								8.19	42			3.8

AMPLITUDES: OBZ 2.1 12 BRZ 0.6 ROX 0.3 1.3
DNZ 1.4 MSZ 1.3 2.1 OMZ 0.1 0.4
MJZ 0.6 0.9 CMZ 0.1

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NOV 28 $10^h07^m41^s.7$ 38°.97S 178°.01E 33 km M = 4.2
± 1.1 0.06 0.12 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	iP*	10	07	49.8	SW	0.1	100	0.32	2			
TUA	iPn	10	07	54.2		−0.5	100	0.69	283			
TRZ	Pn	10	08	00.7	D	0.5	100	1.09	237		4.3	
	i			08.5								
WTZ	iPn	10	08	02.6	U	0.0	100	1.27	320		4.3	4.3
	e(Sn)			16.5		−1.7						
WNZ	eP*	10	08	11		1.8		1.53	282		4.1	4.3
	eS*			30		0.5						
NGZ	Pn	10	08	12.5		1.6	99	1.88	263			
CNZ	Pn	10	08	12		0.4		1.93	262			
	P*			20		4.1						

KRP	ePn	10 08	15		−0.3		2.20	297				
	P*		20		−0.6	100						
	e		22.5									
	e(Sn)		40.5		−0.1							
	e⟨S*)		48.5		−1.1							
MNG	Pn	10 08	19		−1.1	100	2.56	229		4.0	3.9	
	e		38.5									
	e(Sn)		50		1.0							
TNZ	Pn	10 08	26		2.0		2.83	264		4.2	4.3	
	e		36.5									
	e(Sn)		54		−1.8							
	⟨S*)	09	04		−4.4							
WEL	e(Pn)	10 08	34		2.4		3.40	226	4.6			
	Sn	09	09		−0.3							
GBZ	ePn	10 08	31.5		−0.2		3.40	323				
	e		47									
ONE	e(Sn)	10 09	37.5		6.1		4.32	317	4.1			
CIZ	(Pn)	10 09	17		3.9		6.43	142				
	Sn	10	26		3.6							
MJZ	Sn	10 10	47		−2.5		7.57	226				3.8

AMPLITUDES: TRZ 7.5 WTZ 13 12 WNZ 0.4 0.9
MNG 2.8 2.7 TNZ 0.3 0.4 WEL 1.1
GBZ 0.4 ONE 0.1 CIZ 0.3 2.6
MJZ 0.2

FELT: Tologa Bay (37) and Gisborne (45) MM IV

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Nov 28 13h50m18s.8 37°.82S 176°.65E 149 km M = 3.8
± 0.3 0.02 0.02 2 S.E. of RES. 0.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	13	50	39.2	D	−0.1	100	0.31	122		3.4	3.5
	S			55		−0.1	100					
KRP	P	13	50	42.5		−0.1	100	0.89	263			
	S		51	01		0.0	100					
TUA	P	13	50	44		−0.1	100	1.06	159		3.3	3.6
	e			58								
	eS		51	04		0.4	99					
GNZ	P	13	50	47.5	DE	0.5	99	1.36	128		4.0	4.2
	S		51	08.5		−0.1	100					
NGZ	P	13	50	49.6		0.1	100	1.59	211			
TRZ	P	13	50	50.6	D	−0.6	99	1.74	176		3.9	3.8
	S		51	19		3.0						
GBZ	P	13	50	52.5	D	0.0	100	1.85	329			
MNG	iP	13	51	03.0	U	−3.0		2.94	198		4.4	3.8
	S			38		−4.2						
WEL	e(S)	13	51	56		−5.0		3.76	202	3.9		
MJZ	S	13	53	26		−10.3		7.75	215			2.6*

AMPLITUDES: WTZ 1.5 2.0 TUA 0.3 0.6 GNZ 2.5 6.7
TRZ 0.5 1.0 GBZ 0.5 MNG 5.1 1.5
WEL 0.2 MJZ 0.1

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Nov 28 15h36m08s.8 36°.64S 177°.72E 155 km M = 4.5
± 0.9 0.05 0.08 11 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	15	36	38.9	U	0.2	100	1.47	203		4.5	

	S		37 04		2.4							
GBZ	iP	15	36 42.9	U	0.0	100	1.85	282				
	e		51.5									
GNZ	iP	15	36 45.3	DNW	0.6	100	2.02	173		4.7	4.5
	S		37 12		−0.3	100					
KRP	P	15	36 47		0.5	100	2.17	233			
	S		37 14.5		−1.0	100					
TUA	e(P)	15	36 46.5		−0.6	100	2.21	192		4.0	4.3
	e		51								
	eS		37 17		0.5	100					
ONE	P	15	36 55.5		0.4	100	2.85	287			
TRZ	P	15	36 55		−2.0	95	3.00	193		4.5	4.7
	e		37 01								
	S		35		1.1	99					
NGZ	P	15	36 58		0.4	100	3.04	213			
	e		37 43								
TNZ	P	15	37 06.5		0.8		3.67	225		3.3*	3.2*
	e(S)		54		4.6						
MNG	P	15	37 10.5		−4.0		4.35	203		4.3	4.6
	e		58								
	S		38 02		−3.2						
CRZ	P	15	37 19		0.3		4.67	297		3.3*	
WEL	S	15	38 17		−8.0		5.18	205	4.7		
CMZ							7.96	208			3.4*
CIZ	eS	15	39 49		4.3		8.51	151			
MJZ	S	15	39 48		−12.9		9.20	215			3.4*

AMPLITUDES:										
WTZ	6.5		GBZ	5.5		GNZ	7.2	7.7
TUA	0.5	1.1	TRZ	1.0	3.0	TNZ	0.2	0.2
MNG	2.1	5.0	CRZ	0.2		WEL	0.6	
CMZ		0.4	CIZ		4.0	MJZ		0.6

79/ 864

Nov 29 $15^h55^m10^s.6$ 37°.50s 176°.45E 231 km M = 3.9

± 1.3 0.08 0.05 13 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	15	55	41.6	U	−0.3	100	0.64	139		3.9	3.1
	e(S)		56	09		2.8						
KRP	P	15	55	43		0.2	100	0.84	240		2.6*	
TUA	P	15	55	46		−0.6	99	1.41	157		3.8	4.0
	e(S)		56	13		−1.6						
GNZ	iP	15	55	49.4	DNW	0.5	99	1.68	133		4.5	4.0
	S		56	18.5		0.0	100					
NGZ	eP?	15	55	53		3.1		1.81	201			
	e(S)		56	20		−0.3						
CNZ	eS	15	56	21		0.1	100	1.84	203			
GSZ	(S)	15	56	21		−0.9		1.90	201			
TRZ	e	15	56	16.5				2.07	172			4.2
	S			23		−1.8						
MNG	iP	15	56	00.8	D	−3.9		3.20	193		4.1	4.1
	S			40		−6.6						
WEL	S	15	56	56.5		−6.9		4.00	199	3.7		

AMPLITUDES:									
WTZ	1.7	0.3	KRP	0.3		TUA	0.4	0.6
GNZ	4.0	2.0	TRZ		1.4	MNG	1.9	2.2
WEL	0.1							

79/ 865

DEC 01 $10^h56^m53^s.4$ 47°.13S 165°.72E 12 km M = 3.9

± 1.1 0.05 0.10 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	10	57	22.5		1.0	99	1.66	83		3.4	3.4
	e			44								
BRZ	ePn	10	57	24		−0.1		1.84	44			
	eSn			47		−0.1	100					
MSZ	ePn	10	57	38		−0.5	100	2.90	33		4.0	4.0
	e(Pg)			50		−2.0						
	S*		58	23		1.0	99					
ROX	Pn	10	57	39		−0.8	100	3.00	58		4.1	4.5
	Sn		58	14		−0.7	100					
	S*			24		−0.9						
DNZ	Pn	10	57	48		0.7	100	3.55	71			
	Sn		58	28		0.0	100					
	e(S*)			42		0.6						
RHP	Pn	10	57	58		0.3		4.31	47			
	P*		58	12		3.9						
	S*		59	09		4.8						
MJZ	P*	10	58	09		−3.8		4.58	48		4.1	4.1
	Pg			23		−3.0						
	Sn			52		−0.9						

AMPLITUDES: OBZ 0.7 1.7 MSZ 1.8 2.9 ROX 0.9 5.0
DNZ 0.6 1.2 MJZ 0.9 1.1

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DEC 02 $11^h30^m06^s.3$ 45°.01S 167°.83E 12 km M = 4.7

± 0.6 0.02 0.04 3 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iPg	11	30	15.0	U	1.4	99	0.34	10			
BRZ	iP*	11	30	20.4	D	−0.7	100	0.80	195			
	Pg			22		−0.6						
	eSg			33		−0.4	100					
ROX	iP*	11	30	27.2	D	0.1	100	1.15	115		4.6	4.4
	(Pg)			29.5		−0.2						
	Sg			45.5		0.2	100					
RHP	iPn	11	30	35.8	U	−1.2	100	1.84	61			
OBZ	Pn	11	30	37.5		−0.3	100	1.91	174		4.8	4.7
	Sn		31	02		0.5	100					
DNZ	iPn	11	30	39.5	D	−0.6	100	2.08	115			
	P*			41		−1.9						
	Pg			48		−0.3						
	eSn		31	05		−0.6	100					
MJZ	Pn	11	30	39.0	U	−2.1	98	2.14	62		5.0	5.1
	(Pg)			52		2.3						
	e		31	00								
	eSn			07		−0.2	100					
	(S*)			12.5		0.2						
OMZ	Pn	11	30	40.5		−1.2	100	2.19	93		4.6	4.5
	(P*)			42.5		−2.3						
	Sn		31	07		−1.2	100					
KAI	ePn	11	31	02.5		1.7		3.59	47	4.9		
	e(Sn)			41.5		−0.4						
	e			46.5								
CMZ	Pn	11	31	02		−0.8		3.73	69		4.7	4.8

	Pg			24		2.2						
	eSn			43		−2.4						
WEL	Sn	11	32	47		0.1		6.29	56	4.5		
MNG	ePn	11	31	45.5		−3.7		7.14	55		4.9	4.8
	e			52.5								
	eSn		33	07		−0.2						
TNZ								7.59	42		4.5	4.8
GSZ	ePn	11	32	04		1.3		8.13	48			
	Sn		33	35		4.1						
KRP	ePn	11	32	14		−2.6		9.14	42		4.5	5.0
	Sn		33	56		0.6						
GNZ	Sn	11	34	12		−1.9		9.92	54		4.7	4.6
ONE	ePn	11	32	34		−0.9		10.48	31	4.6		
	eSn		34	28		0.4						

AMPLITUDES:

ROX	18	28	OBZ	15	27	DNZ	18	28			
MJZ	35	50	OMZ	5.0	8.0	KAI	2.7				
CMZ	2.9	5.5	WEL	0.3		MNG	2.7	3.2			
TNZ	0.2	0.5	KRP	0.6	2.0	GNZ	0.4	0.5			
ONE	0.2										

79/ 867

DEC 03 $14^h39^m27^s.1$ 37°.85S 177°.44E 33 km M = 4.1

± 0.6 0.03 0.04 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iPn	14	39	36.9	U	1.0	100	0.38	249		3.4	3.6
	e(Sn)			45		2.8						
GNZ	iPn	14	39	42.7	DNW	−0.5	100	0.92	150			
	Sn			56		0.9	100					
TUA	iPn	14	39	43.6	D	−0.5	100	0.98	193		3.9	4.1
	eSn			57		0.3	100					
WNZ	ePn	14	39	48		−0.6		1.31	233		3.8	3.9
	e			56								
	Sn		40	06		1.4	99					
	(S*)			09		0.5						
KRP	iPn	14	39	50.7	DE	−0.5	100	1.51	267		3.9	4.0
	Sn		40	09		−0.3	100					
TRZ	Pn	14	39	53		−1.8	98	1.77	196		4.6	4.6
	P*			57		−1.6						
	S*		40	25		2.9						
NGZ	iPn	14	39	56.8		−0.6	100	1.95	227			
	eS*		40	24		−3.6						
GBZ	iPn	14	40	01.9	U	0.4	100	2.26	316			
TNZ	ePn	14	40	09		0.8	100	2.74	240		4.7	4.4
	S*			50.5		−0.7	100					
MNG	Pn	14	40	09.5		−4.2		3.16	208		4.4	4.2
	P*			19		−3.1						
	S*		41	03.5		0.1						
ONE	eP*	14	40	20		−3.3		3.22	309			
WEL	ePn	14	40	21.5		−3.8		4.00	210	3.9		
	Sn		41	04		−5.3						
	S*			24		−4.8						
CMZ	eSn	14	42	11		−5.3		6.79	211			4.1
CIZ	Pn	14	41	13.5		−0.9		7.60	145			
	Sn		42	32.5		−3.3						
MJZ	ePn	14	41	15.5		−5.6		8.09	219		4.4	4.3
	Sn		42	41		−6.5						

AMPLITUDES:

WTZ	17	25	TUA	2.5	5.0	WNZ	0.2	0.4			

KRP	2.0	2.1	TRZ	4.8	7.5	GBZ	2.4		
TNZ	0.6	0.3	MNG	4.3	3.6	WEL	0.2		
CMZ		0.3	CIZ	0.3	0.7	MJZ	0.5	0.5	

79/ 868

DEC 03 $16^h22^m17^s.4$ 34°.68S 179°.43E 33 km M = 4.8

± 1.3 0.06 0.12 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	iPn	16	23	09.8	D	0.1	100	3.57	243			
	e			15.5								
	e		24	06.5								
WTZ	Pn	16	23	14.6	D	1.2	100	3.84	210		5.1	4.7
	Sn			56		0.2	100					
GNZ	Pn	16	23	18		0.8	100	4.12	196		4.9	5.0
	Sn		24	02.5		0.2	100					
ONE	Pn	16	23	19		−0.5	100	4.29	254	5.1		
	e(Sn)		24	07.5		1.0						
TUA	Pn	16	23	24		1.5	99	4.51	203		4.5	4.9
	eSn		24	11.5		−0.2						
KRP	Pn	16	23	22.6	D	0.0	100	4.52	223		5.3	4.9
	Sn		24	12.5		0.6	100					
WNZ	Pn	16	23	26		−0.0	100	4.77	213		4.6	
TRZ	Pn	16	23	31		−2.2	98	5.29	202		4.6	5.0
	Sn		24	29		−1.6	99					
	e		25	13								
NGZ	Pn	16	23	33.5		−1.7	99	5.44	213			
MNG	Pn	16	23	47		−5.5		6.70	207		4.7	4.7
	Sn		24	56		−8.6						
WEL	ePn	16	23	57		−7.1		7.56	208	4.4		
	Sn		25	14		−10.9						
CIZ	e(Pn)	16	24	38		3.7		9.77	163			
	Sn		26	24		5.8						
CMZ	eSn	16	26	19		−12.9		10.34	209			4.3
MJZ	Sn	16	26	46.5		−15.6		11.60	214			4.6

AMPLITUDES:											
GBZ		2.7	0.7	WTZ	8.8	3.2	GNZ	4.2	8.5		
ONE	0.5			TUA	0.5	1.5	KRP	2.7	0.6		
WNZ		0.1		TRZ	0.6	2.0	MNG	2.0	2.5		
WEL	0.2		0.4	CIZ	0.2	0.5	CMZ		0.2		
MJZ			0.6								

79/ 869

DEC 04 $15^h22^m21^s.1$ 42°.08S 174°.02E 74 km M = 3.9

± 0.7 0.05 0.07 8 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	iP	15	22	35.3	U	1.2	99	0.42	215			
	S			43.8		−0.0	100					
TCW	iP	15	22	39.0	U	0.2	100	0.88	13			
BHW	iP	15	22	40.0		0.8		0.93	44			
WEL	P	15	22	40.5	U	0.6	100	0.97	36	3.9		
	S			53		−0.9	100					
	e			55.4								
MRW	iP	15	22	40.7	U	0.6		0.99	32			
WDW	P	15	22	42.0		0.7		1.09	43			
MOW	P	15	22	42.7		0.8		1.13	55			
CAW	iP	15	22	44.1		0.7		1.25	40			
BLW	iP	15	22	44.7	U	0.6	100	1.30	58			
KIW	P	15	22	46.1	U	0.9	100	1.39	29			

MTW	P	15	22	46.2	U	0.2		1.44	51			
CMZ	eS	15	23	12		−1.2	99	1.82	213			2.9*
MNG	iP	15	22	51.5	U	0.5	100	1.83	38		3.7	3.9
	S		23	12		−1.4	99					
KAI	S	15	23	17		−0.1	100	1.99	256	3.3*		
NGZ	P	15	23	11		1.6		3.13	23			
	S			45.5		−0.4						
MJZ	P	15	23	12		1.2		3.23	233		2.6*	3.1*
	S			47		−1.2						
RHP	P	15	23	16		1.2		3.53	234			
	e			47								
	S			54		−1.5						
OMZ	P	15	23	18		−0.0		3.75	216		3.2*	2.8*
	S			59		−2.2						
KRP	P	15	23	26		0.3		4.31	16		3.0*	
	S		24	16		0.9						
GNZ	S	15	24	19		−3.3		4.60	43			3.9
BRZ	S	15	24	54		−2.5		5.97	229			

AMPLITUDES: WEL 2.9 CMZ 0.6 MNG 3.0 6.0
KAI 0.4 MJZ 0.2 0.8 OMZ 0.3 0.2
KRP 0.4 GNZ 0.5 BRZ 0.1

79/ 870

DEC 05 $07^h38^m50^s.1$ 38°.04S 176°.51E 153 km M = 4.5
± 0.5 0.02 0.03 3 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	07	39	11.9	U	0.5	100	0.39	82		4.3	4.1
	e			25								
	S			27.5		−0.4	100					
WNZ	P	07	39	13.2	U	0.3	100	0.67	208		4.4	
KRP	iP	07	39	14.4	DE	0.9	99	0.77	278		3.5*	3.3*
	iS			32		0.4	100					
TUA	iP	07	39	15.1	U	0.5	100	0.92	147		4.6	4.2
	S			33.5		−0.0	100					
GNZ	P	07	39	19.5	D	1.0	99	1.33	117		4.3	4.2
	S			40		−0.2	100					
NGZ	P	07	39	18.3		−0.2	100	1.34	211			
	S			40		−0.3	100					
TRZ	iP	07	39	20.8	U	0.3	100	1.53	171		4.6	4.6
	S			43		−0.9	99					
GBZ	P	07	39	24.4	D	−1.3	98	2.00	335			
TNZ	P	07	39	25.5	U	−0.5	100	2.02	235		3.4*	3.1*
	S			54		0.4	100					
MNG	iP	07	39	32.0	U	−2.4		2.70	197		4.8	4.6
	S		40	04		−4.2						
ONE	P	07	39	38		1.8		2.84	322			
CAZ	iP	07	39	35.0	U	−1.6		2.87	184			
	e		40	06.5								
	S			10		−2.2						
WEL	P	07	39	40.5		−4.3		3.51	202	4.6		
	S		40	20.5		−6.3						
CRZ	e(P)	07	40	02		0.9		4.75	318			
KAI	eS	07	41	16		−8.3		5.94	219	3.1*		
CMZ								6.27	207		3.2*	3.8*
MJZ	eP	07	40	33		−4.8		7.50	216		3.2*	3.4*
	S		41	50.5		−11.1						
CIZ	S	07	42	06		−5.3		7.90	141			
OMZ								8.18	209		3.4*	3.3*

MSZ									9.25	222			3.1*
AMPLITUDES:	WTZ		12	8.6	WNZ		0.7			KRP		3.8	2.7
	TUA		6.0	2.5	GNZ		5.5	7.5		TRZ		3.5	8.0
	GBZ		2.6		TNZ		0.4	0.3		MNG		15	13
	WEL	1.1		0.9	KAJ	0.1				CMZ		0.2	1.3
	MJZ		0.3	0.6	CIZ			0.7		OMZ		0.2	0.3
	MSZ			0.4									

79/ 871

DEC 05 $11^h36^m46^s.9$ 37°.75S 176°.31E 225 km M = 4.2

± 0.7 0.04 0.06 5 S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	11	37	17.8	U	0.5	100	0.58	114		3.7	3.8
	S			40		−0.9	100					
KRP	iP	11	37	18.5	U	1.0	99	0.64	254		3.5*	
	S			42		0.7	100					
WNZ								0.89	191		4.4	
TUA	P	11	37	21.5		0.4	100	1.24	148		3.7	4.0
	S			47		−0.5	100					
NGZ	P	11	37	23		−0.4	100	1.53	201			
GNZ	P	11	37	25.2	D	1.1	99	1.61	124		4.3	4.7
	S			52.5		−0.3	100					
GBZ	e(P)	11	37	24		−0.6	100	1.67	336			
TRZ	P	11	37	25.7	U	−0.5	100	1.84	168		4.4	4.4
	S			57		0.6	100					
TNZ	P	11	37	27.5		−1.0	99	2.09	226			
MNG	iP	11	37	35.1	U	−2.5		2.93	192		4.8	4.4
	S		38	09		−7.9						
CAZ	S	11	38	17		−4.3		3.15	181			
WEL	S	11	38	25.5		−7.8		3.73	198	4.2		
CMZ								6.46	204			3.2*
MJZ	S	11	39	50		−11.9		7.65	214			3.2*

AMPLITUDES:	WTZ	1.1	1.6	KRP	2.9		WNZ		0.3		
	TUA	0.4	0.7	GNZ	3.0	11	GBZ		0.2		
	TRZ	1.2	2.3	MNG	12	5.8	WEL	0.3			
	CMZ		0.3	MJZ		0.4					

79/ 872

DEC 05 $14^h00^m39^s.4$ 32°.07S 179°.25W 33 km M = 5.0

± 2.2 0.11 0.25 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	Pn	14	02	04		−1.1	100	6.02	225			
ONE	ePn	14	02	11.5		0.2	100	6.47	233			
WTZ	Pn	14	02	14		0.1	100	6.66	207		5.4	5.0
	Sn		03	24		−1.5	100					
GNZ	Pn	14	02	16.8	U	−0.7	100	6.93	198		5.3	5.1
	Sn		03	34		2.1	100					
KRP	Pn	14	02	20.5		−1.3	100	7.24	215		5.2	
	Sn		03	40		0.6	100					
TUA	Pn	14	02	23		−0.1	100	7.34	203		4.9	4.9
	e(Sn)		03	38		−3.7	96					
TRZ	Pn	14	02	29		−4.8		8.13	202		4.9	5.5
	e		03	54.5								
	Sn			57		−3.6						
NGZ	Pn	14	02	31		−4.4		8.24	209			
	(Sn)		03	52		−11.4						
TNZ	Pn	14	02	37.5		−5.5		8.79	214		5.0	5.1

	e(Sn)		04	13.5		−3.2					
MNG	Pn	14	02	43		−10.1		9.53	205	5.4	5.3
	Sn		04	19		−15.5					
	e			22							
CAZ	Sn	14	04	26		−8.7		9.54	201		
WEL	e(Pn)	14	02	52		−12.6		10.38	206	4.8	
	e(Sn)		04	37		−17.8					
CIZ	Sn	14	06	04		28.8		12.06	171		
CMZ								13.17	207	4.4	4.7
MJZ	ePn	14	03	37		−22.3		14.39	211	4.5	4.8
	Sn		05	59		−32.1					

AMPLITUDES:										
GBZ	0.6		WTZ	5.7	2.2	GNZ		3.5	3.8
KRP	0.8		TUA	0.5	0.6	TRZ		0.5	2.6
TNZ	0.1	0.1	MNG	5.3	5.1	WEL	0.2		
CIZ		0.1	CMZ	0.1	0.3	MJZ		0.2	0.5

79/ 873

DEC 05 $22^h06^m24^s.1$ 33°.16S 177°.91W 12 km M = 4.8

± 1.3 0.06 0.14 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	ePn	22	07	53		−1.8	97	6.25	239			
	e			58								
WTZ	Pn	22	07	56		−0.4	100	6.36	219		4.7	4.7
	Pg		08	26		−6.7						
	Sn		09	06		−0.4	100					
ONE	e(Pn)	22	08	10		6.2		6.90	246	4.9		
TUA	Pn	22	08	04.5		0.5	100	6.92	214		5.2	4.8
	Sn		09	20		0.3	100					
	Sg		10	17		−0.0						
TRZ	Pn	22	08	14		−0.3	100	7.67	212		4.8	4.8
	e			49								
	Sn		09	38		0.2	100					
CRZ	ePn	22	08	19		1.0	100	7.94	258		5.4	
	P*			42		1.2						
NGZ	Pn	22	08	19		0.6	100	7.97	219			
	P*			49		7.6						
	Sn		09	43		−2.1						
TNZ								8.67	224		5.3	
MNG	ePn	22	08	31		−3.3		9.13	214		4.4	4.7
	Sn		10	07		−6.0						
	S*		11	07		7.3						
WEL	Sn	22	10	26.5		−7.2		10.00	214	4.6		
CIZ	Sn	22	10	52		−1.9		10.84	175			
COB	Sn	22	10	50		−5.0		10.88	221			4.4
MJZ	e(Pn)	22	09	49		6.7		14.12	217		4.7	4.7
	Sn		12	01		−11.7						

AMPLITUDES:										
GBZ	1.3		WTZ	1.3	1.2	ONE	0.1			
TUA	1.1	0.5	TRZ	0.4	0.6	CRZ		0.4		
TNZ	0.2		MNG	0.6	1.4	WEL	0.1			
CIZ		0.5	COB		0.4	MJZ		0.4	0.5	

79/ 874

DEC 06 $04^h01^m56^s.8$ 38°.35S 176°.04E 169 km M = 4.0

± 1.4 0.06 0.13 12 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	04	02	22.2	U	−0.1	100	0.83	64		3.6	3.6
	S			41		−1.0	100					

NGZ	P	04 02 24.2		1.5	100	0.90	202				
	S	44		1.2	100						
TUA	P	04 02 24.2	U	0.8	100	0.98	118		4.1	4.0
	S	43		−0.9	100					
TRZ	P	04 02 27.6		1.0	100	1.35	153		4.5	3.9
	S	50.5		1.0	100					
GBZ	P	04 02 34.5		−0.9	100	2.18	348			
	e	41								
MNG	iP	04 02 37.2	U	0.2	100	2.30	191		4.4	4.3
	S	03 05		−3.1	96					
WEL	S	04 03 23		−2.1		3.10	198	3.9		
COB	P	04 02 54		−0.9		3.74	222		3.1*	3.5*
	S	03 37		−2.8						
CMZ						5.83	205			3.4*
MJZ	S	04 04 50		−7.2		7.03	215			

AMPLITUDES: WTZ 1.4 1.6 TUA 1.6 1.4 TRZ 2.5 1.6
GBZ 0.5 MNG 7.0 8.2 WEL 0.3
COB 0.2 1.7 CMZ 0.5

79/ 875

DEC 06 $07^h12^m58^s.4$ 33°.10S 177°.99W 12 km M = 4.3
± 3.9 0.17 0.22 R S.E. of RES. 2.4

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	e	07 14 38				6.22	238			
WTZ	Pn	07 14 31		0.1	100	6.37	219		4.4	4.4
	Sn	15 43		2.1	100					
ONE	e	07 14 47				6.86	245			
TUA	e	07 16 01				6.93	213			4.6
	eSg	51		−0.8						
CRZ	e	07 15 01				7.88	258		4.8	
	eP*	15		0.8	100					
MNG	Pn	07 15 07		−1.8	100	9.15	213		3.7	4.4
	eSn	16 45		−2.7	99					
COB	e(Sn)	07 17 28		−1.4		10.89	220			3.8
CIZ	Sn	07 17 31		1.1	100	10.91	175			

AMPLITUDES: GBZ 0.9 WTZ 0.6 0.6 TUA 0.3
CRZ 0.1 MNG 0.1 0.7 COB 0.1
CIZ 0.2

79/ 876

DEC 06 $11^h47^m29^s.3$ 37°.38S 179°.83E 12 km M = 4.6
± 1.6 0.05 0.13 R S.E. of RES. 1.5

STN	PHASE	H M S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pn	11 48 07		0.3	100	2.34	254		4.8	4.7
	Pg	17		0.5						
	e(Sn)	36.5		1.7						
TUA	Pn	11 48 09.5		−0.1	100	2.56	235		4.3	4.5
	Sn	41.5		1.5	100					
WNZ	P*	11 48 25		−0.1		3.20	246		4.7	
	Pg	37		3.0						
TRZ	Pn	11 48 18		−0.6	100	3.21	226		4.4	4.7
	Sn	55		−0.8	100					
GBZ	iPn	11 48 23.3	U	−1.7	100	3.68	287			
	Sn	49 05.5		−1.6	100					
NGZ	Pn	11 48 27		0.6	100	3.78	240			
CNZ	Pn	11 48 27.5		0.4	100	3.83	240			
	Pg	44.5		−2.2						

	Sn		49	13		2.3							
AUC	Pn	11	48	32		1.6	100	4.08	276				
	(Pg)			50		−1.6							
TNZ	e(Pn)	11	48	43		4.7		4.65	246		4.8		
	P*			50		0.1							
	Pg		49	00.5		−2.9							
MNG	Pn	11	48	36.6		−2.1	99	4.69	225		4.5	4.6	
	Sn		49	31.5		0.2	100						
ONE	Pn	11	48	41		2.3	99	4.69	288	4.6			
	e(S*)		49	45		−6.4							
WEL	Sn	11	49	49		−2.7		5.53	224	4.5			
CRZ	Pn	11	49	05.5		1.8		6.51	295		4.7		
	e(P*)			15		−6.5							
COB	Pn	11	49	03		−2.4		6.64	234		4.5	4.2	
	Sn		50	18		−0.2							
CIZ	e(Pn)	11	49	12		0.0		7.12	158				
	Sn		50	26		−3.8							
KAI								8.26	229	4.2			
CMZ								8.28	219				4.6
MJZ	Pn	11	49	45		−2.2		9.70	224		4.5	4.7	
	Sn		51	28		−3.9							
BRZ	Pn	11	50	31		6.3		12.46	224				
	Sn		52	34.5		−3.4							

AMPLITUDES:											
WTZ		13	8.0	TUA		0.9	1.9	WNZ		0.3	
TRZ		1.1	2.7	GBZ		7.0	3.0	TNZ		0.3	
MNG		2.9	4.3	ONE	0.3			WEL	0.4		
CRZ		0.2		COB		0.4	0.8	CIZ		1.1	1.2
KAI	0.1			CMZ			0.7	MJZ		0.5	1.0
BRZ	0.1	0.1	0.2								

79/ 877

DEC 06 $23^h11^m04^s.5$ 31°.37S 179°.23W 405 km M = 4.8

± 3.9 0.15 0.48 39 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CRZ	eP	23	12	54.2		−0.1	100	7.46	244		4.1*	
GNZ	S	23	14	24.1		0.3	100	7.60	196			
MNG	e	23	13	11.8				10.18	203		4.6	5.0
	eP			24.5		−1.1	99					
	(S)		15	16.9		−0.5	100					
COB	eP?	23	13	43.8		1.1	99	11.67	212		3.8*	3.6*
	e			47.9								

AMPLITUDES:										
CRZ	0.8		MNG	0.7	2.2	COB	0.3	0.8

79/ 878

DEC 07 $05^h29^m36^s.2$ 36°.65S 178°.62E 169 km M = 3.7

± 1.0 0.06 0.09 7 S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	05	30	10.6		−0.7	99	1.86	224		4.4	3.6
	eS			38.2		−0.2	100					
GNZ	eP	05	30	13.2		−0.2	100	2.05	193			
	S			42.6		0.5	100					
KRP	eP	05	30	23.0		0.9	99	2.77	242		3.1*	
MNG	eP	05	30	46.3		−0.1	100	4.66	211		3.4	3.4
	S		31	40.3		−0.2	100					

AMPLITUDES:								
WTZ	3.6	0.6	KRP	0.7		MNG	0.2	0.3

79/ 879

DEC 07 $12^h32^m22^s.6$ 38°.66S 175°.81E 150 km M = 3.8

± 1.4 0.05 0.07 11 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	P	12	32	45.5		1.0	100	0.58	200			
KRP	P	12	32	45.2		−0.4	100	0.76	344			
	S		33	04.2		0.9	100					
TUA	eP	12	32	49.0		1.0	100	1.06	99			
	e(S)		33	08.6		1.1	100					
WTZ	eP	12	32	47.5		−1.3	100	1.15	54		3.4	3.6
	e(S)		33	06.9		−2.1	99					
TRZ	P	12	32	50.8		1.6	99	1.20	139		3.5	3.7
	e		33	14.4								
GNZ	P	12	32	55.3	W	0.3	100	1.74	90			
	e		33	17.0								
	S			19.8		−0.1	100					
MNG	iP	12	32	57.1	U	−0.6	100	1.97	187		4.3	4.0
	S		33	23.0		−1.7	99					
WEL								2.74	197	3.9		

AMPLITUDES: CNZ 5.0 WTZ 0.7 1.2 TRZ 0.4 1.2
MNG 8.5 5.5 WEL 0.3

79/ 880

DEC 08 $12^h48^m27^s.9$ 45°.17S 167°.43E 92 km M = 3.8

± 0.6 0.02 0.05 4 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	12	48	44.4	U	0.3	100	0.61	34		4.0	3.6
	S			56.5		0.1	100					
BRZ	P	12	48	44.3		0.2	100	0.61	173			
	eS			56.0		−0.2	100					
OBZ	eP	12	48	58.0		−0.0	100	1.80	165		3.4	4.4
	eS		49	20		−0.4	100					
DNZ	eP	12	49	05.1		0.6	100	2.28	109			
OMZ	P	12	49	07.7	D	0.4	100	2.47	89		4.3	3.6
	eS			37		0.6	100					
MJZ	eP	12	49	06.5		−0.7	99	2.47	62		3.0	3.9
	eS			35.8		−0.7	99					

AMPLITUDES: MSZ 26 20 BRZ 2.0 0.9 3.5 OBZ 0.6 14
DNZ 2.5 OMZ 2.5 0.7 MJZ 0.3 2.0

79/ 881

DEC 09 $02^h54^m54^s.4$ 38°.78S 175°.72E 129 km M = 3.8

± 1.4 0.04 0.06 12 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	02	55	14.2		1.2	99	0.41	192			
KRP	P	02	55	15.3		−0.8	100	0.86	350			
	S			32.8		0.1	100					
TRZ	P	02	55	20.3		1.4	99	1.15	132			
WTZ	e	02	55	38.8				1.28	52			3.3
	(S)			39.7		−0.2	100					
GNZ	P	02	55	26.2	E	−0.2	100	1.81	86			
	S			50.0		−0.5	100					
MNG	iP	02	55	26.6	U	−0.2	100	1.84	186		3.9	4.1
	S			50.5		−0.9	100					

AMPLITUDES: NGZ 8.0 WTZ 0.7 MNG 3.8 8.0

79/ 882

DEC 09 $07^h42^m05^s.3$ 39°.49S 173°.37E 33 km M = 3.6

± 0.8 0.02 0.06 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	S-P			12.2		1.1	99	0.84	69			3.1
NGZ	Pn	07	42	32.7		−0.3	100	1.76	81			
	eP*			36.7		−0.1	100					
	eSn			53.2		−0.5	100					
MNG	ePn	07	42	35.2		−0.6	100	1.98	125		3.8	3.9
	P*			39.8		−0.5	100					
	Sn			58.9		0.2	100					
	S*		43	06.4		0.0	100					
WEL	eSn	07	43	02.5		1.0	99	2.09	150	3.7		
KRP	Pn	07	42	40.4		0.1	100	2.30	48			3.5
	P*			47.7		1.8	96					
	Sn		43	06.1		−0.6	100					
	(S*)			13.4		−2.9						

AMPLITUDES: TNZ 0.9 NGZ 12 22 MNG 3.2 4.5
WEL 0.5 KRP 0.9

79/ 883

DEC 09 $08^h40^m37^s.0$ 38°.70S 175°.79E 144 km M = 3.6

± 1.6 0.05 0.08 13 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	08	40	58.9		1.2	100	0.49	196			
KRP	P	08	40	59.0		−0.6	100	0.80	346			
	S		41	17.9		0.9	100					
TRZ	P	08	41	04.6		1.7	99	1.17	137		3.9	
WTZ	e	08	40	59.2				1.19	53		2.8	3.4
	eP		41	02.7		−0.4	100					
	S			21.2		−1.8	99					
GNZ	e(P)	08	41	09.1		0.0	100	1.75	89			
	e			10.9								
	S			34.4		0.7	100					
MNG	P	08	41	10.4	U	−0.8	100	1.93	187		3.8	4.3
	i			31.9								
	S			36.2		−1.2	100					

AMPLITUDES: NGZ 23 TRZ 1.0 WTZ 0.2 0.8
MNG 3.0 10

79/ 884

DEC 09 $10^h43^m24^s.8$ 38°.02S 176°.71E 157 km M = 4.4

± 1.0 0.05 0.05 7 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	10	43	45.1	U	−1.0	100	0.22	80			
TUA	P	10	43	50.2	U	1.0	100	0.85	156		4.4	4.4
	S		44	08.6		0.6	100					
KRP	P	10	43	49.7	E	−0.1	100	0.94	276			
	S		44	09.1		0.1	100					
GNZ	iP	10	43	52.7	W	0.6	100	1.21	121			
	S		44	11.9		−1.3	99					
NGZ	P	10	43	55.8		1.2	99	1.44	216			
TRZ	P	10	43	56.7		1.2	99	1.53	177			
AUC	P	10	43	59.2	D	−0.6	100	1.93	306			
MNG	eP	10	44	09.1		−1.0	100	2.76	200		4.3	4.6

	i			09.4									
	(S)			43.7			−1.0	100					

AMPLITUDES: WTZ 40 TUA 4.0 4.2 NGZ 7.0 11
MNG 4.2 12

79/ 885

DEC 10 $05^h09^m08^s.6$ 39°.55S 174°.51E 208 km M = 3.9
± 1.5 0.05 0.12 11 S.E. of RES. 1.4

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	05	09	40.0		1.0	100	0.93	67			
MNG	P	05	09	42.3	D	0.6	100	1.30	146		3.9	4.1
	i		10	03.3								
	S			07.9		0.7	100					
WEL	eP	05	09	45.1		−0.4	100	1.75	174	3.8		
	e		10	08.8								
	eS			13.7		−0.4	100					
KRP	eP	05	09	44.7		−1.5	100	1.81	27			
	eS		10	16.2		1.0	100					
COB	S-P			28.8		−2.0	99	2.05	221			
TUA	eP?	05	09	51.6		1.6	99	2.18	71		3.6	4.0
WTZ	eP?	05	09	51.6		−1.6	99	2.48	52			
	e		10	23.9								
	(S)			27.5		−0.3	100					
GNZ	P	05	09	58.3		0.6	100	2.88	73			
	e		10	33.0								
	(S)			34.2		−1.5	100					

AMPLITUDES: NGZ 1.5 1.5 MNG 4.2 8.5 WEL 0.4 0.4 1.2
TUA 0.2 0.5

79/ 886

DEC 10 $06^h28^m46^s.0$ 39°.51S 173°.46E 33 km M = 4.0
± 0.6 0.02 0.05 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TNZ	Sn-Pn			11.0		0.5	100	0.78	66		3.8	3.4
COB								1.67	199		4.5	4.2
NGZ	ePn	06	29	12.2		−0.6	100	1.70	80			
	Sn			32.9		0.1	100					
MNG	ePn	06	29	14.5		−1.1	99	1.91	126		4.3	4.5
	i			15.7								
	Sn			36.9		−0.9	100					
WEL	ePn	06	29	18.0		0.6	100	2.04	151	4.1		
	P*			22.0		−0.1	100					
	Sn			42.2	N	1.2	99					
	e			43.2								
KRP	ePn	06	29	20.2		−0.3	100	2.27	46		3.7	3.8
	P*			26.9		1.0	99					
	e			41.7								
	e			43.2								
	Sn			46.5		0.1	100					
	(S*)			52.1		−3.6						
TRZ	ePn	06	29	24.6		−0.4	100	2.60	92		3.5	3.9
	Sn			54.7		0.3	100					

AMPLITUDES: TNZ 3.1 2.0 COB 6.2 10 NGZ 22 37
MNG 9.2 21 WEL 1.2 3.0 5.0 KRP 1.4 2.0
TRZ 0.2 0.7

79/ 887

DEC 10 $10^h54^m02^s.4$ 47°.27S 165°.85E 12 km M = 4.2

± 1.9 0.10 0.15 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	ePn	10	54	31.8		2.1	99	1.59	77		4.3	4.3
	Sn			50.0		−0.1	100					
	S*			52.5		0.6						
MSZ	ePn	10	54	47.3		−1.3	100	2.98	30		4.3	4.3
	e			48.8								
	e			50.0								
	(Sn)		55	24.8		1.4	100					
DNZ	ePn	10	54	57.2		1.2	100	3.52	68			
	eSn		55	34.9		−1.4	100					
	eSg			58.5		−2.5						
OMZ	ePn	10	55	03.4		−1.3	100	4.16	60		4.0	4.0
RHP	ePn	10	55	06.2		−1.1	100	4.35	45			
MJZ	e	10	55	59.9				4.62	46		4.2	4.2
	(Sn)		56	03.0		0.2	100					
	e			05.4								

AMPLITUDES: OBZ 7.0 16 MSZ 3.2 6.2 DNZ 1.0 1.6
OMZ 0.3 0.7 MJZ 1.1 1.4

79/ 888

DEC 10 $11^h26^m31^s.1$ 45°.14S 167°.65E 117 km M = 3.7

± 0.8 0.03 0.05 6 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P	11	26	49.2		0.4	100	0.50	22		3.7	3.7
	e		27	00.2								
	eS			02.6		0.2	100					
OBZ	eP	11	27	02.0		−0.3	100	1.80	170			3.7
	eS			25.0		−0.8	100					
RHP	P	11	27	05.2	D	0.1	100	2.02	60			
	eS			30.9		0.4	100					
	e			32.0								
	e			35.2								
DNZ	eP	11	27	08		1.4	99	2.14	111			
	eS			34.2		0.9	100					
OMZ	eP	11	27	09.3		0.4	100	2.31	89		3.1	3.5
	e			13.7								
	eS			36.5		−0.8	100					
MJZ	eP	11	27	08.2		−0.8	100	2.31	61		3.7	4.3
	e			34.7								
	eS			36.6		−0.8	100					

AMPLITUDES: MSZ 10 18 OBZ 2.0 DNZ 1.0
OMZ 0.1 0.4 MJZ 1.1 3.7

79/ 889

DEC 10 $11^h50^m28^s.8$ 46°.85S 165°.88E 12 km M = 4.1

± 0.7 0.04 0.05 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	Pn	11	50	55.0		−0.2	100	1.54	93		4.4	4.1
	Sn		51	15.0		−0.1	100					
MSZ	ePn	11	51	09.9		0.0	100	2.61	34		4.1	4.2
	(P*)			13.3		−1.1	99					
	S*			48.9		0.3	100					

DNZ	ePn	11	51	21.0	0.8	100	3.36	75			
	e(Sg)		52	21.7	−0.3	100					
OMZ	ePn	11	51	27.1	−0.9	99	3.94	65		3.7	4.0
RHP	ePn	11	51	30.3	0.9	100	4.04	49			
MJZ							4.32	50		4.2	4.2

AMPLITUDES: OBZ 8.0 11 MSZ 3.0 6.0 DNZ 1.2 1.7
OMZ 0.2 0.7 MJZ 1.2 1.4

79/ 890

DEC 10 $23^h23^m57^s.9$ 33°.43S 178°.34W 247 km M = 4.4
± 2.1 0.21 0.42 31 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	e(P)	23	25	25.0		−0.7	99	5.93	219		4.6	4.5
	eS		26	34.7		0.4	100					
GNZ	e(S)	23	26	35.6		0.1	100	5.98	208			
	e			37.0								
KRP	eP?	23	25	41.5		6.0		6.70	226		3.2*	
MNG	eP	23	26	01.8		0.7	99	8.71	213		3.9	4.5
	e		27	28.8								
	eS			37.1		−0.4	100					

AMPLITUDES: WTZ 0.7 0.7 KRP 0.4 MNG 0.2 1.1

79/ 891

DEC 10 $23^h33^m17^s.6$ 33°.40S 178°.35W 250 km M = 4.1
± R R R R S.E. of RES. 2.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	e(P)	23	34	45.5		−0.2	100	5.95	218		4.2	4.4
GNZ	(S)	23	35	57.9		2.1	100	6.00	208			
MNG	eP	23	35	28.6		7.6		8.74	213		3.6	4.3
	e		36	51.8								
	eS			55.7		−2.0	100					

AMPLITUDES: WTZ 0.3 0.5 MNG 0.1 0.6

79/ 892

DEC 11 $06^h52^m27^s.0$ 33°.95S 179°.03W 240 km M = 4.4
± 2.2 0.08 0.25 32 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	06	53	44.2		−0.9	100	5.17	218		4.7	4.6
GNZ	S	06	54	47.9		−0.1	100	5.26	206			
	e			51.5								
KRP	eP	06	53	56.2		1.4	99	5.93	226		3.3*	
NGZ	eP	06	54	06.1		0.7	100	6.78	218			
CRZ	eP	06	54	06.4		−0.5	100	6.89	264		3.9*	3.4*
MNG	eP	06	54	19.8		−0.8	100	7.96	212		4.2	4.1
	eS		55	49.5		−0.1	100					

AMPLITUDES: WTZ 1.2 1.0 KRP 0.5 CRZ 0.6 0.2
MNG 0.5 0.5

79/ 893

DEC 11 $08^h11^m01^s.4$ 42°.14S 173°.11E 12 km M = 4.3
± 0.2 0.02 0.04 R S.E. of RES. 0.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	P*	08	11	12.1		0.7	100	0.51	123			
CMZ	ePn	08	11	26.7		−0.5	100	1.48	193		4.5	4.4
	Sn			46.9		0.4	100					

WEL	ePn	08	11	26.8	−0.7	100	1.50	56	4.0		
	S*			48.7	0.4	100					
MNG	Pn	08	11	37.8	−1.1	99	2.35	50		4.6	4.2
	P*			41.1	−1.5	99					
	S*		12	13.5	0.1	100					
MJZ	ePn	08	11	43.5	0.1	100	2.68	225		4.4	4.2
	e			47.1							
	P*			48.5	0.2	100					
	(Sn)		12	18.2	3.1						
RHP	ePn	08	11	48.1	0.8	100	2.96	227			
	P*			52.2	−0.9	100					
OMZ	Pn	08	11	52.0	−0.4	100	3.34	208		4.4	3.8
	P*			59.7	0.2	100					
	Pg		12	08.6	−0.3	100					
NGZ	ePn	08	11	55.8	0.9	100	3.52	34			
	eP*		12	01.6	−1.0	100					
MSZ	e(Sn)	08	13	04.0	3.8		4.55	234		4.2	4.1
	e			07.9							
KRP	ePn	08	12	10.6	0.8	100	4.61	25		4.5	4.1
	eP*			20.8	−0.4	100					
	eSn		13	02.8	1.3	99					

AMPLITUDES:										
CMZ	10	11	WEL	1.7	7.5	7.0	MNG	14	7.0
MJZ	5.7	4.0	RHP	17	15	OMZ	1.4	0.7
NGZ	13	6.0	MSZ	1.2	1.6	KRP	2.0	1.0

79/ 894

DEC 11 $08^h39^m33^s.8$ 42°.14S 173°.10E 12 km M = 4.1

± 0.3 0.03 0.05 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	P*	08	39	44.5		0.6	100	0.52	123			
CMZ	ePn	08	39	58.8		−0.8	100	1.48	193		4.3	4.2
	Sn		40	19.2		0.3	100					
WEL	Pn	08	40	00.0		0.0	100	1.51	56	3.7		
	S*			22.4		1.6	99					
MNG	Pn	08	40	10.1		−1.3	100	2.35	50		4.3	4.1
	P*			13.2		−1.9	99					
	S*			46.5		0.6	100					
MJZ	ePn	08	40	15.9		0.1	100	2.67	225		4.3	3.9
	P*			20.6		0.0	100					
	(Sn)			49.6		2.2	98					
RHP	ePn	08	40	20.0		0.4	100	2.95	227			
	P*			24.1		−1.3	100					
OMZ	Pn	08	40	23.9		−0.9	100	3.33	208		4.2	3.8
	P*			32.0		0.1	100					
	Pg			40.7		−0.5	100					
NGZ	ePn	08	40	28.4		1.0	100	3.52	34			
	eP*			34.1		−0.9	100					
MSZ	(Sn)	08	41	36.1		3.6		4.54	234		4.1	4.0
	e			40.1								
KRP	ePn	08	40	42.8		0.6	100	4.61	25		4.2	
	eP*			54.5		0.9	100					

AMPLITUDES:									
CMZ	5.9	9.3	WEL	1.0	4.1	5.0	MNG	6.7	5.5
MJZ	4.2	2.2	RHP	14	11	OMZ	0.9	0.6
NGZ	6.7	5.0	MSZ	0.8	1.4	KRP	1.1	

79/ 895

DEC 11 $09^h17^m36^s.6$ 42°.14S 173°.10E 12 km M = 3.8

± 0.3 0.04 0.06 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	P*	09	17	47.4		0.7	100	0.52	123			
CMZ	ePn	09	18	01.9		−0.5	100	1.48	193		3.7	3.7
WEL	ePn	09	18	02.8		0.0	100	1.51	56	3.6		
	P*			05.3		1.7	99					
	S*			23.3		−0.3	100					
MNG	Pn	09	18	12.8		−1.4	99	2.35	50		4.1	4.0
	P*			16.1		−1.8	99					
	S*			49.3		0.6	100					
MJZ	eP*	09	18	23.5		0.1	100	2.67	225		3.9	3.4
	(Sn)			52.8		2.6						
RHP	P*	09	18	28.2		0.0	100	2.95	227			
OMZ	ePn	09	18	27.3		−0.3	100	3.33	208		4.0	3.6
	P*			34.9		0.2	100					
	Pg			43.8		−0.2	100					
NGZ	ePn	09	18	31.9		1.8	99	3.52	34			
	eP*			37.0		−0.8	100					
KRP	ePn	09	18	46.0		1.0	100	4.61	25		3.9	

AMPLITUDES: CMZ 1.8 2.5 WEL 0.6 2.2 2.5 MNG 4.2 4.0
MJZ 1.8 0.7 RHP 4.3 3.1 OMZ 0.5 0.4
NGZ 5.0 2.5 KRP 0.5

79/ 896

DEC 11 $21^h21^m04^s.3$ 37°.54S 177°.43E 12 km M = 3.7

± 1.4 0.08 0.05 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP*	21	21	15.8	U	0.7	100	0.57	218		3.5	3.7
GNZ	eP*	21	21	26.4		0.5	100	1.20	157			
	Pg			28.3		−0.3	100					
	i(Sg)			43.9		−0.9	100					
TUA	ePg	21	21	31.7		1.3	99	1.29	190		4.0	3.6
	e			35.9								
KRP	eP*	21	21	31.8		−0.1	100	1.55	255		3.7	3.8
	(Sn)			49.8		−1.1	99					
	(Sg)			57.0		0.4	100					

AMPLITUDES: WTZ 11 14 TUA 1.8 0.8 KRP 1.1 1.1

79/ 897

DEC 12 $17^h15^m05^s.4$ 40°.24S 174°.25E 12 km M = 4.0

± 0.6 0.02 0.05 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	iP*	17	15	24.1	U	0.3	100	1.02	113			
TNZ	eP*	17	15	25.3		0.8	100	1.05	5		3.5	3.8
	Sg			42.1		1.1	100					
WEL	eP*	17	15	26.6		1.0	100	1.12	160	4.1		
	Pg			27.4		−0.7	100					
	eS*			39.5		−1.1	100					
	(Sg)			40.6		−2.6						
CNZ	P*	17	15	30.6	D	−0.5	100	1.44	44			
	S*			49.6		−0.5	100					
CAZ	(P*)	17	15	37.2		2.6		1.65	115			
	Pg			39.7		1.0	100					

	Sg		16	02.3		1.4	99					
TRZ	eP*?	17	15	42.4		0.2	100	2.09	72		4.0	3.9
	ePg			46.4		−1.3	100					
WTZ	eP*	17	15	57.5		−1.9	99	3.10	44		4.2	4.5

AMPLITUDES: TNZ 1.0 2.5 WEL 3.8 CNZ 10 19
CAZ 3.3 5.5 TRZ 0.9 1.1 WTZ 0.4 0.5

79/ 898

DEC 13 $08^h05^m47^s.6$ 36°.72S 179°.20E 178 km M = 4.7
± 1.2 0.06 0.07 11 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	P	08	06	26.5		0.1	100	2.13	206			
	S			56.5		0.2	100					
WTZ	iP	08	06	26.1		−0.6	100	2.17	234		5.1	4.7
TUA	P	08	06	33.6		1.2	100	2.65	217		5.4	4.7
	e		07	09.3								
	(S)			11.4		4.6						
KRP	eP	08	06	38.5		−0.2	100	3.16	247		3.4*	3.1*
	eS		07	16.2		−1.9	98					
TRZ	eP?	08	06	41.8		0.1	100	3.39	213			
	e			43.1								
	i		07	25.8								
	(S)			27.5		4.2						
CNZ	eP	08	06	48.3		1.4	99	3.81	228			
MNG	eP	08	06	59.5		−1.0	100	4.86	216		4.5	4.3
	e		07	00.7								
	S			57.9		1.0	100					
WEL	eS	08	08	16.9		−0.2	100	5.72	216	4.5		
CIZ	eP?	08	07	45.3		4.5		7.92	157			
	e			48.1								
	e			49.7								
	e		09	07.5								
	(S)			08.2		−0.9	100					
MJZ	e(S)	08	09	52.6		−1.9		9.85	220			3.4*
RHP	P	08	08	11.2		1.5		10.13	220			
OMZ	eP?	08	08	15.0		1.4		10.44	214			

AMPLITUDES: WTZ 13 7.0 TUA 8.9 1.7 KRP 1.2 0.7
MNG 2.5 2.0 WEL 0.3 0.7 CIZ 1.1
MJZ 0.5 RHP 3.0

79/ 899

DEC 13 $14^h14^m50^s.3$ 45°.05S 167°.54E 87 km M = 4.0
± 0.6 0.02 0.04 5 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP	14	15	05.0	U	0.2	100	0.47	35		4.0	3.8
	S			15.6		−0.1	100					
OBZ	eP	14	15	20.9		−0.7	100	1.90	168		4.5	4.4
	S			44.7		0.0	100					
RHP	iP	14	15	24.2	U	0.6	100	2.05	63			
	S			49.9		1.7						
DNZ	P	14	15	26.8	D	0.4	100	2.25	112			
	S			53.8		0.7	99					
MJZ	eP	14	15	27.3		−0.5	100	2.35	64		3.3	4.2
	i			40.9								
	e			54.2								
	S			55.5		−0.1	100					
OMZ	P	14	15	28.4		0.0	100	2.39	92		3.9	4.0

	S			55.6			−1.1	98							
AMPLITUDES:		MSZ		36	45	OBZ		8.5	14	RHP		13	19		
		DNZ		2.8	5.0	MJZ		0.7	5.7	OMZ		1.0	2.2		

79/ 900

DEC 14 $05^h01^m46^s.4$ 33°.07S 178°.19W 33 km M = 5.0

± 2.7 0.15 0.38 R S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	P	05	03	12.7		−0.4	100	6.09	237			
WTZ	e?	05	03	14.5				6.29	217		5.5	4.6
	P			16.5		0.7	100					
GNZ	eP?	05	03	17.7		0.9	100	6.36	208			
	e			19.7								
	(S)		04	25.8		0.6	100					
	e			27.3								
	e			28.7								
TUA	eP	05	03	24.7		1.0	100	6.87	212		5.2	
KRP	eP	05	03	27.2		1.0	100	7.05	225		5.0	
NGZ	P	05	03	38.4		0.6	100	7.90	218			
CNZ								7.95	218			
MNG	eP	05	03	50.1		−3.8	94	9.08	212		4.8	4.6
	S		05	30.1		−0.6	100					

AMPLITUDES:		GBZ		1.1		WTZ		8.3	0.9	TUA		1.1			
		KRP		0.5		NGZ		3.2		CNZ		0.8			
		MNG		1.4	1.2										

79/ 901

DEC 15 $07^h32^m31^s.0$ 35°.95S 179°.14W 33 km M = 4.5

± 1.7 0.08 0.15 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	eP?	07	33	23.8		1.2	100	3.52	219			
	e			25.0								
	S		34	02.5		1.0	100					
WTZ	eP	07	33	25.4		0.2	100	3.71	236		4.7	4.5
	i		34	02.3								
TUA	eP	07	33	31.7		1.1	100	4.11	225		4.7	
GBZ	eP	07	33	34.7		0.5	100	4.36	265			
KRP	P	07	33	38.9		0.2	100	4.70	244		4.5	
	(P*)			50.4		−1.9	99					
	eS		34	28.8		−1.1	100					
	e			30.8								
TRZ	eP	07	33	38.0		−2.3	99	4.81	220		4.1	4.4
	eS		34	33.0		0.3	100					
CNZ	eP	07	33	48.5		1.3	100	5.33	231			
MNG	eP	07	33	57.7		−2.8	98	6.30	221		4.0	4.2
CRZ	eP	07	34	08.8		0.5	100	6.88	280		5.1	

AMPLITUDES:		WTZ		3.8	2.0	TUA		0.9		KRP		0.5			
		TRZ		0.2	0.7	CNZ		0.6	0.4	MNG		0.5	0.9		
		CRZ		0.4											

79/ 902

DEC 15 $14^h26^m11^s.3$ 36°.28S 178°.16E 271 km M = 4.2

± 1.8 0.11 0.23 19 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	14	26	54.7		−0.5	100	1.94	209		4.1	3.9
GNZ	P	14	27	00.4	ES	1.4	99	2.36	183			

	e			32.5							
	eS			35.1		−1.1	100				
KRP	eP	14	27	02.3		0.3	100	2.66	231	3.1*	
TRZ	eP	14	27	09.7		−0.4	100	3.44	198	4.5	
	eS			57.5		1.6	99				
	e		28	01.4							
MNG	eP	14	27	25.5		−0.5	100	4.81	205	4.5	4.1
	i			26.2							
	(S)		28	24.0		−0.5	100				

AMPLITUDES: WTZ 1.2 0.8 KRP 0.6 TRZ 0.6
MNG 2.6 1.2

79/ 903

DEC 16 $12^h29^m29^s.0$ 38°.12S 176°.22E 170 km M = 3.7
± 0.9 0.04 0.04 7 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	eP	12	29	52.5		−0.5	100	0.57	290			
	eS		30	11.7		0.1	100					
WTZ	P	12	29	52.4		−0.9	100	0.63	77		3.6	3.3
TUA	eP	12	29	56.8		1.0	99	1.00	133		3.4	3.8
CNZ	eP	12	29	58.3		0.9	100	1.20	206			
TRZ	P	12	30	01.3		0.8	100	1.50	162		3.6	3.9
	e			13.0								
	(S)			24.9		0.3	100					
GNZ	eP	12	30	00.6		0.1	100	1.51	111			
	S			24.5		−0.3	100					
TNZ	eP	12	30	04.1		0.8	100	1.79	233		3.3*	
MNG	iP	12	30	11.1	U	−1.2	99	2.56	193		4.6	3.8
	e			43.0								
	iS			44.9		−0.7	100					

AMPLITUDES: WTZ 1.4 0.8 TUA 0.3 0.8 CNZ 0.3 0.3
TRZ 0.3 1.4 TNZ 0.3 MNG 11 2.0

79/ 904

DEC 17 $06^h12^m18^s.2$ 44°.99S 167°.70E 89 km M = 3.9
± 0.9 0.03 0.07 7 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	iP!	06	12	30.9		−1.3	99	0.35	26		3.9	3.7
	S			43.5		0.7	100					
ROX	P	06	12	41.8		0.7	100	1.25	114		4.2	4.1
	S			58.3		−0.2	100					
RHP	P	06	12	50.3	D	0.4	100	1.93	63			
OBZ	eP	06	12	50.2		0.1	100	1.94	172		3.5	4.2
	S		13	13.1		−0.6	100					
DNZ	P	06	12	54.0		0.8	100	2.17	115			
MJZ	S	06	13	19.4		−1.0	99	2.22	64			4.1
OMZ	P	06	12	55.1		0.3	100	2.29	93		4.1	3.6

AMPLITUDES: MSZ 39 45 ROX 4.7 9.0 OBZ 0.8 9.0
DNZ 2.3 1.1 MJZ 4.7 OMZ 1.5 0.8

79/ 905

DEC 17 $18^h51^m51^s.7$ 42°.31S 172°.77E 12 km M = 3.8
± 0.4 0.05 0.06 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	P*	18	52	05.5		0.8	100	0.69	99			
CMZ	P*	18	52	14.5		−0.2	100	1.28	184		3.9	

WEL	P*	18	52	23.4	−0.4	100	1.81	56	3.6			
	Sn			44.4	−0.2	100						
MJZ	ePn	18	52	28.7	−1.0	100	2.38	224		3.9	3.7	
	P*			35.2	1.7	99						
	Sn			58.5	0.3	100						
MNG	Pn	18	52	32.4	−0.9	100	2.65	51		4.3	3.7	
	P*			36.9	−1.2	100						
	S*		53	13.0	0.2	100						
	e			15.8								
RHP	Pn	18	52	33.0	−0.5	100	2.65	227				
	P*			36.3	−1.9	99						
NGZ	ePn	18	52	50.9	1.8	99	3.80	36				
MSZ	eSn	18	53	44.0	0.8	100	4.25	235				3.7

AMPLITUDES: CMZ 3.3 WEL 0.4 1.5 1.5 MJZ 2.0 1.5
MNG 4.7 1.5 RHP 6.3 3.5 MSZ 0.7

79/ 906

DEC 19 $00^h34^m29^s.4$ 39°.80S 174°.40E 86 km M = 3.9
± 0.5 0.02 0.06 10 S.E. of RES. 0.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	iP	00	34	51.0	U	1.0	98	1.07	56			
	S		35	05.2		−0.4	100					
	i			10.0								
KIW	eP	00	34	51.0		0.2	100	1.13	160			
MNG	P	00	34	51.6	U	0.4	100	1.16	135		3.8	4.0
	i			59.1								
	iS		35	07.4		−0.1	100					
TCW	P	00	34	54.1		−0.1	100	1.41	184			
WEL	P	00	34	55.2		−0.3	100	1.50	169	3.8		
	e		35	13								
	S			15.7		0.4	100					
BLW	P	00	34	58.0		−0.8	99	1.76	153			
COB	S-P			22.2		−0.2	100	1.81	224		3.7*	3.5*
KRP	P	00	35	03.3		0.2	100	2.08	26		3.1*	3.5*
	iS			27.4		−0.4	100					

AMPLITUDES: CNZ 5.5 16 MNG 8.6 15 WEL 0.9 4.2
COB 1.8 3.7 KRP 1.0 2.6

79/ 907

DEC 19 $11^h22^m06^s.5$ 38°.49S 176°.72E 12 km M = 3.7
± 0.3 0.02 0.03 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	iPg	11	22	16.1	U	−0.1	100	0.47	133		3.9	3.6
	Sg			24.8		2.2	98					
WTZ	P*	11	22	16.5		−0.5	100	0.55	23			3.8
	S*			24.2		−0.4	100					
GNZ	S*-P*			12.7		−1.1	100	1.03	99		4.0	4.1
TRZ	eP*	11	22	24.7		−1.2	100	1.07	176		3.6	3.9
	Pg			28.1		−0.1	100					
	e			30.0								
	(Sg)			46.1		3.4						
KRP	eP*	11	22	26.9		0.6	100	1.09	301		2.9	3.3
	e(S*)			41.8		1.0	100					
	(Sg)			43.0		−0.3	100					
CNZ	iP*	11	22	29.1		1.6	99	1.16	232			
TNZ	eP*	11	22	40.8		−0.3	100	1.95	248		4.1	
MNG	ePn	11	22	42.7		−1.2	100	2.33	204			4.0

(P*)	47.2	−0.3	100		
Sn	23 11.1	−0.9	100		
(Sg)	21.7	−3.5			

AMPLITUDES: TUA 11 6.3 WTZ 17 GNZ 8.5 14
TRZ 1.5 4.3 KRP 0.4 0.9 CNZ 10 7.3
TNZ 0.4 MNG 4.5

79/ 908

DEC 20 $17^h31^m46^s.2$ 38°.69S 178°.17E 12 km M = 3.9
± 1.2 0.04 0.09 R S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TUA	S*-P*			10.9		0.0	100	0.81	261		4.2	4.2
WTZ	P*	17	32	07.6		0.3	100	1.17	307		4.1	4.2
	e			20.6								
	(S*)			22.7		−0.1	100					
TRZ	eP*	17	32	11.7		1.1	100	1.36	230		3.7	3.8
	e(Pg)			16.7		3.0						
	e			21.0								
	eS*			29.5		0.9	100					
NGZ	e(P*)	17	32	21.5		−0.9	100	2.05	255			
	ePg			28.5		0.7	100					
KRP	eP*	17	32	23.8		−1.2	100	2.20	289		3.4	3.7
	e			27.8								
	e(Pg)			33.3		2.4						
	e			46.8								
MNG	Pn	17	32	29.6		−0.8	100	2.83	226		3.6	3.7
	e			47.9								
	e			59.5								
	eSn		33	01.9		−1.7	99					
TNZ	ePn	17	32	34.5		1.9	99	3.00	259		4.1	

AMPLITUDES: TUA 7.5 8.2 WTZ 9.0 9.6 TRZ 1.2 2.0
KRP 0.3 0.6 MNG 1.0 1.4 TNZ 0.2

FELT: Ormond (44) MM IV

79/ 909

DEC 20 $19^h04^m36^s.8$ 34°.26S 179°.76E 326 km M = 4.9
± 1.9 0.10 0.41 24 S.E. of RES. 1.2

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	eP	19	05	44.2		−0.9	100	4.01	240			
WTZ	P	19	05	48.7		−0.0	100	4.35	210		4.9	4.8
	i			50.3								
	i		06	37.1								
	(S)			45.0		−0.0	100					
GNZ	S-P			58.2		−0.3	100	4.60	197		4.9	4.9
KRP	P	19	05	57.7		1.6	99	5.01	222		3.7*	
	i			59.0								
MNG	eP	19	06	21.0		−0.9	100	7.21	207		5.1	4.8
	e		07	39.2								
	e			41.8								
	e(S)			44.6		0.1	100					
WEL								8.06	208	4.7		

AMPLITUDES: GBZ 0.3 WTZ 2.2 2.2 GNZ 2.2 3.6
KRP 1.5 MNG 4.0 2.9 WEL 0.3

79/ 910

DEC 21 $14^h45^m55^s.4$ 36°.35S 179°.55E 33 km M = 4.2

± 4.1 0.22 0.46 R S.E. of RES. 2.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	Sn-Pn			28.9		−0.5	100	2.60	207		4.0	4.4
WTZ	Pn	14	46	34.2		−0.5	100	2.62	231		4.2	4.0
	Sn		47	05		0.7	100					
TUA	eSn	14	47	14		−2.1	99	3.11	217			4.0
	e			21								
TRZ	Sn	14	47	36		1.9	99	3.86	213			4.5

AMPLITUDES: GNZ 1.1 5.0 WTZ 2.6 1.4 TUA 0.4
TRZ 1.2

79/ 911

DEC 21 $21^h40^m11^s.6$ 41°.51S 172°.52E 33 km M = 4.0

± 0.6 0.05 0.05 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KKY	iP*	21	40	34.5		−0.0	100	1.26	137			
TCW	Pn	21	40	34.9	D	1.2	100	1.36	78			
MRW	Pn	21	40	37.8	D	−0.1	100	1.66	81			
KIW	Pn	21	40	41.0		−0.3	100	1.92	71			
CAW	Pn	21	40	40.9		−1.0	100	1.96	79			
MOW	Sn	21	41	06.5		−0.5	100	2.05	88			
CMZ	Pn	21	40	43.2		−0.3	100	2.08	178		3.8	4.2
	e			44.9								
	Sn		41	07.8		0.3	100					
MJZ	iPn	21	40	57.8	D	3.0	85	2.91	211		3.9	4.0
	Sn		41	27.9		0.6	100					
BSP	Pn	21	40	55.5		−0.0	100	2.96	216			
RHP	Pn	21	40	58.2		0.0	100	3.15	214			
	e		41	00.8								
	Sn			34		0.7	100					
THP	Sn	21	41	42.9		−1.1	100	3.60	212			
MSZ	Sn	21	42	07		−1.6	99	4.63	225			3.8

AMPLITUDES: CMZ 1.1 4.3 MJZ 1.5 2.1 MSZ 0.8

79/ 912

DEC 23 $03^h23^m44^s.3$ 37°.63S 175°.67E 12 km M = 3.8

± 0.5 0.03 0.03 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	iPg	03	23	50.2	SW	−0.8	100	0.31	200			
	Sg			54.9		−0.5	100					
WTZ	eP*	03	24	06		1.7	99	1.10	109		3.4	3.8
	ePg			07.5		0.8	100					
	eS*			18		−1.0	100					
	eSg			20.5		−1.1	100					
GBZ	P*	03	24	09.5		−0.2	100	1.42	354			
	Sn?			27		−0.8						
CNZ	eP*	03	24	13.2		0.9	100	1.57	184			
	eS*			33.9		0.8	100					
TNZ	eP*	03	24	16		−1.2	100	1.85	213			
MNG	eP*	03	24	37		0.5	100	2.99	183		4.3	
	S*?		25	15		−0.6						

AMPLITUDES: WTZ 0.9 1.5 CNZ 1.0 1.5 MNG 1.1

79/ 913

DEC 23 $06^h06^m46^s.2$ 39°.33S 175°.50E 89 km M = 4.4

± 0.4 0.02 0.03 5 S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
CNZ	iP	06	06	59.5	D	0.4	100	0.13	16			
	S		07	08.5		−0.3	100					
	e			16								
WNZ	P	06	07	05.0		0.6	100	0.85	34		3.8	4.7
	S			18		0.0	100					
	e			25.5								
TNZ	iP	06	07	06.0	D	1.2	99	0.88	279		4.1*	4.5*
	S			19.0		0.2	100					
TRZ	eP	06	07	07.5		0.7	100	1.04	103		4.3	4.1
	e			09.2								
	eS			22.5		0.3	100					
	e			30.5								
MNG	P	06	07	10.0		0.4	100	1.29	181			
TUA	P	06	07	10.9		−0.1	100	1.39	68		4.6	4.9
	S			29.0		−0.7	100					
KRP	iP	06	07	11.2		0.0	100	1.40	1			
	S			28.8		−1.3	99					
CAZ	iP	06	07	16.0	D	1.5	99	1.66	161			
	S			35.5		−0.3	100					
WTZ	P	06	07	16.0		0.1	100	1.78	41		4.0	4.7
	S			38.5		0.4	100					
WEL	Pn	06	07	18.8		−0.6	100	2.03	196			
	eS			42		−1.8	98					
GNZ	S-P			23.0		−2.0	97	2.08	72		4.5	4.4
GBZ	iP	06	07	33.1	U	−1.2	99	3.10	360			

AMPLITUDES: WNZ 0.3 2.0 TNZ 4.2 16 TRZ 4.6 6.3
TUA 5.5 11 WTZ 2.3 11 GNZ 5.5 7.5

FELT: Ohakune (49) MM IV, Taihape (58)

79/ 914

DEC 25 $11^h19^m43^s.9$ 41°.06S 172°.49E 33 km M = 4.1

± 0.5 0.04 0.05 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	iPn	11	20	08.3	U	2.3	99	1.36	97			
KKY	ePn	11	20	11.5		1.8	99	1.63	147			
KAI	S*	11	20	36		−0.0	100	1.67	209			
WEL	Pn	11	20	11.6		0.4	100	1.74	98	4.0		
	Sn			31.9		0.3	100					
KIW	iPn	11	20	13.0	U	0.3	100	1.84	85			
MOW	Pn	11	20	15.2		−1.1	100	2.12	101			
BLW	iPn	11	20	17.2		−1.3	100	2.28	99			
MNG	iPn	11	20	17.4		−1.6	99	2.31	80			
	eP*			25.8		1.2	100					
	Sn			43.9		−1.5	100					
TNZ	Pn	11	20	20.9		1.1	100	2.37	38		4.0	4.1
	eSn			47		0.2	100					
CMZ	Pn	11	20	21.0		−1.0	100	2.53	178		4.1	4.6
	Sn			49.5		−1.1	100					
CNZ	Pn	11	20	27.0		−1.3	100	3.00	53			
MJZ	Pn	11	20	33		0.7	100	3.28	206		4.0	4.0
	Sn		21	10		1.1	100					
MSZ	Pn	11	20	53.8		−1.0	100	4.93	221		4.3	4.1

	Sn		21	47.6			−0.8	100					

AMPLITUDES: WEL 1.5 TNZ 0.6 1.0 CMZ 1.5 7.0
CNZ 3.8 MJZ 1.2 1.6 MSZ 1.3 1.2

79/ 915

DEC 26 $16^h29^m52^s.5$ 36°.99S 177°.39E 152 km M = 4.4
± 1.8 0.06 0.22 10 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	iP	16	30	19.4	D	1.5	100	1.04	198		4.1	4.3
	eS			36		−1.5	100					
GBZ	iP	16	30	24.0	D	−0.8	100	1.72	296			
GNZ	S-P			25		0.1	100	1.73	163		4.3	4.6
KRP	P	16	30	26.5	NE	1.4	100	1.75	237			
TUA	S-P			26		0.3	100	1.83	186		4.1	4.5
TRZ	eP	16	30	36		0.5	100	2.60	190		4.4	4.6
	eS		31	11		2.6						
CNZ	P	16	30	38.6		2.5		2.65	213			
TNZ	eP	16	30	46		2.3	99	3.24	226			
MNG	P	16	30	50.0		−2.6	99	3.92	202		4.3	4.3
	S		31	39		0.2	100					
CAZ	P	16	30	53.0		−0.8	100	4.01	193			
	S		31	43.3		2.3	99					
WEL	S	16	31	56.5		−1.9	100	4.75	205	4.6		

AMPLITUDES: WTZ 4.0 7.0 GBZ 1.1 GNZ 4.3 12
TUA 1.0 2.1 TRZ 1.0 3.0 CNZ 1.7
MNG 2.3 3.4 WEL 0.7

79/ 916

DEC 27 $05^h56^m21^s.4$ 38°.71S 176°.16E 91 km M = 4.0
± 1.3 0.05 0.07 18 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	P	05	56	38.6		4.2		0.09	328			
CNZ	iP	05	56	40.8		2.6	99	0.68	224			
	S?			55.5		4.7						
TUA	eP	05	56	40		0.9	100	0.78	98		3.8	4.2
	i			41.2								
	S			52.1		−0.2	100					
KRP	P	05	56	40.6		0.1	100	0.93	328		2.7*	2.7*
	S			54		−1.0	100					
WTZ	iP	05	56	40.9	D	−0.2	100	0.97	42		3.9	3.8
	e			53								
	eS			55		−0.9	100					
TRZ	iP	05	56	44.6	D	3.3	98	0.99	149		4.2	3.7
GNZ	S-P			16.8		−2.7	99	1.46	88		3.8	4.2
TNZ	iP	05	56	48.4	D	1.1	100	1.48	250		3.7*	
	eS?		57	09.4		2.5						
MNG	P	05	56	54.6		0.6	100	1.98	195		3.9	4.0
CAZ	P	05	56	58.2		1.4	100	2.20	179			
	eS		57	22.6		−0.5	100					
KIW	eP	05	56	58.7		−0.5	100	2.37	204			
BLW	P	05	57	03		−1.0	100	2.71	191			
WEL	eP	05	57	04		−1.1	100	2.79	202	4.3		
	eS?			36		−1.9	100					
TCW	iP	05	57	04.8	U	−1.8	100	2.90	209			

AMPLITUDES: CNZ 3.8 4.2 TUA 2.3 6.0 KRP 0.8 0.9
WTZ 4.7 4.7 TRZ 3.8 2.8 GNZ 2.3 8.6

TNZ 1.2 MNG 3.8 6.6 WEL 1.0

79/ 917

DEC 27 $15^h30^m07^s.7$ 41°.74S 174°.25E 12 km M = 3.6

± 0.4 0.04 0.06 R S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
TCW	iP*	15	30	16.7	U	−1.2	100	0.53	2			
WEL	P*	15	30	19.1	D	−0.0	100	0.60	41	3.4		
	Sg			28.5		0.2	100					
KKY	iP*	15	30	23.1		0.7	100	0.79	211			
KIW	iP*	15	30	25.7	U	−0.4	100	1.02	30			
MTW	iP*	15	30	27.4	D	−0.4	100	1.11	59			
MNG	iPn	15	30	32.0	D	−1.1	100	1.47	40		3.7	3.6
	eSn			52.1		−0.1	100					
CAZ	ePg	15	30	42.7		0.3	100	1.71	61			
TNZ	eP*	15	30	53		0.5	100	2.56	2			
TRZ	ePg	15	31	05		−2.1		2.94	43			
MJZ	eP*	15	31	09		−0.8	100	3.57	230			
KRP	ePn	15	31	09.5		2.5	93	3.94	15			
	eS*		32	09		1.4						

AMPLITUDES: WEL 2.5 MNG 4.3 4.8

79/ 918

DEC 28 $07^h45^m34^s.4$ 34°.34S 179°.75W 239 km M = 4.2

± 1.7 0.06 0.21 22 S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GBZ	P	07	46	42.0		−0.3	100	4.33	243			
WTZ	P	07	46	43.2		−1.1	99	4.50	215		4.5	4.3
	eS		47	39		0.5	100					
GNZ	S-P			55		−0.8	100	4.66	202		4.3	4.2
KRP	eP	07	46	54		0.6	100	5.23	225		3.0*	
CRZ	eP	07	47	06		−0.3	100	6.26	267		3.6*	
MNG	e	07	47	35				7.33	210		3.7	3.8
	eS		48	42		−0.3	100					

AMPLITUDES: GBZ 0.9 WTZ 1.0 0.7 GNZ 0.7 0.8
KRP 0.3 CRZ 0.3 MNG 0.2 0.3

79/ 919

DEC 28 $08^h02^m44^s.3$ 38°.26S 176°.10E 158 km M = 3.8

± 1.6 0.06 0.09 11 S.E. of RES. 1.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WNZ	eP	08	03	06.0		−0.2	100	0.37	180		3.8	
KRP	P	08	03	07.7		0.7	100	0.56	307		2.8*	2.4*
	S			25.8		1.4	100					
WTZ	iP	08	03	07.4		−0.7	100	0.76	69		4.0	3.5
	S			23.0		−3.5	97					
TUA	iP	08	03	10.8		1.0	100	0.99	124		3.6	3.7
	eS			31		1.4	100					
NGZ	P	08	03	12.1		2.2	99	1.00	202			
CNZ	P	08	03	08.9		−1.3	100	1.03	205			
TRZ	P	08	03	15.2		1.3	100	1.41	157		3.8	3.9
	S			38.0		1.6	100					
GNZ	S-P			22.2		−1.6	100	1.56	105		3.7	4.0
TNZ	eP	08	03	15		−1.2	100	1.64	235		3.0*	
MNG	iP	08	03	24.8		−0.3	100	2.40	191		4.2	4.0
	S			56.2		−0.3	100					

WEL	eS	08	04	12.3		−1.8	100	3.19	198	3.9			

AMPLITUDES:											
WNZ	0.2		KRP	0.8	0.4	WTZ	4.0	1.3
TUA	0.6	0.7	NGZ	3.0		CNZ	2.0	
TRZ	0.6	1.5	GNZ	1.1	3.7	TNZ	0.2	
MNG	5.0	3.7	WEL	0.2				

79/ 920

DEC 28 $17^h53^m46^s.0$ 33°.79S 178°.92W 199 km M = 4.4

± 3.5 0.32 0.91 73 S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	17	55	04		−1.5	99	5.35	217		4.8	
GNZ	S-P		1	02		−0.7	100	5.44	206		4.4	4.8
KRP	eP	17	55	16		0.7	100	6.10	226		2.9*	
TRZ	eS	17	56	40		1.5	99	6.70	210			4.3
MNG	eP	17	55	42		0.0	100	8.14	212		4.0	4.3
	eS		57	11.5		−1.1	100					

AMPLITUDES:									
WTZ	1.5		GNZ	0.7	2.5	KRP	0.2	
TRZ		0.3	MNG	0.3	0.8			

79/ 921

DEC 28 $18^h12^m27^s.6$ 36°.60S 177°.70E 232 km M = 5.2

± 1.1 0.05 0.13 7 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	P	18	13	03.2		−1.1	100	1.50	202		5.1	4.9
	i			27.5								
	S			32.2		−0.6	100					
GBZ	iP	18	13	05.7		−1.5	100	1.84	281			
KRP	P	18	13	11.6		1.0	100	2.18	232			
	S			44.6		0.7	100					
TUA	P	18	13	11.2		−0.1	100	2.25	191		4.8	5.1
	i			39.2								
	S			44.2		−0.9	100					
WNZ	P	18	13	13.9		1.1	100	2.39	212		5.3	
ONE	eP	18	13	17.0		−0.4	100	2.83	286			
TRZ	P	18	13	20.0		0.2	100	3.03	193		5.2	5.2
	e			53								
	S		14	02		1.7	99					
NGZ	P	18	13	21.9		1.7	99	3.07	212			
	(S)			55.8		−5.2						
CNZ	P	18	13	21.1		0.4	100	3.11	213			
TNZ	eP	18	13	29.7		2.3	99	3.69	224		3.5*	
MNG	P	18	13	35.0		−0.8	100	4.38	203			
CAZ	P	18	13	36.6		−0.2	100	4.45	195			
	i		14	25.8								
	S			30.8		0.3	100					
CRZ	P	18	13	38.5		−0.4	100	4.63	296		3.8*	
WEL	eP	18	13	44.8		−1.4	100	5.22	205	5.5		
	S		14	44.3		−3.0	96					
KAI	eS	18	15	38		−5.1		7.67	217	4.1*		
CMZ	eP	18	14	20		−1.5		7.99	207		3.6*	4.4*
	S		15	45.7		−4.8						
MJZ	eP	18	14	34.7		−2.5		9.22	215		3.5*	4.0*
	S		16	14.8		−4.1						
RHP	eP	18	14	40.7		0.0	100	9.49	215			
	eS		16	20.5		−4.5						

AMPLITUDES:								
WTZ	17	13	GBZ	13		TUA	2.7	5.5

WNZ	1.0			TRZ	3.4	8.5	NGZ	7.2	11
CNZ	2.0			TNZ	0.3		CAZ	11	20
CRZ	0.7			WEL	4.0		KAI	0.8	
CMZ	0.4	3.8		MJZ	0.6	2.0	RHP	1.0	3.0

79/ 922

DEC 28 $21^h34^m13^s.8$ 37°.02S 179°.56E 33 km M = 3.9

± 2.6 0.09 0.22 R S.E. of RES. 1.8

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	S*-P*			27.3		0.5	100	2.02	216		3.7	3.8
WTZ	P*	21	34	56.0		2.3	99	2.26	244		4.3	
TUA	P*	21	35	01.3		1.7	100	2.61	226		3.9	4.0
	eS*			33		−0.9	100					
TRZ	eP*	21	35	10		−1.7	100	3.32	220		3.7	3.9
	e(S*)			50		−5.1						
KRP	P*	21	35	11.0		−0.7	100	3.33	253		4.0	
GBZ	eP*	21	35	16.0		3.4		3.38	282			
ONE	eP*	21	35	29		−0.6	100	4.37	285			
WEL	e(Sn)	21	36	41		5.2		5.66	220	4.2		

AMPLITUDES:										
GNZ	1.1	1.9	WTZ	4.5		TUA	0.4	0.5
TRZ	0.2	0.4	KRP	0.4		GBZ	0.3	
WEL	0.2							

79/ 923

DEC 29 $03^h32^m40^s.7$ 45°.21S 167°.04E 12 km M = 4.0

± 0.9 0.03 0.07 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MSZ	P*	03	32	56.2		0.3	100	0.82	50		4.2	
	S*		33	05.6		−1.4	99					
OBZ	P*	03	33	13.3		−0.3	100	1.86	157		3.9	4.4
	S*			36.8		−1.3	99					
RHP	P*	03	33	22.9		−0.6	100	2.44	64			
DNZ	ePn	03	33	21.3		0.5	100	2.54	106			
	eP*			25.6		0.5	100					
	S*			59.3		1.0	100					
MJZ	eP*	03	33	28.8		0.2	100	2.74	65		3.7	3.8
	e(Sn)			59		3.1						
	e(S*)		34	07		2.6						
OMZ	ePn	03	33	23.7		−0.0	100	2.74	89		4.0	3.9
	eP*			30.7		1.9	98					
	S*		34	04		−0.8	100					

AMPLITUDES:										
MSZ	34		OBZ	2.0	15	RHP	8.3	
DNZ	1.8	2.0	MJZ	1.0	1.7	OMZ	0.8	1.1

79/ 924

DEC 30 $02^h53^m37^s.3$ 39°.09S 176°.35E 96 km M = 3.7

± 0.6 0.03 0.04 6 S.E. of RES. 1.1

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
NGZ	P	02	53	54.5		1.0	100	0.58	261			
	e		54	00.0								
	iS			05.3		−0.6	100					
CNZ	P	02	53	54.8		0.8	100	0.63	260			
	i		54	01.0								
	S			06.7		0.0	100					
TUA	P	02	53	55.3		0.9	100	0.68	66		3.2	3.6
	S		54	08.4		0.9	100					

WTZ	P	02 54 00.1	−0.1	100	1.21	25		3.7	3.9
	S	16.1	−1.4	99					
KRP	P	02 54 01.6	0.0	100	1.33	331		2.4*	2.7*
	S	18.3	−1.8	99					
GNZ	S-P	18.0	−0.9	100	1.38	72		3.9	3.9
TNZ	eP	02 54 05.8	1.5	99	1.54	266		3.0*	3.0*
	eS	26	1.3	99					
MNG	P	02 54 06.5	0.6	100	1.66	203		3.6	3.6
	S	26.2	−1.1	100					
WEL	eP	02 54 16.7	−0.4	100	2.51	208	3.8		
	eS	45.5	−1.4	99					
COB	eP	02 54 29.4	−0.3	100	3.42	233		3.2*	3.0*
	eS	55 09	−0.3	100					
RHP	P	02 55 15.5	−1.5		6.87	221			
	S	56 27.5	−6.8						

AMPLITUDES:									
NGZ	16	36	CNZ	8.0	6.6	TUA		0.7	1.5
WTZ	2.1	3.6	KRP	0.3	0.6	GNZ		2.8	4.5
TNZ	0.2	0.3	MNG	2.8	3.0	WEL	0.4		
COB	0.3	0.6	RHP	0.7	1.0				

79/ 925

DEC 30 $11^h20^m07^s.9$ 43°.42S 171°.06E 12 km M = 3.5

± 0.4 0.03 0.04 R S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MJZ	Pg	11	20	23.4		0.9	100	0.71	217			
	Sg			33.2		1.0	100					
MJP	Pg	11	20	22.9		0.3	100	0.72	217			
BSP	Pg	11	20	24.0		−0.8	100	0.83	237			
MMP	Pg	11	20	26.3		−0.3	100	0.92	218			
KAI	ePg	11	20	26		−0.8	100	0.93	16			
	eSg			39		−0.4	100					
RHP	Pg	11	20	27.2		−0.7	100	0.98	226			
	eSg			45		3.8	95					
HHP	Pg	11	20	28.9		−0.2	100	1.04	209			
TMP	Pg	11	20	30.0		−0.7	100	1.13	217			
CMZ	Pg	11	20	33.0		1.5	100	1.16	99		3.4	
	i			34.8								
	eSg			49.0		1 8	100					
THP	Pg	11	20	34.9		−1 5	100	1.40	217			
OMZ	P*	11	20	39.1		1 8	100	1.66	184		3.9	3.4
	iPg			42.0		0.6	100					
	Sg		21	01.2		−2.5	99					
KKY	Pn	11	20	41.0		−2.1	99	2.18	64			
	S*		21	15.5		0.7	100					
DNZ	ePg	11	20	56.0		−2.0	99	2.47	189			
	eSg		21	29		−2.4	99					
	e			34								
MSZ	ePn	11	20	49.0		0.2	100	2.59	240		3.4	3.4
	ePg			58.2		−2.1						
	S*		21	27.7		0.5	100					
MNG	eP*	11	21	20.8		−2.1		4.33	51		3.8	
	eS*		22	18		−1.2						

AMPLITUDES:									
RHP	68	45	CMZ	1.5		OMZ		1.5	1.0
DNZ	0.6	0.7	MSZ	0.5	1.0	MNG		0.6	

79/ 926

DEC 30 $12^h42^m05^s.8$ 31°.33S 179°.80W 474 km M = 4.8

± 2.5 0.30 1.15 39 S.E. of RES. 1.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	12	43	54.4		0.6	100	7.15	201		5.1	4.7
	eS		45	17		−2.5	99					
GNZ	S-P		1	28.3		−0.5	100	7.51	193		5.1	4.7
KRP	eP	12	44	00.0		1.2	100	7.62	209		3.5*	
TRZ	eP	12	44	09		−1.0	100	8.66	198		4.8	4.9
	S		45	51		2.5	99					
NGZ	eP	12	44	10.5		0.1	100	8.69	204			
MNG	eP	12	44	23.0		−1.7	100	10.03	201		4.8	4.6
	eS		46	15		−0.4	100					

AMPLITUDES:

WTZ	1.3	0.6	GNZ	1.5	1.0	KRP	0.6		
TRZ	0.2	0.6	NGZ	0.5		MNG	1.0	0.9	

79/ 927

DEC 30 $13^h35^m35^s.1$ 38°.52S 175°.65E 177 km M = 3.9

± 1.2 0.05 0.07 9 S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P	13	35	59.3		−0.8	100	0.60	351		3.2*	
	S		36	19.0		−0.4	100					
NGZ	P	13	36	01.8		1.3	100	0.67	182			
CNZ	eP	13	36	02.1		1.5	99	0.68	187			
	eS			24.0		3.8						
	e			26.8								
WTZ	eP	13	36	02.2		−1.9	99	1.18	64		3.2	3.7
	eS			26		−0.5	100					
TNZ	P	13	36	05.0		0.8	100	1.20	236		3.2*	
TUA	eP	13	36	05.0		0.7	100	1.21	104		3.7	3.8
	S			27.8		0.9	100					
TRZ	eP	13	36	07.2		1.3	100	1.38	139		3.6	3.9
	eS			32.2		2.6						
	e			35.8								
GNZ	S-P			26.2		−1.4	100	1.86	95		4.0	4.0
MNG	iP	13	36	13.2		−0.2	100	2.11	183		4.1	4.3
	S			42.2		−0.8	100					
WEL	P	13	36	20.8		−1.5	99	2.84	194	4.2		
	S			57.8		−0.8	100					
CMZ	eS	13	37	55.0		−5.6		5.55	203			3.3*
RHP	P	13	37	14.6		−1.2		6.97	215			
	eS		38	26.5		−7.7						

AMPLITUDES:

KRP	1.7		NGZ	1.1		CNZ	0.2	0.7	
WTZ	0.4	1.2	TNZ	0.3		TUA	0.5	0.7	
TRZ	0.3	1.5	GNZ	1.5	2.5	MNG	4.0	8.0	
WEL	0.6		CMZ		0.4	RHP	1.5	0.3	

79/ 928

DEC 30 $18^h43^m23^s.8$ 49°.08S 163°.75E 33 km M = 4.9

± 3.0 0.35 0.44 R S.E. of RES. 2.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
OBZ	P	18	44	15.9		−1.3	100	3.65	55		5.6	5.3
	S			56.7		−0.8	100					
MSZ	eP	18	44	40.0		0.9	100	5.26	34		5.0	
	i			42.0								

DNZ	P	18	44	43.2	−0.6	100	5.61	58			
	e		45	39							
	eS			46	1.6						
OMZ	eP	18	44	57.8	4.1	98	6.33	53		4.9	4.7
	e(S)		45	55	−6.8						
	e		46	14							
RHP	P	18	44	55.9	−1.9	100	6.62	44			
	i		45	07.0							
MJZ	eP	18	44	58.7	−2.6	99	6.88	45		4.8	
	e		45	10							
	eS		46	16	0.7	100					
CMZ	eP	18	45	21.5	1.5	100	8.25	52		4.8	
	e		46	35							
MNG	eP	18	46	09	−0.3		11.87	49		4.4	

AMPLITUDES: OBZ 22 28 MSZ 5.0 DNZ 1.8 4.0
OMZ 1.1 1.5 RHP 6.6 MJZ 2.1
CMZ 0.7 MNG 0.3

79/ 929

DEC 30 $20^h28^m21^s.5$ 38°.12S 176°.92E 5 km M = 3.3
± 0.5 0.04 0.03 R S.E. of RES. 1.3

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	Pg	20	28	24.1		−0.5	100	0.14	22			
GNZ	Pg	20	28	41.3		−0.7	100	1.02	121		3.9	3.2
	eSg			57		1.4	99					
KRP	ePg	20	28	43.0		−0.9	100	1.11	280		2.9	
	eSg		29	00.5		1.6	99					
CNZ	Pn	20	28	46.2		−2.5		1.52	224			
	iP*			49.0		−0.3						
MNG	eP*	20	29	10		−0.0	100	2.74	204		3.1	
	ePg			15.8		−1.0	100					

AMPLITUDES: GNZ 7.0 2.0 KRP 0.4 CNZ 0.7
MNG 0.3

Largest member of a swarm near WTZ .

79/ 930

DEC 31 $14^h14^m33^s.5$ 40°.15S 174°.96E 12 km M = 4.1
± 0.2 0.01 0.02 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MNG	P*	14	14	45.0		−0.2	100	0.61	140			
GSZ	P*	14	14	51.0		−0.7	100	1.00	29			
	S*		15	06.0		0.9	99					
CNZ	P*	14	14	51.5		−1.1	99	1.05	26			
	S*		15	06.7		0.0	100					
TNZ	P*	14	14	53.0		0.2	100	1.06	335		3.9	4.2
	S*		15	08.0		1.0	99					
NGZ	P*	14	14	51.5		−1.8		1.09	28			
WEL	P*	14	14	54.8		0.6	100	1.14	187	4.2		
	S*		15	09.7		0.2	100					
CAZ	eP*	14	14	56.4		0.8	100	1.22	128			
	i			59.0								
	(S*)		15	18.2		6.3						
TRZ	P*	14	15	00.7		−0.5	100	1.56	68			
WNZ	eP*	14	15	04.8		0.1	100	1.75	31		4.3	
COB	ePn	14	15	06.2		0.7	100	1.93	240		4.4	4.1
	iP*			07.3		−0.4	100					

	S*			32.5		−0.7	100				
TUA	ePn	14	15	08.5		−0.0	100	2.16	52	4.2	
	eP*			10.3		−1.3	99				
	iPg			13.0		−4.2					
WTZ	ePn	14	15	16.0		0.4	100	2.68	37	4.2	
	iP*			20.3		−0.1	100				
	ePg			23.7		−4.0					
	eSn			49		1.8					
GNZ	ePn	14	15	17.0		−0.4	100	2.81	59	3.8	3.9
	ePg			27		−3.3					
	Sn			51.2		0.8	100				
CMZ	e(P*)	14	15	47.0		6.7		3.85	206		
	eSn		16	16		0.7					
RHP	P*	14	16	04.0		−2.2		5.36	221		

AMPLITUDES:										
GSZ	1.1	1.8	CNZ	40	TNZ	2.1	7.1
WEL	5.0		WNZ	0.3	COB	3.5	7.5
TUA	1.2		WTZ	1.3	GNZ	0.6	1.2
RHP		1.1					

FELT: Ohakune (49) MM IV

79/ 931

DEC 31 $14^h34^m28^s.0$ 43°.09S 171°.01E 12 km M = 3.2

± 0.4 0.03 0.04 R S.E. of RES. 1.5

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
MJZ	Pg	14	34	47.9		0.0	100	0.98	204		3.2	3.2
	Sg		35	02.5		1.3	100					
MJP	iPg	14	34	48.2		0.2	100	0.98	204			
BSP	Pg	14	34	48.5		−0.2	100	1.02	220			
MMP	iP*	14	34	51.4		2.1	99	1.18	207			
RHP	Pg	14	34	52.0		−0.6	100	1.21	213			
	i			54.0								
	eSg		35	09.0		0.0	100					
CMZ	Pg	14	34	54.8		0.7	100	1.29	113		3.1	2.9
	eSg		35	11.5		−0.0	100					
HHP	eP*	14	34	53.9		2.1	99	1.32	201			
TMP	Pg	14	34	55.1		−0.9	100	1.39	208			
THP	ePg	14	34	59.5		−2.2	99	1.66	209			
COB	eP*	14	35	10.5		0.7	100	2.38	33		3.5	3.1
	ePg			14.4		−1.8	100					
	eS*			43.0		2.0	99					
	eSg			48.0		−0.3	100					
MSZ	eP*	14	35	17		1.1	100	2.74	234		3.2	3.2
	ePg			21		−2.4	99					
	eS*			53		1.2	100					
DNZ	eP*	14	35	17.5		0.6	100	2.80	187			
	ePg			22		−2.6	99					
MNG	eP*	14	35	39		−1.1	100	4.16	55		3.3	
	e			41.8								

AMPLITUDES:										
MJZ	2.2	3.0	RHP	11	7.0	CMZ	0.6	0.5
COB	0.3	0.5	MSZ	0.3	0.5	DNZ	0.2	
MNG	0.2							

79/ 932

DEC 31 $19^h30^m58^s.1$ 34°.49S 179°.06W 244 km M = 4.6

± 2.0 0.11 0.15 28 S.E. of RES. 1.6

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
WTZ	eP	19	32	09.5		−1.5	100	4.73	221		4.4	4.5
	eS		33	06		−1.8	99					
GNZ	eP	19	32	10.2		−1.2	100	4.77	209		4.4	4.7
	S		33	09.5		1.0	100					
TUA	eP	19	32	19		1.2	100	5.28	214		4.6	4.8
	eS		33	21		1.1	100					
NGZ	P	19	32	32.7		1.6	100	6.34	221			
	eS		33	44.5		0.8	100					
WEL	eS	19	34	28.5		−1.2	100	8.36	214	4.7		
CIZ	S	19	34	59		−0.2	100	9.66	169			

AMPLITUDES: WTZ 0.7 1.1 GNZ 0.8 2.5 TUA 0.4 0.6
NGZ 0.4 1.4 WEL 0.3

79/ 933

DEC 31 $21^h15^m00^s.6$ 38°.03S 176°.06E 12 km M = 3.9
± 0.3 0.02 0.02 R S.E. of RES. 0.9

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
KRP	P*	21	15	08.5		−0.5	100	0.42	284			
	S*			14.2		−0.7	100					
WNZ	P*	21	15	12.0		−0.0	100	0.60	177		4.0	3.8
	e			27.7								
WTZ	iP*	21	15	13.3		−1.0	100	0.74	87		3.8	3.6
	eS*			24.2		−0.1	100					
TUA	P*	21	15	21.3		−0.2	100	1.16	133		3.7	
NGZ	P*	21	15	22.2		−0.1	100	1.21	197			
CNZ	P*	21	15	23.0		0.1	100	1.24	199			
GNZ	P*	21	15	30.0		−0.1	100	1.66	112			
	e			37.0								
	e		16	12								
TNZ	eP*	21	15	31.2		−0.4	100	1.75	228		4.0	
	e			34.2								
GBZ	eP*	21	15	32.4		−1.1	100	1.86	345			
	eS*		16	00		1.9	98					
MNG	Pn	21	15	43.3		1.4	99	2.63	190		4.2	
	iP*			47.9		1.3	99					
COB	ePn	21	16	01.2		0.6	100	4.00	219		4.3	
	eP*			09.0		−0.9	100					

AMPLITUDES: WNZ 1.5 1.2 WTZ 7.5 3.0 TUA 0.7
NGZ 12 CNZ 12 TNZ 0.5
GBZ 0.4 1.6 MNG 1.6 COB 0.3

SUMMARY OF ORIGIN AND MAGNITUDE DETERMINATIONS

STANDARD NETWORK

The following chronological list of origins of New Zealand earthquakes is a summary of the determinations presented earlier. The Reference Number given in the first column identifies the earthquake. The letter F following the magnitude indicates that the earthquake is known to have been felt. NUM OBS is the number of separate phase readings used, and NUM STN the number of stations at which the shock was read, whether the readings were used in the epicentral solution or not.

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
		h	m	s							
001 JAN	01	02	43	02.9	34.81 S	179.24 E	212	4.9	0.9	12	15
002	01	14	51	01.3	31.79 S	179.52 W	573	5.1	1.2	12	11
003	02	19	11	50.0	40.89 S	175.64 E	7	3.7	0.6	16	16
004	02	20	04	28.9	40.96 S	175.50 E	10	3.7	0.4	13	16
005	04	09	27	36.7	32.09 S	179.03 E	510	4.5	0.9	8	11
006	04	12	22	26.0	31.59 S	179.02 W	529	4.6	0.7	7	11
007	05	15	42	25.5	38.89 S	177.37 E	33 R	3.2	1.1	12	10
008	06	08	33	21.0	44.63 S	168.66 E	33 R	3.2	2.1	10	6
009	06	08	56	25.9	43.15 S	170.63 E	33 R	3.1 F	1.5	8	5
010	06	10	25	29.5	38.72 S	176.03 E	0 R	3.0	2.1	9	8
011	06	15	46	58.1	39.74 S	174.30 E	173	3.8	1.4	22	15
012	06	20	02	14.7	37.09 S	177.22 E	33 R	4.0	1.9	9	7
013	07	03	04	08.4	37.00 S	177.15 E	12 R	3.9	1.4	10	8
014	07	04	01	32.7	41.56 S	173.14 E	33 R	4.8F	1.6	21	15
015	07	10	37	13.2	38.88 S	175.68 E	131	3.9	1.4	19	11
016	07	11	29	42.8	32.96 S	178.83 W	328	5.2	1.7	12	9
017	07	15	02	43.5	39.23 S	175.16 E	12 R	4.1 F	0.8	16	14
018	08	09	43	39.2	38.63 S	176.08 E	0 R	3.4 F	1.0	9	10
019	08	09	44	32.0	38.63 S	176.08 E	0 R	F	ND	1	1
020	08	09	51	12.2	38.63 S	176.08 E	0 R	F	ND	1	1
021	08	16	45	57.6	34.01 S	178.58 W	273	4.5	1.4	10	7
022	08	23	36	15.4	38.63 S	176.08 E	0 R	F	ND	1	1
023	09	02	19	54.0	36.42 S	177.41 E	66	3.7	2.2	5	4
024	09	16	23	28.8	33.52 S	177.71 W	199	5.4	2.5	25	14
025	09	23	27	07.2	38.50 S	176.09 E	117	4.0	2.1	13	10
026	10	10	02	33.2	41.54 S	175.03 E	33 R	4.3 F	1.6	18	14
027	11	11	51	11.8	39.23 S	176.34 E	90	3.6	1.1	20	13
028	12	04	45	46.5	36.38 S	179.99 W	33 R	4.3	1.0	8	8
029	13	00	12	25.3	37.50 S	177.32 E	151	3.9	1.8	13	11
030	13	06	14	35.1	41.44 S	174.23 E	33 R	4.9 F	1.1	29	26
031	13	14	27	37.1	41.39 S	174.17 E	33 R	3.7F	0.9	16	16
032	15	10	21	49.2	38.40 S	175.78 E	191	4.2	1.4	20	15
033	15	15	51	03.2	37.33 S	176.96 E	12 R	4.2	1.6	12	10
034	15	19	36	17.1	40.14 S	174.92 E	12 R	3.7 F	1.5	17	9
035	17	13	53	20.8	37.68 S	176.34 E	12 R	4.1 F	1.3	14	11
036	17	23	09	36.4	38.22 S	176.54 E	12 R	3.4	0.3	4	3
037	18	08	12	07.5	36.85 S	178.71 E	12 R	4.5	1.3	20	14
038	18	10	10	19.3	40.26 S	176.65 E	33 R	4.3 F	1.2	28	17
039	19	04	32	55.8	43.25 S	171.88 E	12 R	4.2	0.6	24	7
040	19	15	03	35.5	37.62 S	176.33 E	12 R	3.3 F	0.2	4	2
041	19	18	38	45.4	38.48 S	177.79 E	12 R	3.3 F	1.5	13	5
042	20	08	30	38.8	39.49 S	175.67 E	21	3.7 F	1.0	13	7
043	20	11	20	51.7	34.30 S	178.63 W	304	4.4	1.1	11	6
044	20	17	43	07.4	33.31 S	179.75 W	33 R	4.5	1.3	9	6
045	21	00	45	03.1	33.66 S	177.37 W	33 R	4.5	0.9	6	3
046	21	06	59	48.4	38.37 S	175.73 E	205	4.1	1.0	15	8
047	21	11	29	33.8	38.73 S	175.65 E	127	3.8	1.3	12	6
048	22	00	20	38.0	45.08 S	170.33 E	12 R	4.1	0.9	15	7
049	23	14	52	51.5	39.20 S	174.98 E	12 R	3.7F	1.2	19	7
050	24	17	30	05.6	38.52 S	176.03 E	11	3.4 F	1.2	17	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
			h	m	s							
051	JAN	24	19	42	59.0	39.11 S	178.02 E	12 R	4.1	1.0	19	12
052		26	16	54	45.6	40.23 S	173.52 E	183	4.2	1.4	26	14
053		26	19	20	23.2	37.54 S	176.45 E	311	4.0	1.5	15	12
054		26	19	33	47.8	39.48 S	175.01 E	30	3.6 F	0.7	17	9
055		27	05	10	18.4	39.28 S	175.32 E	33 R	3.7 F	0.9	14	7
056		27	08	54	02.4	47.71 S	165.09 E	33 R	4.5	1.5	14	9
057		27	18	43	04.7	45.05 S	167.38 E	33 R	3.4	1.3	8	5
058		28	05	11	40.3	38.31 S	176.09 E	167	4.2	1.7	14	9
059		28	09	07	02.9	37.31 S	177.17 E	148	3.8	1.5	9	8
060		28	19	12	38.5	40.74 S	174.72 E	12 R	3.9 F	0.8	19	19
061		28	22	44	41.4	32.93 S	179.91 E	438	4.8	1.1	7	5
062		29	02	12	09.1	38.81 S	176.55 E	108	3.2	0.3	5	3
063		29	03	48	30.8	38.74 S	175.91 E	12 R	3.1 F	1.7	8	4
064		30	09	39	53.4	30.92 S	178.52 W	499	5.6	2.1	17	11
065		30	10	02	46.2	39.58 S	173.73 E	33 R	3.6	0.8	16	7
066		30	13	37	44.7	31.79 S	179.62 W	436	5.7	2.7	22	13
067		30	19	52	37.0	45.01 S	167.69 E	112	4.0	0.7	11	6
068		31	02	05	08.5	45.02 S	167.67 E	120	3.8	0.9	12	7
069		31	12	42	02.8	44.19 S	168.62 E	12 R	3.5	1.1	14	8
070		31	22	45	46.2	39.70 S	174.30 E	219	4.5	1.0	18	10
071	FEB	01	02	11	58.3	40.77 S	174.67 E	71	3.7 F	0.8	23	19
072		01	20	41	22.4	31.36 S	179.70 E	237	5.0	2.2	10	7
073		01	21	08	25.5	32.14 S	179.50 W	589	5.2	1.5	8	6
074		02	08	55	42.0	38.52 S	177.98 E	12 R	3.5 F	1.1	8	14
075		02	23	03	43.9	32.31 S	178.31 W	33 R	4.6	1.1	6	8
076		03	04	20	55.4	45.28 S	166.78 E	12 R	3.8	0.7	9	7
077		03	09	07	17.3	45.89 S	166.06 E	12 R	3.7	1.4	14	7
078		03	23	13	46.3	37.94 S	177.19 E	33 R	3.9	1.4	12	12
079		04	22	03	02.9	33.91 S	179.93 W	33 R	4.8	0.9	11	11
080		05	07	25	33.1	38.76 S	176.49 E	102	3.5	1.2	14	12
081		06	17	29	04.0	37.69 S	179.53 E	12 R	4.1	1.0	10	14
082		07	09	58	01.3	38.22 S	175.94 E	190	3.8	0.7	10	13
083		07	11	33	18.4	33.77 S	178.11 W	12 R	4.7	2.2	10	14
084		08	05	45	52.3	30.79 S	177.65 E	33 R	5.8	3.8	7	8
085		08	15	24	24.0	33.59 S	178.07 W	12 R	4.5	0.6	7	12
086		09	04	42	27.0	38.03 S	176.90 E	12 R	4.2 F	0.7	15	16
087		09	18	58	23.6	45.11 S	167.67 E	105	4.3	0.8	13	9
088		09	20	00	17.4	39.29 S	174.87 E	12 R	3.8	1.0	14	10
089		10	06	37	26.1	37.66 S	176.30 E	195	4.4	0.8	14	17
090		11	21	48	34.2	36.86 S	177.81 E	291	4.0	0.4	6	7
091		12	01	13	57.0	38.26 S	176.20 E	150	4.0	0.6	10	13
092		12	12	25	17.1	45.84 S	168.45 E	12 R	3.6	1.7	15	7
093		12	18	12	41.1	31.15 S	176.50 E	33 R	5.1	1.1	4	11
094		14	19	32	45.6	37.02 S	177.19 E	166	4.1	0.4	6	9
095		14	23	39	59.5	34.41 S	178.57 W	12 R	4.3	1.4	6	9
096		15	14	21	57.7	37.14 S	176.81 E	270	3.8	0.6	10	8
097		16	04	55	38.2	31.67 S	179.72 W	515	5.4	2.2	22	12
098		17	03	29	39.1	37.51 S	177.10 E	12 R	3.8	1.4	11	9
099		17	22	32	58.6	40.05 S	175.09 E	12 R	4.2 F	1.0	16	9
100		18	14	16	21.5	39.38 S	174.43 E	262	4.4	1.6	18	11

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
			h	m	s							
101	FEB	18	14	31	18.3	39.12 S	176.36 E	99	3.8	1.4	18	10
102		18	17	35	09.0	40.22 S	173.53 E	194	4.8 F	1.3	21	11
103		19	04	11	14.6	32.36 S	179.19 E	489	5.2	1.8	14	10
104		19	19	06	46.8	43.34 S	171.43 E	12 R	3.6	1.3	14	7
105		20	00	54	22.3	37.73 S	178.52 E	33 R	4.4	1.9	23	15
106		20	00	58	01.6	37.50 S	178.65 E	33 R	3.8	1.8	17	9
107		21	04	56	31.4	37.76 S	178.69 E	12 R	3.8	1.7	14	10
108		21	06	19	55.7	32.29 S	178.69 E	363	4.8	1.8	11	8
109		22	10	41	29.6	47.66 S	165.41 E	33 R	4.2	2.8	9	7
110		23	19	30	44.6	37.42 S	176.52 E	203	5.2 F	1.6	20	14
111		24	12	25	03.7	37.90 S	179.92 W	12 R	3.8	1.4	19	10
112		24	22	14	39.7	43.19 S	170.74 E	12 R	3.6	1.4	17	8
113		25	13	04	04.6	44.93 S	167.72 E	108	3.6	0.6	9	5
114		26	11	16	05.8	37.36 S	178.05 E	12 R	4.1	1.7	19	13
115		26	13	43	14.2	38.44 S	175.77 E	237	3.6	1.4	12	8
116		26	14	42	30.4	40.37 S	177.08 E	12 R	3.8	1.4	20	9
117		27	19	20	09.5	35.31 S	178.13 W	228	5.3	1.5	19	14
118		27	20	55	22.1	38.33 S	176.15 E	164	3.7	1.1	7	6
119		28	10	44	16.4	38.61 S	175.48 E	249	4.0	1.5	14	9
120		28	23	36	34.0	43.85 S	176.62 E	33 R	4.2	1.8	18	10
121	MAR	01	03	35	50.8	38.88 S	175.02 E	222	5.3 F	1.3	25	15
122		01	03	44	47.1	40.08 S	175.02 E	12 R	3.8	1.4	16	8
123		01	11	17	04.7	38.73 S	177.77 E	33	3.5	1.2	14	8
124		01	13	16	38.2	45.02 S	167.68 E	99	3.5	1.0	8	5
125		02	14	15	07.1	41.48 S	175.66 E	22	3.8	1.5	21	18
126		02	19	58	26.4	32.23 S	179.05 W	426	5.4	2.1	25	14
127		03	20	46	27.8	40.52 S	173.34 E	167	4.2	1.5	19	12
128		04	08	00	52.7	41.44 S	175.81 E	21	3.8	0.8	16	15
129		04	16	54	58.5	35.23 S	178.80 W	229	4.6	1.9	17	12
130		05	05	56	29.1	34.47 S	179.67 W	216	5.2	2.3	16	14
131		06	11	51	30.8	33.24 S	179.00 W	480	4.6	1.6	8	7
132		06	11	51	51.9	37.57 S	178.21 E	33 R	3.2	1.1	5	3
133		06	22	48	10.6	44.37 S	167.88 E	12 R	3.3	1.9	7	5
134		07	11	06	38.3	39.37 S	175.22 E	103	3.9	2.0	18	11
135		07	19	04	43.6	49.83 S	164.65 E	33 R	4.7	1.1	9	9
136		09	13	09	39.5	40.12 S	174.83 E	12 R	3.6	1.8	22	10
137		10	05	36	06.1	39.66 S	174.30 E	205	4.3	1.5	21	12
138		10	10	58	09.9	36.00 S	179.66 W	188	4.3	1.3	16	14
139		10	12	00	01.4	35.77 S	179.24 W	33 R	4.1	1.1	8	8
140		11	15	27	30.7	45.53 S	166.06 E	33 R	3.8	1.0	9	5
141		12	18	32	39.2	37.14 S	176.86 E	297	4.2	1.5	16	10
142		13	03	33	12.0	40.31 S	173.42 E	156	4.5	1.9	18	11
143		13	03	41	31.5	42.06 S	173.50 E	33 R	3.6	1.1	15	9
144		13	06	06	41.5	35.71 S	179.56 W	182	4.3	1.9	14	12
145		15	22	59	34.3	42.82 S	172.34 E	12 R	4.3	1.3	10	12
146		16	05	50	50.3	36.86 S	179.84 W	12 R	4.0	0.9	10	10
147		17	03	53	00.3	38.97 S	175.07 E	233	3.6	1.3	8	9
148		17	19	06	59.1	37.32 S	176.87 E	271	4.1	1.7	11	10
149		17	20	37	52.3	38.18 S	176.01 E	184	4.1	0.9	13	16
150		18	05	14	50.1	31.16 S	179.84 W	470	5.0	2.0	7	9

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
		h	m	s							
151	MAR 18	14	55	03.3	36.60 S	177.25 E	263	4.1	0.7	8	10
152	18	20	22	18.9	45.97 S	165.93 E	12 R	4.0	1.4	5	5
153	19	02	56	13.3	36.30 S	177.74 E	293	3.9	0.6	8	6
154	19	12	57	15.1	38.01 S	178.03 E	82	4.6	0.4	12	17
155	19	15	28	24.0	37.59 S	176.67 E	186	4.2	1.2	10	14
156	19	17	00	44.8	34.35 S	179.17 E	33 R	4.8	2.3	15	11
157	19	17	07	50.7	34.45 S	179.07 E	33 R	4.6	3.0	14	9
158	19	17	13	44.7	34.58 S	178.89 E	33 R	4.3	1.8	8	6
159	19	17	21	10.4	34.69 S	178.79 E	33 R	4.5	1.9	10	7
160	19	18	30	03.8	38.05 S	176.30 E	162	3.8	0.6	10	14
161	20	02	42	43.1	38.13 S	178.46 E	59	4.3	0.2	10	14
162	20	02	52	42.8	39.99 S	176.36 E	12 R	4.4	1.3	16	17
163	20	04	12	32.5	31.26 S	179.80 W	589	5.8	2.5	14	15
164	20	12	19	12.8	36.13 S	179.79 W	12 R	4.3	0.8	10	12
165	20	19	01	11.8	34.32 S	179.07 E	33 R	4.8	1.9	19	9
166	20	20	20	47.6	39.59 S	174.30 E	215	3.7	0.5	9	6
167	21	12	23	04.6	38.68 S	175.78 E	140	4.1	0.6	11	13
168	22	16	09	43.1	34.16 S	178.28 W	12 R	4.3	2.2	11	11
169	22	19	44	54.7	38.58 S	176.16 E	71	3.7	0.9	10	14
170	23	00	23	32.7	41.88 S	171.58 E	12 R	3.9F	0.8	11	11
171	23	17	59	10.1	33.76 S	179.26 E	33 R	4.6	1.9	8	12
172	24	02	31	27.9	34.02 S	178.86 E	33 R	4.5	1.6	6	9
173	24	12	09	35.9	36.44 S	177.63 E	276	3.7	0.9	6	8
174	24	17	31	25.4	37.40 S	179.16 E	12 R	4.0	0.9	10	15
175	24	21	06	50.5	41.94 S	171.63 E	12 R	5.6F	0.8	12	21
176	24	21	58	39.0	42.01 S	171.84 E	12 R	2.8	0.8	7	5
177	24	22	47	27.6	42.03 S	171.85 E	12 R	2.8	0.7	7	5
178	24	23	15	20.1	42.00 S	171.80 E	12 R	2.4	0.3	2	2
179	25	02	44	11.2	38.01 S	179.28 E	33 R	3.7	0.9	11	10
180	26	10	00	37.9	34.29 S	179.28 E	12 R	4.4	1.0	12	15
181	26	10	06	40.2	34.36 S	179.09 E	12 R	4.2	1.3	8	9
182	27	19	48	42.5	45.31 S	167.02 E	12 R	4.4F	0.8	11	13
183	28	16	28	15.5	38.89 S	175.97 E	4	3.3	0.2	7	12
184	28	16	44	51.2	34.72 S	179.97 E	12 R	4.6	1.2	11	16
185	29	00	54	11.0	37.94 S	176.60 E	160	4.7	1.0	18	18
186	29	11	31	24.3	49.75 S	164.12 E	12 R	4.2	1.1	6	5
187	29	13	16	22.3	39.64 S	175.39 E	12 R	3.8F	0.6	9	15
188	29	14	51	06.9	49.59 S	164.70 E	12 R	4.3	1.4	7	5
189	29	16	33	59.3	30.40 S	178.91 E	33 R	6.5	2.9	11	12
190	29	18	21	10.2	49.75 S	164.34 E	12 R	5.2	1.5	8	10
191	29	23	37	08.5	36.95 S	179.99 E	12 R	4.3	1.1	12	12
192	30	05	23	49.9	42.42 S	171.88 E	12 R	3.8	1.0	16	10
193	31	01	33	16.7	33.71 S	179.30 W	256	4.9	2.2	12	8
194	APR 01	04	10	40.4	39.15 S	174.78 E	207	3.9	1.3	16	9
195	01	14	49	07.5	35.71 S	179.61 W	200	4.4	1.6	18	13
196	01	17	07	38.6	36.40 S	178.62 E	231	3.9	1.0	12	8
197	02	19	46	53.8	45.06 S	167.67 E	128	3.8	1.2	10	6
198	02	20	30	24.8	46.21 S	166.90 E	12 R	3.3F	1.5	7	4
199	02	22	19	55.2	35.60 S	179.62 W	33 R	4.1	1.2	10	8
200	04	21	19	01.1	40.99 S	176.01 E	18	3.2	1.4	11	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
		h	m	s							
201	APR 05	10	39	04.4	39.25 S	175.29 E	32	3.4 F	0.7	15	9
202	05	12	54	10.5	41.02 S	176.19 E	33 R	3.5	1.9	12	11
203	05	23	18	15.6	37.15 S	177.88 E	100	3.7	1.7	15	10
204	06	14	10	55.0	29.94 S	179.11 W	281	4.8	1.9	13	10
205	06	21	58	18.1	38.40 S	176.20 E	153	3.9	1.9	11	10
206	07	02	16	50.9	42.02 S	171.90 E	12 R	4.3 F	1.6	13	10
207	07	13	36	18.3	38.91 S	177.93 E	33 R	4.7 F	1.3	22	16
208	08	07	55	28.7	36.91 S	179.96 W	171	4.3	1.6	16	12
209	08	12	55	41.8	37.07 S	177.32 E	210	4.1	1.7	18	10
210	08	14	35	50.8	41.95 S	173.34 E	12 R	3.5 F	1.4	16	8
211	09	00	20	56.8	33.20 S	177.60 W	33 R	5.0	2.3	13	11
212	09	00	59	33.7	33.32 S	178.40 W	33 R	4.8	1.4	12	12
213	09	02	47	26.8	42.47 S	172.93 E	12 R	3.9	1.4	18	8
214	09	03	27	38.7	33.14 S	177.91 W	33 R	4.8	2.5	12	12
215	09	08	10	30.4	32.49 S	179.75 W	33 R	4.4	3.3	8	8
216	09	11	02	57.0	32.61 S	179.16 W	33 R	4.4	2.7	11	8
217	09	19	54	19.9	33.55 S	178.61 W	331	4.6	0.9	7	5
218	10	05	10	57.0	37.22 S	178.40 E	131	5.1	1.4	26	19
219	10	14	25	30.6	38.34 S	177.17 E	33 R	4.5	1.1	21	16
220	10	19	38	39.1	41.11 S	174.49 E	41	4.8 F	1.0	21	21
221	10	22	04	24.0	40.42 S	176.45 E	12 R	3.2	1.5	10	6
222	10	22	26	53.2	41.02 S	174.41 E	33 R	3.5	0.5	12	13
223	11	09	51	40.7	46.48 S	166.37 E	12 R	3.9	0.9	10	5
224	11	11	48	22.1	38.31 S	176.14 E	154	3.7	1.8	14	8
225	12	19	17	27.0	41.68 S	171.98 E	12 R	3.6 F	1.6	10	9
226	12	19	54	25.4	37.85 S	176.30 E	223	4.6	1.7	24	16
227	13	10	16	19.1	38.33 S	176.92 E	12 R	4.0 F	1.5	22	12
228	13	12	39	50.2	38.95 S	175.19 E	107	3.6	1.1	14	10
229	14	12	35	28.6	33.29 S	178.32 W	351	5.0	2.3	18	14
230	14	20	22	51.4	43.60 S	171.21 E	12 R	3.5	1.5	17	8
231	15	09	01	56.5	38.26 S	176.20 E	159	3.8	1.4	15	9
232	15	15	33	09.5	38.23 S	176.11 E	161	3.6	1.2	14	9
233	15	18	09	00.8	33.85 S	179.28 W	285	5.2	1.3	23	14
234	16	00	28	03.3	32.76 S	179.44 W	559	4.8	1.2	12	10
235	16	09	24	41.2	37.64 S	177.03 E	159	4.1	1.7	19	14
236	16	20	07	55.9	35.07 S	178.26 E	249	4.5	1.7	18	12
237	16	21	18	42.1	33.26 S	179.00 W	289	4.8	1.8	22	15
238	17	09	50	21.4	37.27 S	177.23 E	158	3.9	1.5	17	12
239	17	13	17	46.9	37.71 S	179.41 W	12 R	4.0	1.5	17	11
240	17	18	55	44.6	37.69 S	179.70 W	12 R	4.2	1.6	21	13
241	17	19	08	37.7	37.72 S	179.62 W	12 R	4.0	1.7	18	12
242	18	12	55	12.5	43.81 S	169.00 E	12 R	3.3	0.8	12	6
243	18	13	37	03.4	43.83 S	169.05 E	12 R	3.5	1.3	15	8
244	18	13	53	26.7	44.45 S	167.77 E	12 R	3.7	1.5	13	7
245	18	17	12	57.3	43.66 S	170.72 E	12 R	3.4	1.2	14	7
246	19	16	27	14.4	37.75 S	176.87 E	12 R	4.2 F	1.4	21	14
247	19	18	01	09.8	37.70 S	176.93 E	12 R	5.1 F	1.5	23	15
248	19	21	11	24.3	37.67 S	176.87 E	12 R	3.3	1.8	12	7
249	19	22	55	53.4	37.76 S	177.82 E	12 R	3.5	1.4	10	6
250	20	02	01	01.0	38.60 S	176.00 E	12 R	2.6 F	2.6	2	2

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
			h	m s							
251	APR 20	02	26	45.5	38.60 S	176.00 E	12 R	F	0.3	2	1
252	20	13	48	00.3	37.53 S	176.82 E	12 R	3.6	2.0	10	6
253	21	02	58	12.0	40.16 S	174.90 E	12	4.2 F	1.5	22	10
254	21	02	59	11.7	40.19 S	174.98 E	12 R	3.8	1.4	11	6
255	21	07	16	14.3	32.68 S	179.95 W	394	4.8	1.0	10	8
256	21	09	13	11.4	38.75 S	176.00 E	12 R	F	ND	1	1
257	21	11	56	14.7	39.30 S	176.86 E	12 R	3.4	1.6	13	7
258	21	16	07	13.7	33.04 S	178.42 W	227	4.7	2.8	14	12
259	21	22	25	13.8	32.39 S	178.45 E	354	4.6	2.0	7	5
260	22	12	14	19.2	37.80 S	176.83 E	172	3.9	1.4	15	8
261	22	19	44	23.2	39.35 S	177.40 E	12 R	5.1 F	1.4	26	16
262	23	03	26	57.3	37.70 S	176.94 E	12 R	4.5	1.5	20	12
263	23	12	03	05.6	44.53 S	168.55 E	33 R	3.8	1.5	14	8
264	23	18	05	16.7	42.16 S	173.93 E	12 R	3.9	1.5	15	10
265	24	00	27	42.5	37.56 S	176.86 E	12 R	3.7	1.4	14	9
266	24	13	48	31.2	41.88 S	173.04 E	12 R	3.8	1.4	15	8
267	26	01	50	55.2	36.90 S	179.31 E	12 R	4.8	1.3	19	13
268	27	02	10	53.9	37.23 S	177.17 E	187	4.2	1.1	10	10
269	28	13	34	03.1	31.87 S	178.05 W	33 R	4.8	1.7	14	13
270	28	13	46	35.5	50.55 S	166.57 E	12 R	4.6	2.3	8	7
271	28	13	57	26.2	32.34 S	179.60 E	318	4.7	1.1	11	10
272	28	15	16	32.2	37.19 S	179.53 W	33 R	3.9	1.4	10	12
273	28	20	47	34.9	44.57 S	168.13 E	12 R	3.6 F	1.5	8	5
274	28	22	52	27.2	41.33 S	172.56 E	201	3.8	1.4	11	13
275	MAY 01	00	19	48.4	37.73 S	176.02 E	185	3.7	1.4	5	10
276	01	17	26	22.9	37.64 S	176.34 E	204	3.9	0.9	6	9
277	02	08	32	03.8	44.56 S	177.10 E	33 R	4.1	1.2	15	15
278	02	18	16	12.0	30.85 S	177.11 W	33 R	5.9 F	1.7	9	14
279	02	20	35	22.6	36.95 S	176.70 E	274	4.0	2.0	6	6
280	03	02	30	22.6	35.10 S	179.32 W	12 R	5.1	0.6	10	15
281	03	09	27	30.3	38.89 S	177.71 E	33 R	4.7 F	1.4	13	18
282	03	21	18	03.0	32.22 S	177.46 W	33 R	5.5	1.9	9	15
283	04	01	42	28.4	37.88 S	176.40 E	210	3.7	1.6	8	8
284	04	21	05	52.0	39.19 S	175.24 E	12 R	4.3 F	1.1	14	18
285	04	23	38	57.4	41.19 S	173.77 E	33 R	3.8	0.8	13	17
286	05	02	25	09.9	37.22 S	177.83 E	33 R	4.9	1.4	11	17
287	07	01	04	55.3	36.71 S	177.69 E	199	4.6	1.7	12	13
288	08	02	50	08.0	34.67 S	179.71 E	12 R	4.3	1.0	7	14
289	08	03	47	15.2	38.97 S	175.83 E	12 R	3.1 F	0.7	11	6
290	08	07	18	37.5	38.94 S	175.80 E	12 R	3.0 F	1.2	13	7
291	10	01	12	42.4	38.98 S	175.67 E	12 R	F	0.2	4	2
292	10	01	28	57.3	38.96 S	175.56 E	12 R	F	0.6	4	2
293	10	05	24	10.8	31.18 S	176.51 E	33 R	5.1	3.7	8	7
294	10	13	16	32.8	38.13 S	176.25 E	150	4.3	0.9	14	14
295	10	14	11	43.1	31.23 S	178.17 W	33 R	4.4	3.3	9	9
296	10	14	13	43.5	39.01 S	176.05 E	12 R	3.1	1.0	11	6
297	11	08	32	11.6	37.95 S	176.15 E	199	4.5	1.6	15	10
298	12	12	07	38.0	37.27 S	177.76 E	33 R	3.9	1.0	13	9
299	13	23	07	07.5	38.00 S	176.16 E	193	4.9	1.0	19	15
300	15	09	51	30.2	37.66 S	178.11 E	12 R	3.7	1.5	8	5

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
		h	m	s							
301	MAY 15	14	49	13.5	45.00 S	167.69 E	104	5.5 F	0.8	13	14
302	16	10	45	15.6	44.65 S	169.57 E	12	3.4	0.5	20	12
303	17	07	13	14.7	45.44 S	167.37 E	12 R	3.7	1.0	17	9
304	17	08	32	03.1	38.85 S	175.22 E	221	3.7	1.0	12	10
305	17	16	53	46.9	35.67 S	179.91 E	12 R	4.9	0.8	14	14
306	18	07	00	19.5	39.64 S	174.66 E	78	3.3	0.7	15	8
307	18	08	41	18.0	42.60 S	173.05 E	33 R	3.7	1.0	22	13
308	18	18	04	56.9	43.03 S	171.01 E	12 R	2.7 F	1.0	13	8
309	19	03	53	19.2	44.33 S	168.87 E	12 R	3.1 F	0.4	15	10
310	19	04	47	16.4	36.45 S	176.87 E	33 R	4.8	0.5	11	10
311	19	17	56	44.4	38.01 S	176.32 E	185	3.8	1.4	15	9
312	19	22	51	23.0	38.37 S	175.80 E	193	4.2	1.4	14	9
313	20	09	47	27.2	41.64 S	171.95 E	12 R	3.1 F	0.8	14	8
314	20	14	39	11.4	32.66 S	178.46 W	280	4.7	1.3	10	8
315	21	15	05	25.2	50.41 S	165.41 E	33 R	4.2	1.1	11	8
316	21	17	22	15.7	45.11 S	167.59 E	92	3.3	0.7	16	9
317	22	04	58	54.3	37.08 S	179.49 E	33 R	4.1	0.5	9	8
318	22	07	32	40.5	44.95 S	167.69 E	70	3.4	0.5	15	9
319	22	11	47	47.8	36.28 S	177.78 E	269	4.3	1.1	9	6
320	22	13	25	44.4	40.16 S	174.18 E	33 R	3.4	0.3	9	8
321	22	19	58	21.4	45.19 S	167.48 E	78	3.9	0.4	13	9
322	23	20	36	29.7	45.17 S	167.57 E	12 R	3.4	0.8	12	8
323	24	23	20	36.3	50.12 S	163.78 E	33 R	4.5	1.3	11	9
324	26	13	47	06.5	37.66 S	176.86 E	174	4.6	1.7	16	10
325	26	17	46	14.4	32.09 S	179.91 E	446	5.1	1.9	17	12
326	27	15	22	42.9	40.14 S	174.96 E	12 R	3.7	1.4	11	7
327	28	22	48	37.7	39.13 S	175.53 E	12	3.8	1.4	10	5
328	30	08	48	59.0	37.97 S	178.80 E	12 R	4.6	1.3	21	12
329	30	08	54	37.3	37.95 S	179.00 E	12 R	4.3	1.7	14	10
330	30	09	27	10.0	39.26 S	175.19 E	12 R	3.6	0.9	11	7
331	31	00	25	34.3	38.31 S	177.33 E	12 R	3.6	1.6	13	10
332	31	07	39	01.4	37.98 S	178.91 E	12 R	3.9	1.5	17	8
333	31	13	49	12.1	38.23 S	176.31 E	163	4.8	1.4	21	15
334	JUN 01	03	05	43.0	37.62 S	176.95 E	136	3.9	1.4	16	11
335	01	19	12	38.9	36.00 S	179.87 E	187	4.9	1.4	19	11
336	01	23	41	40.7	45.11 S	165.59 E	12 R	5.3 F	1.1	13	8
337	02	01	02	48.8	42.88 S	171.66 E	12 R	3.5	1.5	15	7
338	04	01	28	23.4	50.09 S	164.69 E	33 R	4.9	1.2	13	8
339	04	07	16	42.7	37.60 S	179.94 W	12 R	4.2	1.2	16	11
340	04	10	54	52.2	38.13 S	177.05 E	116	3.7	1.6	18	11
341	04	17	53	11.1	41.06 S	173.78 E	33 R	3.8	1.1	18	9
342	05	12	58	14.0	39.20 S	175.04 E	12 R	4.4 F	1.3	18	9
343	06	11	38	42.4	37.29 S	176.69 E	232	3.9	1.6	14	9
344	08	03	59	04.4	44.11 S	168.02 E	12 R	4.4	1.8	12	11
345	08	05	08	36.2	39.75 S	174.21 E	161	4.6 F	0.4	11	20
346	08	19	08	26.8	41.92 S	171.53 E	12 R	3.7 F	1.1	13	11
347	08	21	31	43.8	44.10 S	168.30 E	33 R	4.1	1.5	13	10
348	09	00	38	56.2	39.11 S	175.38 E	12 R	3.5 F	0.7	14	9
349	09	19	07	32.9	46.25 S	167.08 E	12 R	3.5	1.4	10	6
350	13	16	33	26.3	36.75 S	177.02 E	229	3.9	1.4	6	8

REF NUM		ORIGIN TIME	h	m	s	LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
351	JUN	13	19	16	29.5	41.99 S	174.16 E	12 R	4.4 F	0.7	10	20
352		14	19	01	42.2	39.52 S	174.12 E	197	4.3	1.4	15	14
353		15	04	48	48.3	40.55 S	176.69 E	12 R	4.6 F	0.9	17	21
354		15	09	47	30.0	33.42 S	177.76 W	33 R	4.9	1.8	9	13
355		15	14	52	53.2	39.63 S	175.58 E	12 R	3.1 F	1.1	18	10
356		16	15	52	57.1	33.28 S	177.87 W	12 R	4.5	1.4	8	11
357		17	14	15	39.1	39.50 S	174.89 E	137	5.7 F	0.8	14	23
358		18	13	30	10.0	41.27 S	172.70 E	210	4.0	0.8	12	13
359		18	22	30	55.9	32.65 S	179.73 W	33 R	4.4	2.1	4	7
360		19	02	27	59.3	38.47 S	175.78 E	200	3.7	1.2	9	8
361		19	06	46	19.4	34.84 S	179.09 E	232	4.5	1.1	8	12
362		19	16	13	52.6	31.78 S	179.96 W	12 R	5.1	1.9	7	8
363		20	02	10	11.0	38.11 S	176.20 E	163	3.4	0.2	7	9
364		20	05	16	53.3	36.64 S	178.03 E	33 R	3.7	0.9	7	13
365		20	05	47	10.6	38.30 S	175.50 E	226	3.7	1.5	6	7
366		20	07	45	19.7	42.69 S	172.74 E	12 R	4.6 F	1.3	14	18
367		21	06	18	17.7	37.41 S	176.52 E	226	3.9	1.5	15	15
368		23	15	08	14.7	46.76 S	165.52 E	33 R	4.9	1.3	14	12
369		23	16	18	59.5	47.29 S	165.66 E	33 R	4.1	1.3	7	7
370		24	02	17	49.4	37.50 S	176.63 E	217	4.0	1.6	20	12
371		24	07	11	44.1	31.95 S	179.93 E	538	5.7	1.9	18	12
372		24	20	58	48.4	37.70 S	176.55 E	205	4.2	1.5	19	12
373		25	06	33	18.3	38.91 S	175.36 E	132	3.8	1.5	16	14
374		25	09	02	28.5	38.45 S	175.56 E	186	4.0	1.2	17	11
375		26	02	43	44.0	42.01 S	174.03 E	18	3.7	1.5	16	9
376		26	21	59	04.8	39.27 S	177.77 E	53	3.8	1.6	19	12
377		28	11	46	04.3	39.24 S	175.04 E	12 R	3.8 F	0.8	12	9
378		28	19	42	46.8	38.72 S	177.76 E	33 R	4.1	1.3	16	13
379		28	22	37	07.7	41.08 S	172.63 E	7	3.7	1.0	13	8
380		29	03	44	41.4	34.92 S	179.52 E	334	4.6	0.9	12	11
381		29	06	40	59.7	38.25 S	176.13 E	186	4.1	1.2	18	12
382		29	06	45	41.5	39.73 S	175.58 E	12 R	3.4 F	0.5	12	7
383		29	06	55	51.1	39.99 S	175.67 E	63	3.2	0.6	13	8
384		29	20	50	08.1	37.82 S	177.42 E	136	4.4	1.6	20	14
385		30	03	32	07.2	40.12 S	173.55 E	176	4.5	1.8	21	13
386		30	10	32	16.8	31.63 S	179.70 W	521	5.2	1.8	16	9
387		30	20	30	00.9	31.95 S	179.23 E	484	5.2	1.7	12	8
388	JUL	01	11	52	16.6	37.33 S	176.88 E	273	4.4	1.3	12	8
389		01	15	24	54.3	39.64 S	175.06 E	12 R	3.7 F	0.9	11	8
390		03	15	00	24.9	38.59 S	176.64 E	33 R	3.9	1.3	22	12
391		03	17	02	03.4	41.32 S	172.67 E	209	4.4	1.7	25	14
392		03	23	54	07.1	39.69 S	175.35 E	12 R	3.2	1.0	20	11
393		04	01	20	46.4	31.45 S	179.01 W	328	5.2	2.2	15	13
394		04	05	02	06.5	37.40 S	178.11 E	33 R	3.9	0.9	15	13
395		04	06	09	32.9	34.29 S	179.59 W	266	4.8	1.4	19	14
396		05	00	52	29.9	38.85 S	175.84 E	141	3.9	1.4	12	7
397		05	20	34	01.4	39.39 S	175.08 E	12 R	3.7	0.8	15	8
398		06	07	58	37.4	41.76 S	174.05 E	33 R	4.2 F	1.3	11	10
399		07	10	54	27.5	32.98 S	179.66 W	428	4.6	1.4	16	11
400		09	12	21	42.0	41.59 S	174.97 E	33 R	3.8	1.4	17	12

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
			h	m	s							
401	JUL	09	13	35	33.4	37.77 S	179.13 E	33 R	3.3	1.5	12	7
402		09	20	20	36.6	40.85 S	173.26 E	33 R	3.7	1.5	16	11
403		10	09	24	02.3	44.99 S	167.65 E	107	3.2	0.8	9	6
404		10	10	28	16.7	45.00 S	167.67 E	99	3.1	1.3	7	6
405		10	19	40	26.2	45.00 S	167.66 E	92	3.2	1.0	11	6
406		10	19	59	03.4	37.67 S	176.22 E	236	3.9	1.6	15	10
407		11	20	53	29.1	36.07 S	178.61 E	285	4.0	1.8	7	5
408		12	09	05	32.4	38.70 S	176.11 E	12 R	2.8	0.4	5	4
409		12	15	56	28.8	43.12 S	171.94 E	33 R	3.6	1.3	19	9
410		12	18	04	38.7	39.64 S	174.01 E	231	4.0	1.3	20	16
411		12	23	22	37.5	44.44 S	167.90 E	12 R	3.2	1.6	10	5
412		13	04	51	06.0	38.17 S	176.00 E	173	3.7	1.5	11	8
413		13	10	36	52.7	39.24 S	175.24 E	12 R	3.9F	1.5	18	10
414		13	13	52	02.1	38.47 S	176.69 E	12 R	3.5	1.5	22	11
415		14	23	39	14.1	39.52 S	174.28 E	191	4.4	1.2	19	11
416		16	23	59	18.4	38.06 S	176.59 E	158	3.8	1.0	15	10
417		17	06	04	04.0	45.07 S	167.68 E	120	3.6	0.5	11	6
418		18	01	43	58.8	40.50 S	174.34 E	12 R	3.9	1.3	16	8
419		18	04	31	51.0	33.41 S	179.57 E	345	4.7	1.9	12	8
420		18	08	38	27.3	37.69 S	179.50 W	33 R	4.4	1.5	20	12
421		19	02	38	47.1	38.08 S	176.25 E	187	3.9	1.5	16	11
422		19	08	20	30.9	31.48 S	179.93 W	528	5.6	1.6	23	13
423		20	08	00	20.1	38.29 S	175.73 E	194	4.3	0.6	16	14
424		20	09	55	55.0	37.72 S	175.66 E	277	3.7	0.7	11	7
425		20	21	35	42.2	32.97 S	178.59 W	33 R	5.4	2.8	13	17
426		21	08	40	30.5	36.76 S	177.44 E	225	4.0	1.0	8	11
427		21	17	11	47.7	40.42 S	174.07 E	12 R	3.6	0.8	12	13
428		25	17	13	01.1	39.24 S	175.18 E	12 R	3.5F	1.3	14	10
429		26	11	01	48.9	37.21 S	177.82 E	12 R	4.2	1.4	13	18
430		26	23	26	43.4	35.26 S	178.47 E	269	4.4	2.3	9	9
431		27	14	21	09.9	45.45 S	169.40 E	12 R	3.3	1.2	11	7
432		27	17	25	11.6	51.00 S	162.77 E	12 R	4.6	0.7	6	6
433		28	15	50	32.5	38.63 S	178.08 E	56	3.9	2.1	13	15
434		29	11	33	27.7	40.39 S	176.30 E	71	3.6	1.0	9	14
435		30	16	38	01.6	37.87 S	176.65 E	150	4.0	1.1	13	14
436		30	20	40	18.0	37.64 S	179.13 W	33 R	3.8	1.8	9	10
437		31	03	31	49.1	38.67 S	175.69 E	156	3.9	0.6	9	11
438		31	07	36	15.0	31.60 S	178.91 E	483	4.8	1.5	11	10
439	AUG	02	01	48	09.6	39.26 S	174.65 E	212	4.7	1.2	15	15
440		03	17	07	27.8	34.67 S	179.23 W	417	4.7	1.7	18	11
441		03	22	20	08.5	31.40 S	178.74 E	211	4.6	2.1	8	5
442		04	04	33	54.1	44.99 S	167.22 E	56	4.1F	0.9	12	8
443		04	08	00	51.0	40.71 S	174.17 E	33 R	3.6	1.1	14	11
444		04	09	51	59.4	45.11 S	167.72 E	126	4.2	1.6	13	8
445		04	11	21	48.6	37.49 S	175.88 E	276	4.0	1.2	13	8
446		05	06	41	06.7	38.89 S	176.22 E	121	4.2	1.5	19	15
447		05	14	05	34.0	38.31 S	176.46 E	120	3.5	2.1	10	10
448		05	20	06	57.1	38.37 S	176.11 E	164	3.8	1.4	19	15
449		06	15	34	40.1	45.30 S	167.33 E	78	3.9	1.0	10	8
450		06	18	15	34.5	37.67 S	179.35 E	133	4.8	1.5	26	20

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
			h	m s							
451	AUG 07	07	02	14.7	39.20 S	175.22 E	33 R	4.0F	1.3	11	13
452	09	02	30	12.7	39.40 S	175.22 E	113	4.0	0.9	21	13
453	09	04	31	27.0	33.81 S	179.31 W	233	4.6	1.1	14	11
454	09	06	31	00.7	37.64 S	177.53 E	33 R	3.8	1.7	16	13
455	09	08	00	28.6	38.89 S	175.89 E	12 R	3.7	1.0	19	13
456	09	10	58	55.5	39.26 S	175.30 E	33 R	3.3F	0.5	11	8
457	10	00	22	26.8	42.95 S	171.23 E	33 R	3.5	1.2	14	6
458	10	06	14	03.2	35.33 S	178.36 E	321	4.3	0.6	12	8
459	10	16	29	28.3	40.13 S	175.00 E	33 R	3.2	1.3	14	8
460	11	00	20	03.0	32.53 S	176.94 W	602	4.6	2.2	9	6
461	11	05	14	36.7	52.12 S	161.32 E	33 R	5.6	1.5	20	17
462	11	06	22	42.9	39.22 S	173.73 E	12 R	3.7	1.0	12	8
463	11	06	49	44.2	52.15 S	161.45 E	33 R	4.9	1.7	10	7
464	11	16	31	37.4	37.93 S	178.11 E	83	4.1	1.4	19	14
465	12	02	24	04.2	32.56 S	179.73 E	402	4.4	1.2	9	6
466	12	08	43	34.7	39.54 S	176.57 E	81	3.8	1.0	21	12
467	12	16	50	19.1	33.62 S	178.71 W	277	4.4	2.0	11	7
468	12	18	13	29.7	45.16 S	167.03 E	12 R	3.7	1.3	17	7
469	13	14	14	24.8	45.22 S	166.37 E	33 R	4.1	1.3	11	6
470	13	18	10	09.3	38.57 S	175.88 E	12 R	3.1	1.3	12	9
471	13	23	03	06.0	41.29 S	174.92 E	28	3.1 F	0.2	13	13
472	14	05	51	42.4	44.79 S	167.28 E	12 R	4.5	1.7	13	9
473	15	00	11	28.2	45.01 S	166.82 E	12 R	3.7	1.0	11	6
474	15	08	15	00.1	37.85 S	176.36 E	198	4.2	1.1	20	12
475	15	18	11	24.2	38.15 S	176.14 E	199	4.1	1.1	18	11
476	16	02	35	17.7	38.56 S	175.86 E	12 R	2.3	0.9	5	3
477	16	08	51	04.6	31.57 S	178.15 W	444	4.9	1.0	13	9
478	16	15	33	00.5	38.06 S	176.30 E	190	4.7	1.4	22	16
479	17	03	22	01.2	32.33 S	177.98 W	374	4.7	2.5	10	10
480	17	09	17	34.3	37.30 S	177.39 E	166	4.3	1.3	19	12
481	17	11	15	13.3	40.13 S	174.39 E	121	4.1	1.4	24	14
482	17	12	29	39.8	39.52 S	175.73 E	33 R	3.7	1.4	24	11
483	17	13	31	54.8	46.33 S	165.52 E	33 R	4.1	1.3	18	7
484	18	06	03	51.6	39.02 S	174.87 E	207	4.0	1.2	20	12
485	18	10	09	25.9	31.17 S	178.52 W	269	4.7	2.4	11	11
486	19	00	09	02.2	40.19 S	176.80 E	12 R	3.5	1.4	18	10
487	19	05	44	19.8	30.80 S	179.87 E	157	4.8	2.2	9	7
488	19	08	03	11.2	38.58 S	175.67 E	182	4.2	1.3	21	11
489	19	12	07	47.6	39.18 S	174.65 E	12 R	3.8	1.5	15	8
490	19	23	05	58.7	34.58 S	179.56 W	224	5.8	1.4	25	16
491	19	23	40	14.1	34.54 S	179.63 W	229	6.0	1.5	24	16
492	20	03	16	05.0	38.50 S	175.80 E	171	4.1	1.6	21	12
493	20	17	23	46.0	33.94 S	179.20 E	348	4.5	1.8	14	11
494	20	18	00	30.7	39.09 S	174.82 E	221	4.2	1.3	21	14
495	20	20	58	23.2	38.71 S	175.14 E	225	4.3	2.0	12	7
496	20	22	06	56.6	32.84 S	179.02 E	271	4.9	1.8	12	10
497	22	02	30	34.2	37.13 S	177.56 E	12 R	4.6	1.8	28	18
498	22	05	03	00.9	32.20 S	179.30 W	497	5.1	1.8	13	9
499	22	11	09	33.8	40.92 S	175.51 E	0	3.7F	1.3	15	7
500	22	18	46	34.5	38.94 S	177.25 E	33 R	4.3F	1.6	20	12

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
		h	m	s							
501	AUG 23	17	48	49.9	33.69 S	179.62 E	263	4.8	2.0	12	10
502	24	02	01	08.6	35.98 S	179.51 E	221	4.5	1.4	15	13
503	25	22	48	25.0	37.65 S	176.24 E	318	4.4	1.6	15	9
504	26	10	31	48.4	41.33 S	173.51 E	33 R	5.3 F	1.7	32	22
505	26	10	35	56.6	41.39 S	173.54 E	33 R	4.7 F	1.6	35	19
506	26	20	35	30.7	39.33 S	175.25 E	12 R	4.2 F	1.5	20	13
507	27	18	54	04.0	39.33 S	175.73 E	12	3.7 F	1.0	13	6
508	27	20	14	39.3	42.30 S	172.98 E	12 R	4.8 F	1.3	29	20
509	28	17	29	50.7	38.70 S	176.00 E	12 R	F	1.0	2	1
510	29	07	58	47.8	37.64 S	176.39 E	302	4.0	1.5	11	7
511	29	11	25	42.4	34.28 S	178.95 E	261	4.7	1.9	15	10
512	29	19	15	08.2	33.07 S	178.30 W	33 R	5.0	2.1	19	12
513	30	15	12	13.8	37.08 S	177.03 E	213	4.2	1.6	21	13
514	30	23	46	16.4	45.24 S	167.65 E	130	4.4	0.6	14	9
515	31	08	17	04.1	37.86 S	176.67 E	146	3.9	1.0	14	14
516	SEP 01	01	36	40.1	39.78 S	177.52 E	12 R	4.0	1.3	16	17
517	01	17	33	27.5	40.10 S	176.88 E	33 R	3.3 F	1.2	11	13
518	01	21	43	47.3	37.76 S	176.91 E	176	5.3	0.8	17	24
519	01	22	32	22.4	40.91 S	172.74 E	4	3.7 F	1.1	15	15
520	02	08	39	28.9	38.67 S	176.49 E	12 R	3.0 F	0.4	11	9
521	02	09	47	10.1	39.80 S	177.44 E	12 R	3.9	1.2	18	15
522	03	07	17	09.0	41.38 S	174.36 E	83	5.1 F	1.5	19	20
523	04	06	22	22.4	39.58 S	173.44 E	12 R	3.8 F	1.1	12	8
524	04	10	11	22.1	51.73 S	163.24 E	12 R	4.4	1.2	6	7
525	04	22	00	47.4	40.13 S	174.99 E	12 R	3.3	0.9	15	8
526	06	16	36	18.9	31.81 S	178.86 W	469	4.5	1.5	9	9
527	07	05	31	32.4	37.11 S	177.22 E	192	4.9	0.8	15	18
528	07	14	05	39.1	38.18 S	176.07 E	172	3.7	1.2	12	10
529	07	16	01	02.6	37.75 S	176.62 E	12 R	2.9	1.2	8	5
530	07	16	30	47.4	37.77 S	176.62 E	12 R	3.6 F	1.5	11	12
531	08	07	08	00.6	32.53 S	178.19 W	33 R	5.0	1.5	13	14
532	09	05	52	29.4	34.67 S	178.46 W	33 R	4.6	1.5	11	11
533	09	15	14	20.8	38.22 S	176.17 E	162	4.3	1.4	19	17
534	10	07	33	44.8	35.22 S	178.87 W	12 R	4.0	1.9	10	11
535	10	08	12	49.3	36.94 S	176.83 E	239	3.7	1.0	8	6
536	10	14	18	30.3	35.17 S	178.64 W	12 R	4.4	1.6	12	13
537	11	07	46	10.0	31.84 S	178.80 W	334	5.1	1.7	9	12
538	11	12	30	45.5	40.43 S	173.71 E	117	3.7	0.3	9	12
539	11	20	39	45.5	46.17 S	166.35 E	12 R	3.9	1.2	11	7
540	11	23	07	01.4	38.66 S	175.87 E	158	4.1	1.5	14	13
541	12	00	01	26.9	45.19 S	166.96 E	12 R	4.2	1.3	10	10
542	12	00	03	49.1	45.16 S	166.86 E	12 R	4.3	1.3	11	11
543	12	03	45	22.7	42.22 S	172.66 E	12 R	5.1 F	1.5	11	20
544	12	09	16	39.6	30.70 S	177.60 W	33 R	4.7	1.7	6	9
545	13	04	53	44.7	39.29 S	178.50 E	12 R	4.2	1.3	13	14
546	13	05	15	29.1	39.27 S	178.45 E	12 R	4.3 F	1.1	12	15
547	13	06	56	47.6	38.62 S	177.26 E	27	4.0 F	0.7	15	15
548	13	11	40	39.1	39.36 S	174.93 E	141	3.8	1.7	10	12
549	14	05	00	09.5	39.00 S	176.70 E	33 R	3.3 F	0.9	15	7
550	15	05	38	34.6	33.12 S	179.81 E	293	4.7	0.6	8	5

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
			h	m	s							
551	SEP	15	13	30	43.8	37.96 S	175.38 E	251	3.8	0.9	8	5
552		18	01	17	48.1	38.15 S	176.04 E	195	3.7	1.2	9	6
553		18	14	57	58.1	37.32 S	176.72 E	254	4.6	1.4	16	10
554		18	15	29	39.3	39.07 S	177.64 E	33 R	2.8 F	1.8	8	4
555		18	17	36	40.3	38.26 S	176.78 E	33 R	3.5	1.3	16	9
556		18	21	11	01.2	38.87 S	175.53 E	167	4.0	1.3	17	14
557		19	21	32	08.9	39.45 S	175.64 E	12 R	3.1	1.1	12	7
558		20	04	41	34.5	39.97 S	174.54 E	140	3.9 F	2.4	14	13
559		20	17	36	21.5	42.42 S	173.05 E	33 R	4.7 F	1.4	31	18
560		21	09	32	19.7	44.42 S	167.85 E	12 R	4.2	1.0	12	7
561		21	11	54	45.9	34.35 S	177.73 W	188	5.4	1.6	15	11
562		21	23	11	26.4	36.70 S	177.45 E	293	4.2	1.6	10	6
563		22	03	29	16.2	38.34 S	175.75 E	184	4.0	1.1	18	10
564		22	21	01	33.6	38.93 S	175.98 E	12 R	3.7	1.7	14	9
565		22	23	15	16.4	39.61 S	176.95 E	33 R	4.6F	1.2	21	13
566		23	09	07	02.5	38.10 S	176.85 E	5	3.6 F	1.3	12	9
567		23	14	19	17.2	37.49 S	176.36 E	193	4.0	1.2	14	9
568		23	16	06	06.7	36.59 S	177.57 E	208	4.0	1.2	12	8
569		26	04	31	21.3	33.46 S	178.69 W	333	4.7	1.2	14	9
570		27	22	14	26.1	37.52 S	177.20 E	162	3.6	1.5	11	9
571		29	10	14	48.1	40.13 S	175.11 E	105	3.8 F	1.2	13	9
572		29	20	22	25.3	40.98 S	175.28 E	12 R	3.9 F	1.3	26	22
573		30	01	00	39.2	38.46 S	175.77 E	172	4.2	1.5	14	9
574		30	03	35	18.5	38.73 S	175.24 E	229	4.1	1.4	15	9
575		30	07	51	48.3	40.22 S	173.41 E	157	4.0	0.8	10	8
576	OCT	01	00	54	22.2	45.41 S	166.87 E	12 R	3.4	1.3	9	7
577		01	03	05	15.5	40.18 S	176.45 E	33 R	4.2 F	0.7	17	11
578		01	03	26	41.1	37.25 S	176.91 E	198	4.3	1.3	11	7
579		01	17	49	59.2	45.13 s	166.67 E	15	4.4	0.4	11	12
580		01	19	18	09.2	45.24 S	166.86 E	12 R	3.5	0.7	10	7
581		01	19	32	13.4	45.36 S	166.59 E	33 R	3.6	0.8	10	7
582		02	01	20	34.9	44.10 S	168.85 E	12 R	3.4	0.6	15	10
583		02	16	32	46.3	44.87 S	168.53 E	33 R	2.9	1.2	16	10
584		02	18	08	46.6	46.08 S	167.00 E	106	4.0	0.6	17	10
585		03	02	07	47.0	38.31 S	176.18 E	159	3.6	1.1	10	8
586		03	14	07	44.0	39.80 S	173.65 E	33 R	3.7	1.3	11	9
587		03	21	27	02.3	41.13 S	174.58 E	33 R	3.3	0.4	15	13
588		04	08	46	02.1	45.06 S	167.67 E	98	4.0	0.5	16	9
589		04	18	57	27.9	40.41 S	176.39 E	12 R	3.4	1.2	10	8
590		05	03	06	20.7	40.34 S	174.30 E	33 R	3.9	0.7	15	13
591		05	08	50	31.3	39.23 S	178.64 E	33 R	3.8	1.1	13	10
592		05	17	02	09.9	40.25 S	176.66 E	70	3.4	0.8	13	11
593		05	17	52	30.3	39.15 S	175.14 E	12 R	3.6	0.7	18	9
594		05	19	17	12.3	44.75 S	167.57 E	126	3.3	0.7	10	7
595		05	20	06	30.4	37.25 S	177.01 E	225	4.0	0.7	7	4
596		06	06	52	45.9	43.56 S	170.65 E	6	3.4	1.0	15	12
597		06	15	15	03.8	44.99 S	167.58 E	103	3.4	0.5	13	8
598		06	17	36	32.3	45.38 S	167.56 E	119	3.4	0.9	13	8
599		07	05	30	17.5	37.85 S	177.83 E	33 R	3.4	1.3	10	7
600		07	07	33	22.5	44.86 S	167.83 E	78	3.4	0.3	12	8

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
			h	m	s							
601	OCT	07	12	42	28.6	39.33 S	174.54 E	245	3.8	0.6	14	12
602		08	03	03	02.4	44.88 S	167.88 E	75	3.3	0.3	12	7
603		10	06	55	51.0	38.12 S	176.81 E	5 R	3.5	1.0	8	6
604		10	09	53	21.0	40.61 S	173.76 E	31	3.9	0.9	18	14
605		10	11	11	08.9	36.68 S	177.96 E	256	4.0	0.9	9	8
606		10	22	14	47.0	38.20 S	177.74 E	33 R	4.4	0.7	15	15
607		11	08	12	35.0	45.04 S	168.45 E	12 R	3.3	1.5	9	7
608		11	09	25	59.5	37.31 S	177.31 E	306	4.2	0.5	10	8
609		12	05	31	00.8	38.17 S	176.82 E	12 R	3.8	1.3	17	8
610		12	05	43	21.0	34.14 S	178.47 W	320	4.9	0.8	7	6
611		12	05	45	31.8	38.04 S	176.97 E	12 R	4.1	1.6	16	10
612		12	07	22	35.3	46.27 S	166.00 E	12 R	3.7	1.5	17	6
613		12	10	25	22.1	46.70 S	166.03 E	12 R	6.5 F	1.2	16	17
614		12	10	30	10.6	46.50 S	166.00 E	12 R	4.7	1.1	3	2
615		12	10	32	07.9	46.70 S	165.80 E	12 R	4.7	1.6	3	2
616		12	10	37	35.9	46.80 S	166.32 E	12 R	4.6	2.3	7	4
617		12	10	38	06.3	47.00 S	165.80 E	12 R	4.7	1.6	3	3
618		12	10	39	38.3	46.80 S	165.60 E	12 R	3.9	1.1	2	2
619		12	10	44	58.3	46.76 S	165.74 E	12 R	4.0	3.3	4	3
620		12	10	46	03.7	46.30 S	165.58 E	12 R	4.9	1.9	6	4
621		12	10	50	36.8	47.00 S	166.33 E	12 R	4.5	2.4	7	4
622		12	10	52	35.9	46.72 S	166.54 E	12 R	4.4	1.9	9	4
623		12	10	56	15.7	46.52 S	165.67 E	12 R	5.1 F	1.6	12	8
624		12	11	04	30.1	46.69 S	166.19 E	12 R	4.1	0.8	9	5
625		12	11	08	05.4	46.67 S	165.85 E	12 R	4.2	1.2	7	3
626		12	11	13	02.2	46.72 S	165.73 E	12 R	5.0 F	0.7	6	4
627		12	11	22	37.1	47.02 S	165.60 E	12 R	3.9	2.1	6	3
628		12	11	24	34.2	46.79 S	165.49 E	12 R	4.3	1.9	8	4
629		12	11	30	40.2	46.62 S	165.41 E	12 R	3.8	2.4	6	4
630		12	11	32	38.2	46.80 S	165.72 E	12 R	3.7	1.6	6	4
631		12	11	35	07.0	46.34 S	166.01 E	12 R	4.1	1.8	7	4
632		12	11	43	13.5	47.15 S	166.05 E	12 R	3.7	0.9	7	4
633		12	11	47	23.5	46.51 S	165.95 E	12 R	4.3	2.3	11	4
634		12	11	48	59.2	46.95 S	165.93 E	12 R	4.0	0.4	5	3
635		12	12	04	53.5	46.73 S	165.81 E	12 R	4.5	1.2	10	5
636		12	12	08	11.9	46.84 S	166.35 E	12 R	3.7	1.1	6	4
637		12	12	11	46.2	46.67 S	166.06 E	12 R	3.6	2.3	6	3
638		12	12	15	04.0	46.84 S	165.85 E	12 R	3.9	2.0	8	3
639		12	12	42	35.4	46.59 S	165.95 E	12 R	4.4	1.5	9	5
640		12	12	51	34.3	46.52 S	166.55 E	12 R	3.5	0.8	8	4
641		12	12	56	41.7	46.49 S	166.73 E	12 R	4.1	1.5	11	5
642		12	13	35	19.1	46.76 S	165.64 E	12 R	5.6 F	1.6	12	7
643		12	13	47	02.0	46.55 S	165.55 E	12 R	4.4	1.7	10	5
644		12	13	48	28.4	47.20 S	165.63 E	12 R	4.2	1.1	5	3
645		12	13	53	51.6	46.79 S	165.42 E	12 R	4.2	1.4	12	5
646		12	14	01	01.7	46.36 S	166.27 E	12 R	4.6	1.9	16	6
647		12	14	11	27.5	46.70 S	166.03 E	12 R	3.6	1.3	8	4
648		12	14	21	32.2	46.93 S	165.94 E	12 R	3.9	2.5	6	4
649		12	14	27	45.9	46.59 S	166.12 E	12 R	4.4	1.5	13	6
650		12	14	36	44.5	46.60 S	166.35 E	12 R	3.6	1.5	8	5

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
			h	m	s						
651	OCT 12	14	56	07.8	46.72 S	165.37 E	12 R	3.7	1.2	8	4
652	12	15	49	16.7	46.54 S	166.30 E	12 R	3.6	1.6	10	5
653	12	15	53	05.8	46.77 S	165.73 E	12 R	3.8	1.5	7	4
654	12	15	55	22.3	46.75 S	165.99 E	12 R	5.1	1.2	14	6
655	12	16	28	25.3	47.26 S	165.41 E	12 R	3.7	1.0	7	4
656	12	16	36	20.6	46.46 S	165.68 E	12 R	4.3	2.0	12	6
657	12	16	41	15.0	46.76 S	165.82 E	12 R	3.9	1.9	10	5
658	12	16	46	31.5	46.62 S	166.06 E	12 R	3.6	1.2	7	5
659	12	17	15	52.3	46.65 S	166.34 E	12 R	3.5	1.6	11	5
660	12	17	38	57.1	46.80 S	165.70 E	12 R	3.7	1.2	9	4
661	12	17	39	54.8	46.67 S	166.18 E	12 R	3.9	1.7	8	5
662	12	17	42	22.4	46.75 S	165.92 E	12 R	3.6	1.0	8	5
663	12	17	44	44.8	46.55 S	165.32 E	12 R	4.5	1.9	15	6
664	12	17	52	57.8	46.41 S	166.00 E	12 R	4.8	1.5	15	6
665	12	18	28	05.4	45.46 S	166.45 E	12 R	3.7	1.8	11	5
666	12	18	31	55.4	37.43 S	177.32 E	12 R	4.1	1.4	21	9
667	12	19	25	45.0	37.67 S	176.90 E	12 R	3.4	1.6	9	5
668	12	19	57	05.6	46.60 S	166.01 E	12 R	3.6	0.7	7	4
669	12	19	57	37.8	46.58 S	166.06 E	12 R	4.0	1.2	6	4
670	12	20	07	35.6	46.71 S	166.11 E	12 R	4.7	1.2	13	6
671	12	21	33	48.6	46.71 S	165.79 E	12 R	3.8	1.4	10	5
672	12	22	20	39.6	46.44 S	165.76 E	12 R	4.1	1.8	9	5
673	12	22	20	46.6	46.54 S	165.73 E	12 R	4.1	2.1	7	3
674	12	22	21	51.1	46.80 S	166.18 E	12 R	3.7	0.4	4	3
675	13	02	21	05.1	46.67 S	165.25 E	12 R	4.1	1.2	9	6
676	13	02	27	34.5	46.63 S	165.75 E	12 R	4.5	1.8	10	6
677	13	02	30	38.1	46.65 S	165.05 E	12 R	4.7	1.4	12	7
678	13	04	38	06.8	46.94 S	165.70 E	12 R	4.2	1.3	13	6
679	13	06	13	20.8	46.83 S	165.23 E	12 R	4.2	1.5	13	6
680	13	06	54	55.6	46.50 S	166.31 E	12 R	4.2	1.9	11	5
681	13	07	10	49.8	46.84 S	165.77 E	12 R	4.2	1.7	7	5
682	13	08	10	43.5	46.47 S	165.59 E	12 R	4.1	1.5	11	6
683	13	08	23	45.5	46.54 S	165.40 E	12 R	4.1	1.1	12	6
684	13	08	24	45.2	46.61 S	165.55 E	12 R	4.1	1.9	9	6
685	13	11	08	58.8	46.61 S	165.93 E	12 R	3.9	1.3	12	6
686	13	13	28	09.7	44.48 S	166.78 E	12 R	5.0	1.2	17	8
687	13	13	39	43.5	46.66 S	165.66 E	12 R	3.9	1.9	10	5
688	13	14	40	51.8	46.78 S	165.59 E	12 R	3.9	2.3	10	5
689	13	14	56	58.8	46.98 S	166.01 E	12 R	3.8	1.8	11	5
690	13	19	14	32.7	46.90 S	165.62 E	12 R	3.8	1.7	11	5
691	13	19	38	44.8	46.43 S	165.66 E	12 R	4.4	1.2	15	7
692	13	20	05	54.2	46.79 S	165.19 E	12 R	3.9	0.9	6	5
693	13	21	55	15.6	46.79 S	165.25 E	12 R	4.0	1.1	11	6
694	14	01	29	59.2	46.64 S	165.76 E	12 R	3.8	1.8	11	6
695	14	01	41	41.8	46.75 S	165.31 E	12 R	4.0	2.0	11	6
696	14	02	27	13.6	47.08 S	165.47 E	12 R	3.9	1.4	12	6
697	14	03	39	12.9	46.78 S	165.63 E	12 R	4.1	1.7	12	7
698	14	03	48	56.4	46.72 S	165.65 E	12 R	4.3	1.2	11	7
699	14	04	13	39.6	46.59 S	165.33 E	12 R	4.5	1.3	17	8
700	14	04	18	45.7	46.60 S	165.13 E	12 R	4.3	1.3	13	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
		h	m	s							
701	OCT 14	05	36	04.7	46.51 S	165.97 E	12 R	3.7	1.6	14	6
702	14	06	43	54.2	46.91 S	166.17 E	12 R	3.9	1.8	9	6
703	14	06	44	53.3	46.85 S	165.87 E	12 R	4.2	1.6	11	6
704	14	07	20	58.3	41.33 S	174.67 E	32	3.9 F	1.5	13	12
705	14	08	49	48.5	46.78 S	165.27 E	12 R	4.1	1.8	14	6
706	14	09	38	31.9	46.96 S	165.81 E	12 R	3.7	0.7	7	4
707	14	11	54	37.5	46.79 S	165.57 E	12 R	4.0	1.3	13	6
708	14	13	03	01.4	46.50 S	165.84 E	12 R	3.9	1.4	10	6
709	14	16	05	27.9	46.38 S	165.74 E	12 R	3.8	1.4	13	6
710	14	18	30	08.9	46.58 S	166.17 E	12 R	3.6	1.9	9	6
711	14	21	35	55.2	46.70 S	165.88 E	12 R	3.9	1.4	11	6
712	14	22	27	48.2	46.30 S	165.77 E	12 R	4.4 F	1.5	20	7
713	15	01	23	13.3	46.80 S	165.99 E	12 R	4.1	1.3	15	6
714	15	04	00	53.6	47.06 S	166.01 E	12 R	3.6	1.6	10	6
715	15	06	18	23.3	38.11 S	176.02 E	12 R	3.6 F	1.3	11	7
716	15	13	51	43.2	37.23 S	179.26 E	121	4.9	1.9	23	15
717	15	16	26	54.2	40.93 S	175.60 E	0	3.8 F	1.2	18	11
718	15	16	28	45.7	46.95 S	165.74 E	12 R	4.7	1.1	13	7
719	15	22	00	05.2	32.84 S	179.88 E	33 R	4.3	2.3	5	5
720	16	03	18	30.9	45.60 S	166.60 E	12 R	4.4	1.3	12	6
721	16	04	33	29.2	46.74 S	166.35 E	12 R	3.7	1.1	6	4
722	16	07	41	34.3	46.91 S	165.68 E	12 R	3.9	1.7	10	6
723	16	20	12	28.1	46.84 S	165.53 E	12 R	3.9	1.8	12	6
724	16	20	24	52.5	46.83 S	165.17 E	12 R	3.9	1.7	11	6
725	17	03	17	03.5	46.97 S	165.95 E	12 R	4.1	1.8	12	6
726	17	07	16	52.7	38.31 S	176.98 E	33 R	5.1 F	1.4	27	16
727	18	05	08	16.0	46.98 S	165.25 E	12 R	4.2	1.6	17	7
728	18	23	22	47.3	46.98 S	165.98 E	12 R	3.9	1.4	13	6
729	19	09	12	42.9	46.82 S	165.43 E	12 R	3.9	1.3	11	6
730	19	10	32	35.4	47.45 S	166.49 E	12 R	3.7	1.2	7	6
731	19	13	24	38.3	39.72 S	177.76 E	12 R	4.0	1.7	14	8
732	19	15	08	40.3	46.74 S	165.47 E	12 R	3.8	1.9	13	6
733	20	05	04	04.3	47.03 S	165.07 E	12 R	3.8	1.7	15	5
734	20	12	24	15.4	37.36 S	176.97 E	216	3.8	2.0	10	7
735	20	14	12	26.6	45.29 S	166.81 E	12 R	5.0 F	1.7	18	10
736	20	17	37	34.5	38.07 S	178.04 E	12 R	3.5	1.1	7	6
737	20	19	26	28.6	37.66 S	176.78 E	12 R	3.7	1.3	10	7
738	20	23	51	33.2	46.51 S	166.56 E	12 R	4.7	1.6	19	11
739	21	00	37	40.7	46.85 S	165.65 E	12 R	4.0	1.3	13	6
740	21	01	48	59.5	36.70 S	177.55 E	252	4.9	1.0	17	12
741	21	20	06	03.8	46.48 S	165.41 E	12 R	4.3	1.8	19	7
742	21	21	42	09.0	37.10 S	179.59 W	12 R	4.5	1.8	16	9
743	21	22	16	46.5	46.00 S	165.95 E	12 R	3.9	1.4	13	6
744	21	22	19	03.0	46.77 S	165.31 E	12 R	4.7	0.6	16	8
745	21	23	11	48.9	46.72 S	165.94 E	12 R	3.7	1.2	10	6
746	22	06	27	35.9	46.35 S	165.51 E	12 R	3.9	1.3	17	5
747	22	07	15	58.5	46.36 S	165.61 E	12 R	3.7	1.7	14	5
748	22	11	50	47.4	45.28 S	166.59 E	12 R	3.7	1.0	14	6
749	22	12	27	17.1	46.89 S	165.68 E	12 R	4.2	2.0	17	7
750	24	06	10	26.1	41.65 S	173.64 E	78	4.3 F	1.9	38	29

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
		h	m	s							
751	OCT 24	11	23	36.6	46.92 S	165.23 E	12 R	4.0	1.4	14	6
752	24	11	16	25.9	46.61 S	165.68 E	12 R	3.9	1.3	17	6
753	24	11	58	04.9	46.32 S	166.43 E	12 R	5.4	1.7	18	11
754	24	12	00	30.7	47.00 S	166.00 E	12 R	4.0	1.4	2	1
755	24	12	05	39.1	46.57 S	165.77 E	12 R	3.8	1.0	11	5
756	24	12	20	23.8	46.42 S	165.55 E	12 R	4.7	1.4	13	5
757	24	12	34	56.6	46.79 S	165.28 E	12 R	4.0	1.9	10	5
758	24	14	21	17.7	46.31 S	165.95 E	12 R	3.8	1.7	12	5
759	24	18	16	08.7	46.28 S	165.93 E	12 R	4.2	1.3	18	6
760	24	18	27	36.2	46.60 S	165.47 E	12 R	4.5	1.4	16	6
761	24	20	27	54.2	46.44 S	166.28 E	12 R	3.6	1.2	12	5
762	25	02	12	53.5	46.41 S	166.02 E	12 R	5.1	1.2	15	9
763	25	02	15	12.4	46.32 S	166.08 E	12 R	3.5	1.4	5	4
764	25	02	24	14.7	46.42 S	165.82 E	12 R	3.6	1.3	13	5
765	25	03	39	48.1	46.31 S	165.96 E	12 R	3.7	1.6	12	5
766	25	04	25	08.9	46.57 S	165.60 E	12 R	3.8	1.5	14	5
767	25	08	54	46.6	46.27 S	166.15 E	12 R	3.6	1.3	9	4
768	25	15	46	27.5	46.52 S	165.62 E	12 R	3.8	1.4	12	5
769	25	15	54	44.7	46.42 S	166.34 E	12 R	3.8	1.4	11	5
770	26	01	06	38.1	37.15 S	177.70 E	33 R	4.8	1.5	21	14
771	26	01	10	25.8	33.36 S	179.49 W	376	5.0	1.8	11	8
772	26	07	04	53.2	33.60 S	179.34 W	273	4.6	1.9	15	10
773	26	17	45	56.7	31.01 S	176.89 W	420	5.0	1.9	10	9
774	26	17	50	20.6	40.25 S	179.03 E	33 R	3.9	1.6	10	9
775	27	11	58	36.3	34.18 S	178.99 W	375	4.9	2.6	12	10
776	27	19	10	36.9	37.27 S	176.82 E	274	4.5	1.5	15	11
777	27	19	15	13.4	38.13 S	175.96 E	220	4.5	1.3	16	12
778	27	19	43	44.1	31.23 S	179.78 W	534	5.1	1.8	10	7
779	27	22	52	09.1	41.26 S	175.05 E	22	3.1 F	0.4	12	9
780	28	02	49	05.2	46.66 S	165.44 E	12 R	3.9	1.9	14	6
781	28	12	00	48.3	46.01 S	165.91 E	12 R	3.9	1.5	14	5
782	28	15	05	33.6	46.01 S	165.89 E	12 R	4.3	1.3	17	6
783	28	15	22	20.3	46.20 S	165.85 E	12 R	4.0	1.8	14	5
784	28	17	35	50.5	46.97 S	165.04 E	12 R	4.0	2.3	11	5
785	28	18	41	38.2	37.13 S	177.79 E	182	5.3	1.2	18	19
786	29	02	01	11.8	46.53 S	165.84 E	12 R	3.7	1.5	11	5
787	29	08	41	51.6	45.18 S	167.53 E	120	4.1	0.9	12	6
788	29	08	56	55.9	38.29 S	179.04 W	33 R	5.4	1.2	18	19
789	29	10	35	52.4	46.16 S	166.31 E	12 R	3.9	1.4	16	6
790	29	16	51	29.3	46.04 S	166.26 E	12 R	4.6	1.3	17	6
791	29	16	55	04.2	46.08 S	166.29 E	12 R	4.1	1.5	16	5
792	29	16	59	50.3	36.78 S	177.48 E	284	4.4	1.2	16	10
793	29	17	01	22.2	46.10 S	165.95 E	12 R	4.1	1.5	16	5
794	29	17	09	53.6	46.10 S	166.38 E	12 R	3.9	1.3	11	5
795	30	12	39	21.1	39.72 S	176.94 E	33 R	3.3	0.9	11	9
796	30	16	21	17.1	46.56 S	166.09 E	12 R	4.1	1.4	10	5
797	30	17	23	35.7	46.32 S	165.36 E	12 R	4.2	1.8	15	5
798	31	05	07	48.9	40.54 S	175.05 E	96	4.4 F	1.4	19	16
799	31	14	08	47.8	46.21 S	166.27 E	12 R	3.6	2.0	16	6
800	31	14	45	36.9	45.27 S	165.74 E	33 R	3.7	0.8	12	6

REF NUM	ORIGIN TIME h m s	LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
801 NOV	01 05 28 19.3	40.06 S	173.72 E	175	4.3	1.6	25	15
802	01 08 21 01.2	46.65 S	165.79 E	12 R	3.9	1.8	12	6
803	01 09 32 21.7	38.08 S	175.80 E	302	5.6 F	0.6	23	24
804	01 09 59 55.5	36.89 S	176.25 E	12 R	3.3	0.9	5	4
805	01 13 40 12.4	38.01 S	176.66 E	12 R	4.1 F	1.5	12	9
806	01 18 11 07.8	46.84 S	165.04 E	12 R	3.9	1.9	10	5
807	01 19 07 45.8	33.91 S	178.39 W	33 R	4.6	2.4	18	15
808	02 01 22 24.5	38.10 S	178.02 E	69	3.8	1.7	12	8
809	02 13 28 28.1	46.02 S	166.14 E	12 R	4.8	1.5	21	8
810	02 15 28 30.3	38.86 S	175.73 E	132	4.0	1.4	17	9
811	02 20 57 19.3	38.48 S	175.91 E	165	4.0	1.7	17	11
812	03 12 56 50.7	46.77 S	165.69 E	12 R	4.9	1.8	28	10
813	04 06 11 28.6	34.04 S	178.26 W	222	5.0	1.8	19	13
814	04 21 15 46.1	36.71 S	177.55 E	33 R	3.9	0.8	13	7
815	05 10 17 31.9	46.73 S	166.04 E	12 R	4.1	1.2	12	6
816	05 14 06 53.1	46.74 S	165.48 E	12 R	4.0	1.1	8	5
817	05 14 55 19.5	34.42 S	178.21 W	33 R	4.5	0.8	10	6
818	05 22 33 06.1	37.88 S	177.77 E	33 R	4.0	1.3	10	8
819	06 04 36 11.1	47.30 S	165.34 E	12 R	4.4	2.0	8	5
820	06 08 04 57.6	38.59 S	178.56 W	33 R	4.0	0.6	7	5
821	07 01 00 41.8	38.97 S	179.30 E	33 R	3.8	1.3	15	8
822	08 15 56 45.8	32.92 S	179.91 W	502	6.3 F	1.4	29	17
823	09 10 39 24.0	46.82 S	165.46 E	110	4.1	0.8	9	5
824	09 15 50 09.8	46.12 S	165.91 E	12 R	4.0	1.8	19	6
825	09 17 43 20.7	38.60 S	175.74 E	162	3.9	1.6	15	11
826	10 17 34 33.3	36.96 S	177.65 E	216	4.0	1.7	9	6
827	10 22 24 36.8	45.06 S	167.83 E	5 R	3.2	1.4	11	5
828	11 00 51 54.0	40.08 S	176.94 E	33 R	4.1 F	1.1	22	12
829	11 12 50 34.3	37.75 S	178.21 E	110	3.8	1.5	12	8
830	12 06 51 36.1	35.61 S	178.78 E	403	4.7	2.0	14	10
831	13 07 40 16.4	38.14 S	176.60 E	12 R	3.3 F	1.3	8	6
832	13 14 01 25.7	47.00 S	165.26 E	33 R	3.9	0.4	5	4
833	14 17 21 03.9	44.90 S	166.64 E	12 R	3.9	1.1	9	7
834	14 22 58 36.9	38.67 S	176.17 E	5 R	2.8 F	0.8	6	6
835	15 12 27 51.8	38.57 S	176.13 E	5 R	3.0	1.4	14	11
836	15 23 19 01.4	44.65 S	166.88 E	12 R	3.8	1.5	14	6
837	16 01 36 32.5	38.42 S	175.76 E	218	4.4	1.1	19	14
838	16 04 22 08.4	44.62 S	166.88 E	12 R	3.3	1.4	9	5
839	16 19 43 21.0	43.54 S	167.87 E	12 R	3.7	1.8	6	7
840	17 06 29 39.6	38.04 S	176.53 E	163	4.0	1.3	18	13
841	17 12 09 42.9	33.79 S	179.02 W	307	4.5	1.7	12	7
842	18 09 57 24.6	37.25 S	177.41 E	156	3.9	1.5	11	9
843	18 15 21 05.5	41.03 S	174.54 E	33 R	3.5 F	0.3	14	17
844	18 18 53 46.4	47.41 S	165.18 E	33 R	4.2	1.0	9	7
845	18 22 41 37.3	38.66 S	175.62 E	166	4.2	1.5	23	14
846	20 04 30 24.7	41.07 S	174.34 E	105	5.2 F	1.8	34	30
847	20 12 08 04.2	40.52 S	174.49 E	51	3.3	0.8	15	14
848	21 09 08 20.9	34.97 S	179.93 E	33 R	4.9	1.1	15	12
849	21 17 06 03.3	46.62 S	165.74 E	12 R	4.0	1.5	10	6
850	21 19 23 53.8	31.67 S	179.27 W	570	5.0	1.0	11	8

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
		h	m	s							
851	NOV 22	06	27	43.1	46.52 S	166.10 E	12 R	4.1	1.7	11	6
852	22	11	43	33.1	39.12 S	175.14 E	33 R	2.7	1.1	11	5
853	24	20	24	54.7	42.94 S	170.97 E	21	3.3 F	1.3	13	9
854	24	21	57	14.3	46.63 S	165.61 E	12 R	4.2	1.3	10	9
855	25	10	18	55.9	45.30 S	166.70 E	12 R	3.7	1.2	12	7
856	25	13	02	13.4	45.29 S	166.72 E	12 R	3.6	0.9	12	7
857	26	11	36	16.6	32.59 S	178.95 W	33 R	4.8	1.7	10	11
858	26	15	43	13.1	35.82 S	178.01 E	244	5.2	0.8	16	16
859	27	15	56	22.2	49.72 S	164.31 E	12 R	5.1	1.7	11	11
860	27	17	32	38.6	49.92 S	165.08 E	12 R	4.3	1.8	8	8
861	28	10	07	41.7	38.97 S	178.01 E	33 R	4.2 F	1.1	7	15
862	28	13	50	18.8	37.82 S	176.65 E	149	3.8	0.4	11	10
863	28	15	36	08.8	36.64 S	177.72 E	155	4.5	1.0	12	14
864	29	15	55	10.6	37.50 S	176.45 E	231	3.9	0.6	6	10
865	DEC 01	10	56	53.4	47.13 S	165.72 E	12 R	3.9	0.9	8	7
866	02	11	30	06.3	45.01 S	167.83 E	12	4.7	1.1	14	16
867	03	14	39	27.1	37.85 S	177.44 E	33 R	4.1	1.0	13	15
868	03	16	22	17.4	34.68 S	179.43 E	33 R	4.8	1.2	13	14
869	04	15	22	21.1	42.08 S	174.02 E	74	3.9	1.0	11	21
870	05	07	38	50.1	38.04 S	176.51 E	153	4.5	0.7	16	17
871	05	11	36	46.9	37.75 S	176.31 E	225	4.2	0.8	13	12
872	05	14	00	39.4	32.07 S	179.25 W	33 R	5.0	1.8	10	14
873	05	22	06	24.1	33.16 S	177.91 W	12 R	4.8	0.9	9	12
874	06	04	01	56.8	38.35 S	176.04 E	169	4.0	1.6	11	9
875	06	07	12	58.4	33.10 S	177.99 W	12 R	4.3	2.4	6	8
876	06	11	47	29.3	37.38 S	179.83 E	12 R	4.6	1.5	13	17
877	06	23	11	04.5	31.37 S	179.23 W	405	4.8	1.7	5	4
878	07	05	29	36.2	36.65 S	178.62 E	169	3.7	0.7	7	4
879	07	12	32	22.6	38.66 S	175.81 E	150	3.8	1.4	12	7
880	08	12	48	27.9	45.17 S	167.43 E	92	3.8	0.6	11	6
881	09	02	54	54.4	38.78 S	175.72 E	129	3.8	1.0	9	6
882	09	07	42	05.3	39.49 S	173.37 E	33 R	3.6	0.9	12	5
883	09	08	40	37.0	38.70 S	175.79 E	144	3.6	1.4	10	6
884	09	10	43	24.8	38.02 S	176.71 E	157	4.4	1.1	12	8
885	10	05	09	08.6	39.55 S	174.51 E	208	3.9	1.4	13	8
886	10	06	28	46.0	39.51 S	173.46 E	33 R	4.0	0.8	13	6
887	10	10	54	02.4	47.27 S	165.85 E	12 R	4.2	1.5	9	6
888	10	11	26	31.1	45.14 S	167.65 E	117	3.7	0.9	12	6
889	10	11	50	28.8	46.85 S	165.88 E	12 R	4.1	0.8	9	5
890	10	23	23	57.9	33.43 S	178.34 W	247	4.4	1.1	5	4
891	10	23	33	17.6	33.40 S	178.35 W	250 R	4.1	2.0	3	3
892	11	06	52	27.0	33.95 S	179.03 W	240	4.4	1.2	7	6
893	11	08	11	01.4	42.14 S	173.11 E	12 R	4.3	0.8	20	10
894	11	08	39	33.8	42.14 S	173.10 E	12 R	4.1	1.1	20	10
895	11	09	17	36.6	42.14 S	173.10 E	12 R	3.8	1.0	16	9
896	11	21	21	04.3	37.54 S	177.43 E	12 R	3.7	1.0	8	4
897	12	17	15	05.4	40.24 S	174.25 E	12 R	4.0	1.1	13	7
898	13	08	05	47.6	36.72 S	179.20 E	178	4.7	1.1	12	12
899	13	14	14	50.3	45.05 S	167.54 E	87	4.0	0.6	11	6
900	14	05	01	46.4	33.07 S	178.19 W	33 R	5.0	1.7	9	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
			h	m	s							
901	DEC	15	07	32	31.0	35.95 S	179.14 W	33 R	4.5	1.5	13	9
902		15	14	26	11.3	36.28 S	178.16 E	271	4.2	1.3	8	5
903		16	12	29	29.0	38.12 S	176.22 E	170	3.7	0.9	12	8
904		17	06	12	18.2	44.99 S	167.70 E	89	3.9	0.9	10	7
905		17	18	51	51.7	42.31 S	172.77 E	12 R	3.8	1.2	14	8
906		19	00	34	29.4	39.80 S	174.40 E	86	3.9	0.6	12	8
907		19	11	22	06.5	38.49 S	176.72 E	12 R	3.7	1.1	15	8
908		20	17	31	46.2	38.69 S	178.17 E	12 R	3.9 F	1.2	11	7
909		20	19	04	36.8	34.26 S	179.76 E	326	4.9	1.2	7	5
910		21	14	45	55.4	36.35 S	179.55 E	33 R	4.2	2.1	5	4
911		21	21	40	11.6	41.51 S	172.52 E	33 R	4.0	1.1	15	12
912		23	03	23	44.3	37.63 S	175.67 E	12 R	3.8	1.1	11	6
913		23	06	06	46.2	39.33 S	175.50 E	89	4.4 F	1.0	21	12
914		25	11	19	43.9	41.06 S	172.49 E	33 R	4.1	1.3	20	13
915		26	16	29	52.5	36.99 S	177.39 E	152	4.4	1.8	13	11
916		27	05	56	21.4	38.71 S	176.16 E	91	4.0	1.7	18	14
917		27	15	30	07.7	41.74 S	174.25 E	12 R	3.6	1.1	12	11
918		28	07	45	34.4	34.34 S	179.75 W	239	4.2	0.9	7	6
919		28	08	02	44.3	38.26 S	176.10 E	158	3.8	1.7	16	11
920		28	17	53	46.0	33.79 S	178.92 W	199	4.4	1.8	6	5
921		28	18	12	27.6	36.60 S	177.70 E	232	5.2	1.3	21	18
922		28	21	34	13.8	37.02 S	179.56 E	33 R	3.9	1.8	7	8
923		29	03	32	40.7	45.21 S	167.04 E	12 R	4.0	1.0	12	6
924		30	02	53	37.3	39.09 S	176.35 E	96	3.7	1.1	19	11
925		30	11	20	07.9	43.42 S	171.06 E	12 R	3.5	1.6	23	15
926		30	12	42	05.8	31.33 S	179.80 W	474	4.8	1.9	9	6
927		30	13	35	35.1	38.52 S	175.65 E	177	3.9	1.3	15	12
928		30	18	43	23.8	49.08 S	163.75 E	33 R	4.9	2.3	9	8
929		30	20	28	21.5	38.12 S	176.92 E	5 R	3.3	1.3	7	5
930		31	14	14	33.5	40.15 S	174.96 E	12 R	4.1 F	0.7	21	15
931		31	14	34	28.0	43.09 S	171.01 E	12 R	3.2	1.5	22	13
932		31	19	30	58.1	34.49 S	179.06 W	244	4.6	1.6	10	6
933		31	21	15	00.6	38.03 S	176.06 E	12 R	3.9	0.9	16	11

PUKAKI NETWORK

The origins listed in this section have been determined from data provided by the stations of the Pukaki network, details of which are given in an earlier section of the Report. For some large events, an alternative solution using stations of the standard network may also appear in the appropriate section. 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 from the standard network will provide more homogeneous data.

The velocities and crustal thicknesses used in this section are:

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

The origins for January – August, listed below, have been determined using a slightly modified version of the micro-earthquake programme HYPO 71 (Lee and Lahr, U.S. Geological Survey, 1972). Since September operations have been transferred completely to the PDP 11/34 computer using the same programme as that used for the standard network, except that it uses the above crustal model and has more stringent convergence criteria. Origins determined by the two programmes appear to be virtually indistinguishable.

The format of the list is the same as that for the data from the standard network, except that the epicentral coordinates and focal depths are given with greater precision.

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
P 001 JAN	01	20	40	34.7	44.143 S	170.069 E	0.4	0.9	0.0	5
P 002	02	09	45	38.9	44.136 S	170.048 E	7.3	1.3	0.1	8
P 003	04	00	25	49.2	44.145 S	170.066 E	3.7	0.5	0.1	8
P 004	04	01	06	04.3	44.135 S	170.059 E	5.0	0.6	0.2	9
P 005	04	01	06	14.4	44.138 S	170.059 E	3.3	0.2	0.1	6
P 006	04	02	12	18.7	43.492 S	170.215 E	0.7	1.6	0.1	10
P 007	04	11	38	32.8	43.715 S	170.006 E	2.0	1.4	0.2	11
P 008	04	16	43	20.5	44.351 S	169.557 E	9.8	0.7	0.1	6
P 009	05	00	10	24.3	43.629 S	170.450 E	5.0	1.3	0.1	5
P 010	07	23	46	22.0	44.129 S	170.056 E	5.0	0.8	ND	3
P 011	08	00	47	13.7	43.619 S	170.550 E	5.0	1.7	0.1	8
P 012	08	19	57	06.6	44.138 S	170.065 E	6.3	0.5	0.1	7
P 013	09	06	05	02.7	43.536 S	170.668 E	5.0	1.8	0.1	9
P 014	09	06	10	29.6	43.518 S	170.682 E	2.0	1.5	0.1	6
P 015	10	10	15	20.4	44.435 S	169.871 E	9.3	0.8	0.0	6
P 016	10	17	49	28.4	43.500 S	170.676 E	5.0	1.7	0.1	6
P 017	11	02	57	09.7	44.140 S	170.065 E	1.2	0.5	ND	4
P 018	18	14	09	02.4	44.136 S	170.054 E	5.9	0.9	0.0	7
P 019	20	08	05	41.8	44.396 S	170.250 E	1.4	0.6	0.1	5
P 020	22	22	20	10.6	43.888 S	169.635 E	5.0	1.2	0.1	7
P 021	22	23	04	04.3	44.296 S	170.110 E	1.9	0.4	0.1	6
P 022	23	08	22	56.5	44.199 S	169.895 E	6.2	0.7	0.1	8
P 023	24	03	09	47.1	44.288 S	170.090 E	0.4	1.0	0.1	8
P 024	26	14	28	20.3	44.476 S	169.839 E	22.9	0.7	0.1	5
P 025	28	07	09	39.6	44.401 S	170.264 E	7.7	1.0	0.1	7
P 026	28	10	34	13.4	44.487 S	169.993 E	9.6	0.9	0.0	7
P 027	28	14	46	19.2	43.938 S	169.667 E	3.1	1.0	0.0	5
P 028	30	12	27	02.1	44.348 S	170.220 E	7.6	0.7	0.2	5
P 029	30	15	19	11.2	44.411 S	170.026 E	9.5	0.7	0.2	6
P 030	30	15	38	47.2	44.196 S	169.898 E	12.7	1.7	0.1	8
P 031	30	21	55	44.8	44.444 S	170.007 E	8.7	0.8	0.0	6
P 032	31	13	29	41.1	44.171 S	169.972 E	7.2	2.2	0.0	8
P 033	31	18	24	23.6	44.179 S	169.982 E	2.8	1.2	0.1	7
P 034	31	20	02	18.6	44.157 S	169.976 E	9.9	1.5	0.1	8
P 035 FEB	02	00	53	12.3	44.298 S	170.107 E	0.0	0.6	0.1	8
P 036	02	03	17	38.2	44.257 S	170.014 E	8.2	0.6	0.1	8
P 037	05	15	14	42.1	44.143 S	170.047 E	3.6	0.4	0.0	5
P 038	05	16	50	45.8	44.212 S	170.815 E	2.5	1.2	0.2	6
P 039	05	18	00	55.4	44.141 S	170.053 E	3.4	0.3	0.1	6
P 040	06	01	02	43.7	44.143 S	170.064 E	1.0	0.2	ND	4
P 041	06	21	31	19.5	43.471 S	170.486 E	12.7	1.9	0.2	8
P 042	07	03	54	02.2	44.141 S	170.059 E	3.6	1.0	0.1	7
P 043	07	15	27	40.3	43.984 S	170.161 E	5.3	1.1	0.1	10
P 044	08	04	30	24.8	44.208 S	170.818 E	1.0	1.4	0.2	9
P 045	09	04	06	58.5	44.336 S	169.798 E	1.7	0.8	0.0	6
P 046	09	09	59	28.8	44.348 S	169.553 E	5.0	2.3	0.2	12
P 047	11	19	06	58.0	44.374 S	170.215 E	8.9	2.6	0.1	9
P 048	15	04	31	29.7	44.176 S	170.063 E	0.2	0.6	0.1	5
P 049	15	04	42	44.4	44.366 S	170.218 E	10.4	1.0	0.1	11
P 050	15	09	08	37.3	44.099 S	169.795 E	8.0	1.0	0.1	8

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m s						
P 051	FEB	15	16	27 05.8	43.621 S	169.830 E	0.9	1.6	0.2	9
P 052		17	05	20 47.3	44.314 S	169.551 E	5.0	1.5	0.1	7
P 053		17	14	33 38.8	43.937 S	169.796 E	6.8	1.0	0.2	5
P 054		17	16	28 25.9	44.597 S	169.822 E	8.3	1.1	0.1	8
P 055		18	09	59 44.0	44.337 S	169.512 E	4.2	1.6	0.2	7
P 056		19	06	53 36.5	43.384 S	170.319 E	5.0	1.8	0.2	6
P 057		22	09	34 50.1	44.099 S	170.016 E	9.1	1.6	0.2	15
P 058		23	19	39 48.8	44.256 S	169.667 E	5.0	1.0	0.2	7
P 059		24	00	02 10.1	44.341 S	169.945 E	9.9	1.9	0.1	10
P 060		26	14	33 56.5	44.249 S	169.972 E	9.0	0.6	0.1	10
P 061		26	17	33 00.6	44.258 S	169.974 E	9.8	1.0	0.2	10
P 062		28	13	57 59.2	44.102 S	170.009 E	10.6	1.2	0.1	12
P 063	MAR	01	11	48 39.4	44.285 S	170.811 E	19.7	1.2	0.2	6
P 064		01	19	35 00.9	43.990 S	170.446 E	9.9	1.4	0.1	9
P 065		03	17	22 21.2	44.593 S	170.059 E	3.7	2.0	0.1	11
P 066		07	03	48 09.1	43.584 S	170.211 E	0.0	1.8	0.2	8
P 067		09	06	32 13.4	43.539 S	170.389 E	2.0	1.7	0.3	10
P 068		09	14	48 07.2	43.602 S	170.243 E	1.6	1.8	0.2	10
P 069		09	20	30 54.9	43.616 S	170.373 E	0.1	2.2	0.1	8
P 070		12	08	02 33.5	44.024 S	169.413 E	66.0	2.7	0.1	12
P 071		13	19	30 56.0	44.142 S	170.051 E	4.4	1.2	0.2	9
P 072		14	11	51 02.5	44.530 S	169.665 E	9.0	1.1	0.1	6
P 073		15	16	17 17.2	43.377 S	170.581 E	0.4	2.0	0.1	8
P 074		17	02	40 18.3	43.843 S	169.569 E	10.3	1.9	0.2	7
P 075		18	04	40 07.4	43.913 S	169.781 E	2.4	1.3	0.2	5
P 076		18	07	11 33.7	44.091 S	169.922 E	9.8	0.6	0.1	5
P 077		18	09	57 31.7	43.920 S	169.779 E	1.9	1.3	0.2	6
P 078		18	16	33 29.3	44.388 S	169.926 E	9.3	0.6	0.1	8
P 079		18	18	54 48.4	44.064 S	169.928 E	6.8	0.7	0.0	5
P 080		19	23	22 15.0	44.132 S	170.098 E	2.0	1.3	0.0	7
P 081		21	12	46 00.7	44.379 S	170.263 E	4.6	0.8	0.1	8
P 082		21	15	29 31.4	44.778 S	170.035 E	1.9	1.3	0.0	6
P 083		22	15	33 41.0	44.429 S	170.142 E	16.1	0.6	0.0	5
P 084		23	02	41 55.0	44.599 S	169.762 E	5.2	1.1	0.1	5
P 085		23	05	36 49.0	44.614 S	169.976 E	1.6	1.0	0.1	6
P 086		24	15	19 45.2	44.462 S	169.565 E	8.4	1.1	0.1	5
P 087		30	01	03 58.8	44.633 S	169.691 E	7.7	1.6	0.1	6
P 088	APR	03	07	43 36.3	43.937 S	169.594 E	1.3	3.1	0.3	5
P 089		09	14	57 52.8	44.513 S	169.757 E	5.6	0.8	0.0	5
P 090		09	14	58 45.7	44.174 S	169.719 E	14.7	1.0	0.1	7
P 091		10	01	38 38.8	44.289 S	170.096 E	0.9	1.1	0.1	8
P 092		10	01	39 11.7	43.568 S	170.609 E	5.0	1.5	0.1	5
P 093		10	18	39 35.6	44.479 S	170.121 E	1.9	0.9	0.2	7
P 094		12	09	26 03.3	44.279 S	170.222 E	5.0	0.3	ND	4
P 095		12	17	19 40.9	43.688 S	170.240 E	3.3	1.4	0.1	8
P 096		13	23	56 02.8	44.144 S	170.081 E	0.1	0.9	0.1	5
P 097		14	07	50 01.4	44.524 S	170.072 E	5.0	1.0	0.1	7
P 098		15	00	18 08.2	43.973 S	169.680 E	6.3	1.8	0.3	10
P 099		15	21	43 43.0	44.158 S	170.239 E	2.4	1.9	0.1	7
P 100		15	21	44 25.8	44.178 S	170.223 E	6.8	0.9	0.1	5

REF NUM		ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
P 101	APR	20	16	25	07.5	44.238 S	169.963 E	9.6	0.7	0.1	6
P 102		24	07	37	47.9	44.038 S	169.970 E	7.4	1.2	0.0	5
P 103		24	08	12	23.3	44.500 S	169.991 E	5.0	1.2	0.1	7
P 104		25	07	42	41.3	44.127 S	170.736 E	1.6	2.3	0.0	8
P 105	MAY	04	23	04	23.3	44.304 S	169.587 E	4.9	1.5	0.2	10
P 106		06	18	15	22.0	44.556 S	169.788 E	10.1	1.1	0.1	7
P 107		09	03	19	44.9	43.969 S	170.387 E	5.0	1.3	0.1	8
P 108		09	04	50	39.5	43.982 S	170.372 E	2.1	1.1	0.1	8
P 109		11	00	31	14.9	44.290 S	170.096 E	5.0	0.8	0.1	6
P 110		12	15	31	41.6	43.632 S	170.180 E	2.5	1.6	0.1	5
P 111		16	10	45	16.3	44.627 S	169.602 E	5.0	2.6	0.1	9
P 112		16	22	22	13.6	44.144 S	170.064 E	5.2	1.4	0.1	10
P 113		17	04	04	16.2	44.447 S	169.968 E	8.4	1.4	0.1	11
P 114		17	20	25	56.8	44.141 S	170.077 E	13.2	0.5	ND	4
P 115		18	17	06	34.0	44.014 S	169.781 E	7.8	0.7	0.1	7
P 116		19	03	53	20.0	44.281 S	168.921 E	5.0	2.7	0.3	11
P 117		28	13	25	13.7	44.332 S	170.068 E	10.8	1.0	0.0	7
P 118		29	02	35	01.1	43.971 S	169.657 E	5.0	1.6	0.3	9
P 119		31	04	55	13.8	44.291 S	170.096 E	0.6	1.4	0.1	9
P 120		31	09	32	22.9	44.226 S	170.798 E	5.1	1.4	ND	4
P 121	JUN	01	09	07	30.6	44.373 S	170.285 E	7.5	1.1	0.0	1
P 122		02	07	20	03.5	43.879 S	169.675 E	3.3	1.8	0.3	10
P 123		07	11	25	43.4	44.436 S	169.926 E	9.1	1.6	0.1	11
P 124		09	11	07	47.7	43.745 S	169.599 E	2.8	1.8	0.2	8
P 125		11	01	27	41.9	44.294 S	170.097 E	0.7	0.8	0.1	8
P 126		11	08	51	57.7	43.991 S	170.258 E	5.0	1.0	0.1	8
P 127		12	15	15	57.3	44.532 S	169.892 E	9.5	0.8	0.1	7
P 128		12	17	13	53.1	44.375 S	170.216 E	9.2	1.4	0.1	14
P 129		15	08	24	19.0	44.377 S	170.303 E	3.2	0.5	ND	4
P 130		16	01	48	40.8	43.914 S	169.682 E	2.4	1.7	0.2	9
P 131		16	13	41	58.0	44.035 S	169.085 E	5.0	1.5	0.2	8
P 132		18	18	25	13.2	43.540 S	170.235 E	1.0	1.9	0.2	8
P 133		22	12	13	16.7	43.669 S	170.225 E	3.9	1.2	0.0	5
P 134		30	08	28	36.3	43.535 S	170.244 E	0.0	1.4	0.1	5
P 135	JUL	01	09	53	57.4	43.926 S	170.436 E	5.0	1.3	0.2	7
P 136		03	12	15	56.5	44.072 S	169.609 E	6.2	1.6	0.2	13
P 137		04	02	16	33.6	43.883 S	169.540 E	1.1	1.3	0.2	6
P 138		07	06	31	19.2	44.474 S	169.760 E	8.4	1.4	0.0	8
P 139		09	18	43	20.2	44.411 S	169.692 E	7.0	0.9	0.0	6
P 140		10	11	54	26.8	44.379 S	169.561 E	9.6	0.9	0.2	8
P 141		12	01	44	10.0	43.942 S	170.445 E	9.4	0.9	0.1	5
P 142		12	04	38	57.7	44.292 S	170.095 E	0.6	1.3	0.0	9
P 143		12	15	56	48.2	44.022 S	170.439 E	2.8	1.9	0.2	6
P 144		13	15	09	04.3	43.632 S	170.368 E	2.2	1.9	0.2	12
P 145		14	08	20	16.0	43.511 S	170.634 E	5.0	1.5	0.1	6
P 146		16	02	51	05.2	43.956 S	169.343 E	9.5	1.6	0.2	5
P 147		16	09	05	16.7	43.699 S	169.722 E	5.0		ND	4
P 148		18	01	25	24.2	44.108 S	169.971 E	9.1	1.1	0.1	7
P 149		21	19	23	18.7	44.092 S	170.355 E	9.9	1.1	ND	4
P 150		22	05	04	31.2	44.055 S	169.942 E	10.7	0.7	0.1	8

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
P 151	JUL	22	13	12	26.9	44.376 S	169.550 E	13.3	0.8	0.0	6
P 152		22	18	03	34.1	43.544 S	170.262 E	5.0	1.5	0.1	5
P 153		24	14	32	41.0	44.568 S	169.771 E	13.4	0.6	0.2	5
P 154		24	15	47	59.5	44.126 S	170.081 E	9.5	1.5	0.1	12
P 155		25	02	08	47.3	43.830 S	169.660 E	5.0	2.0	0.2	10
P 156		25	19	48	37.7	44.028 S	169.608 E	5.0	2.0	0.2	10
P 157		29	21	00	12.9	44.020 S	170.424 E	14.4	1.3	0.1	6
P 158		30	08	57	50.5	44.030 S	170.404 E	12.8	1.7	0.1	13
P 159		30	09	37	53.9	44.182 S	170.011 E	7.7	2.2	0.1	10
P 160		30	21	33	27.1	44.035 S	170.358 E	8.4	0.8	0.2	9
P 161	AUG	02	06	43	12.2	44.435 S	169.923 E	6.8	1.5	0.0	6
P 162		04	04	17	48.4	44.286 S	170.099 E	0.6	0.8	0.0	5
P 163		06	08	25	51.1	44.421 S	170.281 E	5.0	0.4	0.0	5
P 164		07	10	40	08.5	44.359 S	169.556 E	9.3	1.2	0.0	5
P 165		08	18	40	08.2	43.901 S	169.591 E	0.6	2.6	0.1	7
P 166		08	18	50	08.0	43.927 S	169.642 E	0.4	1.2	0.0	5
P 167		08	19	56	35.0	43.923 S	169.665 E	4.1	1.2	0.0	5
P 168		09	00	32	45.4	43.900 S	169.577 E	3.0	2.5	0.0	6
P 169		09	12	19	50.2	44.353 S	169.413 E	5.0	1.3	0.2	5
P 170		10	01	20	45.5	44.339 S	169.566 E	6.5	1.5	0.2	9
P 171		10	01	22	13.3	44.352 S	169.540 E	6.3	1.4	0.2	9
P 172		10	13	31	01.3	44.008 S	170.411 E	3.2	1.1	0.1	6
P 173		10	18	16	47.2	44.247 S	169.976 E	12.9	0.6	0.0	5
P 174		15	06	18	43.4	44.284 S	170.023 E	10.1	0.9	0.1	6
P 175		19	01	17	05.0	44.491 S	169.695 E	5.8	1.2	0.1	8
P 176		19	10	16	58.1	44.354 S	169.558 E	8.2	1.4	0.0	7
P 177		19	10	31	51.9	44.351 S	169.553 E	7.3	1.2	0.0	6
P 178		19	11	10	16.9	44.351 S	169.549 E	7.3	1.0	0.0	6
P 179		19	15	03	20.4	44.180 S	170.025 E	7.8	1.3	ND	4
P 180		24	03	26	25.5	44.346 S	169.563 E	5.0	1.0	0.3	7
P 181		26	14	26	20.5	43.593 S	170.535 E	2.6	2.1	0.1	10
P 182		30	10	37	19.1	44.373 S	169.542 E	12.5	0.9	0.1	8
P 183	SEP	02	00	09	24.0	44.238 S	169.836 E	7.1	1.4	0.2	9
P 184		04	05	54	52.7	44.223 S	170.307 E	1.2	0.5	0.1	7
P 185		07	15	10	34.8	44.148 S	170.593 E	1.7 R	0.9	0.1	7
P 186		09	13	10	03.9	44.395 S	169.621 E	8.4	2.1	0.1	8
P 187		09	13	29	34.0	44.272 S	169.852 E	13.4	0.9	0.1	7
P 188		12	18	02	54.6	44.043 S	170.011 E	8.0	0.8	0.1	5
P 189		14	00	05	50.5	44.574 S	169.851 E	6.0	0.8	0.1	5
P 190		17	01	29	18.6	44.236 S	169.960 E	11.6	2.2	0.1	9
P 191		17	12	54	49.9	44.276 S	169.885 E	8.7	0.8	0.1	6
P 192		17	16	57	24.5	44.467 S	169.880 E	5.4	2.0	0.1	9
P 193		18	04	26	21.6	44.292 S	170.095 E	0.8	0.9	0.1	8
P 194		20	23	52	48.6	43.482 S	170.536 E	1.7 R	1.8	0.2	6
P 195		23	08	20	34.1	44.039 S	169.713 E	5.7	1.6	0.2	6
P 196		24	13	11	16.8	43.957 S	170.469 E	4.8	1.2	0.2	9
P 197		25	23	47	24.5	43.722 S	170.125 E	3.9	1.5	0.1	7
P 198		28	12	14	20.1	44.253 S	169.966 E	13.2	0.9	0.1	7
P 199		29	08	39	37.4	43.484 S	170.308 E	0.0 R	2.3	0.2	9
P 200	OCT	03	10	04	54.7	44.530 S	169.647 E	7.2	1.3	0.1	9

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
P 201	OCT 03	11	33	47.8	44.255 S	169.864 E	9.6 R	0.7	0.0	6
P 202	05	01	18	33.0	43.478 S	170.332 E	1.1	2.0	0.1	7
P 203	06	06	52	48.0	43.588 S	170.575 E	1.3	2.9	0.1	9
P 204	06	16	43	30.0	44.466 S	169.888 E	4.5	1.0	0.1	10
P 205	06	18	52	40.4	44.148 S	170.060 E	0.0 R	0.3	0.1	4
P 206	07	09	48	13.2	44.527 S	169.872 E	7.3	0.7	0.2	5
P 207	07	12	36	30.3	43.734 S	169.451 E	0.2	1.5	0.2	5
P 208	08	19	18	35.4	43.644 S	170.477 E	5.1	1.5	0.1	6
P 209	09	00	53	16.4	43.641 S	170.472 E	4.2	0.9	0.1	6
P 210	09	14	43	07.4	44.003 S	170.334 E	5.8	0.9	0.2	6
P 211	11	23	32	56.4	43.776 S	169.673 E	3.0 R	1.7	0.3	7
P 212	17	08	46	04.0	44.141 S	170.077 E	2.2	0.6	0.1	6
P 213	17	09	22	25.9	43.925 S	169.517 E	4.9	1.8	0.5	9
P 214	18	20	59	22.9	44.053 S	169.719 E	13.5 R	1.1	0.2	6
P 215	18	23	08	50.1	43.702 S	170.654 E	8.0	1.4	0.2	8
P 216	19	05	25	44.2	44.142 S	170.080 E	3.9	0.7	0.1	9
P 217	23	07	40	21.5	44.146 S	170.083 E	1.0	1.0	0.1	11
P 218	23	08	04	58.2	44.146 S	170.081 E	2.0	0.9	0.1	9
P 219	23	08	13	20.0	44.144 S	170.079 E	3.6	1.4	0.1	10
P 220	23	22	27	20.7	44.097 S	170.069 E	9.0	1.1	0.2	6
P 221	23	22	33	02.9	44.145 S	170.083 E	3.8	1.3	0.1	9
P 222	24	01	04	00.9	44.063 S	170.485 E	8.5	1.0	0.0	5
P 223	24	15	00	11.8	44.122 S	170.095 E	6.6	0.7	0.1	7
P 224	24	15	00	16.1	44.118 S	170.099 E	6.1	0.9	0.1	7
P 225	24	22	18	39.6	43.964 S	170.767 E	32.0	1.3	0.1	7
P 226	25	02	45	27.8	44.168 S	169.980 E	8.8	0.8	0.1	8
P 227	25	07	34	40.8	44.468 S	169.889 E	6.5	1.4	0.1	10
P 228	25	07	43	47.4	43.656 S	169.931 E	1.1	1.9	1.0	9
P 229	25	10	49	16.9	44.584 S	169.580 E	4.4	1.4	0.6	8
P 230	25	12	05	04.4	43.624 S	170.542 E	8.0 R	1.8	0.2	9
P 231	25	15	16	03.9	43.595 S	170.565 E	4.9	2.0	0.2	9
P 232	26	00	42	42.3	44.587 S	169.788 E	0.0 R	0.6	0.0	4
P 233	28	06	51	24.5	44.188 S	169.386 E	32.1	1.7	0.2	6
P 234	28	12	16	08.7	44.444 S	169.493 E	8.6	1.8	0.2	8
P 235	28	12	21	05.7	44.463 S	169.461 E	8.3	1.2	0.1	7
P 236	NOV 02	06	09	04.6	44.408 S	170.029 E	9.2	0.7	0.2	6
P 237	07	14	43	39.9	44.057 S	169.981 E	11.2	1.1	0.1	8
P 238	07	22	37	06.1	43.996 S	170.988 E	5.0 R	1.8	0.4	7
P 239	12	06	40	26.1	43.857 S	169.486 E	7.7	1.6	0.1	6
P 240	12	06	42	33.0	43.810 S	169.437 E	18.0 R	1.5	0.1	6
P 241	12	07	25	59.9	43.898 S	169.538 E	6.0	1.9	0.2	5
P 242	12	10	03	33.6	44.273 S	169.809 E	0.2	1.0	0.2	9
P 243	12	12	39	47.8	43.900 S	169.524 E	9.6 R	2.0	0.1	5
P 244	14	04	57	27.8	43.885 S	169.226 E	2.9	1.7	0.1	6
P 245	16	10	36	10.3	44.473 S	170.111 E	11.5	0.8	0.1	6
P 246	18	18	29	34.4	44.226 S	170.348 E	6.2	0.6	0.1	8
P 247	19	00	47	22.4	43.565 S	170.596 E	4.3	1.8	0.2	8
P 248	20	02	57	28.8	44.426 S	169.541 E	4.6	1.3	0.3	6
P 249	20	22	40	06.5	43.991 S	170.249 E	7.8	0.8	0.3	5
P 250	22	06	17	11.0	43.620 S	170.500 E	4.4	1.4	0.2	6

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
P 251 NOV	23	16	40	58.0	43.507 S	170.530 E	2.3	1.8	0.2	8
P 252	24	08	29	09.2	43.977 S	170.436 E	3.3	1.4	0.2	10
P 253	24	11	51	43.1	43.600 S	170.308 E	0.0 R	1.8	0.1	7
P 254	29	15	11	59.3	44.781 S	170.070 E	2.0	1.5	0.2	7
P 255 DEC	01	16	35	52.9	44.222 S	170.346 E	6.6	1.1	0.1	7
P 256	02	13	54	47.6	43.587 S	170.193 E	0.0 R	1.9	0.1	8
P 257	02	19	44	49.3	43.606 S	170.188 E	0.0 R	1.7	0.2	7
P 258	02	23	24	25.3	44.142 S	170.007 E	4.7	1.4	0.2	9
P 259	03	05	21	00.5	44.279 S	169.932 E	9.9	1.1	0.2	10
P 260	04	00	38	49.1	44.586 S	169.398 E	3.1	1.8	0.1	5
P 261	07	09	42	41.9	44.148 S	170.097 E	0.0 R	0.8	0.1	6
P 262	08	12	40	13.9	44.260 S	169.789 E	1.0	0.6	0.4	5
P 263	10	01	29	16.6	44.268 S	169.936 E	11.2	1.4	0.2	8
P 264	14	04	52	01.2	44.374 S	169.967 E	10.0	0.3	0.1	7
P 265	16	09	11	33.8	44.196 S	170.338 E	8.4	0.9	0.1	7
P 266	18	18	08	32.1	43.628 S	170.212 E	0.0 R	1.8	0.2	9
P 267	19	15	47	52.2	44.344 S	169.576 E	10.8	1.3	0.1	6
P 268	21	14	29	58.5	44.625 S	169.763 E	4.3	1.9	0.2	9
P 269	24	13	14	21.9	43.609 S	170.346 E	0.0 R	1.7	0.1	10
P 270	24	14	47	02.3	43.618 S	170.398 E	0.0 R	2.1	0.1	10
P 271	24	17	05	11.7	43.606 S	170.194 E	0.0 R	1.7	0.2	8
P 272	24	17	59	24.5	43.623 S	170.384 E	0.0 R	2.1	0.1	8
P 273	24	18	07	23.9	43.619 S	170.393 E	0.0 R	2.5	0.2	10
P 274	24	18	57	04.3	43.621 S	170.371 E	0.0 R	2.2	0.1	11
P 275	24	21	35	04.7	43.609 S	170.345 E	0.0 R	2.2	0.1	9
P 276	24	22	20	05.6	43.613 S	170.191 E	0.0 R	1.7	0.2	9
P 277	25	01	02	03.7	43.592 S	170.421 E	0.0 R	2.2	0.3	10
P 278	25	01	02	04.7	43.612 S	170.408 E	6.0	1.6	0.1	8
P 279	25	01	19	05.1	43.612 S	170.185 E	0.0 R	1.8	0.2	8
P 280	25	02	58	04.8	43.614 S	170.344 E	2.7	1.3	0.1	7
P 281	25	03	29	00.4	43.599 S	170.346 E	0.0 R	2.2	0.2	8
P 282	25	03	37	04.9	43.648 S	170.404 E	0.0 R	1.7	0.3	7
P 283	25	04	02	35.3	43.619 S	170.358 E	0.0 R	2.1	0.1	9
P 284	25	04	44	01.9	43.582 S	170.186 E	0.0 R	1.8	0.2	7
P 285	25	08	28	14.1	43.608 S	170.354 E	0.0 R	2.5	0.1	9
P 286	25	09	59	04.6	43.606 S	170.208 E	0.0 R	1.7	0.2	9
P 287	25	10	23	03.8	43.586 S	170.381 E	0.0 R	1.8	0.2	11
P 288	25	10	25	04.2	43.600 S	170.357 E	5.1	1.5	0.2	10
P 289	25	13	54	26.0	43.590 S	170.357 E	0.0 R	2.4	0.3	9
P 290	25	14	15	44.5	43.609 S	170.405 E	0.0 R	1.8	0.2	9
P 291	25	17	00	04.6	43.603 S	170.360 E	0.0 R	2.1	0.2	9
P 292	25	18	39	43.6	43.595 S	170.215 E	0.0 R	1.8	0.2	10
P 293	25	19	20	18.4	43.584 S	170.379 E	5.5	1.5	0.3	9
P 294	25	19	40	44.6	43.626 S	170.349 E	4.7	1.3	0.2	5
P 295	25	19	41	39.7	43.602 S	170.385 E	1.7 R	1.6	0.1	7
P 296	25	19	46	30.6	43.597 S	170.274 E	0.0 R	2.0	0.2	11
P 297	25	23	17	36.0	43.614 S	170.372 E	0.0 R	2.4	0.1	10
P 298	26	04	55	13.8	43.632 S	170.367 E	0.0 R	2.1	0.3	8
P 299	26	14	30	50.7	43.613 S	170.378 E	0.0 R	2.2	0.2	10
P 300	26	19	09	08.2	43.623 S	170.393 E	0.0 R	1.7	0.2	10

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
P 301 DEC	28	20	31	31.1	43.614 S	170.210 E	0.0 R	1.5	0.3	7
P 302	30	11	06	50.8	44.460 S	170.041 E	6.8	1.2	0.1	9

WELLINGTON NETWORK

The origins listed in this section have been determined from data provided by the stations of the Wellington network, details of which are given in an earlier section of the report. For some large events, an alternative solution using stations of the standard network may also exist, and the remarks given in the introduction to the Pukaki network results apply.

The velocities and crustal thicknesses used in this section are:

Depth km	P-velocity km/s	S-velocity km/s
0 - 0.4	4.40	2.55
0.4 - 4.9	5.40	3.12
4.9 - 13.1	6.21	3.59
13.1 - 35.7	6.46	3.73
35.7 -	8.04	4.64

The programme used for locating the origins is the same as is used for the standard network, except that it uses the above crustal model and has more stringent convergence criteria.

The format is identical with that of the Pukaki list.

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 001 JAN	01	04	03	24.4	41.064 S	174.753 E	51.4	1.8	0.1	6
W 002	01	04	07	49.3	40.858 S	174.756 E	45.4	2.2	0.1	9
W 003	01	04	15	22.6	41.381 S	174.217 E	35.4	2.2	0.2	6
W 004	01	04	30	46.8	41.248 S	174.538 E	34.5	2.1	0.1	11
W 005	01	05	50	08.5	41.277 S	174.650 E	30.4	1.6	0.0	11
W 006	01	07	15	10.1	41.337 S	174.407 E	33.5	1.8	0.1	8
W 007	01	08	05	49.1	41.695 S	174.480 E	50.5	2.1	0.2	8
W 008	01	08	43	56.3	41.130 S	174.786 E	33.5	1.8	0.0	7
W 009	01	15	45	49.3	40.921 S	174.416 E	64.7	1.8	0.1	7
W 010	02	03	09	24.5	41.252 S	174.630 E	29.8	2.0	0.0	8
W 011	02	10	55	05.7	41.356 S	175.117 E	30.2	1.8	0.2	10
W 012	02	12	29	46.8	41.781 S	174.510 E	33.4	2.2	0.1	10
W 013	02	20	51	52.7	41.436 S	174.193 E	16.5	2.2	0.1	8
W 014	02	21	37	02.7	41.341 S	175.109 E	25.8	1.3	0.2	9
W 015	03	15	41	18.8	40.964 S	175.487 E	19.7	2.2	0.1	8
W 016	04	00	05	39.0	41.218 S	174.898 E	21.4	1.2	0.1	9
W 017	04	00	21	51.0	40.931 S	175.551 E	32.8	1.5	ND	4
W 018	04	02	02	06.8	40.888 S	174.919 E	56.8	1.7	0.0	5
W 019	04	03	13	34.9	41.737 S	174.471 E	29.9	2.3	0.1	9
W 020	04	06	08	37.2	41.065 S	174.600 E	59.8	2.1	0.1	6
W 021	04	16	26	01.8	40.991 S	174.595 E	7.3	1.3	0.1	6
W 022	04	16	30	02.8	41.218 S	174.889 E	22.5	1.5	0.1	6
W 023	04	22	24	53.1	41.365 S	174.460 E	22.8	1.7	0.1	5
W 024	05	09	05	39.6	41.386 S	175.116 E	26.9	1.9	0.1	9
W 025	05	10	45	19.5	41.530 S	174.460 E	25.7	2.0	0.2	6
W 026	05	18	45	09.3	40.899 S	175.496 E	29.1	2.0	0.1	7
W 027	06	02	05	39.1	40.646 S	175.177 E	22.9	1.9	ND	4
W 028	06	07	50	02.3	41.538 S	174.820 E	12.2	2.4	0.1	9
W 029	06	16	20	01.1	41.704 S	174.513 E	30.6	2.3	0.1	8
W 030	06	20	10	19.3	41.284 S	174.922 E	30.5	2.3	0.1	8
W 031	06	21	31	49.9	41.272 S	174.916 E	28.5	1.6	0.0	7
W 032	07	15	30	41.0	41.252 S	174.066 E	75.9	2.4	0.1	7
W 033	07	17	58	44.3	41.000 S	175.590 E	30.9	2.1	0.1	6
W 034	08	08	49	11.9	41.417 S	174.985 E	28.3	1.7	0.1	7
W 035	08	13	54	35.3	41.074 S	174.580 E	50.9	1.5	0.2	7
W 036	08	13	56	35.1	40.980 S	175.165 E	29.3	1.5	0.2	5
W 037	08	20	16	12.7	41.366 S	175.058 E	28.3	1.5	0.1	7
W 038	09	02	13	23.7	40.760 S	174.531 E	50.7	1.6	0.2	8
W 039	09	08	37	52.9	40.879 S	174.967 E	45.8	2.4	0.1	7
W 040	09	08	58	36.9	41.460 S	175.078 E	12.7	1.9	0.1	8
W 041	09	11	16	29.7	41.575 S	174.420 E	24.7	1.7	0.2	7
W 042	09	14	47	13.2	40.598 S	174.705 E	42.7	2.2	0.1	6
W 043	10	00	26	33.1	40.897 S	175.609 E	12.7	3.0	0.1	6
W 044	10	10	02	35.9	41.423 S	175.058 E	25.4	4.3	0.1	9
W 045	10	10	04	12.2	41.405 S	175.055 E	23.7	2.2	0.1	6
W 046	10	10	05	47.5	41.430 S	175.060 E	25.9	2.1	0.1	10
W 047	10	10	07	24.7	41.409 S	175.066 E	27.2	1.7	0.1	8
W 048	10	10	07	41.0	41.425 S	175.056 E	28.7	1.3	0.1	6
W 049	10	10	08	03.7	41.425 S	175.065 E	26.5	1.5	0.1	9
W 050	10	10	09	56.4	41.421 S	175.072 E	27.6	1.6	0.2	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 051 JAN	10	10	12	25.9	41.416 S	175.071 E	27.2	1.4	0.1	8
W 052	10	10	12	59.5	41.433 S	175.056 E	28.1	1.6	0.1	5
W 053	10	10	14	59.2	41.418 S	175.058 E	26.0 R	1.4	0.0	4
W 054	10	10	15	40.0	41.423 S	175.067 E	27.7	1.3	0.1	6
W 055	10	10	18	17.0	41.418 S	175.073 E	26.8	1.5	0.2	9
W 056	10	10	19	30.3	41.447 S	175.066 E	29.4	1.4	0.1	5
W 057	10	10	20	25.3	41.437 S	175.080 E	25.9	1.5	0.1	8
W 058	10	10	21	08.4	41.418 S	175.067 E	27.3	1.4	0.2	5
W 059	10	10	31	27.8	41.428 S	175.059 E	27.1	2.2	0.1	12
W 060	10	10	38	24.3	41.423 S	175.068 E	27.0	1.5	0.1	9
W 061	10	10	49	07.5	41.423 S	175.064 E	26.0	1.9	0.1	10
W 062	10	10	54	24.3	41.425 S	175.064 E	27.5	1.6	0.1	9
W 063	10	10	57	07.9	41.431 S	175.068 E	27.4	1.7	0.1	10
W 064	10	11	11	00.9	41.429 S	175.064 E	27.7	1.6	0.1	10
W 065	10	11	24	28.1	41.421 S	175.073 E	27.2	1.6	0.2	9
W 066	10	11	49	32.1	41.422 S	175.073 E	27.2	1.4	0.2	8
W 067	10	11	51	52.1	41.430 S	175.060 E	28.0	1.7	0.1	8
W 068	10	12	23	52.6	41.424 S	175.065 E	27.0	1.6	0.1	9
W 069	10	13	51	09.1	41.420 S	175.060 E	27.0 R	1.5	0.1	5
W 070	10	13	51	09.7	41.425 S	175.055 E	26.4	2.0	0.1	11
W 071	10	15	27	26.1	41.431 S	175.061 E	28.0	1.5	0.1	8
W 072	10	17	26	07.0	41.425 S	175.068 E	27.5	1.7	0.1	10
W 073	10	18	32	56.2	41.426 S	175.065 E	26.9	1.6	0.1	8
W 074	10	18	34	38.9	41.297 S	174.872 E	21.0	1.3	0.1	6
W 075	10	18	41	34.4	41.428 S	175.069 E	26.8	1.6	0.1	9
W 076	10	19	40	36.1	41.423 S	175.068 E	25.0	2.2	0.1	10
W 077	10	20	23	32.0	41.427 S	175.074 E	28.6	1.6	0.2	7
W 078	10	20	53	24.4	40.879 S	173.892 E	45.7	2.2	0.2	5
W 079	10	21	25	49.6	41.121 S	174.350 E	62.3	2.7	0.1	9
W 080	10	21	34	28.7	41.429 S	175.056 E	27.0	2.1	0.1	9
W 081	10	23	02	49.5	41.451 S	175.058 E	25.2	1.7	0.2	8
W 082	11	05	13	51.3	41.429 S	175.065 E	26.9	1.4	0.2	9
W 083	11	09	52	27.2	41.430 S	175.069 E	28.2	1.2	0.2	7
W 084	11	09	55	28.7	41.419 S	175.068 E	27.3	1.4	0.1	10
W 085	11	10	41	20.2	41.430 S	175.064 E	27.2	1.5	0.2	9
W 086	11	15	16	32.4	40.849 S	175.316 E	30.8	1.9	0.1	7
W 087	11	16	10	13.5	41.072 S	174.352 E	63.8	2.3	0.1	9
W 088	11	17	30	18.6	41.174 S	174.571 E	62.3	1.5	0.1	5
W 089	11	18	32	30.2	41.433 S	175.068 E	28.0	1.7	0.2	12
W 090	11	22	09	40.5	40.925 S	175.008 E	39.4	1.4	0.1	6
W 091	12	04	59	37.7	41.421 S	175.070 E	27.5	1.6	0.2	10
W 092	12	15	40	29.3	41.257 S	174.901 E	31.6	1.7	0.1	10
W 093	13	03	11	14.2	41.430 S	175.067 E	26.7	1.6	0.1	12
W 094	13	03	40	35.2	41.043 S	174.896 E	55.8	1.7	0.0	6
W 095	13	04	35	59.6	41.094 S	174.866 E	30.9	1.8	0.2	10
W 096	13	06	14	35.0	41.387 S	174.153 E	35.1	4.8	0.1	9
W 097	13	06	19	29.5	41.356 S	174.192 E	34.8	1.9	0.1	7
W 098	13	06	21	12.2	41.368 S	174.187 E	34.5	2.1	0.1	6
W 099	13	06	21	58.8	41.371 S	174.188 E	33.7	1.8	0.2	5
W 100	13	06	23	29.6	41.378 S	174.185 E	34.2	1.6	0.2	5

REF NUM	ORIGIN TIME h m s	LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
W 101 JAN	13 06 24 49.1	41.380 S	174.179 E	34.4	1.8	0.1	6
W 102	13 06 28 43.3	41.384 S	174.184 E	32.9	1.9	0.2	6
W 103	13 06 35 59.9	41.396 S	174.172 E	33.2	1.6	0.2	6
W 104	13 06 44 03.7	41.358 S	174.162 E	36.5	1.7	0.3	5
W 105	13 07 13 52.8	41.367 S	174.151 E	35.0	2.4	0.2	10
W 106	13 07 39 38.0	41.362 S	174.156 E	34.7	2.5	0.2	9
W 107	13 07 45 54.8	41.394 S	174.088 E	34.7	1.8	0.2	6
W 108	13 07 56 42.9	41.372 S	174.178 E	34.8	2.4	0.1	8
W 109	13 08 08 31.2	40.878 S	174.728 E	56.3	1.9	0.2	7
W 110	13 09 00 16.4	41.431 S	175.063 E	26.9	1.8	0.1	12
W 111	13 09 35 24.6	41.388 S	174.146 E	34.1	1.6	0.1	5
W 112	13 09 55 52.5	41.412 S	174.159 E	33.5	1.5	0.1	6
W 113	13 10 18 48.1	41.399 S	174.102 E	35.0	1.6	0.2	6
W 114	13 11 20 58.4	41.373 S	174.144 E	34.6	2.0	0.1	9
W 115	13 13 27 40.4	41.396 S	174.133 E	33.9	1.7	0.1	8
W 116	13 13 43 25.5	41.384 S	174.187 E	33.2	1.6	0.1	5
W 117	13 19 07 50.7	41.780 S	174.470 E	33.1	2.0	0.2	12
W 118	13 20 15 50.4	41.370 S	174.185 E	35.3	2.5	0.1	9
W 119	13 20 44 51.6	41.372 S	174.179 E	34.8	2.5	0.2	9
W 120	13 21 12 35.0	41.394 S	174.163 E	34.0	1.5	0.2	6
W 121	13 21 21 40.0	41.405 S	174.164 E	33.2	1.1	0.2	5
W 122	14 00 53 54.9	40.334 S	174.947 E	7.3	1.6	0.1	6
W 123	14 01 51 21.6	41.371 S	174.181 E	34.8	1.9	0.2	7
W 124	14 01 53 37.9	41.365 S	174.185 E	34.8	2.4	0.1	8
W 125	14 02 08 58.6	41.425 S	175.071 E	27.7	1.4	0.2	11
W 126	14 02 23 41.1	41.369 S	174.191 E	34.0	1.7	0.2	7
W 127	14 02 53 12.3	41.437 S	175.049 E	32.1	1.4	0.1	6
W 128	14 03 22 45.7	41.393 S	174.182 E	33.6	2.0	0.1	8
W 129	14 03 47 45.1	41.187 S	174.438 E	38.0	1.6	0.1	8
W 130	14 03 55 02.5	41.371 S	174.179 E	35.2	1.8	0.2	5
W 131	14 05 37 09.0	41.115 S	175.577 E	13.0	2.1	0.1	10
W 132	14 10 10 39.4	41.399 S	174.172 E	33.9	1.5	0.2	5
W 133	14 10 55 55.4	41.192 S	175.089 E	19.2	1.1	0.1	10
W 134	14 12 16 09.5	41.752 S	174.504 E	37.8	1.8	0.1	8
W 135	14 14 24 26.1	41.401 S	174.153 E	34.5	2.4	0.1	7
W 136	14 14 27 37.2	41.386 S	174.174 E	33.6	3.8	0.1	9
W 137	14 14 49 29.6	41.406 S	174.158 E	33.0	1.3	0.1	5
W 138	14 16 48 50.0	41.366 S	174.185 E	34.5	1.9	0.2	6
W 139	14 17 08 02.2	41.407 S	174.167 E	33.4	1.5	0.1	5
W 140	15 05 21 47.0	40.659 S	175.533 E	31.4	2.3	0.2	7
W 141	15 07 10 21.1	41.288 S	174.619 E	29.4	1.7	0.1	10
W 142	15 09 16 33.1	41.751 S	174.461 E	31.7	2.5	0.1	8
W 143	15 18 17 27.8	41.198 S	175.103 E	28.7	1.5	0.1	6
W 144	15 19 13 13.7	41.348 S	174.173 E	35.1	2.3	0.2	8
W 145	15 21 44 56.3	41.165 S	174.636 E	34.5	1.7	0.1	8
W 146	15 22 25 39.1	41.306 S	174.220 E	33.4	2.0	0.1	6
W 147	16 13 57 54.7	41.398 S	174.180 E	32.8	1.7	0.2	6
W 148	16 14 24 24.8	41.676 S	174.472 E	31.8	1.8	0.1	10
W 149	17 06 24 39.9	40.486 S	174.702 E	10.0 R	2.4	0.2	9
W 150	17 11 49 01.1	41.217 S	173.931 E	66.0	2.2	0.0	6

REF NUM	ORIGIN TIME h m s	LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
W 151 JAN	18 06 03 00.9	41.426 S	175.064 E	27.2	2.0	0.1	11
W 152	18 07 44 04.9	41.424 S	175.055 E	26.1	2.4	0.1	9
W 153	19 06 57 44.1	41.602 S	174.573 E	28.3	1.7	0.1	10
W 154	19 10 38 43.2	41.377 S	174.141 E	36.3	2.2	0.1	9
W 155	19 11 13 45.1	41.670 S	174.763 E	26.7	1.8	0.1	8
W 156	19 16 44 35.7	41.022 S	174.871 E	60.1	2.2	0.1	9
W 157	19 18 32 28.5	40.991 S	175.618 E	32.7	1.7	0.3	9
W 158	19 21 26 05.3	40.686 S	174.330 E	47.3	2.1	0.1	8
W 159	20 01 03 26.2	41.652 S	175.088 E	34.6	1.7	0.1	7
W 160	20 13 27 38.6	40.975 S	175.643 E	34.4	1.7	0.1	8
W 161	20 16 28 39.1	41.103 S	174.709 E	33.7	1.9	0.2	8
W 162	20 23 24 43.9	41.394 S	175.099 E	29.0	2.0	0.2	12
W 163	21 04 05 18.2	41.028 S	175.673 E	32.2	2.2	0.2	8
W 164	21 06 30 39.2	41.209 S	173.950 E	55.2	2.1	0.2	8
W 165	21 07 00 09.5	40.915 S	175.613 E	17.0	1.7	0.2	7
W 166	21 08 14 47.2	41.127 S	174.566 E	36.2	2.1	0.1	10
W 167	21 09 01 18.9	41.151 S	174.435 E	46.7	1.4	0.2	7
W 168	21 14 46 06.6	40.429 S	174.897 E	31.3	2.1	0.1	7
W 169	21 17 28 22.4	41.506 S	174.917 E	45.1	2.3	0.1	9
W 170	22 02 39 43.4	41.134 S	175.396 E	24.3	1.7	0.0	5
W 171	22 03 21 39.2	41.423 S	175.073 E	26.9	1.4	0.1	9
W 172	22 03 52 37.0	41.246 S	173.934 E	55.5	2.2	0.2	6
W 173	22 10 22 13.8	41.425 S	175.070 E	26.5	1.2	0.1	9
W 174	22 11 23 58.5	40.998 S	174.381 E	47.4	2.6	0.1	8
W 175	22 18 24 21.3	41.375 S	174.191 E	33.8	1.9	0.1	6
W 176	22 20 02 51.6	41.047 S	174.452 E	51.9	1.6	0.2	5
W 177	23 01 42 28.8	41.248 S	175.037 E	25.1	1.5	0.2	11
W 178	23 03 22 31.5	41.039 S	174.560 E	62.9	2.1	0.2	11
W 179	23 07 30 50.3	40.752 S	174.586 E	10.0 R	1.6	0.1	5
W 180	23 11 53 00.5	41.365 S	174.186 E	34.5	1.6	0.2	6
W 181	23 14 02 13.0	41.377 S	175.125 E	27.4	2.1	0.1	11
W 182	23 15 48 34.6	41.210 S	174.190 E	55.0	1.4	0.1	6
W 183	23 15 56 03.6	41.372 S	175.133 E	27.8	1.5	0.2	7
W 184	23 21 55 10.7	41.762 S	174.455 E	32.6	2.3	0.2	9
W 185	23 21 57 40.5	40.949 S	174.574 E	64.4	1.8	0.1	9
W 186	24 05 21 27.3	41.074 S	174.730 E	55.6	1.6	0.1	7
W 187	24 08 42 30.2	41.228 S	174.291 E	40.0	1.8	0.1	7
W 188	24 09 42 30.5	41.797 S	174.479 E	32.7	1.8	0.1	6
W 189	24 12 38 14.2	41.412 S	174.168 E	33.0	1.7	0.1	6
W 190	24 15 18 28.2	41.203 S	174.501 E	55.2	2.5	0.1	9
W 191	24 16 59 05.1	40.915 S	175.546 E	27.0	1.4	0.1	6
W 192	24 17 26 53.7	40.995 S	175.151 E	31.7	1.1	0.1	5
W 193	24 20 30 26.2	41.377 S	174.102 E	36.3	2.0	0.2	9
W 194	24 23 01 14.7	41.098 S	174.606 E	63.5	2.2	0.1	9
W 195	24 23 21 32.8	40.941 S	174.761 E	39.5	1.5	0.2	9
W 196	25 03 26 55.4	40.972 S	174.635 E	58.8	2.2	0.1	8
W 197	25 05 03 36.3	40.743 S	175.539 E	31.3	1.9	0.1	6
W 198	25 06 03 31.0	40.593 S	175.117 E	39.3	2.3	0.1	9
W 199	25 07 10 16.1	41.240 S	175.215 E	25.7	1.6	0.1	10
W 200	25 07 33 50.6	41.389 S	175.023 E	4.1	1.7	0.1	10

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 201 JAN	25	11	50	06.8	41.416 S	175.820 E	23.8	2.0	0.1	8
W 202	25	13	57	28.0	41.424 S	175.070 E	25.0	1.8	0.1	11
W 203	25	14	33	26.8	41.428 S	175.065 E	26.7	1.4	0.1	9
W 204	25	14	33	35.7	41.440 S	175.067 E	26.5	1.2	0.2	6
W 205	25	19	29	43.8	41.374 S	174.182 E	34.0	1.8	0.1	7
W 206	25	20	49	40.4	41.120 S	175.345 E	28.2	2.2	0.1	7
W 207	26	01	34	08.1	41.127 S	175.033 E	21.4	1.5	0.1	6
W 208	26	02	29	21.0	41.419 S	175.066 E	25.9	1.5	0.2	8
W 209	26	03	59	48.5	41.686 S	174.469 E	30.2	2.1	0.1	7
W 210	26	08	31	45.7	41.660 S	174.279 E	10.0 R	1.8	0.2	8
W 211	26	08	58	37.2	40.738 S	175.054 E	48.4	1.4	ND	4
W 212	26	09	47	45.9	41.449 S	174.558 E	21.2	1.9	0.1	10
W 213	26	11	14	15.8	40.931 S	175.051 E	35.7	2.2	0.1	9
W 214	26	17	50	40.3	41.548 S	174.369 E	12.2	1.5	0.1	7
W 215	26	18	12	54.8	41.355 S	174.617 E	30.7	1.1	0.2	5
W 216	27	00	15	45.7	41.600 S	174.410 E	31.2	1.6	0.1	7
W 217	27	00	17	38.3	41.744 S	174.392 E	27.8	2.2	0.2	9
W 218	27	00	46	45.9	41.051 S	174.837 E	36.9	1.7	0.0	5
W 219	27	01	01	35.6	41.291 S	174.798 E	41.7	1.2	0.2	6
W 220	27	03	18	41.1	41.387 S	175.119 E	27.3	1.7	0.2	7
W 221	27	03	26	04.4	41.607 S	174.495 E	54.2	2.0	0.2	6
W 222	27	04	41	23.8	40.930 S	175.210 E	34.0	2.0	0.1	5
W 223	27	14	37	08.3	41.434 S	174.936 E	14.5	2.0	0.2	11
W 224	28	04	18	47.8	41.538 S	174.979 E	23.9	2.2	0.1	10
W 225	28	11	36	01.0	41.207 S	175.738 E	31.7	2.3	0.2	14
W 226	28	12	45	52.5	41.086 S	174.444 E	66.2	1.9	0.1	8
W 227	28	13	41	52.4	41.660 S	174.765 E	26.0	1.8	0.1	8
W 228	28	19	11	57.0	41.286 S	174.210 E	39.9	1.6	0.2	6
W 229	28	19	12	40.9	40.831 S	174.718 E	15.7	3.4	0.1	10
W 230	29	05	54	25.6	40.915 S	175.556 E	30.7	1.9	0.1	6
W 231	29	14	38	50.0	41.376 S	174.203 E	33.9	2.3	0.1	7
W 232	30	01	41	47.3	41.062 S	174.765 E	31.8	1.6	0.0	8
W 233	30	15	49	34.1	41.068 S	174.548 E	59.4	1.8	0.1	9
W 234	30	19	48	55.7	40.982 S	175.495 E	23.9	2.0	0.0	5
W 235	30	22	50	59.6	41.695 S	175.150 E	23.4	2.0	0.2	9
W 236	31	03	28	58.2	41.180 S	175.589 E	21.5	2.2	0.2	11
W 237	31	04	20	36.0	41.655 S	174.840 E	26.5	2.0	0.1	10
W 238	31	12	47	18.9	41.623 S	174.650 E	28.7	1.5	0.1	9
W 239	31	16	06	40.1	40.497 S	174.501 E	30.9	2.2	0.1	6
W 240 FEB	01	02	11	58.9	40.613 S	174.679 E	49.2	3.9	0.1	9
W 241	01	07	00	57.7	41.033 S	174.778 E	33.2	1.4	0.1	6
W 242	01	07	11	06.1	40.647 S	174.664 E	40.9	2.4	0.1	9
W 243	01	11	01	34.0	41.490 S	175.027 E	23.5	1.7	0.2	8
W 244	01	15	38	32.9	41.411 S	174.181 E	33.3	1.5	0.1	5
W 245	01	16	05	59.4	41.730 S	174.510 E	34.2	1.9	0.1	8
W 246	01	17	10	12.9	41.120 S	174.495 E	35.2	1.1	0.2	5
W 247	01	17	31	10.7	41.376 S	174.173 E	34.3	2.3	0.2	9
W 248	01	22	18	39.3	41.316 S	174.923 E	30.3	1.4	0.0	5
W 249	01	23	26	26.0	41.159 S	175.597 E	11.8	1.7	0.0	6
W 250	02	03	52	04.1	41.086 S	174.740 E	57.6	1.8	0.1	10

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
W 251	FEB	02	10	58	13.1	41.399 S	174.998 E	28.7	1.2	0.2	9
W 252		02	10	59	14.0	41.620 S	174.650 E	30.3	1.4	0.1	8
W 253		02	22	58	02.0	40.780 S	175.113 E	33.3	2.4	0.2	9
W 254		03	05	15	52.1	41.708 S	174.464 E	29.4	1.7	0.2	7
W 255		03	05	24	43.2	41.199 S	175.244 E	32.0	1.4	0.1	6
W 256		03	13	43	39.5	40.845 S	175.277 E	31.6	1.7	0.1	6
W 257		03	20	38	58.2	41.070 S	174.811 E	30.2	1.2	0.1	6
W 258		04	02	22	18.3	40.836 S	174.393 E	49.3	1.8	0.2	7
W 259		04	20	45	02.4	41.425 S	175.076 E	26.4	1.3	0.2	6
W 260		04	21	23	10.4	41.558 S	174.983 E	21.5	1.9	0.0	8
W 261		05	01	26	51.5	41.666 S	174.164 E	8.6	2.1	0.2	8
W 262		05	02	28	33.5	41.759 S	174.518 E	29.6	2.1	0.2	9
W 263		05	08	24	14.6	41.682 S	174.751 E	22.3	1.5	0.1	6
W 264		05	11	12	00.1	41.108 S	175.243 E	28.4	1.9	0.1	8
W 265		05	11	39	44.0	41.660 S	174.181 E	11.1	2.0	0.1	8
W 266		05	11	53	00.8	41.310 S	175.354 E	28.3	1.5	0.1	8
W 267		05	13	52	27.0	41.347 S	174.882 E	28.8	1.6	0.2	11
W 268		05	21	43	00.7	40.980 S	174.526 E	66.3	2.2	0.1	10
W 269		06	02	43	21.4	41.160 S	175.051 E	30.7	1.4	0.1	6
W 270		06	03	19	10.1	41.633 S	175.531 E	31.9	2.5	0.1	10
W 271		06	09	26	33.1	41.101 S	174.701 E	38.3	2.8	0.0	8
W 272		06	16	01	21.6	41.462 S	174.664 E	29.3	1.6	0.1	9
W 273		06	17	23	02.2	41.013 S	175.558 E	15.4	2.1	0.1	7
W 274		06	18	40	31.5	41.403 S	175.041 E	39.5	1.8	0.1	9
W 275		07	07	25	30.4	40.909 S	174.473 E	54.3	1.7	0.1	9
W 276		07	07	30	17.0	41.359 S	174.190 E	35.0	2.0	0.2	8
W 277		07	08	34	12.5	41.003 S	175.588 E	31.9	2.3	0.1	9
W 278		07	11	12	20.6	41.699 S	174.540 E	31.0	1.6	0.2	7
W 279		07	16	05	13.5	41.177 S	174.761 E	32.0	1.2	0.1	8
W 280		07	16	28	30.8	41.357 S	174.632 E	8.5	1.1	0.0	8
W 281		08	13	24	10.3	41.563 S	174.343 E	38.1	2.1	0.2	10
W 282		08	15	09	53.3	41.039 S	174.586 E	38.4	2.8	0.1	9
W 283		09	04	49	53.3	41.259 S	173.885 E	63.2	2.1	0.2	6
W 284		09	04	58	48.2	40.954 S	175.409 E	22.7	1.8	0.1	6
W 285		09	08	27	11.8	41.366 S	174.628 E	6.6	1.0	0.1	6
W 286		09	09	05	32.1	41.237 S	175.035 E	22.9	1.7	0.1	6
W 287		09	13	13	03.4	41.068 S	174.595 E	21.0	0.8	0.1	5
W 288		09	17	18	20.4	40.904 S	175.554 E	29.2	2.4	0.2	9
W 289		09	18	10	14.4	41.654 S	174.318 E	34.5	1.3	0.0	5
W 290		09	18	40	07.7	40.932 S	175.546 E	28.8	2.0	0.1	6
W 291		09	19	00	17.5	40.942 S	174.461 E	45.4	2.1	0.2	9
W 292		09	19	04	29.2	40.999 S	174.857 E	35.5	1.7	0.0	6
W 293		09	20	22	49.4	41.476 S	174.483 E	28.6	1.5	0.1	9
W 294		10	00	47	00.7	41.246 S	175.252 E	27.8	1.5	0.1	8
W 295		10	07	26	27.4	40.898 S	175.068 E	35.9	1.6	0.2	6
W 296		10	09	12	50.6	41.479 S	174.561 E	31.3	1.9	0.1	9
W 297		10	10	58	00.4	41.422 S	174.618 E	33.1	1.4	0.1	7
W 298		10	14	01	39.2	41.714 S	174.107 E	21.1	2.6	0.1	9
W 299		11	13	56	33.9	40.634 S	174.376 E	41.9	2.0	0.2	7
W 300		11	15	45	07.8	40.961 S	174.411 E	44.7	1.6	0.2	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 301 FEB	11	18	23	59.1	41.454 S	174.399 E	21.1	2.0	0.1	10
W 302	12	15	24	15.3	41.162 S	175.215 E	26.6	1.5	0.0	6
W 303	12	16	07	04.0	41.411 S	174.618 E	32.4	1.7	0.1	9
W 304	12	19	58	02.5	41.096 S	175.426 E	31.2	2.1	0.2	8
W 305	12	20	41	43.5	41.030 S	174.941 E	13.5	1.4	0.1	7
W 306	12	23	03	42.7	41.437 S	175.006 E	25.7	1.9	0.1	8
W 307	13	01	06	40.1	40.581 S	174.723 E	30.9	1.9	0.0	5
W 308	13	07	13	42.0	41.372 S	174.184 E	34.1	1.9	0.1	6
W 309	13	07	29	38.3	41.422 S	175.064 E	26.8	2.2	0.1	8
W 310	13	11	19	37.7	40.929 S	175.518 E	12.2	1.8	0.1	6
W 311	13	12	54	17.2	41.369 S	174.513 E	32.9	1.6	0.1	8
W 312	13	13	50	10.4	41.046 S	174.309 E	69.3	2.1	0.2	8
W 313	13	23	39	01.4	41.277 S	175.198 E	23.9	1.3	0.1	6
W 314	14	04	14	23.5	41.372 S	174.155 E	34.4	2.4	0.2	7
W 315	14	14	41	13.8	41.277 S	174.691 E	36.0	1.7	0.1	9
W 316	15	02	52	35.6	40.734 S	174.911 E	39.9	2.2	0.1	7
W 317	15	11	08	40.5	40.828 S	174.747 E	18.0	1.5	0.0	5
W 318	15	23	15	01.9	41.093 S	174.213 E	55.1	2.0	0.2	6
W 319	17	01	26	27.3	41.099 S	174.703 E	36.9	3.2	0.1	9
W 320	17	01	54	49.3	41.099 S	174.699 E	35.7	2.4	0.1	9
W 321	17	01	58	55.3	40.968 S	174.618 E	60.6	1.3	0.1	6
W 322	17	02	13	38.0	41.512 S	174.142 E	34.7	2.0	0.1	6
W 323	17	03	02	28.7	40.758 S	175.379 E	30.9	1.2	0.2	5
W 324	17	03	29	09.4	41.232 S	174.806 E	52.4	1.8	0.1	7
W 325	17	06	29	01.8	40.750 S	175.380 E	30.9	1.3	0.2	5
W 326	17	06	42	46.9	41.310 S	174.651 E	31.9	2.2	0.0	9
W 327	17	11	39	35.1	41.250 S	173.921 E	58.4	1.6	0.2	5
W 328	17	17	35	48.7	40.554 S	174.684 E	5.0 R	1.9	0.1	9
W 329	17	22	07	45.0	41.342 S	173.967 E	42.7	2.0	0.2	7
W 330	18	03	15	13.0	41.299 S	175.183 E	26.9	1.3	0.2	8
W 331	18	06	02	23.3	41.373 S	175.126 E	24.9	1.9	0.1	11
W 332	18	06	12	10.6	41.376 S	175.124 E	25.1	1.6	0.1	10
W 333	18	06	42	09.0	41.379 S	175.126 E	25.4	1.6	0.1	6
W 334	18	08	52	27.8	41.659 S	174.347 E	19.3	1.8	0.1	7
W 335	18	09	56	54.3	41.268 S	175.150 E	27.2	1.6	0.1	8
W 336	18	10	25	36.7	41.228 S	175.214 E	27.2	1.8	0.1	8
W 337	18	18	55	35.6	41.370 S	175.130 E	25.6	1.4	0.2	8
W 338	19	04	25	27.9	41.526 S	174.368 E	28.3	1.7	0.1	6
W 339	19	06	56	04.7	41.069 S	174.583 E	53.6	2.1	0.1	11
W 340	19	18	53	45.3	41.757 S	174.485 E	33.3	2.1	0.1	8
W 341	19	19	47	12.6	41.198 S	175.173 E	25.4	2.0	0.1	8
W 342	20	01	49	23.5	41.729 S	174.328 E	8.7	1.9	0.0	5
W 343	20	02	35	24.7	41.320 S	175.127 E	21.4	2.0	0.1	9
W 344	20	03	07	06.9	41.292 S	175.153 E	10.7	1.7	0.2	7
W 345	20	07	42	02.9	40.958 S	174.673 E	57.8	2.0	0.1	8
W 346	20	09	32	25.4	41.390 S	174.259 E	35.3	2.2	0.2	8
W 347	20	09	49	38.3	41.567 S	173.974 E	33.3	2.0	0.2	5
W 348	20	14	10	42.0	40.960 S	175.518 E	29.1	1.8	0.1	5
W 349	20	15	58	36.4	41.556 S	173.958 E	33.4	1.6	0.3	5
W 350	20	16	06	04.5	41.132 S	174.775 E	30.7	1.3	0.1	7

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
W 351	FEB	21	05	51	07.0	41.370 S	175.128 E	28.5	1.5	0.1	7
W 352		21	05	53	57.6	41.370 S	175.125 E	27.4	1.4	0.1	7
W 353		21	06	40	47.2	41.408 S	174.433 E	39.6	1.9	0.1	8
W 354		21	13	25	24.4	41.434 S	174.911 E	7.7	1.3	0.0	6
W 355		21	20	32	33.8	41.659 S	174.776 E	27.8	2.2	0.1	8
W 356		22	01	22	03.0	41.088 S	174.657 E	61.3	1.7	0.1	6
W 357		22	10	22	57.0	40.868 S	174.715 E	12.6	1.5	0.1	5
W 358		22	21	40	15.3	41.028 S	174.502 E	40.7	1.6	0.0	8
W 359		23	01	50	34.1	41.494 S	173.996 E	34.6	2.3	0.2	7
W 360		23	07	56	59.4	40.828 S	175.249 E	36.4	2.1	0.1	7
W 361		23	11	52	47.3	41.292 S	175.283 E	27.2	1.8	0.1	6
W 362		23	12	21	19.5	41.313 S	175.273 E	28.9	2.1	0.2	8
W 363		23	12	54	12.0	41.363 S	174.184 E	34.6	1.9	0.2	7
W 364		23	13	40	31.6	41.618 S	173.894 E	6.5	2.5	0.1	6
W 365		23	19	43	34.5	41.134 S	175.040 E	30.9	1.5	0.1	7
W 366		23	20	09	54.8	41.146 S	174.194 E	43.2	3.0	0.1	8
W 367		23	22	46	39.1	40.625 S	174.917 E	39.6	2.3	0.1	8
W 368		24	03	57	24.1	41.324 S	175.168 E	9.0	0.9	0.2	5
W 369		24	11	01	49.9	41.378 S	174.126 E	35.6	1.7	0.2	6
W 370		24	14	31	29.7	41.076 S	175.445 E	31.6	1.8	0.1	5
W 371		24	20	09	08.6	41.293 S	174.408 E	20.5	1.6	0.2	7
W 372		25	04	37	46.7	40.958 S	175.697 E	27.9	2.0	0.1	6
W 373		25	04	45	35.6	40.907 S	174.824 E	34.9	2.3	0.1	7
W 374		25	06	58	02.1	41.667 S	174.553 E	31.1	1.9	0.1	6
W 375		25	06	59	01.7	41.684 S	174.557 E	31.1	1.6	0.1	6
W 376		25	09	56	23.4	41.035 S	175.329 E	22.2	2.7	0.1	8
W 377		25	18	19	32.8	41.419 S	175.066 E	24.5	2.2	0.1	10
W 378		25	19	58	34.7	41.458 S	175.079 E	12.2	2.1	0.1	7
W 379		26	02	45	39.4	41.136 S	174.949 E	38.4	1.3	0.1	6
W 380		26	02	46	02.0	40.950 S	175.190 E	31.0	1.5	0.2	6
W 381		26	06	26	54.9	41.045 S	175.057 E	30.9	3.0	0.1	7
W 382		26	08	10	19.4	40.927 S	175.226 E	30.4	1.5	0.0	5
W 383		26	10	37	03.6	40.852 S	174.749 E	13.5	1.4	0.0	5
W 384		26	13	42	45.2	41.500 S	175.001 E	41.1	1.8	0.0	6
W 385		27	05	37	55.2	41.719 S	174.096 E	10.0	2.3	0.2	7
W 386		27	10	41	43.4	41.216 S	175.102 E	19.2	1.5	0.1	6
W 387		27	17	23	15.0	41.377 S	175.143 E	28.9	2.0	0.2	7
W 388		27	21	24	52.2	40.895 S	174.741 E	48.3	1.9	0.1	5
W 389		28	00	20	34.6	41.049 S	174.864 E	13.1	1.4	0.1	5
W 390		28	05	19	43.9	41.080 S	174.920 E	27.8	2.0	0.1	7
W 391		28	07	44	41.8	41.627 S	174.648 E	31.8	1.8	0.1	6
W 392		28	12	37	26.7	41.133 S	175.280 E	4.9	1.1	0.0	5
W 393		28	14	03	37.5	41.023 S	174.909 E	46.3	1.5	0.1	6
W 394		28	20	25	48.5	41.434 S	174.972 E	28.4	1.6	0.1	7
W 395		28	21	55	46.8	41.378 S	175.112 E	27.0	2.0	0.1	8
W 396		28	23	21	00.7	40.918 S	175.227 E	36.3	1.6	0.2	5
W 397	MAR	01	02	41	28.3	40.810 S	175.248 E	64.0	2.0	0.2	5
W 398		01	08	48	55.8	40.862 S	174.707 E	16.8	2.2	0.1	7
W 399		01	15	20	19.7	41.566 S	173.888 E	19.3	2.5	0.1	8
W 400		01	23	47	58.1	41.429 S	174.412 E	29.1	1.5	0.2	5

REF NUM	ORIGIN TIME h m s	LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
W 401	MAR 02 02 07 09.7	41.449 S	175.884 E	31.6	3.4	0.2	10
W 402	02 09 12 53.2	41.356 S	175.111 E	25.7	1.8	0.1	9
W 403	02 14 14 54.7	41.375 S	175.869 E	25.1	2.3	0.4	8
W 404	02 14 15 06.9	41.422 S	175.703 E	32.0	3.5	0.1	9
W 405	02 14 36 57.1	41.387 S	175.861 E	26.9	2.1	0.3	8
W 406	02 22 55 31.8	41.360 S	174.642 E	30.0	2.7	0.1	9
W 407	03 06 12 21.5	41.431 S	174.558 E	19.8	1.8	0.2	11
W 408	03 11 07 49.1	41.025 S	175.311 E	15.8	3.2	0.2	8
W 409	04 01 15 15.9	40.683 S	174.280 E	45.6	2.2	0.1	8
W 410	04 04 57 41.7	41.086 S	175.241 E	20.8	1.5	0.1	5
W 411	04 05 01 12.7	41.431 S	175.907 E	29.4	2.6	0.2	7
W 412	04 08 00 53.8	41.429 S	175.733 E	31.5	3.8	0.1	7
W 413	04 08 16 08.6	41.453 S	175.871 E	29.9	2.9	0.1	7
W 414	04 09 22 29.6	41.452 S	175.896 E	24.8	2.0	0.3	7
W 415	04 12 27 28.0	41.380 S	174.636 E	31.6	1.9	0.0	8
W 416	04 13 47 39.2	41.309 S	175.294 E	27.2	1.9	0.1	6
W 417	04 15 12 41.4	41.473 S	175.918 E	29.1	2.6	0.1	8
W 418	04 17 45 24.5	41.046 S	175.078 E	32.1	2.3	0.1	7
W 419	04 23 22 35.0	40.872 S	175.002 E	45.7	1.7	0.0	5
W 420	05 04 44 30.1	41.412 S	175.877 E	24.6	2.0	0.3	8
W 421	05 06 33 15.1	41.105 S	174.579 E	63.9	2.4	0.1	8
W 422	05 08 52 26.1	41.360 S	175.022 E	30.4	1.4	0.1	6
W 423	05 16 14 04.8	41.022 S	174.557 E	62.0	1.8	0.1	9
W 424	05 16 45 29.5	41.629 S	175.244 E	14.7	1.8	0.2	8
W 425	05 20 10 04.6	41.547 S	175.598 E	31.2	2.5	0.2	8
W 426	05 20 30 34.7	41.562 S	175.624 E	29.9	2.9	0.1	8
W 427	05 23 17 54.8	41.549 S	175.596 E	30.4	2.4	0.1	10
W 428	06 08 04 53.6	41.250 S	175.247 E	26.7	1.6	0.2	7
W 429	06 11 27 48.4	41.093 S	175.224 E	25.7	2.1	0.1	6
W 430	06 12 04 21.5	41.056 S	174.742 E	30.3	1.8	0.2	6
W 431	06 14 54 57.8	41.319 S	174.992 E	30.5	1.5	0.1	6
W 432	06 15 07 24.2	40.855 S	175.232 E	37.4	2.5	0.1	6
W 433	06 17 57 31.0	41.472 S	175.913 E	28.6	2.3	0.3	7
W 434	06 21 42 39.3	41.119 S	174.033 E	59.8	2.0	0.2	6
W 435	07 00 32 12.2	41.192 S	174.291 E	39.5	1.5	0.1	7
W 436	07 04 07 01.0	41.073 S	174.201 E	46.2	1.7	0.2	6
W 437	07 06 20 43.6	41.468 S	175.846 E	30.9	2.6	0.2	11
W 438	07 09 15 06.1	40.710 S	175.547 E	32.1	2.5	0.1	7
W 439	07 09 16 00.6	41.044 S	175.040 E	32.2	1.0	0.0	5
W 440	07 19 05 01.1	41.293 S	174.868 E	32.7	1.0	0.0	7
W 441	07 21 19 16.5	41.645 S	174.171 E	9.4	1.7	0.2	5
W 442	08 01 30 30.9	41.310 S	174.392 E	20.4	1.3	0.1	6
W 443	08 04 39 14.9	41.669 S	174.752 E	25.4	2.1	0.1	8
W 444	08 05 22 01.5	41.460 S	175.878 E	30.3	2.9	0.1	8
W 445	08 06 18 49.5	41.738 S	174.462 E	40.7	2.4	0.1	7
W 446	08 08 56 02.9	40.405 S	175.291 E	33.1	2.4	0.1	7
W 447	08 09 45 41.2	40.599 S	174.681 E	33.4	1.5	0.1	5
W 448	08 13 28 26.5	40.573 S	174.600 E	10.0 R	1.4	0.3	5
W 449	08 13 45 25.3	41.730 S	174.299 E	19.5	1.7	0.2	6
W 450	08 13 49 14.0	41.689 S	174.326 E	13.2	1.8	0.1	9

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 451	MAR 08	14	03	37.3	41.281 S	175.332 E	25.5	1.4	0.1	7
W 452	08	15	17	37.0	41.110 S	174.887 E	32.5	1.2	0.0	7
W 453	08	16	19	46.8	41.731 S	174.560 E	30.4	1.4	0.2	5
W 454	08	17	35	09.4	40.769 S	175.223 E	24.9	1.3	0.2	5
W 455	08	20	42	41.5	41.028 S	174.168 E	34.8	1.9	0.2	5
W 456	08	23	17	21.4	41.691 S	174.754 E	20.2	1.3	0.2	6
W 457	09	00	16	36.6	41.117 S	174.613 E	33.3	1.7	0.1	7
W 458	09	00	36	49.8	41.722 S	174.568 E	29.9	1.7	0.1	7
W 459	09	01	04	55.0	41.266 S	175.188 E	25.3	1.6	0.1	9
W 460	09	05	24	28.4	40.995 S	175.663 E	27.8	1.8	0.1	6
W 461	09	12	49	28.1	40.765 S	174.598 E	40.4	1.6	0.1	8
W 462	09	14	06	57.9	41.605 S	174.274 E	28.3	3.0	0.1	10
W 463	09	17	25	48.5	40.981 S	175.108 E	35.0	1.2	ND	4
W 464	09	19	15	57.7	41.147 S	174.948 E	21.7	1.1	0.0	5
W 465	10	04	06	11.6	41.327 S	174.738 E	49.8	1.8	0.1	10
W 466	10	04	39	19.6	40.983 S	175.077 E	35.7	1.4	ND	4
W 467	10	04	54	31.9	40.953 S	174.270 E	7.5	1.3	ND	4
W 468	10	05	01	46.2	41.018 S	174.987 E	37.8	1.4	0.1	5
W 469	10	06	46	18.8	41.068 S	174.721 E	60.0	1.5	0.0	5
W 470	10	07	38	42.6	40.978 S	175.128 E	34.4	1.9	0.0	5
W 471	10	08	15	04.4	41.481 S	174.363 E	28.4	1.4	0.1	5
W 472	10	09	12	10.9	41.306 S	174.408 E	34.9	2.0	0.0	7
W 473	10	10	11	42.9	40.975 S	175.145 E	30.3	1.5	0.2	5
W 474	10	16	11	28.1	41.554 S	173.770 E	17.6	2.2	0.2	8
W 475	10	17	26	54.7	40.593 S	174.558 E	44.5	1.7	0.0	5
W 476	10	17	27	33.8	40.984 S	175.112 E	30.3	1.6	0.1	5
W 477	10	17	44	05.7	41.677 S	174.313 E	22.1	1.8	0.2	6
W 478	10	18	09	21.7	40.907 S	175.043 E	36.2	2.3	0.1	7
W 479	11	16	39	41.3	41.795 S	174.473 E	34.0	1.8	0.2	5
W 480	11	17	51	19.0	41.288 S	175.261 E	26.5	2.1	0.1	7
W 481	11	19	09	36.6	40.977 S	174.620 E	62.8	1.7	0.1	7
W 482	11	21	58	42.9	41.498 S	174.546 E	18.4	2.0	0.1	6
W 483	12	10	22	19.2	41.065 S	175.597 E	32.6	2.9	0.1	9
W 484	12	20	19	25.4	41.057 S	174.633 E	31.2	1.6	0.1	6
W 485	12	22	34	43.2	41.682 S	174.248 E	8.7	2.0	0.2	6
W 486	13	04	58	29.7	40.486 S	174.655 E	45.9	2.4	0.2	7
W 487	13	09	17	02.3	41.349 S	174.285 E	34.7	2.1	0.2	7
W 488	13	15	36	49.1	41.742 S	174.455 E	30.3	2.5	0.2	8
W 489	13	16	20	20.6	40.808 S	175.458 E	29.8	1.6	0.2	6
W 490	14	02	29	57.2	41.000 S	174.816 E	38.5	1.7	0.1	5
W 491	14	04	22	47.8	40.870 S	174.989 E	42.4	1.9	0.2	5
W 492	14	08	05	16.0	41.388 S	174.693 E	31.2	1.7	0.1	8
W 493	14	14	22	03.3	41.709 S	174.192 E	42.6	1.8	0.2	6
W 494	14	23	15	23.8	41.112 S	175.355 E	28.0	2.1	0.1	7
W 495	15	02	57	08.0	41.186 S	174.474 E	36.9	2.8	0.1	7
W 496	15	04	26	43.9	41.433 S	174.525 E	44.3	2.0	0.1	5
W 497	15	06	56	03.7	41.543 S	175.101 E	20.9	1.8	0.1	7
W 498	15	09	02	19.5	40.997 S	174.865 E	48.4	1.6	0.1	6
W 499	15	14	38	11.0	41.457 S	174.946 E	29.7	1.6	0.2	7
W 500	15	15	41	21.2	41.675 S	174.235 E	17.5	2.4	0.1	8

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 501	MAR 16	13	53	23.4	40.846 S	174.967 E	58.1	2.2	0.2	7
W 502	16	15	46	17.9	41.433 S	174.631 E	19.1	1.7	0.1	6
W 503	16	15	55	45.3	41.201 S	174.829 E	31.0	1.6	0.1	6
W 504	16	21	12	10.1	41.079 S	174.667 E	31.4	2.2	0.2	7
W 505	17	05	04	41.2	41.085 S	174.319 E	63.4	2.1	0.1	5
W 506	17	05	16	37.4	40.844 S	175.071 E	55.2	2.2	0.1	6
W 507	17	09	51	38.3	41.200 S	174.706 E	37.5	1.8	0.1	7
W 508	17	09	52	59.1	41.433 S	174.630 E	19.4	1.2	0.1	6
W 509	17	15	13	45.0	41.497 S	174.552 E	54.3	2.3	0.2	6
W 510	17	15	50	21.0	41.596 S	174.457 E	10.5	1.6	0.1	6
W 511	17	18	14	22.2	40.992 S	174.464 E	51.7	2.5	0.1	6
W 512	18	07	08	55.9	41.513 S	173.910 E	37.5	1.9	0.2	5
W 513	18	18	32	16.3	41.382 S	175.120 E	28.8	1.4	0.1	5
W 514	18	20	57	26.0	41.435 S	174.402 E	34.2	2.4	0.1	7
W 515	19	01	00	35.5	41.210 S	174.509 E	43.7	2.5	0.2	7
W 516	19	22	40	11.5	41.123 S	174.369 E	55.8	2.2	0.1	5
W 517	20	21	55	55.6	40.990 S	174.612 E	58.7	1.8	0.0	5
W 518	21	15	19	58.2	41.017 S	174.482 E	53.6	1.7	0.1	6
W 519	21	23	11	04.4	41.158 S	174.553 E	35.6	1.3	0.0	8
W 520	22	01	10	57.0	40.728 S	175.217 E	32.9	1.8	0.1	6
W 521	22	14	01	07.0	40.959 S	174.269 E	8.5	1.6	ND	4
W 522	22	17	31	06.8	41.563 S	174.769 E	32.6	1.5	0.0	5
W 523	22	21	30	50.5	41.341 S	175.014 E	28.9	1.3	0.1	7
W 524	23	07	36	35.0	40.977 S	174.355 E	45.3	2.2	0.1	7
W 525	23	11	59	58.7	41.193 S	175.243 E	27.6	1.7	0.1	8
W 526	23	21	19	13.6	41.129 S	174.716 E	35.1	1.7	0.1	7
W 527	23	21	37	11.0	41.116 S	174.596 E	57.0	1.8	0.0	7
W 528	23	23	59	07.9	41.301 S	173.952 E	52.2	1.7	0.1	5
W 529	24	02	03	23.2	41.103 S	175.059 E	31.2	1.9	0.0	7
W 530	24	07	41	18.2	40.929 S	174.612 E	70.0	2.2	0.1	8
W 531	24	08	19	22.1	41.457 S	175.042 E	29.0	1.3	0.1	9
W 532	24	09	31	46.2	40.560 S	174.962 E	33.0	1.7	0.1	6
W 533	24	12	49	54.0	41.582 S	174.294 E	24.1	2.0	0.1	7
W 534	24	20	54	44.1	40.984 S	175.385 E	24.9	1.7	0.1	6
W 535	25	05	44	25.0	41.374 S	175.120 E	28.1	1.5	0.1	6
W 536	25	07	24	21.0	40.989 S	175.104 E	34.9	1.6	0.1	6
W 537	25	19	32	55.0	41.288 S	174.989 E	29.9	1.7	0.1	7
W 538	26	08	40	02.2	41.292 S	174.920 E	34.1	1.3	0.2	6
W 539	26	14	24	05.9	40.961 S	174.701 E	54.6	1.8	0.1	7
W 540	26	17	07	58.2	41.462 S	174.947 E	25.8	1.3	0.1	7
W 541	26	18	00	09.2	41.152 S	174.801 E	30.9	1.5	0.1	7
W 542	27	04	20	36.6	40.644 S	174.532 E	39.0	2.7	0.2	10
W 543	27	06	10	32.4	41.459 S	175.008 E	24.6	1.6	0.1	7
W 544	27	07	14	38.6	41.288 S	173.877 E	58.3	2.2	0.2	6
W 545	27	13	35	45.4	41.768 S	174.488 E	33.6	1.7	0.1	7
W 546	27	13	37	23.3	41.383 S	174.970 E	27.7	1.4	0.1	8
W 547	27	16	34	00.0	41.297 S	175.174 E	3.8	1.2	0.2	6
W 548	27	16	40	02.0	41.193 S	175.125 E	15.4	1.7	0.1	7
W 549	27	17	36	27.0	41.436 S	175.002 E	26.5	1.5	0.2	7
W 550	27	21	47	12.4	41.001 S	175.595 E	32.9	2.0	0.1	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 551 MAR	28	01	52	10.0	41.436 S	173.862 E	52.9	1.9	0.2	6
W 552	28	04	48	27.2	41.164 S	175.343 E	25.7	1.3	0.0	5
W 553	28	06	39	57.2	41.763 S	174.474 E	33.5	1.6	0.3	8
W 554	28	07	33	20.5	41.753 S	174.480 E	32.8	2.5	0.2	10
W 555	28	07	44	50.5	41.395 S	175.119 E	30.1	1.9	0.2	11
W 556	28	09	31	27.4	40.870 S	174.727 E	13.6	2.0	0.2	9
W 557	28	17	43	57.0	40.961 S	175.088 E	33.9	1.8	0.1	5
W 558	29	09	14	35.9	40.957 S	175.167 E	33.3	1.6	0.0	5
W 559	29	11	40	38.2	41.586 S	175.069 E	13.7	1.4	0.2	6
W 560	29	17	08	08.1	41.725 S	174.106 E	34.1	2.0	0.2	6
W 561	29	17	52	11.0	41.062 S	174.890 E	14.4	1.1	0.1	5
W 562	31	05	32	30.0	41.649 S	174.972 E	28.5	2.1	0.1	7
W 563	31	22	53	08.7	40.983 S	174.865 E	35.2	1.2	0.0	5
W 564 APR	01	00	59	14.4	41.440 S	174.504 E	23.0	1.5	0.0	6
W 565	01	05	06	18.8	41.307 S	175.303 E	28.0	2.0	0.1	7
W 566	01	07	41	36.4	41.606 S	174.118 E	25.0 R	2.1	0.2	7
W 567	01	09	24	48.5	41.290 S	175.321 E	21.2	1.4	0.2	6
W 568	01	09	58	31.8	41.016 S	175.547 E	20.0 R	1.8	0.2	6
W 569	01	15	50	21.6	41.312 S	174.415 E	16.6	1.3	0.2	6
W 570	01	19	27	55.7	41.196 S	174.576 E	37.4	1.7	0.1	6
W 571	01	20	08	28.2	41.760 S	174.542 E	32.9	2.0	0.1	7
W 572	02	01	06	35.1	41.098 S	173.980 E	65.3	2.6	0.2	6
W 573	02	05	01	43.3	41.313 S	175.286 E	27.8	1.4	0.1	5
W 574	02	05	42	42.1	41.653 S	174.094 E	8.1	1.7	0.2	7
W 575	02	10	00	55.2	40.917 S	174.926 E	36.5	1.5	0.1	5
W 576	02	10	21	52.3	41.420 S	175.035 E	26.3	1.2	0.0	5
W 577	02	17	40	13.5	41.595 S	174.273 E	11.8	1.7	0.1	5
W 578	03	00	08	29.1	41.168 S	175.300 E	31.0	1.6	0.1	7
W 579	03	02	48	13.5	41.143 S	175.306 E	1.7	1.4	0.1	6
W 580	03	04	47	30.3	41.266 S	175.099 E	22.2	1.5	0.1	6
W 581	03	13	43	20.0	41.237 S	175.321 E	29.5	2.3	0.2	8
W 582	03	14	41	34.6	40.899 S	174.249 E	52.0	2.3	0.2	9
W 583	03	16	30	56.6	40.905 S	175.339 E	39.5	2.4	0.2	7
W 584	03	16	34	50.0	41.294 S	175.052 E	26.7	2.2	0.0	7
W 585	03	16	49	51.6	41.396 S	174.982 E	29.6	1.0	0.2	5
W 586	03	17	38	33.1	41.359 S	174.844 E	40.8	1.5	0.1	6
W 587	03	17	49	43.8	41.679 S	174.242 E	12.0 R	1.8	0.1	6
W 588	03	21	43	44.3	41.339 S	173.890 E	43.5	1.6	0.3	6
W 589	03	21	53	09.5	40.623 S	174.556 E	30.0 R	1.4	0.2	4
W 590	04	14	00	36.6	41.349 S	174.930 E	23.8	1.8	0.2	8
W 591	04	15	47	50.8	41.174 S	175.192 E	25.5	1.9	0.2	6
W 592	04	15	49	46.1	40.686 S	175.051 E	38.0 R	2.1	0.1	5
W 593	04	16	02	25.3	40.933 S	174.773 E	46.4	2.1	0.1	8
W 594	04	22	04	04.4	41.750 S	174.482 E	43.0	2.3	0.2	8
W 595	05	02	48	15.4	41.428 S	174.177 E	32.5	1.4	ND	4
W 596	05	12	12	40.1	41.116 S	174.580 E	62.0	1.8	0.0	5
W 597	05	12	53	43.0	41.647 S	174.372 E	4.9	1.5	0.2	6
W 598	05	15	18	20.5	40.689 S	174.894 E	38.3	1.5	0.3	5
W 599	06	08	12	40.4	41.111 S	175.551 E	27.3	1.6	0.0	5
W 600	07	03	12	45.2	41.400 S	173.897 E	48.3	2.0	0.3	6

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
W 601	APR	07	12	54	16.1	41.115 S	174.106 E	45.6	2.0	0.1	7
W 602		07	13	59	24.4	41.072 S	174.766 E	59.4	1.6	0.1	6
W 603		07	15	32	25.5	40.782 S	174.676 E	41.1	2.4	0.0	7
W 604		07	18	22	59.6	40.590 S	174.610 E	47.5	2.0	0.1	6
W 605		07	19	20	57.5	41.283 S	175.326 E	26.2	1.5	0.2	7
W 606		08	04	39	14.9	41.669 S	174.754 E	25.3	2.1	0.1	8
W 607		08	06	18	49.2	41.769 S	174.439 E	33.4	2.4	0.2	9
W 608		08	08	56	02.9	40.401 S	175.294 E	33.4	2.4	0.1	8
W 609		08	14	03	37.4	41.279 S	175.333 E	25.1	1.4	0.1	6
W 610		08	20	42	35.2	41.129 S	173.746 E	80.9	2.4	0.1	6
W 611		09	02	44	00.8	41.462 S	175.033 E	27.6	1.9	0.1	7
W 612		09	05	22	56.5	41.375 S	175.102 E	24.5	1.6	0.1	7
W 613		09	05	27	33.3	41.133 S	174.617 E	60.6	1.5	0.1	6
W 614		09	06	30	30.3	41.288 S	174.528 E	37.0	1.5	0.1	7
W 615		09	08	33	20.8	41.100 S	174.686 E	52.7	1.5	0.1	6
W 616		09	12	25	22.6	40.900 S	174.984 E	58.1	1.6	0.1	7
W 617		09	14	39	55.7	40.568 S	174.685 E	25.7	1.6	0.1	5
W 618		09	18	29	41.2	41.107 S	174.707 E	60.8	1.5	0.1	6
W 619		09	21	48	37.4	41.444 S	174.284 E	25.4	1.6	0.0	5
W 620		10	00	57	39.3	40.909 S	175.197 E	29.3	2.2	0.1	8
W 621		10	01	06	46.2	41.417 S	174.941 E	30.4	1.7	0.1	5
W 622		10	02	05	39.1	41.709 S	174.140 E	22.5	2.4	0.1	8
W 623		10	03	23	04.4	41.141 S	174.500 E	58.9	2.1	0.2	7
W 624		10	07	20	08.2	41.118 S	174.356 E	57.3	2.2	0.1	7
W 625		10	09	58	59.5	41.107 S	175.364 E	28.2	1.9	0.1	7
W 626		10	11	54	37.6	40.966 S	174.507 E	34.3	1.5	0.1	7
W 627		10	14	54	46.1	41.685 S	174.195 E	12.1	2.3	0.1	7
W 628		10	17	02	08.0	41.110 S	175.370 E	29.0	1.1	0.2	5
W 629		10	17	43	48.1	41.668 S	174.239 E	11.9	1.4	0.0	5
W 630		10	18	42	03.2	41.180 S	174.947 E	33.2	1.2	0.1	5
W 631		10	19	10	27.9	41.202 S	175.091 E	24.4	1.3	0.1	7
W 632		10	19	38	39.2	41.059 S	174.437 E	41.6	4.9	0.1	10
W 633		10	19	45	53.6	41.033 S	174.433 E	35.8	1.4	0.2	5
W 634		10	19	46	43.6	41.061 S	174.392 E	44.2	1.7	0.2	5
W 635		10	19	46	54.4	41.130 S	174.370 E	53.1	1.6	0.1	5
W 636		10	19	47	37.1	41.085 S	174.433 E	37.3	1.3	0.1	5
W 637		10	19	48	36.7	41.057 S	174.437 E	38.2	2.5	0.1	7
W 638		10	19	50	34.3	41.050 S	174.433 E	36.1	1.2	0.2	6
W 639		10	19	52	59.8	41.059 S	174.439 E	38.4	2.4	0.1	7
W 640		10	19	54	33.0	41.066 S	174.436 E	37.7	1.4	0.1	6
W 641		10	19	59	04.8	41.057 S	174.439 E	38.8	2.2	0.1	7
W 642		10	20	00	19.6	41.103 S	174.437 E	37.1	1.4	0.1	6
W 643		10	20	13	25.4	41.047 S	174.444 E	35.7	1.3	0.0	6
W 644		10	20	26	44.2	41.059 S	174.437 E	38.2	1.7	0.1	7
W 645		10	20	31	10.7	41.054 S	174.442 E	37.4	2.2	0.1	7
W 646		10	20	35	43.5	41.093 S	174.421 E	39.6	1.4	0.1	6
W 647		10	21	03	49.3	41.063 S	174.441 E	38.0	1.8	0.1	7
W 648		10	21	08	41.2	41.055 S	174.450 E	35.4	1.4	0.1	6
W 649		10	21	14	44.7	41.054 S	174.446 E	35.6	1.3	0.2	5
W 650		10	21	39	31.5	41.057 S	174.442 E	39.3	2.4	0.1	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 651 APR	10	21	46	06.1	41.060 S	174.438 E	38.4	1.5	0.1	6
W 652	10	21	48	35.9	41.058 S	174.435 E	37.2	1.4	0.1	6
W 653	10	22	18	14.6	41.086 S	174.399 E	42.7	1.3	0.3	5
W 654	10	22	26	53.6	41.063 S	174.444 E	39.7	3.3	0.1	7
W 655	10	22	29	18.6	41.048 S	174.417 E	42.5	1.8	0.2	6
W 656	10	22	43	05.3	41.063 S	174.430 E	38.8	2.1	0.1	7
W 657	10	22	44	18.2	41.052 S	174.445 E	38.7	1.4	0.0	6
W 658	10	22	55	27.2	41.062 S	174.425 E	40.0	2.8	0.1	8
W 659	10	23	08	49.5	41.140 S	174.422 E	41.4	1.4	0.2	5
W 660	10	23	12	42.5	41.056 S	174.441 E	37.0	1.7	0.1	6
W 661	11	00	11	55.8	41.023 S	174.427 E	39.1	1.5	0.2	6
W 662	11	00	21	07.5	41.064 S	174.436 E	38.4	2.2	0.1	7
W 663	11	01	06	19.1	41.066 S	174.454 E	37.6	2.3	0.2	8
W 664	11	01	49	35.7	41.094 S	174.409 E	42.9	2.4	0.1	7
W 665	11	03	52	52.7	41.056 S	174.470 E	36.2	1.6	0.2	6
W 666	11	04	29	14.7	40.796 S	174.626 E	44.7	2.1	0.1	7
W 667	11	05	10	54.1	41.102 S	174.439 E	38.7	1.6	0.1	6
W 668	11	05	25	16.8	41.053 S	174.433 E	37.6	1.5	0.1	7
W 669	11	05	30	43.1	41.060 S	174.453 E	35.8	1.9	0.1	7
W 670	11	05	45	11.0	41.066 S	174.443 E	40.8	2.9	0.1	8
W 671	11	05	50	35.1	40.995 S	174.411 E	60.5	1.7	0.1	6
W 672	11	07	29	36.1	41.054 S	174.425 E	38.6	2.1	0.1	8
W 673	11	07	34	20.1	41.044 S	174.433 E	37.9	1.8	0.1	7
W 674	11	07	37	33.9	41.055 S	174.433 E	37.1	1.8	0.2	6
W 675	11	10	57	24.6	41.052 S	174.424 E	38.4	2.1	0.1	8
W 676	11	12	01	39.8	41.060 S	174.436 E	38.6	2.3	0.1	7
W 677	11	12	40	06.5	40.569 S	174.567 E	30.2	1.5	0.2	6
W 678	11	15	09	30.5	41.050 S	174.430 E	38.9	1.9	0.1	6
W 679	11	17	37	34.7	40.802 S	175.142 E	32.5	1.7	0.3	5
W 680	11	22	04	34.6	41.285 S	174.489 E	34.0	1.6	0.2	5
W 681	11	23	05	54.5	41.054 S	174.441 E	37.5	2.0	0.1	7
W 682	12	00	37	05.6	41.153 S	175.121 E	19.2	1.8	0.1	7
W 683	12	05	02	11.6	41.065 S	174.448 E	37.4	2.4	0.2	7
W 684	12	07	32	41.7	41.110 S	174.385 E	51.8	2.8	0.2	8
W 685	13	07	12	37.1	41.038 S	174.413 E	39.1	1.6	0.1	7
W 686	13	07	16	56.4	41.060 S	174.424 E	40.7	2.3	0.1	6
W 687	13	11	36	12.8	41.054 S	174.418 E	41.2	2.6	0.1	7
W 688	13	16	58	58.3	41.059 S	174.456 E	32.7	1.6	0.1	6
W 689	13	19	10	01.5	41.063 S	174.445 E	36.0	1.9	0.0	6
W 690	13	21	42	43.7	41.080 S	174.678 E	27.1	1.5	0.1	6
W 691	13	23	46	37.9	41.084 S	174.673 E	33.0 R	1.7	0.2	7
W 692	14	00	49	40.0	41.639 S	174.244 E	12.0	2.1	0.1	6
W 693	14	06	49	16.4	40.973 S	174.639 E	38.3	1.8	0.2	6
W 694	14	09	08	00.4	41.653 S	174.486 E	50.3	2.3	0.2	8
W 695	14	09	32	03.7	40.890 S	174.887 E	40.7	1.6	0.0	6
W 696	14	15	43	16.0	41.200 S	175.251 E	28.7	2.3	0.1	6
W 697	14	16	50	38.8	41.199 S	175.287 E	27.2	1.4	0.0	5
W 698	14	18	09	54.8	41.709 S	174.944 E	30.6	2.0	0.1	6
W 699	15	03	12	25.0	41.054 S	174.510 E	25.8	1.4	0.1	6
W 700	15	04	26	01.7	41.032 S	175.566 E	28.4	1.7	0.0	6

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
W 701	APR	15	05	14	37.0	41.056 S	174.438 E	39.3	1.9	0.1	8
W 702		15	08	51	21.8	41.221 S	175.238 E	29.4	2.5	0.2	7
W 703		15	08	59	02.1	40.921 S	175.186 E	32.9	1.4	0.1	5
W 704		15	09	00	16.2	41.216 S	175.254 E	26.8	1.4	0.2	5
W 705		15	18	39	54.5	41.308 S	174.844 E	19.3	1.2	0.2	6
W 706		16	02	22	55.0	41.042 S	174.426 E	36.0	1.9	0.1	7
W 707		16	02	35	23.8	41.046 S	174.452 E	33.4	1.3	0.1	6
W 708		16	03	51	36.6	41.231 S	175.008 E	21.3	1.3	0.1	6
W 709		16	05	07	11.3	41.049 S	174.423 E	37.7	1.5	0.2	7
W 710		16	05	26	41.8	41.060 S	174.429 E	38.5	1.5	0.1	7
W 711		16	09	17	05.1	40.992 S	174.559 E	64.4	2.8	0.1	10
W 712		16	15	28	49.7	41.401 S	175.098 E	28.7	1.9	0.1	11
W 713		16	19	08	58.7	41.257 S	174.514 E	61.0	1.5	0.2	7
W 714		16	19	56	55.1	41.281 S	174.618 E	32.1	1.3	0.0	7
W 715		17	09	44	35.4	41.085 S	175.235 E	21.5	1.6	0.1	5
W 716		17	10	03	13.3	41.422 S	175.054 E	26.1	2.0	0.1	14
W 717		17	13	41	10.3	41.392 S	175.107 E	31.2	1.6	0.2	11
W 718		17	17	15	31.4	40.882 S	174.486 E	45.3	2.5	0.1	9
W 719		18	01	27	50.2	41.347 S	174.885 E	25.8	1.6	0.0	7
W 720		18	15	51	57.2	41.752 S	175.310 E	32.4	2.0	0.1	7
W 721		18	19	02	21.6	41.050 S	174.690 E	34.8	1.3	0.2	8
W 722		18	19	19	36.9	41.039 S	174.429 E	35.9	1.4	0.1	7
W 723		18	21	01	36.2	41.280 S	174.981 E	22.6	1.8	0.2	8
W 724		18	23	17	15.3	41.286 S	175.186 E	3.0	1.1	0.1	6
W 725		19	00	38	21.2	41.299 S	174.879 E	32.0	1.8	0.3	7
W 726		19	07	37	44.6	41.097 S	174.429 E	39.2	1.7	0.1	6
W 727		19	08	49	03.5	41.158 S	174.659 E	36.9	1.7	0.2	6
W 728		19	11	36	44.2	41.019 S	174.506 E	54.7	2.3	0.1	7
W 729		19	18	16	48.3	41.075 S	174.150 E	75.6	2.2	0.1	6
W 730		20	02	34	35.5	40.893 S	174.888 E	66.1	1.8	0.1	6
W 731		20	05	05	44.3	40.904 S	175.572 E	25.9	1.3	0.2	5
W 732		20	05	28	55.1	41.396 S	174.977 E	31.5	1.3	0.2	5
W 733		20	05	51	44.1	40.609 S	175.326 E	33.4	1.7	0.2	5
W 734		20	06	56	47.9	41.306 S	175.005 E	27.9	1.3	0.2	5
W 735		20	09	20	52.6	41.206 S	174.545 E	38.5	1.4	0.1	6
W 736		20	09	52	21.0	41.667 S	174.550 E	31.2	1.2	0.2	5
W 737		20	10	25	50.2	41.117 S	175.559 E	28.4	1.6	0.1	6
W 738		20	10	52	49.4	40.996 S	174.675 E	60.8	1.9	0.1	6
W 739		20	11	37	55.4	40.662 S	175.283 E	29.4	1.2	0.1	5
W 740		20	13	42	39.0	41.637 S	174.590 E	31.4	1.2	0.1	6
W 741		20	17	44	50.5	41.398 S	175.044 E	27.9	1.4	0.1	7
W 742		20	17	58	28.5	41.674 S	174.763 E	21.7	1.7	0.0	5
W 743		21	01	13	07.6	40.720 S	174.533 E	41.1	1.6	0.2	6
W 744		21	09	17	32.0	41.371 S	175.130 E	40.7	1.6	0.1	7
W 745		21	10	22	25.5	41.755 S	174.505 E	34.0	2.8	0.2	9
W 746		21	14	41	47.6	40.775 S	174.345 E	35.6	1.7	0.1	6
W 747		21	18	34	59.1	41.046 S	174.370 E	51.1	2.4	0.1	7
W 748		22	01	51	31.9	41.497 S	174.116 E	34.3	2.1	0.1	6
W 749		22	10	17	59.3	41.049 S	174.441 E	37.7	1.6	0.1	7
W 750		22	15	41	38.6	41.303 S	175.292 E	26.9	1.4	0.1	7

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
W 751	APR	22	16	35	07.9	41.065 S	174.419 E	42.3	2.0	0.0	7
W 752		23	01	18	05.1	41.592 S	174.675 E	30.1	1.7	0.1	6
W 753		23	11	38	23.9	41.180 S	175.731 E	24.5	1.7	0.3	6
W 754		23	16	24	15.4	41.352 S	175.129 E	26.4	1.4	0.1	6
W 755		23	17	25	37.3	41.381 S	175.115 E	28.4	2.0	0.2	7
W 756		24	16	05	27.8	41.700 S	174.443 E	49.7	2.1	0.1	6
W 757		25	01	28	46.2	41.370 S	175.124 E	26.7	1.7	0.1	7
W 758		25	01	29	38.0	41.371 S	175.127 E	26.6	1.6	0.1	7
W 759		25	04	09	50.7	41.661 S	174.569 E	31.0	1.9	0.1	6
W 760		25	05	28	46.1	41.368 S	175.122 E	25.5	1.8	0.1	5
W 761		25	06	43	12.3	41.159 S	174.767 E	56.8	1.6	0.1	6
W 762		25	11	30	54.2	41.349 S	175.130 E	25.9	2.0	0.1	6
W 763		25	12	35	21.7	41.367 S	175.123 E	26.4	1.8	0.1	6
W 764		25	12	35	30.5	41.366 S	175.102 E	32.2	1.7	0.2	5
W 765		26	05	26	47.3	41.649 S	174.575 E	31.5	2.1	0.1	7
W 766		26	08	56	25.9	41.004 S	175.310 E	29.1	1.8	0.0	5
W 767		26	18	50	44.3	41.318 S	175.125 E	19.7	1.8	0.1	8
W 768		26	18	54	58.0	41.315 S	175.127 E	20.3	1.6	0.2	8
W 769		26	18	56	58.4	41.316 S	175.113 E	17.9	2.1	0.0	7
W 770		26	19	50	15.0	41.544 S	174.863 E	30.4	1.7	0.1	7
W 771		26	20	25	59.0	41.309 S	175.132 E	20.1	1.4	0.2	6
W 772		27	06	05	19.8	41.312 S	174.488 E	55.6	2.0	0.1	5
W 773		27	10	45	57.7	41.126 S	174.614 E	33.7	1.9	0.1	6
W 774		27	21	05	33.9	41.490 S	175.329 E	16.2	2.0	0.2	8
W 775		27	21	06	58.7	41.481 S	175.319 E	15.7	1.6	0.2	8
W 776		27	23	59	56.5	41.093 S	174.706 E	57.7	2.4	0.1	7
W 777		28	09	49	05.4	41.771 S	174.459 E	30.3	2.3	0.1	6
W 778		28	22	36	35.9	41.546 S	175.037 E	8.6	1.7	0.2	6
W 779		29	10	07	28.2	41.424 S	174.969 E	27.0	2.2	0.1	7
W 780		29	14	09	37.3	40.872 S	174.536 E	50.6	2.1	0.2	7
W 781		29	17	46	20.6	41.756 S	174.504 E	32.5	2.4	0.1	6
W 782		30	14	09	38.0	40.814 S	174.756 E	19.3	1.5	0.0	5
W 783	MAY	01	01	19	19.9	41.063 S	174.433 E	40.5	2.6	0.1	6
W 784		01	12	32	55.0	41.671 S	174.762 E	24.5	1.6	0.0	6
W 785		01	14	22	17.4	41.766 S	175.030 E	29.2	2.1	0.2	6
W 786		01	20	19	14.5	41.615 S	174.673 E	53.1	3.3	0.1	7
W 787		01	21	24	51.0	41.363 S	175.116 E	29.5	1.7	0.2	7
W 788		01	21	40	12.6	41.351 S	174.641 E	19.0	1.4	0.1	9
W 789		01	21	49	46.8	41.381 S	175.119 E	27.4	1.6	0.1	8
W 790		02	00	27	14.9	41.382 S	175.118 E	28.4	2.0	0.1	7
W 791		02	06	46	57.9	41.539 S	174.817 E	28.7	2.5	0.0	6
W 792		03	01	52	32.8	41.257 S	175.193 E	27.6	1.8	0.1	6
W 793		03	03	31	09.7	41.228 S	175.206 E	21.0	1.9	0.2	7
W 794		03	04	17	33.1	41.376 S	175.114 E	26.8	1.7	0.2	6
W 795		03	07	11	41.1	40.557 S	174.603 E	20.1	2.3	0.2	5
W 796		03	15	26	06.4	41.390 S	174.423 E	56.5	2.1	0.2	5
W 797		04	12	06	52.8	41.276 S	174.541 E	36.1	1.5	0.0	6
W 798		05	01	21	18.2	40.840 S	174.717 E	5.0 R	1.6	0.1	5
W 799		05	02	03	03.9	41.063 S	174.417 E	42.0	2.1	0.0	5
W 800		05	08	14	39.6	41.763 S	174.465 E	31.1	2.1	0.1	5

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 801	MAY 05	11	18	02.6	41.736 S	174.486 E	32.0	1.8	0.1	5
W 802	05	11	18	39.4	41.103 S	175.440 E	33.1	1.9	0.0	5
W 803	05	16	17	10.4	41.765 S	174.494 E	31.4	1.9	0.1	6
W 804	06	07	29	06.5	40.998 S	174.390 E	64.2	1.7	0.1	6
W 805	06	08	01	39.3	41.738 S	174.306 E	23.5	2.0	0.2	5
W 806	07	05	58	05.7	41.456 S	174.670 E	27.9	2.1	0.2	5
W 807	07	08	22	30.5	40.902 S	174.835 E	34.8	1.9	0.1	5
W 808	08	02	14	37.6	41.385 S	175.111 E	28.3	2.0	0.1	6
W 809	08	05	26	34.3	41.199 S	174.610 E	32.3	1.6	0.0	5
W 810	08	13	59	47.9	41.302 S	175.295 E	25.5	2.0	0.1	6
W 811	08	14	25	33.4	41.322 S	175.321 E	31.7	2.1	0.1	7
W 812	09	18	11	00.8	41.709 S	174.525 E	32.4	2.3	0.1	6
W 813	09	20	00	51.1	40.742 S	175.198 E	33.2	2.0	0.1	6
W 814	10	00	13	51.0	40.576 S	174.533 E	47.3	2.2	0.2	7
W 815	10	00	38	01.3	40.996 S	174.627 E	56.6	2.1	0.0	6
W 816	10	01	20	23.4	40.473 S	174.700 E	39.4	2.5	0.1	7
W 817	10	03	10	24.8	41.423 S	175.064 E	25.2	1.4	0.1	6
W 818	10	05	05	45.6	40.997 S	174.642 E	61.9	2.3	0.1	6
W 819	10	07	35	25.4	41.661 S	174.770 E	25.3	1.7	0.1	5
W 820	10	07	57	08.2	41.659 S	174.772 E	25.8	1.9	0.0	6
W 821	10	16	01	56.4	41.444 S	175.041 E	25.2	1.4	0.1	5
W 822	10	17	59	22.8	41.405 S	174.452 E	20.5	1.6	0.2	6
W 823	10	21	48	30.6	41.343 S	174.571 E	33.2	1.6	0.1	6
W 824	11	03	27	59.5	41.577 S	174.290 E	35.3	1.7	0.1	5
W 825	11	03	40	29.2	41.254 S	174.322 E	58.4	2.6	0.1	7
W 826	11	06	44	50.1	41.061 S	174.417 E	56.4	1.7	0.2	5
W 827	11	10	40	45.8	41.122 S	175.390 E	23.3	1.8	0.2	7
W 828	11	15	51	22.2	40.965 S	175.528 E	26.5	1.9	0.1	6
W 829	11	17	28	43.6	41.003 S	175.075 E	34.3	2.0	0.0	7
W 830	11	19	59	45.5	41.426 S	175.066 E	26.4	1.4	0.2	7
W 831	11	20	51	05.1	41.003 S	174.940 E	49.0	1.2	0.1	6
W 832	11	21	05	46.2	41.425 S	175.068 E	25.9	1.1	0.2	7
W 833	12	19	04	02.3	40.674 S	174.872 E	37.4	2.2	0.2	7
W 834	12	19	04	56.2	41.444 S	174.847 E	20.3	1.4	0.1	6
W 835	13	03	01	38.1	41.392 S	173.996 E	43.4	1.6	0.2	6
W 836	13	14	10	39.9	40.672 S	174.371 E	46.8	1.6	0.2	8
W 837	13	15	34	41.4	41.104 S	175.453 E	30.8	1.9	0.2	6
W 838	14	03	04	52.8	41.060 S	174.626 E	66.2	1.9	0.1	6
W 839	14	04	46	17.7	41.210 S	175.003 E	25.3	1.6	0.1	6
W 840	14	08	06	05.3	41.194 S	174.608 E	33.7	2.7	0.1	5
W 841	14	22	14	30.0	41.007 S	174.562 E	62.5	2.2	0.1	7
W 842	15	01	49	55.2	40.528 S	174.771 E	11.2	1.7	0.1	5
W 843	15	04	29	54.1	41.574 S	174.463 E	16.9	1.6	0.1	6
W 844	15	04	51	30.3	41.670 S	174.575 E	29.5	1.9	0.1	7
W 845	15	05	32	30.6	41.059 S	174.417 E	41.9	1.7	0.1	7
W 846	15	06	40	30.0	41.462 S	174.621 E	19.5	1.1	0.2	6
W 847	15	08	10	09.8	41.238 S	174.657 E	34.7	1.6	0.0	7
W 848	15	08	38	14.8	41.701 S	174.992 E	26.3	1.7	0.0	6
W 849	15	16	51	09.4	40.937 S	175.031 E	34.5	1.4	0.1	7
W 850	15	20	44	57.5	41.281 S	175.186 E	24.9	1.5	0.0	5

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 851	MAY 16	03	21	18.7	41.315 S	175.111 E	17.7	2.3	0.1	8
W 852	16	04	09	57.2	41.541 S	174.914 E	27.1	1.5	0.1	6
W 853	16	05	31	19.2	41.194 S	173.881 E	59.0	2.7	0.0	7
W 854	16	09	56	39.1	41.755 S	174.315 E	22.7	1.9	0.0	5
W 855	16	15	30	23.6	40.604 S	175.083 E	36.0	2.5	0.1	7
W 856	16	22	21	14.5	40.677 S	174.846 E	48.3	2.5	0.1	7
W 857	17	05	10	46.5	40.701 S	175.535 E	31.3	2.4	0.1	7
W 858	17	06	29	12.0	41.049 S	174.449 E	35.0	2.0	0.1	6
W 859	17	12	08	44.6	41.364 S	174.233 E	41.2	2.5	0.1	6
W 860	17	21	32	27.3	40.963 S	174.582 E	41.3	2.1	0.1	7
W 861	17	21	56	01.0	41.404 S	174.408 E	52.1	2.1	0.1	6
W 862	18	05	14	25.5	41.560 S	174.514 E	24.8	1.8	0.0	5
W 863	18	11	30	49.1	40.697 S	175.009 E	38.6	2.3	0.1	8
W 864	18	17	18	41.0	41.550 S	175.080 E	22.2	1.8	0.2	7
W 865	18	18	50	31.9	41.712 S	174.400 E	31.7	2.7	0.2	8
W 866	19	01	43	59.8	41.697 S	174.438 E	30.5	2.5	0.1	7
W 867	19	03	40	33.4	40.984 S	175.543 E	30.7	1.9	0.0	5
W 868	19	04	46	51.6	40.490 S	174.705 E	31.5	2.5	0.2	7
W 869	19	06	09	56.1	41.090 S	175.493 E	30.4	2.0	0.1	6
W 870	19	07	07	30.1	40.460 S	174.740 E	33.8	2.7	0.2	7
W 871	19	07	51	59.1	41.033 S	174.498 E	63.7	2.5	0.1	7
W 872	19	08	31	19.8	40.559 S	174.711 E	31.0	1.9	0.1	7
W 873	19	08	39	49.8	41.608 S	174.521 E	23.7	1.9	0.0	6
W 874	19	08	44	58.4	41.613 S	174.515 E	24.2	1.8	0.1	6
W 875	19	09	08	28.2	41.307 S	173.904 E	58.4	2.2	0.2	6
W 876	19	13	36	36.9	41.068 S	174.703 E	37.5	1.2	0.1	6
W 877	19	14	59	52.1	41.607 S	174.109 E	33.7	2.5	0.2	7
W 878	19	16	41	08.3	40.842 S	175.057 E	34.5	2.3	0.1	7
W 879	19	17	28	57.5	41.369 S	175.128 E	27.7	1.5	0.1	7
W 880	19	18	36	03.8	41.288 S	175.371 E	20.3	1.6	0.2	7
W 881	19	20	35	23.3	40.864 S	174.707 E	13.8	2.1	0.1	8
W 882	20	08	39	28.4	41.637 S	174.661 E	28.5	1.5	0.1	6
W 883	20	10	43	19.3	41.444 S	175.340 E	27.0	2.2	0.2	9
W 884	20	15	02	57.9	40.754 S	175.053 E	39.0	1.9	0.1	6
W 885	20	22	09	30.4	40.902 S	174.683 E	15.9	1.8	0.1	7
W 886	21	02	19	27.1	41.444 S	174.851 E	20.0	1.5	0.1	6
W 887	21	15	33	59.8	41.323 S	175.095 E	9.0	1.1	0.1	7
W 888	21	18	07	04.9	41.640 S	173.899 E	31.3	2.4	0.1	6
W 889	21	22	01	15.8	41.691 S	174.530 E	33.4	2.4	0.1	7
W 890	21	23	13	28.0	41.083 S	175.370 E	28.1	1.8	0.1	6
W 891	23	03	14	43.3	40.910 S	174.594 E	2.7	1.3	0.2	7
W 892	23	03	49	42.3	41.322 S	174.293 E	69.2	1.8	0.2	6
W 893	23	06	02	04.2	41.377 S	174.135 E	35.4	2.5	0.1	8
W 894	23	07	41	25.6	41.013 S	174.857 E	35.7	1.9	0.1	7
W 895	23	09	56	49.2	41.296 S	175.139 E	15.9	1.3	0.1	7
W 896	23	13	49	55.8	41.298 S	175.234 E	26.0	1.6	0.0	5
W 897	23	15	00	15.1	40.830 S	174.730 E	17.8	1.6	0.1	6
W 898	23	21	55	31.0	41.467 S	174.363 E	19.3	2.0	0.2	6
W 899	24	00	16	38.7	41.669 S	174.654 E	29.6	1.4	0.1	7
W 900	24	13	47	50.2	41.261 S	175.140 E	25.5	1.4	0.1	5

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 901	MAY 24	13	56	41.8	41.262 S	175.137 E	25.9	1.4	0.1	6
W 902	24	22	55	56.9	41.443 S	174.665 E	31.5	1.3	0.1	5
W 903	25	02	29	20.4	41.667 S	174.225 E	8.6	2.2	0.1	6
W 904	25	07	29	27.3	40.950 S	175.450 E	28.6	2.4	0.1	6
W 905	25	10	48	25.0	40.989 S	175.233 E	25.8	1.7	0.1	7
W 906	25	17	33	48.8	41.092 S	174.527 E	39.2	2.3	0.0	7
W 907	25	19	06	32.0	41.019 S	174.697 E	63.1	2.1	0.1	6
W 908	25	23	44	19.5	41.243 S	174.725 E	39.2	2.7	0.0	7
W 909	26	00	53	29.2	41.134 S	173.958 E	60.6	2.1	0.2	6
W 910	26	04	48	31.5	41.526 S	174.906 E	27.6	2.0	0.0	6
W 911	26	08	42	23.7	40.766 S	175.099 E	35.1	2.0	0.1	5
W 912	26	11	35	29.2	41.679 S	174.296 E	35.0	2.0	0.1	6
W 913	26	12	59	41.0	40.864 S	174.713 E	15.3	1.9	0.1	6
W 914	26	14	47	37.1	40.973 S	175.103 E	29.8	1.7	0.1	6
W 915	26	17	14	42.1	41.050 S	174.271 E	50.5	2.3	0.1	7
W 916	26	20	53	33.0	41.573 S	173.930 E	33.2	2.3	0.2	7
W 917	26	21	04	53.5	41.305 S	175.302 E	27.6	1.6	0.1	6
W 918	27	01	40	33.9	40.961 S	175.511 E	22.0	2.0	0.1	7
W 919	27	05	10	14.8	41.789 S	174.492 E	32.7	2.0	0.2	7
W 920	27	06	17	17.8	41.043 S	174.469 E	64.6	1.6	0.1	5
W 921	27	07	36	04.0	41.449 S	175.034 E	28.4	1.3	0.2	6
W 922	27	08	41	32.0	41.342 S	174.876 E	29.8	1.9	0.1	7
W 923	27	12	33	38.3	41.700 S	174.456 E	50.2	1.5	0.1	5
W 924	28	08	15	29.9	41.154 S	175.756 E	28.8	1.9	0.2	8
W 925	28	17	54	00.6	41.238 S	175.038 E	24.2	1.1	0.2	7
W 926	29	07	13	43.7	41.173 S	174.694 E	32.0	1.4	0.0	6
W 927	29	14	09	39.3	41.065 S	174.422 E	38.1	1.5	0.1	7
W 928	30	03	12	43.5	41.002 S	175.612 E	33.5	2.8	0.1	8
W 929	30	05	01	09.0	41.172 S	174.731 E	53.7	1.6	0.0	6
W 930	30	06	09	21.0	41.288 S	175.000 E	29.4	1.8	0.0	7
W 931	30	06	52	40.1	41.608 S	175.361 E	11.6	1.9	0.2	9
W 932	30	09	45	49.2	41.662 S	174.513 E	31.4	1.4	0.3	7
W 933	30	11	56	17.2	40.732 S	175.268 E	33.0	1.8	0.1	7
W 934	30	15	00	13.6	41.762 S	174.473 E	33.4	1.7	0.1	6
W 935	30	17	40	09.2	41.212 S	174.578 E	36.0	1.3	0.1	7
W 936	30	20	12	46.2	40.679 S	174.842 E	15.8	2.1	0.1	7
W 937	30	23	11	47.9	40.756 S	175.269 E	11.4	1.4	0.0	5
W 938	31	07	36	39.8	41.645 S	174.597 E	30.3	2.2	0.1	6
W 939	31	11	27	15.7	41.321 S	174.544 E	36.1	1.3	0.1	6
W 940	31	13	47	20.8	41.161 S	174.794 E	32.1	1.9	0.1	7
W 941	31	15	03	46.8	41.457 S	174.623 E	20.7	1.2	0.2	6
W 942	31	18	12	58.4	40.958 S	174.932 E	35.1	2.2	0.1	7
W 943	31	18	17	51.8	40.944 S	174.964 E	38.1	1.7	0.1	6
W 944	31	20	54	37.0	41.012 S	174.733 E	33.7	1.2	0.1	6
W 945	31	22	19	47.0	41.514 S	174.057 E	33.9	2.4	0.2	7
W 946	31	22	49	04.3	41.250 S	175.207 E	27.1	2.3	0.1	8
W 947	31	23	12	25.8	41.451 S	174.599 E	29.7	1.3	0.1	6
W 948	JUN 01	04	28	29.8	41.057 S	174.403 E	65.1	1.9	0.1	6
W 949	01	05	16	20.8	41.250 S	175.201 E	24.3	1.8	0.1	8
W 950	01	08	48	17.0	41.736 S	174.268 E	10.0 R	2.0	0.1	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W 951 JUN	01	16	50	21.8	41.324 S	175.178 E	26.4	1.5	0.1	8
W 952	01	19	04	56.3	40.706 S	174.911 E	28.2	1.7	0.1	6
W 953	02	00	51	48.5	40.461 S	174.774 E	41.9	2.1	0.1	6
W 954	02	04	35	29.7	41.378 S	174.727 E	34.4	1.6	0.1	6
W 955	02	06	40	13.8	41.230 S	175.207 E	11.4	0.9	0.2	5
W 956	02	06	42	11.2	41.096 S	175.157 E	37.0	1.1	ND	4
W 957	02	11	34	14.6	40.920 S	174.480 E	43.0	2.1	0.1	7
W 958	02	11	50	17.0	40.836 S	174.727 E	11.7	1.8	0.1	7
W 959	02	19	48	17.1	41.420 S	175.040 E	30.4	1.8	0.2	6
W 960	02	22	00	16.9	41.380 S	175.812 E	24.5	1.8	0.1	6
W 961	03	03	47	33.7	40.844 S	175.156 E	34.5	1.7	0.2	6
W 962	03	04	47	26.4	41.054 S	174.432 E	37.6	1.4	0.0	5
W 963	03	06	37	54.7	40.809 S	174.774 E	19.9	1.3	0.1	6
W 964	03	10	23	32.1	40.635 S	174.658 E	26.8	2.2	0.1	7
W 965	03	11	44	04.9	41.091 S	174.375 E	61.8	2.3	0.1	6
W 966	03	15	59	01.4	41.426 S	175.065 E	26.3	1.9	0.2	7
W 967	03	17	25	46.2	40.816 S	174.441 E	40.1	1.9	0.2	6
W 968	04	02	23	55.7	40.988 S	174.705 E	47.3	1.8	0.1	6
W 969	04	02	26	02.5	41.682 S	174.756 E	25.0	1.5	0.0	5
W 970	04	08	12	49.1	41.231 S	175.289 E	24.0	1.8	0.0	6
W 971	05	09	06	54.4	41.182 S	174.260 E	43.4	1.7	0.2	6
W 972	05	09	21	49.8	41.405 S	174.640 E	20.7	1.4	0.1	9
W 973	05	10	03	41.2	41.094 S	174.868 E	32.7	1.3	0.1	6
W 974	05	17	05	35.5	41.299 S	175.393 E	13.1	1.2	0.0	5
W 975	05	22	59	41.9	41.367 S	173.919 E	50.9	2.6	0.2	7
W 976	06	05	20	50.1	41.391 S	175.038 E	26.6	1.6	0.2	7
W 977	06	05	22	17.7	41.787 S	174.474 E	32.4	1.9	0.2	7
W 978	06	11	02	58.6	41.150 S	175.083 E	31.4	1.2	0.3	6
W 979	06	15	10	30.5	40.587 S	174.674 E	30.4	1.6	0.2	5
W 980	06	15	11	35.6	41.361 S	174.930 E	28.6	1.9	0.1	7
W 981	06	18	03	57.2	41.150 S	174.098 E	48.9	2.5	0.1	7
W 982	06	18	56	09.9	40.892 S	174.754 E	52.5	1.7	0.0	6
W 983	06	22	16	58.9	41.018 S	175.227 E	32.3	2.2	0.2	7
W 984	07	03	58	51.1	41.706 S	174.886 E	34.8	1.8	0.1	6
W 985	07	13	07	21.3	41.217 S	174.726 E	33.3	1.7	0.1	6
W 986	07	13	45	33.7	40.819 S	174.410 E	48.2	2.6	0.1	6
W 987	07	17	11	19.3	41.181 S	175.007 E	30.8	1.6	0.0	6
W 988	07	21	34	01.3	40.981 S	175.427 E	27.8	2.6	0.2	7
W 989	08	04	36	49.8	41.099 S	175.124 E	34.3	1.7	0.1	5
W 990	08	06	07	12.9	41.216 S	174.511 E	57.6	1.9	0.1	5
W 991	08	07	07	50.1	41.182 S	174.089 E	43.2	2.5	0.2	7
W 992	08	12	32	38.6	41.513 S	174.613 E	11.4	1.8	0.2	7
W 993	08	14	09	22.6	41.582 S	174.420 E	31.1	2.0	0.1	7
W 994	08	14	37	44.8	41.615 S	174.601 E	32.0	1.7	0.1	5
W 995	09	07	59	20.2	41.437 S	174.437 E	60.9	1.8	0.0	5
W 996	09	08	01	08.7	41.416 S	174.141 E	63.6	3.2	0.1	7
W 997	09	14	26	20.1	41.259 S	174.433 E	60.3	1.9	0.0	6
W 998	09	21	45	43.4	41.675 S	174.250 E	11.9	2.3	0.1	7
W 999	09	22	05	43.0	41.019 S	174.845 E	64.3	1.6	0.0	5
W1000	09	22	56	33.3	40.755 S	175.132 E	36.2	1.9	0.2	5

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1001 JUN	10	00	00	31.1	41.060 S	174.433 E	39.1	2.7	0.1	6
W1002	10	00	00	54.8	41.056 S	174.432 E	38.5	3.4	0.0	6
W1003	10	00	02	17.2	41.062 S	174.418 E	39.8	3.1	0.0	6
W1004	10	04	37	52.5	41.056 S	174.433 E	37.2	1.7	0.0	6
W1005	10	08	39	24.0	41.286 S	175.179 E	18.4	1.3	0.1	8
W1006	10	18	17	28.7	41.050 S	174.810 E	60.2	1.5	0.0	5
W1007	10	19	04	05.2	41.427 S	175.069 E	28.0	1.6	0.1	8
W1008	10	19	52	30.4	40.817 S	174.521 E	25.9	1.6	0.1	5
W1009	10	20	28	55.2	41.106 S	175.063 E	19.5	1.7	0.1	7
W1010	11	09	40	19.3	41.058 S	174.440 E	37.2	2.0	0.0	7
W1011	11	11	21	20.3	41.463 S	174.981 E	43.2	1.6	0.1	7
W1012	11	12	24	03.1	41.305 S	174.815 E	53.7	1.9	0.1	6
W1013	11	15	30	56.0	41.445 S	174.968 E	25.2	1.3	0.1	6
W1014	11	16	39	13.2	41.374 S	175.115 E	28.1	1.7	0.1	6
W1015	11	22	58	26.0	41.198 S	175.082 E	33.4	1.3	0.2	5
W1016	11	23	07	46.3	41.014 S	175.470 E	9.8	2.1	0.1	7
W1017	12	05	27	23.0	41.420 S	175.372 E	18.5	1.9	0.2	9
W1018	12	07	04	42.3	41.447 S	175.381 E	21.4	1.4	0.1	5
W1019	12	07	38	19.2	41.428 S	175.063 E	27.2	1.5	0.2	7
W1020	12	08	34	28.0	41.158 S	175.208 E	28.9	1.5	0.0	6
W1021	12	08	53	44.6	41.155 S	175.191 E	28.2	2.1	0.0	7
W1022	12	09	06	16.0	41.155 S	175.195 E	28.4	1.4	0.0	6
W1023	12	09	06	58.6	41.156 S	175.175 E	25.9	1.1	0.1	6
W1024	12	09	10	53.5	41.157 S	175.197 E	28.4	1.5	0.1	7
W1025	12	10	14	43.6	41.156 S	175.192 E	27.9	1.7	0.0	6
W1026	12	15	31	28.1	41.219 S	174.988 E	28.8	0.9	0.1	5
W1027	12	15	41	54.2	41.244 S	175.195 E	26.4	1.1	0.2	5
W1028	12	17	35	47.5	40.642 S	174.738 E	31.6	1.2	0.2	5
W1029	12	18	33	50.1	41.248 S	175.195 E	20.5	1.2	0.2	5
W1030	12	19	48	01.3	41.134 S	174.977 E	34.5	1.1	0.0	5
W1031	12	20	28	39.7	41.118 S	175.214 E	26.1	1.4	0.1	6
W1032	12	20	32	59.0	41.316 S	175.311 E	30.2	1.4	0.1	7
W1033	12	23	36	17.0	40.900 S	175.620 E	30.3	2.0	0.1	7
W1034	13	00	10	06.8	40.834 S	174.710 E	22.7	2.9	0.0	7
W1035	13	00	34	46.0	40.610 S	174.740 E	33.5	1.8	0.2	6
W1036	13	07	20	38.0	41.421 S	174.452 E	22.5	1.3	0.1	5
W1037	13	18	58	05.8	40.749 S	174.190 E	57.7	2.2	0.2	8
W1038	13	19	25	04.0	41.112 S	175.436 E	30.8	1.6	0.1	6
W1039	13	19	51	59.7	41.208 S	174.765 E	33.0	1.6	0.1	7
W1040	14	05	07	06.8	41.381 S	175.109 E	28.9	1.9	0.2	9
W1041	14	06	55	07.9	40.888 S	174.856 E	70.8	1.7	0.1	7
W1042	14	09	55	40.8	40.970 S	175.600 E	27.7	1.5	0.1	5
W1043	14	10	27	47.0	41.255 S	175.161 E	26.2	1.2	0.2	5
W1044	14	15	09	51.2	41.397 S	174.435 E	51.8	1.5	0.1	6
W1045	14	16	02	45.4	41.409 S	174.945 E	5.0 R	0.7	0.1	6
W1046	14	19	55	05.5	41.022 S	175.691 E	16.6	2.0	0.0	6
W1047	14	21	44	49.9	41.340 S	174.215 E	33.7	2.2	0.1	7
W1048	14	22	38	02.5	40.971 S	175.542 E	33.2	2.0	0.1	6
W1049	15	10	48	21.0	41.114 S	175.357 E	17.6	1.8	0.0	7
W1050	15	16	03	34.2	41.309 S	175.298 E	25.2	2.0	0.1	8

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
W1051	JUN	15	20	02	12.1	41.126 S	174.461 E	61.7	1.8	0.1	7
W1052		15	20	10	08.2	41.323 S	174.850 E	28.4	1.3	0.1	6
W1053		16	04	02	22.2	41.273 S	174.909 E	20.7	1.1	0.2	6
W1054		16	07	04	10.9	41.149 S	174.608 E	40.3	2.0	0.1	7
W1055		16	07	26	08.4	40.938 S	175.576 E	30.1	2.3	0.1	7
W1056		16	13	12	53.1	40.892 S	175.246 E	34.3	1.9	0.2	8
W1057		16	15	25	34.1	40.703 S	174.368 E	44.3	1.9	0.1	8
W1058		16	15	54	14.6	40.762 S	174.817 E	42.2	2.1	0.1	6
W1059		16	19	57	54.9	41.348 S	174.862 E	30.7	1.6	0.1	8
W1060		16	20	30	02.6	41.422 S	174.327 E	30.8	1.9	0.0	6
W1061		17	03	45	21.4	41.539 S	174.473 E	17.1	1.7	0.1	7
W1062		17	10	33	59.2	41.334 S	175.277 E	30.7	1.5	0.1	6
W1063		17	22	37	42.6	41.048 S	175.494 E	30.6	1.5	0.2	6
W1064		17	23	15	47.4	41.545 S	174.561 E	10.8	1.6	0.1	6
W1065		18	10	16	45.5	41.190 S	174.590 E	19.7	1.3	0.1	8
W1066		18	12	08	29.3	41.097 S	175.301 E	26.5	1.1	0.0	5
W1067		18	17	04	02.0	40.992 S	174.514 E	49.0	1.9	0.1	7
W1068		18	17	50	16.4	41.493 S	175.464 E	22.7	1.5	0.2	6
W1069		18	21	25	58.9	40.563 S	174.820 E	30.8	2.0	0.1	7
W1070		18	21	56	17.5	41.318 S	175.041 E	31.1	1.5	0.1	5
W1071		19	12	39	36.6	41.208 S	175.486 E	12.2	1.9	0.2	6
W1072		19	19	04	31.0	41.170 S	175.699 E	30.6	2.0	0.2	6
W1073		19	19	07	41.6	41.378 S	175.080 E	36.2	1.9	0.2	8
W1074		19	20	29	52.1	41.120 S	174.799 E	9.9	1.7	0.1	6
W1075		19	21	05	11.2	41.030 S	175.641 E	10.1	2.4	0.0	5
W1076		19	21	37	17.3	41.328 S	175.090 E	29.1	1.4	0.1	5
W1077		19	23	30	45.9	41.340 S	173.742 E	86.2	3.0	0.1	7
W1078		20	02	27	25.4	41.678 S	174.513 E	31.7	2.4	0.1	7
W1079		20	05	13	43.6	41.516 S	174.484 E	24.1	1.5	0.2	5
W1080		20	13	12	10.0	41.589 S	174.176 E	9.2	1.6	0.1	6
W1081		20	18	25	13.6	41.152 S	174.792 E	30.9	1.2	0.1	5
W1082		20	18	34	08.0	41.481 S	174.328 E	10.4	1.4	0.2	5
W1083		20	20	51	55.3	41.224 S	174.081 E	50.6	2.6	0.2	7
W1084		20	20	58	41.3	41.483 S	174.317 E	11.4	2.0	0.1	6
W1085		21	05	05	02.4	41.036 S	175.345 E	23.2	1.4	0.1	6
W1086		21	07	33	20.6	41.707 S	174.578 E	28.8	2.0	0.1	7
W1087		21	09	25	53.4	41.613 S	174.484 E	52.8	1.8	0.2	6
W1088		21	11	14	40.5	41.462 S	174.334 E	12.0 R	1.6	0.2	7
W1089		21	22	36	49.7	40.932 S	173.884 E	55.0	2.4	0.2	5
W1090		22	05	02	17.3	41.693 S	174.476 E	30.1	1.5	0.1	5
W1091		22	05	38	43.7	41.750 S	174.464 E	39.7	1.9	0.2	6
W1092		22	08	37	56.6	40.884 S	173.874 E	49.0	1.7	0.1	6
W1093		22	10	47	18.2	41.298 S	175.124 E	26.1	1.4	0.1	7
W1094		22	10	54	52.2	41.751 S	175.119 E	33.6	1.8	0.1	7
W1095		22	11	29	53.0	40.528 S	174.814 E	17.5	1.4	0.1	6
W1096		22	11	33	13.9	40.913 S	174.811 E	51.2	1.7	0.0	6
W1097		22	14	03	12.4	41.192 S	175.037 E	14.9	1.0	0.1	6
W1098		22	14	30	20.9	41.041 S	174.476 E	63.8	1.4	0.1	6
W1099		22	18	28	35.5	41.182 S	174.771 E	34.2	1.7	0.1	7
W1100		22	19	32	07.4	41.734 S	174.153 E	24.7	2.1	0.1	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1101 JUN	22	21	03	38.0	41.772 S	174.481 E	33.3	2.6	0.2	6
W1102	22	23	22	20.7	40.897 S	174.892 E	22.8	1.1	0.0	5
W1103	23	02	33	37.8	40.787 S	174.283 E	49.3	2.1	0.3	8
W1104	23	03	00	43.1	41.034 S	173.821 E	59.9	2.4	0.3	8
W1105	23	05	10	52.7	41.453 S	175.003 E	27.5	1.7	0.0	6
W1106	23	13	03	42.6	41.442 S	173.719 E	58.4	2.1	0.2	6
W1107	23	13	43	57.2	40.673 S	174.585 E	32.8	1.3	0.1	5
W1108	23	15	21	21.3	41.683 S	174.782 E	16.5	1.3	0.2	5
W1109	23	15	53	26.8	41.730 S	174.532 E	29.9	1.7	0.1	7
W1110	23	16	27	46.3	40.816 S	174.547 E	39.8	1.8	0.1	8
W1111	24	02	12	29.2	41.129 S	175.358 E	26.5	1.4	0.1	5
W1112	24	03	51	29.6	41.015 S	175.006 E	47.7	1.9	0.1	6
W1113	24	06	50	06.3	40.942 S	175.690 E	34.8	1.9	0.1	6
W1114	24	11	53	44.8	40.995 S	175.441 E	31.4	2.0	0.1	7
W1115	24	16	34	12.7	41.675 S	174.455 E	52.2	2.1	0.1	8
W1116	24	18	29	49.1	41.360 S	175.130 E	28.3	1.6	0.1	6
W1117	24	18	38	47.0	41.635 S	174.624 E	31.5	2.1	0.1	7
W1118	25	00	52	20.8	40.549 S	174.760 E	31.8	2.6	0.2	6
W1119	25	01	07	13.0	41.250 S	174.430 E	57.7	1.8	0.1	6
W1120	25	02	49	20.0	41.133 S	175.372 E	25.7	1.6	0.1	5
W1121	25	03	20	36.0	41.141 S	175.002 E	33.8	1.8	0.1	5
W1122	25	10	43	21.5	40.598 S	175.078 E	34.8	2.0	0.0	7
W1123	25	13	08	13.8	41.054 S	174.607 E	67.5	2.3	0.0	6
W1124	25	14	40	30.2	41.036 S	174.433 E	61.8	2.3	0.1	9
W1125	25	18	46	01.8	40.924 S	175.633 E	30.0	2.7	0.1	7
W1126	26	07	44	24.8	41.115 S	175.117 E	29.9	1.1	0.2	6
W1127	26	13	05	21.7	41.064 S	174.850 E	55.4	1.8	0.0	5
W1128	26	16	22	19.5	40.679 S	174.622 E	5.0 R	1.8	0.1	7
W1129	26	18	36	25.1	41.018 S	174.900 E	39.3	1.6	0.1	6
W1130	26	21	03	27.6	40.901 S	174.882 E	49.9	2.0	0.1	7
W1131	27	00	32	41.4	41.401 S	173.932 E	54.5	2.2	0.2	6
W1132	27	14	26	32.1	41.128 S	175.393 E	27.3	1.3	0.2	6
W1133	27	17	49	36.0	40.650 S	174.500 E	51.0	1.5	0.2	7
W1134	27	21	15	36.1	40.993 S	175.167 E	34.2	1.2	0.1	6
W1135	28	05	37	57.6	41.348 S	174.776 E	26.6	1.7	0.2	8
W1136	28	06	27	32.1	41.733 S	174.241 E	10.2	2.7	0.1	9
W1137	28	11	11	55.9	41.481 S	174.961 E	29.1	1.6	0.2	7
W1138	28	13	11	27.3	41.634 S	174.087 E	34.7	2.1	0.2	7
W1139	28	20	19	22.6	41.755 S	174.442 E	28.7	2.1	0.2	8
W1140	28	21	45	45.0	41.199 S	174.625 E	34.8	1.6	0.1	6
W1141	28	23	20	04.2	41.052 S	174.158 E	50.2	2.0	0.1	6
W1142	29	02	18	19.3	41.781 S	174.389 E	29.3	2.6	0.1	6
W1143	29	04	35	31.0	41.264 S	174.500 E	34.4	1.4	0.2	7
W1144	29	04	56	10.5	40.825 S	174.727 E	17.4	1.3	0.1	7
W1145	29	05	00	36.9	41.290 S	174.800 E	51.2	2.1	0.1	7
W1146	29	07	57	15.7	41.156 S	175.194 E	27.8	1.4	0.0	6
W1147	29	09	37	42.5	41.295 S	175.199 E	28.9	1.5	0.2	8
W1148	29	09	39	27.5	41.294 S	175.206 E	26.4	1.4	0.1	7
W1149	29	12	32	41.9	41.153 S	175.165 E	26.3	1.8	0.1	7
W1150	29	13	59	39.0	41.129 S	175.053 E	21.9	1.1	0.1	8

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1151 JUN	29	14	19	55.0	40.996 S	175.691 E	17.4	1.6	0.1	6
W1152	29	17	15	51.8	41.250 S	175.089 E	26.4	1.3	0.1	6
W1153	29	19	06	15.5	41.743 S	174.546 E	29.3	2.0	0.1	7
W1154	29	20	42	34.1	41.140 S	174.740 E	31.8	2.1	0.1	8
W1155	29	23	49	09.1	41.096 S	174.211 E	46.1	2.5	0.1	7
W1156	30	02	23	21.3	40.960 S	174.900 E	35.2	1.9	0.1	7
W1157	30	03	07	33.9	41.632 S	174.837 E	28.2	2.2	0.1	7
W1158	30	03	11	26.9	41.500 S	175.490 E	16.5	1.3	0.2	7
W1159	30	03	43	19.5	41.641 S	174.834 E	26.9	1.6	0.1	7
W1160	30	07	07	57.3	41.133 S	174.987 E	26.0	2.8	0.2	7
W1161	30	07	11	11.8	41.135 S	175.035 E	33.7	1.2	0.0	5
W1162	30	09	12	54.1	40.973 S	175.064 E	44.1	1.1	0.1	5
W1163	30	12	46	30.3	41.037 S	175.717 E	32.9	1.4	0.2	5
W1164	30	12	52	55.9	41.782 S	174.462 E	34.8	1.7	0.1	5
W1165	30	14	12	17.4	41.250 S	174.400 E	53.6	1.5	0.2	5
W1166	30	21	32	06.7	41.590 S	174.644 E	32.3	1.5	0.1	5
W1167	30	21	58	08.8	40.764 S	174.767 E	20.6	1.9	0.1	6
W1168	30	22	54	59.4	40.872 S	175.158 E	36.1	2.0	0.2	6
W1169	30	23	00	12.4	40.975 S	174.606 E	68.8	1.5	0.2	5
W1170 JUL	01	02	25	02.9	40.994 S	174.751 E	51.2	1.6	0.1	6
W1171	01	03	17	58.3	41.690 S	174.620 E	19.4	1.7	0.1	6
W1172	01	04	59	58.1	41.616 S	174.825 E	22.8	1.7	0.0	6
W1173	01	12	33	32.2	40.781 S	174.706 E	39.8	2.4	0.1	7
W1174	02	02	20	44.2	41.225 S	175.581 E	19.8	1.7	0.2	7
W1175	02	04	14	23.3	41.147 S	173.984 E	63.9	2.0	0.2	6
W1176	02	12	52	44.7	41.128 S	174.589 E	54.1	2.1	0.1	7
W1177	02	16	40	41.3	41.018 S	175.403 E	31.1	1.7	0.2	7
W1178	02	20	06	18.1	41.261 S	175.308 E	32.0	2.2	0.2	8
W1179	02	21	02	30.5	41.233 S	174.903 E	20.0	2.1	0.0	9
W1180	03	04	54	05.9	41.293 S	174.868 E	28.0	1.7	0.1	7
W1181	03	06	53	12.1	40.960 S	175.170 E	29.4	1.5	0.2	6
W1182	03	13	55	00.2	41.604 S	173.882 E	16.4	1.9	0.1	6
W1183	03	15	52	55.4	41.088 S	175.543 E	35.3	2.3	0.1	7
W1184	03	23	27	26.9	41.363 S	174.181 E	34.7	2.0	0.2	7
W1185	04	00	16	49.4	41.119 S	175.459 E	16.3	1.7	0.2	6
W1186	04	06	00	46.4	40.936 S	174.639 E	10.0	1.4	0.1	5
W1187	04	08	08	54.9	41.074 S	174.723 E	56.5	2.5	0.1	7
W1188	04	08	10	16.2	41.004 S	175.610 E	32.0	2.5	0.2	9
W1189	04	18	02	49.5	40.784 S	175.019 E	37.5	1.8	0.2	7
W1190	04	18	24	10.9	40.726 S	174.913 E	36.7	2.0	0.1	7
W1191	05	00	47	40.4	41.328 S	174.992 E	21.5	1.4	0.2	5
W1192	05	07	24	53.7	41.019 S	175.207 E	25.5	1.3	0.2	5
W1193	05	09	53	17.6	41.036 S	175.613 E	26.6	1.9	0.3	7
W1194	05	13	00	40.9	41.352 S	174.995 E	30.1	1.3	0.0	5
W1195	05	18	00	49.8	41.211 S	175.374 E	15.1	1.6	0.1	8
W1196	05	18	02	14.3	41.257 S	175.416 E	23.3	1.2	0.2	5
W1197	05	21	45	10.0	41.135 S	175.163 E	30.4	2.0	0.0	6
W1198	05	21	46	50.6	41.133 S	175.160 E	30.9	2.4	0.1	7
W1199	06	04	13	15.1	40.643 S	174.671 E	23.6	1.5	0.0	5
W1200	06	07	36	59.1	41.367 S	174.780 E	27.3	1.6	0.1	6

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1201	JUL 06	12	01	58.9	41.419 S	173.885 E	45.2	2.3	0.2	6
W1202	06	15	34	08.6	41.228 S	174.900 E	18.4	1.4	0.0	6
W1203	06	16	46	58.3	41.089 S	175.492 E	28.7	1.5	0.3	6
W1204	06	18	25	28.5	41.009 S	174.832 E	35.7	1.1	0.1	6
W1205	06	18	56	44.4	41.235 S	175.224 E	26.9	1.5	0.2	8
W1206	06	19	26	58.1	41.001 S	175.821 E	5.0 R	1.6	0.2	7
W1207	07	00	51	56.4	41.097 S	175.511 E	30.8	2.2	0.2	9
W1208	07	05	18	55.1	41.358 S	175.331 E	12.2	1.1	0.2	7
W1209	07	07	03	20.2	40.993 S	174.531 E	61.1	1.7	0.1	6
W1210	07	09	11	30.7	40.998 S	175.645 E	23.9	1.9	0.2	6
W1211	07	11	39	57.0	41.106 S	174.213 E	61.4	2.3	0.1	6
W1212	07	14	32	54.3	41.392 S	175.092 E	25.5	1.0	0.2	7
W1213	07	14	54	32.4	41.318 S	175.114 E	21.0	1.3	0.1	7
W1214	07	15	08	34.4	41.092 S	174.549 E	36.1	2.1	0.1	6
W1215	07	15	14	46.8	41.363 S	174.280 E	33.3	1.7	0.1	6
W1216	07	17	00	28.7	40.930 S	175.540 E	33.6	1.2	0.1	5
W1217	07	17	25	52.0	40.924 S	175.554 E	34.3	1.1	0.1	5
W1218	07	18	26	37.5	41.100 S	174.715 E	58.0	1.0	0.1	5
W1219	07	18	52	41.5	41.020 S	174.400 E	64.8	1.6	0.1	6
W1220	07	19	50	55.1	41.460 S	174.763 E	26.8	1.5	0.0	7
W1221	07	20	59	27.5	41.307 S	174.929 E	24.9	1.0	0.1	7
W1222	07	20	59	45.3	41.253 S	175.065 E	24.3	1.0	0.2	5
W1223	08	06	11	24.4	40.909 S	174.997 E	32.6	2.4	0.1	7
W1224	08	08	55	08.9	40.892 S	175.157 E	33.7	1.6	0.1	7
W1225	08	10	18	03.3	41.010 S	174.668 E	40.4	1.9	0.0	7
W1226	08	15	08	07.5	40.828 S	174.595 E	60.5	2.6	0.1	7
W1227	08	16	29	31.1	41.120 S	175.573 E	17.4	1.6	0.1	5
W1228	08	17	37	32.7	40.920 S	174.934 E	40.2	1.5	0.2	6
W1229	08	23	08	23.7	40.897 S	174.492 E	60.2	1.9	0.1	6
W1230	09	02	07	28.4	41.001 S	174.458 E	42.1	1.7	0.0	5
W1231	09	09	51	17.7	41.093 S	174.393 E	66.4	1.9	0.1	6
W1232	09	10	04	07.7	41.861 S	174.445 E	33.4	2.6	0.2	12
W1233	09	12	21	42.7	41.474 S	174.918 E	41.2	3.3	0.1	8
W1234	09	12	31	23.5	41.500 S	174.930 E	42.9	2.1	0.1	7
W1235	10	02	05	51.3	41.123 S	174.705 E	30.9	1.2	0.1	6
W1236	10	11	33	32.1	41.127 S	174.709 E	30.7	2.1	0.2	7
W1237	10	12	07	29.8	41.057 S	174.731 E	36.4	1.4	0.2	6
W1238	10	14	28	19.1	41.126 S	174.716 E	33.5	1.1	0.1	6
W1239	10	21	55	37.0	41.375 S	175.695 E	18.5	1.3	0.1	5
W1240	11	05	22	31.1	40.949 S	175.183 E	29.5	1.6	0.2	6
W1241	11	16	50	07.2	41.010 S	175.392 E	20.7	1.2	0.2	6
W1242	12	00	57	17.1	41.348 S	174.616 E	33.3	2.1	0.1	7
W1243	12	05	27	58.0	41.615 S	174.179 E	29.3	2.0	0.2	6
W1244	12	06	09	00.7	40.557 S	174.777 E	30.3	2.2	0.1	8
W1245	12	06	33	08.6	41.334 S	174.235 E	14.4	1.5	0.3	6
W1246	12	11	59	16.2	41.007 S	175.583 E	29.1	2.1	0.2	9
W1247	12	12	54	07.3	40.675 S	175.409 E	24.6	1.6	0.3	5
W1248	12	13	04	05.0	41.065 S	174.441 E	37.1	2.4	0.2	7
W1249	12	14	04	11.6	41.413 S	175.055 E	24.1	2.9	0.0	8
W1250	12	14	19	37.0	41.732 S	174.466 E	30.9	2.2	0.1	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1251 JUL	12	16	28	25.4	41.455 S	175.016 E	23.9	1.7	0.1	7
W1252	12	18	30	39.7	41.066 S	174.802 E	32.2	1.3	0.1	6
W1253	12	19	08	37.8	40.708 S	175.057 E	39.0	2.3	0.1	8
W1254	12	22	22	01.6	41.606 S	174.818 E	49.2	1.5	0.0	6
W1255	13	01	42	53.9	41.638 S	175.001 E	28.2	1.8	0.1	7
W1256	13	02	40	19.7	41.003 S	175.403 E	23.3	1.7	0.2	5
W1257	13	02	49	14.4	41.585 S	174.543 E	19.8	1.8	0.1	7
W1258	13	14	09	34.2	41.064 S	174.443 E	38.1	1.6	0.2	7
W1259	13	15	53	23.4	41.378 S	174.198 E	35.0	2.3	0.2	7
W1260	14	00	29	20.5	41.466 S	175.021 E	28.2	1.3	0.1	6
W1261	14	02	33	21.6	41.027 S	174.873 E	58.9	2.0	0.0	7
W1262	14	09	15	31.8	41.047 S	174.449 E	35.4	1.6	0.1	6
W1263	14	10	31	59.6	40.837 S	175.082 E	39.6	1.8	0.1	6
W1264	14	14	32	42.8	41.318 S	175.079 E	28.5	1.2	0.1	6
W1265	15	02	30	32.3	40.971 S	175.462 E	27.8	1.7	0.2	5
W1266	15	09	39	31.6	41.264 S	175.311 E	33.2	1.8	0.2	6
W1267	16	04	13	58.1	40.818 S	174.747 E	41.0	1.9	0.1	5
W1268	16	21	46	32.6	41.293 S	175.320 E	32.1	1.8	0.2	6
W1269	17	05	40	37.3	41.235 S	175.204 E	25.3	2.5	0.1	8
W1270	17	06	59	05.2	41.247 S	175.202 E	24.3	1.3	0.1	6
W1271	17	09	12	47.6	41.295 S	175.072 E	22.5	1.4	0.0	7
W1272	17	11	22	59.3	41.136 S	175.382 E	33.0	1.4	0.2	6
W1273	17	11	31	13.4	41.249 S	175.182 E	24.9	1.3	0.2	7
W1274	17	17	37	19.7	40.895 S	174.555 E	39.8	1.4	0.2	5
W1275	17	18	05	35.2	41.505 S	174.932 E	42.8	1.9	0.1	7
W1276	17	18	48	12.8	41.566 S	174.630 E	35.4	1.6	0.0	5
W1277	18	03	37	05.1	41.353 S	175.092 E	9.0	1.3	0.2	7
W1278	18	12	51	21.3	40.529 S	174.455 E	87.3	2.3	0.1	9
W1279	18	13	42	10.9	41.417 S	174.341 E	56.0	2.6	0.1	7
W1280	19	07	38	25.5	41.157 S	174.140 E	44.4	2.1	0.1	7
W1281	19	10	24	21.3	40.994 S	175.133 E	24.8	1.6	0.2	6
W1282	19	10	57	10.4	41.375 S	175.696 E	17.2	1.4	0.1	5
W1283	19	11	15	38.5	41.076 S	175.332 E	29.7	1.6	0.3	7
W1284	19	17	35	14.1	40.650 S	174.739 E	20.9	1.5	0.1	5
W1285	19	18	14	43.1	41.110 S	174.858 E	26.0	1.6	0.2	7
W1286	19	21	30	11.8	41.153 S	175.112 E	6.4	2.2	0.1	7
W1287	19	23	13	50.3	40.802 S	174.532 E	27.1	1.8	0.1	7
W1288	20	01	05	45.5	41.534 S	175.511 E	17.7	2.1	0.2	9
W1289	20	07	47	46.0	41.668 S	174.263 E	12.1	1.9	0.1	7
W1290	20	10	59	29.3	41.050 S	174.520 E	59.1	1.8	0.1	7
W1291	20	11	10	57.5	40.996 S	174.736 E	35.2	1.8	0.0	6
W1292	20	11	30	30.9	40.922 S	175.045 E	37.4	1.6	0.2	6
W1293	20	12	44	48.7	41.408 S	174.167 E	33.2	1.4	0.1	6
W1294	20	12	50	45.7	41.363 S	175.129 E	27.8	1.1	0.1	6
W1295	20	12	50	48.1	41.378 S	175.106 E	29.7	1.5	0.2	8
W1296	20	13	59	40.3	41.432 S	175.072 E	27.2	1.3	0.2	7
W1297	20	19	17	14.6	40.870 S	175.179 E	33.4	1.8	0.2	7
W1298	20	20	39	26.6	41.338 S	174.608 E	31.5	1.9	0.1	7
W1299	21	00	06	59.7	40.997 S	174.501 E	35.0	1.3	0.1	5
W1300	21	07	16	23.0	41.667 S	175.354 E	30.0	2.2	0.2	8

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1301 JUL	21	13	46	57.8	41.495 S	174.670 E	27.7	2.1	0.1	7
W1302	21	19	22	21.8	41.337 S	174.522 E	34.7	1.5	0.1	5
W1303	22	00	58	10.1	40.807 S	174.926 E	42.5	1.7	ND	4
W1304	22	05	55	47.5	40.948 S	175.633 E	23.1	1.6	0.0	5
W1305	23	17	19	50.5	41.404 S	175.097 E	24.9	1.7	0.3	8
W1306	23	23	56	26.0	41.249 S	174.917 E	35.4	1.3	0.1	5
W1307	24	01	35	21.6	40.711 S	174.812 E	41.6	2.3	0.2	8
W1308	24	06	27	43.1	40.897 S	175.506 E	24.4	2.5	0.3	9
W1309	24	06	33	43.1	40.926 S	175.530 E	31.6	1.4	0.1	5
W1310	24	07	07	01.4	40.843 S	175.261 E	30.8	2.4	0.2	8
W1311	24	08	07	08.4	40.668 S	174.962 E	42.3	2.1	0.1	5
W1312	24	09	15	05.5	41.573 S	174.783 E	29.3	1.7	0.1	6
W1313	24	09	51	57.2	40.923 S	175.521 E	28.0	1.9	0.2	7
W1314	24	11	25	12.9	40.923 S	175.483 E	22.7	3.1	0.2	11
W1315	24	15	44	04.0	40.851 S	175.165 E	32.1	2.3	0.1	13
W1316	25	05	35	43.9	41.166 S	175.292 E	27.7	1.8	0.2	8
W1317	25	07	17	30.5	41.444 S	175.543 E	18.2	2.0	0.2	9
W1318	25	13	02	28.9	41.411 S	174.544 E	21.4	2.2	0.0	5
W1319	25	19	36	14.4	40.996 S	175.544 E	33.6	2.1	0.2	7
W1320	26	03	05	37.8	41.150 S	174.817 E	31.3	1.3	0.1	6
W1321	26	05	07	57.0	41.426 S	174.895 E	29.1	2.0	0.2	8
W1322	26	15	14	49.4	41.240 S	175.180 E	19.7	1.0	0.1	7
W1323	26	15	49	44.8	41.748 S	175.349 E	19.1	1.6	0.2	9
W1324	26	21	27	12.0	41.083 S	174.496 E	34.2	2.0	0.1	10
W1325	26	22	03	45.4	40.630 S	174.479 E	50.2	2.0	0.0	5
W1326	26	22	37	22.2	41.405 S	174.962 E	25.3	2.5	0.1	11
W1327	27	18	29	36.3	41.313 S	175.197 E	23.7	1.7	0.1	7
W1328	27	18	29	36.3	41.311 S	175.197 E	23.7	1.9	0.1	7
W1329	28	00	43	14.0	41.247 S	174.450 E	57.1	2.2	0.1	7
W1330	28	07	42	07.1	41.004 S	175.594 E	9.1	2.0	0.1	8
W1331	28	21	35	16.4	41.053 S	174.718 E	36.1	1.5	0.1	6
W1332	29	00	20	37.6	41.150 S	174.620 E	35.6	1.5	0.2	5
W1333	29	05	24	36.3	40.762 S	175.102 E	41.5	1.8	0.2	6
W1334	29	10	08	28.2	40.979 S	174.489 E	5.3	2.5	0.1	7
W1335	30	03	43	46.0	40.960 S	175.651 E	10.1	1.5	0.2	7
W1336	30	07	15	47.8	41.313 S	174.533 E	37.1	1.5	0.3	6
W1337	30	09	24	40.0	41.067 S	174.745 E	59.0	2.2	0.1	7
W1338	30	14	28	55.1	40.998 S	175.363 E	24.2	1.8	0.1	6
W1339	30	22	03	20.7	40.906 S	175.563 E	28.8	2.2	0.2	9
W1340	31	07	01	37.1	41.438 S	175.743 E	11.0	2.1	0.2	7
W1341	31	11	46	05.3	40.935 S	174.785 E	47.9	1.8	0.1	7
W1342	31	12	38	23.1	40.619 S	174.718 E	30.4	2.0	0.1	7
W1343	31	18	45	51.1	40.988 S	174.785 E	44.7	2.1	0.1	8
W1344 AUG	01	00	05	52.0	41.235 S	174.512 E	35.9	1.7	0.0	6
W1345	01	01	03	08.7	40.790 S	175.650 E	35.4	1.9	0.1	6
W1346	01	03	22	08.8	41.040 S	175.357 E	22.9	1.6	0.1	5
W1347	02	01	42	57.2	41.228 S	174.561 E	18.2	2.0	0.1	7
W1348	02	07	39	46.6	41.668 S	174.323 E	17.3	1.6	0.2	5
W1349	02	21	27	33.8	41.376 S	174.467 E	18.0	1.3	0.1	6
W1350	02	22	34	31.2	40.897 S	174.717 E	8.4	1.3	0.1	5

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1351	AUG 03	02	02	16.2	41.057 S	175.501 E	30.6	1.8	0.2	7
W1352	03	12	21	03.8	40.928 S	175.211 E	27.0	2.7	0.2	7
W1353	03	13	22	01.1	41.042 S	175.230 E	23.5	1.2	0.2	6
W1354	03	13	29	21.0	41.441 S	175.496 E	20.9	1.4	0.1	6
W1355	03	14	46	04.8	40.720 S	174.180 E	72.1	2.9	0.2	7
W1356	03	17	40	48.4	41.390 S	175.110 E	29.0	1.6	0.1	7
W1357	03	20	24	09.1	41.114 S	174.583 E	62.5	1.4	0.1	7
W1358	03	23	41	13.3	41.408 S	174.821 E	33.9	1.4	0.2	7
W1359	04	04	10	28.2	41.285 S	174.644 E	27.9	1.5	0.0	6
W1360	04	08	35	23.4	41.398 S	175.101 E	24.9	1.7	0.1	6
W1361	04	08	47	48.2	40.918 S	174.744 E	61.7	2.2	0.1	7
W1362	04	10	25	59.1	41.260 S	175.240 E	27.9	1.1	0.2	8
W1363	04	13	37	34.9	41.052 S	174.745 E	36.0	1.0	0.1	5
W1364	04	14	04	12.0	41.250 S	175.246 E	30.1	1.2	0.2	7
W1365	04	16	20	02.4	40.952 S	175.094 E	34.1	1.2	0.1	6
W1366	04	16	31	31.0	40.717 S	174.546 E	69.1	1.9	0.1	7
W1367	04	18	59	21.7	41.638 S	174.375 E	12.8	2.3	0.1	7
W1368	04	19	06	16.9	41.676 S	174.328 E	11.7	1.5	0.2	8
W1369	04	22	42	60.0	41.242 S	175.110 E	18.9	0.9	0.0	7
W1370	05	00	52	06.2	41.291 S	174.637 E	28.6	1.4	0.1	6
W1371	05	01	16	54.0	41.754 S	174.452 E	32.4	2.4	0.2	7
W1372	05	05	26	22.9	40.876 S	174.124 E	48.0	1.5	0.2	6
W1373	05	07	16	53.5	41.192 S	175.013 E	54.3	1.8	0.1	6
W1374	05	07	39	56.4	41.728 S	174.514 E	32.7	2.2	0.1	7
W1375	05	09	17	29.2	41.089 S	175.197 E	24.4	1.6	0.2	6
W1376	05	10	40	40.6	41.102 S	175.037 E	30.9	1.2	0.1	5
W1377	05	11	46	35.9	41.401 S	174.447 E	16.2	1.7	0.1	7
W1378	05	11	58	04.0	41.045 S	175.436 E	21.7	1.5	0.0	5
W1379	05	13	21	12.4	40.711 S	174.894 E	15.6	1.6	0.1	6
W1380	05	18	54	31.9	41.776 S	174.512 E	28.3	1.7	0.1	7
W1381	06	08	59	56.2	41.450 S	174.760 E	27.1	1.8	0.1	7
W1382	06	09	36	57.0	41.077 S	175.323 E	23.5	1.5	0.1	6
W1383	06	13	08	25.6	41.381 S	174.815 E	31.9	1.9	0.1	7
W1384	06	16	17	40.4	41.233 S	175.282 E	23.9	1.5	0.2	6
W1385	06	18	38	39.7	41.000 S	175.375 E	25.1	1.5	0.1	5
W1386	06	19	23	37.4	41.572 S	174.895 E	35.4	1.9	0.2	6
W1387	06	22	31	08.4	40.873 S	175.621 E	29.3	2.0	0.1	5
W1388	07	00	52	27.3	40.860 S	174.750 E	16.6	1.4	0.0	5
W1389	07	14	14	59.0	41.306 S	174.962 E	25.0	2.1	0.1	9
W1390	08	04	24	38.5	41.103 S	175.200 E	23.9	1.3	0.1	6
W1391	08	05	29	46.6	41.585 S	173.958 E	32.8	2.5	0.0	6
W1392	08	06	36	52.7	41.240 S	175.221 E	26.2	1.3	0.1	7
W1393	08	06	59	07.4	41.360 S	175.139 E	27.0	1.4	0.1	8
W1394	08	08	20	46.7	40.948 S	175.148 E	32.2	2.9	0.1	7
W1395	08	08	33	18.2	40.942 S	175.158 E	33.3	1.9	0.1	7
W1396	08	12	40	00.6	41.410 S	175.077 E	25.6	1.2	0.1	7
W1397	08	13	10	28.8	40.917 S	175.584 E	29.6	1.6	0.1	6
W1398	09	11	41	36.4	40.987 S	174.963 E	46.6	1.8	0.0	6
W1399	09	13	44	39.2	41.380 S	175.120 E	25.2	1.9	0.2	8
W1400	09	21	01	42.3	40.867 S	175.199 E	33.8	1.7	0.2	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1401	AUG 09	22	19	07.2	41.345 S	175.359 E	17.6	1.3	0.1	6
W1402	10	12	08	06.4	41.050 S	174.130 E	53.6	2.3	0.1	7
W1403	10	14	19	55.0	41.341 S	175.100 E	39.5	1.3	0.1	6
W1404	10	14	57	26.3	41.480 S	174.186 E	11.1	1.7	0.1	6
W1405	10	15	51	00.2	41.522 S	174.759 E	21.3	1.9	0.1	8
W1406	10	19	21	43.4	40.950 S	175.137 E	34.5	2.4	0.1	8
W1407	11	07	31	37.4	40.957 S	174.806 E	47.5	2.0	0.1	5
W1408	12	00	20	36.8	41.018 S	175.655 E	31.7	1.8	0.1	5
W1409	12	00	56	17.2	41.111 S	175.050 E	32.2	1.4	0.1	5
W1410	12	02	40	31.0	40.948 S	175.049 E	38.5	1.8	0.1	5
W1411	12	04	02	01.9	40.867 S	174.712 E	11.4	2.2	0.1	10
W1412	12	05	26	15.1	40.872 S	174.740 E	15.0	1.4	0.1	6
W1413	12	13	24	24.3	40.964 S	175.169 E	34.9	1.5	0.3	5
W1414	12	15	36	58.6	40.984 S	175.314 E	33.3	1.8	0.2	6
W1415	12	16	15	46.4	41.292 S	175.092 E	30.4	1.3	0.2	6
W1416	12	18	54	20.4	41.085 S	175.311 E	17.2	1.2	0.3	5
W1417	13	11	31	32.0	41.672 S	174.759 E	24.9	2.1	0.0	6
W1418	13	23	03	06.5	41.296 S	174.916 E	25.0	3.0	0.1	10
W1419	14	06	30	00.4	41.040 S	175.356 E	33.4	1.9	0.2	5
W1420	14	22	25	01.2	40.940 S	175.189 E	33.7	1.9	0.1	5
W1421	15	00	07	27.4	41.231 S	175.193 E	30.2	2.4	0.1	9
W1422	15	07	14	27.0	41.302 S	175.020 E	26.1	1.9	0.1	7
W1423	15	08	19	10.4	41.179 S	175.828 E	29.4	2.3	0.2	6
W1424	15	12	47	58.8	40.887 S	175.232 E	33.1	1.2	0.2	5
W1425	15	23	40	40.2	40.819 S	175.199 E	33.9	2.3	0.1	6
W1426	16	02	26	45.0	40.939 S	175.726 E	24.1	2.0	0.2	6
W1427	16	07	16	29.0	41.340 S	175.020 E	28.0	1.1	0.2	6
W1428	16	12	10	46.1	41.410 S	174.414 E	31.4	1.8	0.1	6
W1429	16	18	46	56.0	40.885 S	174.752 E	38.3	1.6	0.1	5
W1430	17	01	37	26.2	41.280 S	175.230 E	33.4	1.7	0.1	6
W1431	17	11	28	04.8	41.157 S	174.925 E	33.5	1.4	0.2	5
W1432	17	12	46	05.1	41.529 S	174.446 E	13.6	1.3	0.1	7
W1433	17	22	45	03.7	40.904 S	175.575 E	20.0	1.6	0.2	6
W1434	18	00	53	35.6	40.818 S	174.525 E	17.5	1.2	0.0	5
W1435	18	02	23	38.0	41.680 S	174.485 E	29.5	1.7	0.2	5
W1436	18	02	31	09.9	40.911 S	174.980 E	44.6	1.5	0.1	5
W1437	18	12	21	44.7	40.940 S	175.602 E	33.2	1.7	0.1	5
W1438	18	23	15	51.5	41.249 S	175.316 E	27.4	1.6	0.2	8
W1439	19	02	30	15.3	40.987 S	175.279 E	26.4	1.9	0.2	6
W1440	19	12	05	24.8	40.842 S	175.218 E	31.9	2.2	0.1	7
W1441	19	14	40	31.1	40.854 S	174.717 E	17.7	1.3	0.1	6
W1442	19	17	18	29.2	41.288 S	175.183 E	28.8	2.3	0.2	9
W1443	19	20	52	37.9	40.695 S	174.853 E	27.0	1.8	0.2	7
W1444	20	12	27	52.2	41.715 S	174.825 E	22.0	2.4	0.0	7
W1445	20	13	46	57.3	40.918 S	175.223 E	33.7	1.7	0.1	6
W1446	20	14	21	02.0	41.577 S	174.390 E	10.7	1.6	0.1	6
W1447	20	16	48	36.1	41.149 S	174.435 E	39.1	1.7	0.2	6
W1448	21	12	15	24.6	40.855 S	175.005 E	40.3	2.0	0.1	8
W1449	21	14	25	20.4	40.929 S	175.656 E	21.1	1.8	0.1	5
W1450	22	03	07	12.9	40.954 S	174.829 E	5.0 R	1.6	0.1	6

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1451	AUG 22	04	52	17.4	41.619 S	174.506 E	16.8	2.0	0.1	8
W1452	22	05	30	12.3	41.436 S	174.227 E	2.0	1.7	0.1	6
W1453	22	06	50	02.6	41.313 S	174.860 E	28.9	1.4	0.1	5
W1454	22	06	51	20.2	41.481 S	175.017 E	24.1	1.5	0.1	8
W1455	22	11	09	33.6	40.950 S	175.610 E	10.8	3.4	0.2	8
W1456	22	11	37	50.6	41.478 S	174.436 E	16.9	1.6	0.1	7
W1457	22	15	43	25.0	41.096 S	174.697 E	36.7	3.1	0.1	8
W1458	22	16	17	26.6	41.479 S	173.977 E	33.8	1.7	0.2	5
W1459	22	18	21	31.9	41.079 S	174.683 E	37.7	1.2	0.1	6
W1460	22	18	27	55.6	41.133 S	175.379 E	32.7	1.3	0.2	6
W1461	23	03	57	19.8	41.093 S	174.681 E	33.8	2.2	0.1	11
W1462	23	12	51	25.4	41.296 S	175.214 E	24.0	1.2	0.2	7
W1463	23	18	35	16.8	41.088 S	175.496 E	32.8	1.6	0.1	5
W1464	23	20	50	55.2	41.292 S	174.018 E	47.9	2.3	0.2	6
W1465	24	00	10	38.6	40.933 S	175.678 E	13.2	1.9	0.2	6
W1466	24	08	32	29.3	41.087 S	174.926 E	31.5	1.5	0.1	6
W1467	24	10	47	51.9	41.057 S	174.453 E	34.3	1.7	0.1	6
W1468	24	15	45	55.8	41.458 S	175.503 E	20.1	2.2	0.1	8
W1469	25	02	53	52.8	41.450 S	175.510 E	19.3	2.4	0.2	7
W1470	25	02	56	27.0	41.475 S	175.503 E	19.2	1.4	0.2	7
W1471	25	02	57	32.0	41.466 S	175.517 E	19.1	1.3	0.2	7
W1472	25	02	59	59.0	41.471 S	175.502 E	19.3	1.5	0.2	7
W1473	25	08	02	41.5	40.930 S	174.621 E	41.3	2.1	0.1	7
W1474	25	08	07	10.3	41.480 S	175.487 E	18.2	1.2	0.2	6
W1475	25	08	18	57.8	41.419 S	175.464 E	15.9	2.6	0.1	7
W1476	25	09	03	54.1	41.440 S	175.501 E	19.6	1.9	0.2	7
W1477	25	09	30	44.0	41.472 S	175.483 E	18.4	1.5	0.1	6
W1478	25	09	31	24.0	41.478 S	175.478 E	18.0	1.4	0.1	6
W1479	25	12	03	01.1	41.102 S	174.766 E	33.8	2.1	0.1	7
W1480	25	12	03	52.3	41.429 S	175.511 E	21.0	1.2	0.2	5
W1481	25	12	32	03.2	41.473 S	175.486 E	18.1	1.3	0.1	6
W1482	25	12	50	37.5	41.468 S	175.490 E	18.5	1.4	0.1	6
W1483	25	14	56	49.4	41.468 S	175.512 E	19.3	1.5	0.2	7
W1484	25	17	49	49.1	41.444 S	175.502 E	19.9	1.7	0.2	7
W1485	25	18	09	54.8	41.437 S	175.496 E	18.1	2.6	0.2	7
W1486	25	18	11	25.0	41.334 S	174.303 E	38.3	1.7	0.0	7
W1487	25	21	38	25.9	41.254 S	174.800 E	33.2	1.1	0.1	7
W1488	25	22	26	49.8	41.446 S	175.492 E	18.8	1.5	0.2	7
W1489	25	22	30	19.8	41.041 S	175.682 E	25.6	1.7	0.0	6
W1490	25	22	40	11.6	41.469 S	175.483 E	18.4	1.4	0.1	6
W1491	25	22	53	16.2	41.149 S	174.734 E	32.9	2.3	0.1	7
W1492	25	22	58	32.7	41.494 S	175.468 E	16.6	1.3	0.2	5
W1493	25	23	35	28.6	41.370 S	174.778 E	27.6	1.4	0.1	6
W1494	26	03	28	18.1	40.914 S	174.942 E	58.4	1.7	0.2	5
W1495	26	05	39	12.9	41.416 S	174.242 E	32.6	2.8	0.1	7
W1496	26	10	01	48.1	41.474 S	175.498 E	19.0	1.5	0.2	7
W1497	26	10	07	15.3	41.290 S	175.310 E	35.1	1.7	0.1	6
W1498	26	16	20	16.3	41.311 S	174.541 E	35.5	1.4	0.2	6
W1499	26	17	58	29.4	40.852 S	174.584 E	45.4	1.7	0.1	6
W1500	26	18	39	03.8	41.250 S	175.380 E	16.8	1.4	0.2	6

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1501	AUG 26	21	09	53.8	41.708 S	174.104 E	10.4	1.8	0.2	6
W1502	27	05	37	18.3	40.951 S	174.502 E	56.3	1.6	0.0	6
W1503	27	10	26	06.5	41.096 S	174.697 E	35.3	2.6	0.1	7
W1504	27	14	29	51.6	40.930 S	175.130 E	31.3	1.5	0.1	7
W1505	27	15	07	48.6	41.052 S	175.682 E	32.1	1.3	0.1	6
W1506	28	02	06	13.1	41.231 S	174.847 E	3.8	1.3	0.1	7
W1507	28	05	11	54.7	41.096 S	174.700 E	35.3	2.1	0.1	7
W1508	29	02	04	01.9	41.328 S	173.953 E	50.2	1.9	0.0	6
W1509	29	04	23	51.5	40.987 S	174.882 E	36.1	1.5	0.1	6
W1510	29	08	46	24.4	41.291 S	175.283 E	33.9	2.0	0.1	6
W1511	29	13	53	04.6	41.052 S	175.513 E	27.1	1.3	0.2	5
W1512	29	15	32	50.0	40.990 S	175.590 E	28.7	1.7	0.2	5
W1513	29	16	42	08.0	41.280 S	175.300 E	17.9	1.3	0.1	5
W1514	30	08	00	32.8	41.055 S	175.377 E	28.9	1.9	0.2	7
W1515	30	10	01	14.3	40.851 S	174.532 E	70.0	1.6	0.1	5
W1516	30	13	41	25.7	40.768 S	174.863 E	50.2	1.5	0.1	6
W1517	30	13	41	46.6	40.946 S	174.913 E	53.2	1.6	0.0	6
W1518	30	15	21	10.3	40.705 S	174.837 E	14.6	1.5	0.2	6
W1519	30	16	10	36.1	40.904 S	174.508 E	64.2	1.9	0.1	6
W1520	30	21	43	24.4	40.857 S	175.067 E	43.8	1.4	0.1	5
W1521	30	22	09	33.0	41.385 S	174.640 E	21.4	1.4	0.1	7
W1522	31	00	14	58.4	40.718 S	174.900 E	37.4	2.0	0.1	7
W1523	31	00	45	13.7	40.733 S	174.951 E	34.8	1.7	0.2	6
W1524	31	01	00	29.5	41.076 S	175.510 E	29.7	1.6	0.2	6
W1525	31	02	09	08.6	41.448 S	174.618 E	31.2	1.9	0.1	6
W1526	31	07	48	45.9	41.418 S	175.064 E	26.6	2.4	0.1	7
W1527	31	08	17	28.1	41.120 S	174.040 E	53.3	2.0	0.3	7
W1528	31	08	42	41.5	41.018 S	174.868 E	55.0	1.7	0.1	6
W1529	31	09	54	57.5	41.427 S	175.067 E	27.9	2.0	0.2	7
W1530	31	10	24	11.7	40.713 S	174.907 E	36.9	2.1	0.1	7
W1531	31	14	37	27.5	40.841 S	174.708 E	56.5	2.3	0.1	7
W1532	31	14	44	22.2	41.283 S	175.139 E	30.2	1.4	0.2	6
W1533	31	15	17	54.2	41.093 S	174.698 E	39.4	2.6	0.1	7
W1534	31	18	15	05.0	40.719 S	174.572 E	69.9	1.7	0.0	6
W1535	31	18	20	30.0	41.649 S	174.640 E	32.5	1.5	0.1	7
W1536	31	21	42	00.2	41.134 S	175.405 E	28.6	1.4	0.3	6
W1537	31	22	42	43.2	41.260 S	175.207 E	5.3	0.9	0.1	6
W1538	SEP 01	05	02	12.9	41.630 S	174.612 E	32.0	2.6	0.0	10
W1539	01	06	46	17.0	41.102 S	175.944 E	33.3	2.9	0.2	12
W1540	01	11	38	47.7	41.611 S	174.641 E	31.3	2.5	0.2	11
W1541	01	21	27	06.2	41.010 S	175.201 E	29.4	2.0	0.1	10
W1542	01	23	36	26.7	41.176 S	174.124 E	56.4	2.8	0.1	8
W1543	02	00	52	17.1	40.740 S	174.923 E	35.5	2.0	0.1	6
W1544	02	01	28	32.4	41.177 S	174.085 E	51.0	1.7	0.1	7
W1545	02	03	27	34.5	41.584 S	173.937 E	18.3	1.9	0.1	8
W1546	02	07	24	13.2	41.318 S	174.302 E	7.7	1.1	0.0	8
W1547	03	07	17	09.8	41.300 S	174.026 E	63.8	5.0	0.2	9
W1548	03	07	41	40.9	41.235 S	174.045 E	50.1	2.3	0.2	6
W1549	03	10	19	41.5	40.907 S	174.214 E	16.0	2.0	0.2	5
W1550	03	16	12	45.2	41.358 S	175.059 E	36.5	1.8	0.0	5

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
W1551	SEP	03	16	39	39.2	41.266 S	174.097 E	51.5	2.9	0.1	7
W1552		03	17	31	01.6	41.065 S	174.027 E	48.9	1.7	0.2	5
W1553		03	17	36	58.1	41.268 S	174.102 E	51.1	3.6	0.2	7
W1554		03	18	04	45.4	41.570 S	174.391 E	17.1	1.8	0.1	5
W1555		03	23	13	44.9	40.914 S	175.295 E	13.6	1.8	0.1	6
W1556		04	07	27	11.3	41.248 S	174.081 E	50.2	2.1	0.0	5
W1557		04	23	28	08.5	41.762 S	174.468 E	30.9	2.7	0.2	7
W1558		05	09	38	23.2	41.283 S	174.028 E	51.3	2.1	0.1	6
W1559		05	12	18	32.1	41.189 S	174.611 E	34.1	1.3	0.1	6
W1560		05	14	29	36.8	41.059 S	174.438 E	37.7	1.8	0.1	6
W1561		05	17	06	26.9	41.391 S	174.147 E	34.1	1.9	0.2	7
W1562		05	22	43	36.6	41.059 S	175.713 E	32.0	2.4	0.1	7
W1563		06	10	11	45.1	40.600 S	174.549 E	5.0 R	2.3	0.2	6
W1564		06	16	44	20.2	41.248 S	175.219 E	21.5	1.5	0.2	5
W1565		07	07	22	42.5	41.328 S	174.842 E	26.1	1.4	0.1	5
W1566		07	07	25	29.4	41.328 S	174.845 E	27.7	1.3	0.1	5
W1567		07	13	39	58.7	41.108 S	174.080 E	45.9	1.8	0.2	6
W1568		07	22	11	34.2	41.403 S	174.639 E	31.8	1.7	0.1	9
W1569		07	22	18	08.2	41.419 S	174.645 E	32.1	1.4	0.1	6
W1570		08	03	20	21.0	41.004 S	175.584 E	15.1	2.1	0.2	7
W1571		08	07	58	50.1	41.100 S	175.090 E	21.8	1.2	0.1	5
W1572		08	11	29	02.0	41.406 S	174.645 E	31.6	2.4	0.0	6
W1573		08	11	30	07.0	41.404 S	174.646 E	31.4	1.9	0.0	6
W1574		08	12	18	32.4	41.380 S	174.642 E	31.0	1.0	0.2	5
W1575		08	12	31	57.0	41.334 S	174.824 E	26.5	1.2	0.1	7
W1576		08	13	20	34.7	41.407 S	174.641 E	31.5	1.8	0.1	8
W1577		08	17	40	42.3	41.016 S	174.506 E	29.9	1.1	0.1	5
W1578		08	18	51	46.6	41.409 S	174.642 E	31.9	0.9	0.1	5
W1579		08	19	11	04.6	41.100 S	175.198 E	24.4	2.2	0.1	7
W1580		08	19	13	24.1	41.093 S	175.211 E	25.5	1.3	0.1	6
W1581		08	22	08	59.9	41.235 S	175.208 E	27.7	1.5	0.1	7
W1582		09	14	19	51.2	40.729 S	174.868 E	16.0	1.5	0.2	5
W1583		10	06	20	42.3	41.083 S	174.705 E	34.4	3.1	0.2	9
W1584		10	07	38	26.1	41.416 S	174.879 E	28.5	1.8	0.1	7
W1585		10	11	24	29.8	40.870 S	175.185 E	30.5	1.5	0.2	7
W1586		10	13	27	20.7	41.210 S	175.820 E	15.5	1.7	0.3	8
W1587		10	13	34	15.0	41.288 S	175.263 E	19.5	1.1	0.1	7
W1588		10	13	34	38.9	41.249 S	174.130 E	46.7	1.9	0.2	8
W1589		10	15	52	47.8	41.103 S	175.200 E	23.1	1.2	0.1	7
W1590		10	16	31	06.3	41.425 S	174.658 E	24.3	2.0	0.0	7
W1591		10	19	08	32.1	41.166 S	174.727 E	33.3	1.1	0.1	7
W1592		11	18	57	58.9	40.973 S	175.114 E	33.2	2.0	0.2	10
W1593		11	21	22	33.0	40.915 S	174.607 E	63.5	2.1	0.2	8
W1594		12	01	38	36.8	40.904 S	175.521 E	16.6	1.7	0.3	7
W1595		12	04	16	41.1	41.160 S	174.220 E	44.2	2.6	0.1	7
W1596		12	05	37	05.8	41.067 S	174.725 E	63.1	2.0	0.0	7
W1597		12	09	08	37.8	41.470 S	175.375 E	20.6	1.6	0.1	6
W1598		12	09	09	49.6	40.980 S	174.700 E	47.5	1.6	0.1	6
W1599		12	09	27	16.7	41.012 S	174.879 E	33.1	1.4	0.1	6
W1600		12	11	55	29.3	41.106 S	174.993 E	32.2	1.3	0.2	6

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1601 SEP	12	12	14	26.6	41.179 S	173.984 E	53.7	2.3	0.1	6
W1602	12	21	13	30.2	40.964 S	175.015 E	8.4	1.4	0.1	6
W1603	13	06	36	56.4	41.416 S	175.063 E	25.9	1.6	0.1	7
W1604	13	11	03	29.5	41.045 S	175.192 E	24.5	1.3	0.0	5
W1605	13	13	45	13.6	41.342 S	174.218 E	16.2	1.9	0.2	7
W1606	13	16	35	10.4	40.978 S	175.460 E	21.0	2.0	0.2	10
W1607	13	22	59	24.9	41.421 S	174.995 E	24.0	1.7	0.1	8
W1608	14	04	37	52.0	41.302 S	174.491 E	35.3	1.8	0.0	7
W1609	14	09	35	25.8	40.977 S	175.353 E	31.9	1.8	0.2	6
W1610	14	16	14	30.3	40.855 S	175.263 E	37.4	1.6	0.1	5
W1611	14	16	33	13.0	41.212 S	175.064 E	17.6	1.1	0.2	8
W1612	14	18	41	03.9	40.970 S	175.542 E	25.9	1.6	0.1	5
W1613	14	19	13	33.7	41.220 S	174.655 E	34.4	2.0	0.1	7
W1614	14	20	50	34.8	41.038 S	174.515 E	47.7	2.0	0.2	7
W1615	15	07	30	20.5	41.115 S	175.380 E	32.5	1.6	0.2	5
W1616	15	13	11	18.3	41.568 S	175.560 E	27.8	1.8	0.1	7
W1617	15	19	52	58.6	41.369 S	174.647 E	31.6	1.7	0.1	7
W1618	16	02	04	53.7	41.223 S	174.647 E	31.2	1.8	0.1	6
W1619	16	02	43	13.3	41.221 S	174.652 E	34.3	1.8	0.1	8
W1620	16	16	59	53.6	40.937 S	174.922 E	27.0	1.5	0.1	6
W1621	16	21	16	30.7	41.271 S	174.033 E	54.8	2.9	0.1	8
W1622	17	15	35	48.5	41.511 S	174.031 E	34.1	2.6	0.1	7
W1623	17	15	42	26.3	41.537 S	175.618 E	20.1	1.9	0.1	7
W1624	17	22	34	10.5	41.473 S	175.384 E	17.8	2.0	0.2	6
W1625	18	07	33	03.5	41.249 S	174.150 E	46.1	2.0	0.0	7
W1626	18	09	56	04.3	41.200 S	174.576 E	58.2	1.9	0.1	8
W1627	18	10	29	31.4	41.075 S	175.333 E	16.2	1.9	0.1	7
W1628	18	20	37	49.0	41.471 S	174.023 E	37.0	2.3	0.1	7
W1629	19	01	49	03.2	41.417 S	174.645 E	31.5	1.7	0.1	6
W1630	19	02	17	39.8	41.399 S	174.556 E	28.7	1.6	0.1	5
W1631	19	10	52	28.5	41.650 S	174.640 E	32.1	2.4	0.1	7
W1632	19	10	53	36.5	41.631 S	174.644 E	31.7	1.7	0.1	7
W1633	19	14	09	00.9	40.883 S	174.715 E	9.4	1.9	0.1	8
W1634	19	14	10	04.8	40.869 S	174.742 E	14.9	1.5	0.1	7
W1635	19	17	32	13.2	41.543 S	174.933 E	20.6	1.8	0.1	7
W1636	19	19	38	15.3	41.039 S	174.654 E	50.5	2.3	0.0	7
W1637	20	02	40	33.2	41.070 S	174.940 E	29.5	1.6	0.1	6
W1638	20	13	35	37.2	41.258 S	174.889 E	35.8	1.5	0.1	5
W1639	21	06	30	36.8	41.405 S	174.674 E	21.8	1.2	0.2	5
W1640	22	01	30	53.2	41.021 S	175.397 E	24.1	1.6	0.1	5
W1641	22	02	23	52.8	40.975 S	175.549 E	31.7	2.1	0.1	5
W1642	22	03	36	32.4	41.297 S	175.202 E	25.0	1.6	0.1	8
W1643	22	04	08	33.0	41.390 S	175.150 E	27.1	1.5	0.1	7
W1644	22	06	19	08.0	41.234 S	174.227 E	66.4	2.0	0.2	6
W1645	22	17	17	06.5	41.383 S	174.039 E	36.9	1.6	0.2	6
W1646	23	13	14	42.3	41.219 S	175.234 E	21.1	1.3	0.2	8
W1647	23	13	47	24.5	40.980 S	174.895 E	32.2	1.7	0.1	7
W1648	23	14	54	60.0	41.294 S	174.992 E	26.7	1.5	0.1	7
W1649	23	17	09	33.5	41.468 S	174.959 E	28.8	1.7	0.0	6
W1650	23	18	28	01.5	41.661 S	174.788 E	23.6	1.6	0.1	5

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s							
W1651	SEP	24	02	47	08.1	41.252 S	175.129 E	26.2	1.6	0.2	7
W1652		24	04	37	21.0	41.262 S	174.122 E	47.4	1.7	0.1	5
W1653		24	06	08	52.3	41.462 S	175.567 E	23.0	2.1	0.2	5
W1654		24	06	14	28.0	41.469 S	175.466 E	18.1	1.5	0.1	5
W1655		24	06	23	53.0	41.432 S	175.468 E	17.3	1.8	0.2	7
W1656		24	07	30	12.3	41.138 S	174.482 E	37.2	1.3	0.1	6
W1657		24	08	10	21.7	40.866 S	174.741 E	16.3	1.4	0.1	7
W1658		24	10	20	53.4	41.108 S	174.467 E	39.1	2.1	0.2	7
W1659		24	14	54	55.4	41.535 S	174.596 E	15.6	2.1	0.2	10
W1660		24	16	42	15.9	41.122 S	174.633 E	34.4	2.3	0.1	8
W1661		25	04	23	07.2	41.016 S	175.478 E	24.6	1.8	0.0	6
W1662		25	14	16	37.3	41.394 S	175.131 E	28.1	2.0	0.1	8
W1663		25	15	14	28.0	41.360 S	174.231 E	59.9	2.1	0.2	7
W1664		25	23	28	30.8	40.584 S	174.913 E	42.1	2.7	0.1	8
W1665		26	05	58	48.2	40.743 S	174.120 E	49.4	2.2	0.0	5
W1666		26	07	00	56.1	41.506 S	175.273 E	23.9	1.7	0.0	5
W1667		26	09	42	44.8	40.743 S	174.836 E	17.1	1.3	0.1	5
W1668		26	15	45	29.7	41.472 S	174.184 E	65.0	1.9	0.1	5
W1669		26	17	46	55.2	41.138 S	174.683 E	31.6	1.4	0.1	6
W1670		26	17	47	28.4	41.164 S	174.679 E	31.7	1.7	0.2	6
W1671		26	17	49	32.8	41.026 S	175.213 E	23.0	2.3	0.2	9
W1672		27	07	08	20.0	40.895 S	174.998 E	36.2	1.5	0.1	7
W1673		27	07	11	35.7	41.266 S	174.390 E	58.2	2.2	0.1	8
W1674		27	12	45	48.0	41.175 S	174.077 E	49.7	2.0	0.2	5
W1675		27	15	06	26.0	41.300 S	174.337 E	34.4	2.1	0.1	6
W1676		27	15	45	30.9	41.568 S	174.185 E	18.3	2.8	0.1	7
W1677		28	00	38	40.5	41.150 S	174.997 E	32.8	2.2	0.0	7
W1678		28	01	29	09.8	41.349 S	175.267 E	31.8	1.7	0.2	6
W1679		28	12	59	40.6	40.982 S	174.517 E	62.1	2.1	0.1	6
W1680		29	04	09	54.4	41.443 S	174.688 E	17.7	1.1	0.1	5
W1681		29	09	10	48.6	41.138 S	173.988 E	56.0	2.5	0.3	6
W1682		29	10	06	58.3	41.223 S	174.560 E	17.7	1.2	0.1	5
W1683		29	11	05	27.7	41.709 S	174.789 E	12.7	1.4	0.0	5
W1684		29	15	37	43.6	41.334 S	174.906 E	30.6	2.1	0.1	6
W1685		29	17	01	60.0	40.685 S	174.942 E	38.2	1.4	0.1	5
W1686		29	20	22	27.0	41.030 S	175.319 E	11.6	4.1	0.2	10
W1687		29	20	48	36.1	40.925 S	175.023 E	32.0	2.0	0.1	7
W1688		29	21	02	30.0	41.030 S	175.336 E	14.3	1.3	0.2	6
W1689		29	21	15	14.9	41.096 S	174.631 E	34.3	2.1	0.1	7
W1690		30	00	54	31.7	41.668 S	174.422 E	50.4	2.7	0.1	6
W1691		30	06	30	17.0	41.005 S	175.621 E	31.8	1.9	0.1	7
W1692		30	14	28	58.8	40.582 S	174.866 E	18.9	1.6	0.2	5
W1693	OCT	01	14	36	39.8	41.185 S	174.459 E	34.7	1.5	0.0	5
W1694		01	19	57	32.8	41.008 S	175.624 E	37.9	1.8	0.0	5
W1695		01	22	05	08.9	41.467 S	174.971 E	27.9	1.7	0.1	6
W1696		02	08	20	22.4	41.275 S	175.322 E	23.8	1.7	0.1	8
W1697		03	21	27	02.0	41.171 S	174.562 E	38.9	3.0	0.1	8
W1698		03	21	36	30.8	41.562 S	173.895 E	32.2	2.7	0.2	7
W1699		04	10	44	58.3	41.360 S	174.597 E	18.5	1.5	0.1	6
W1700		04	14	00	29.9	41.136 S	174.828 E	31.3	1.5	0.0	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m s						
W1701	OCT	04	15	03 47.0	41.655 S	174.099 E	9.6	1.8	0.1	6
W1702		04	22	03 22.4	41.733 S	174.195 E	6.4	2.3	0.1	7
W1703		04	22	28 52.5	41.416 S	175.352 E	20.2	1.4	0.2	6
W1704		04	22	44 55.9	41.042 S	175.458 E	31.9	1.8	0.2	8
W1705		04	23	27 29.9	41.134 S	174.090 E	57.7	2.3	0.1	7
W1706		04	23	32 00.9	41.033 S	174.785 E	32.1	1.4	0.0	7
W1707		05	00	21 18.4	41.075 S	174.604 E	34.8	1.7	0.1	8
W1708		05	06	02 28.8	40.674 S	175.015 E	7.2	1.8	0.1	7
W1709		05	10	32 21.9	41.071 S	174.808 E	54.0	1.6	0.1	6
W1710		05	11	31 24.2	41.093 S	175.020 E	10.5	1.7	0.1	6
W1711		05	15	12 48.0	40.884 S	174.904 E	38.5	2.1	0.1	8
W1712		05	19	47 06.3	41.115 S	174.085 E	62.8	1.9	0.2	6
W1713		05	20	00 52.2	41.375 S	175.119 E	27.6	1.8	0.1	10
W1714		06	02	28 38.3	41.161 S	175.848 E	28.8	1.8	0.1	6
W1715		07	01	54 00.1	41.178 S	174.602 E	57.8	2.3	0.0	6
W1716		07	02	56 23.2	41.138 S	174.552 E	37.7	1.6	0.1	6
W1717		07	09	49 01.1	41.226 S	174.141 E	46.2	2.0	0.2	7
W1718		07	16	29 34.6	41.605 S	173.946 E	32.1	2.6	0.1	7
W1719		07	17	21 31.8	40.947 S	175.580 E	31.8	2.0	0.1	8
W1720		07	18	41 24.9	40.990 S	175.527 E	33.4	1.9	0.1	8
W1721		07	18	58 50.1	40.983 S	175.564 E	35.0	1.6	0.2	6
W1722		07	19	44 21.7	41.309 S	174.976 E	30.9	1.8	0.1	7
W1723		07	23	37 05.6	40.711 S	174.829 E	14.2	1.7	0.2	6
W1724		08	02	32 58.2	41.628 S	174.393 E	8.6	1.7	0.2	6
W1725		08	03	55 17.1	41.619 S	174.418 E	10.9	1.5	0.1	5
W1726		08	06	57 06.9	41.378 S	175.121 E	28.1	2.0	0.1	7
W1727		08	11	15 07.6	41.039 S	175.315 E	19.8	1.3	0.2	6
W1728		08	15	01 56.4	40.921 S	175.280 E	32.2	3.1	0.1	7
W1729		08	17	26 35.0	41.540 S	174.760 E	20.7	1.9	0.1	7
W1730		09	01	13 26.4	41.379 S	175.120 E	26.7	1.4	0.0	6
W1731		09	09	20 24.1	41.248 S	174.875 E	42.4	1.3	0.1	6
W1732		09	12	20 14.5	41.410 S	175.050 E	25.4	1.4	0.1	8
W1733		09	13	23 28.0	40.652 S	174.895 E	37.6	2.0	0.1	7
W1734		09	14	11 23.6	41.245 S	175.359 E	34.9	1.9	0.1	8
W1735		10	02	45 50.3	41.086 S	175.062 E	15.6	1.3	0.2	6
W1736		10	08	38 35.6	40.731 S	175.083 E	24.1	1.9	0.0	8
W1737		10	08	46 04.5	41.178 S	174.679 E	47.0	1.6	0.0	6
W1738		10	10	19 06.6	40.930 S	174.933 E	34.1	1.9	0.1	9
W1739		10	15	27 59.8	41.289 S	175.337 E	31.9	2.3	0.1	9
W1740		10	22	38 17.3	41.119 S	175.364 E	26.1	1.9	0.2	6
W1741		11	05	49 23.8	41.164 S	174.671 E	33.0	1.5	0.1	7
W1742		11	07	21 33.1	41.565 S	174.391 E	10.9	1.6	0.1	7
W1743		11	15	14 43.7	41.129 S	174.701 E	59.9	1.6	0.1	6
W1744		12	02	51 35.9	40.938 S	174.096 E	65.2	2.8	0.1	5
W1745		12	12	58 44.3	41.474 S	175.291 E	18.1	2.0	0.1	7
W1746		12	16	39 57.2	41.143 S	175.386 E	33.9	1.7	0.1	6
W1747		12	21	22 31.7	41.042 S	175.378 E	32.0	2.1	0.2	8
W1748		12	21	24 04.4	41.064 S	175.351 E	25.2	2.0	0.1	6
W1749		13	05	47 09.8	41.588 S	175.188 E	23.7	1.8	0.1	7
W1750		13	07	55 04.2	41.697 S	175.500 E	11.5	2.4	0.3	8

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
W1751	OCT	13	07	55	04.8	41.697 S	175.500 E	11.5 R	2.3	ND	1
W1752		13	08	03	03.9	41.639 S	175.459 E	11.8	2.6	0.2	9
W1753		13	13	43	01.1	41.149 S	174.994 E	33.0	1.9	0.1	7
W1754		13	19	25	09.6	41.204 S	174.809 E	55.5	2.0	0.1	6
W1755		14	01	06	39.4	41.000 S	175.600 E	26.0	2.0	0.2	5
W1756		14	07	20	57.9	41.173 S	174.595 E	41.9	3.8	0.1	10
W1757		14	16	50	28.4	41.024 S	174.508 E	34.7	1.7	0.1	6
W1758		15	07	40	09.8	41.353 S	174.563 E	11.1	1.2	0.1	8
W1759		15	16	26	54.9	40.930 S	175.601 E	8.6	3.5	0.1	11
W1760		16	00	40	53.6	41.336 S	174.268 E	11.4	1.7	0.2	7
W1761		16	07	54	02.3	40.855 S	174.964 E	35.5	2.2	0.1	9
W1762		16	09	42	46.1	40.965 S	175.690 E	31.6	2.1	0.1	7
W1763		16	10	53	03.5	41.156 S	174.596 E	41.5	3.4	0.1	11
W1764		16	18	16	50.6	41.009 S	175.605 E	24.3	1.8	0.2	8
W1765		16	22	23	07.6	41.247 S	175.192 E	24.2	1.6	0.1	8
W1766		17	14	50	33.3	40.777 S	175.118 E	34.6	2.2	0.1	8
W1767		18	09	14	46.6	41.310 S	174.809 E	48.0	2.0	0.1	6
W1768		18	10	28	48.7	40.905 S	174.941 E	60.7	2.4	0.1	8
W1769		18	23	21	39.4	41.258 S	174.385 E	43.0	2.4	0.1	7
W1770		19	00	55	21.4	40.988 S	174.566 E	52.8	1.9	0.1	6
W1771		19	02	56	14.6	41.239 S	174.018 E	57.6	1.9	0.0	5
W1772		19	09	18	30.7	41.570 S	175.546 E	25.1	2.5	0.1	7
W1773		19	11	38	50.7	41.140 S	174.570 E	60.1	1.8	0.0	5
W1774		19	12	53	28.3	41.771 S	174.483 E	33.1	2.8	0.1	9
W1775		19	14	32	05.0	40.931 S	174.375 E	53.8	1.6	0.1	6
W1776		19	16	28	38.3	41.055 S	174.448 E	34.8	1.7	0.1	6
W1777		19	17	28	45.7	40.679 S	174.917 E	12.9	1.6	0.1	7
W1778		19	22	38	54.2	41.124 S	175.399 E	29.7	1.8	0.2	8
W1779		20	02	57	23.9	41.351 S	175.195 E	31.1	1.6	0.1	6
W1780		20	08	26	08.5	40.943 S	175.040 E	31.1	1.5	0.2	6
W1781		20	09	33	03.8	41.192 S	174.950 E	16.5	1.9	0.1	7
W1782		20	09	49	37.1	41.441 S	174.616 E	21.4	1.4	0.1	8
W1783		20	12	47	49.8	40.909 S	175.321 E	31.3	2.6	0.1	9
W1784		20	13	01	14.1	41.133 S	174.261 E	43.1	1.8	0.1	8
W1785		20	16	04	52.0	41.284 S	174.983 E	26.5	1.3	0.1	7
W1786		20	16	48	47.5	41.170 S	174.581 E	36.0	1.5	0.1	8
W1787		21	03	28	32.2	41.240 S	175.538 E	19.4	2.2	0.2	8
W1788		21	13	26	17.3	41.113 S	175.529 E	20.2	1.9	0.2	6
W1789		21	13	35	27.5	41.642 S	174.110 E	25.4	3.1	0.2	9
W1790		21	16	52	33.4	40.904 S	175.019 E	35.3	2.0	0.1	6
W1791		21	17	01	18.6	41.370 S	175.112 E	27.2	1.8	0.1	9
W1792		23	09	56	21.0	40.929 S	174.940 E	34.4	1.8	0.1	6
W1793		23	13	33	50.1	41.334 S	173.933 E	61.7	2.1	0.1	5
W1794		23	15	40	56.0	41.560 S	174.280 E	29.9	2.7	0.0	7
W1795		23	16	37	45.6	41.118 S	174.641 E	38.7	1.8	0.0	6
W1796		24	05	31	06.6	41.050 S	174.675 E	62.4	2.4	0.1	8
W1797		24	07	21	41.0	41.592 S	173.926 E	18.7	2.7	0.1	7
W1798		25	09	36	29.4	40.878 S	174.884 E	23.3	2.7	0.0	7
W1799		25	14	40	48.8	41.251 S	174.131 E	46.9	1.9	0.1	6
W1800		26	02	55	32.0	41.242 S	174.252 E	36.9	1.4	0.2	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1801	OCT 26	05	29	54.7	40.938 S	175.503 E	21.4	2.4	0.2	7
W1802	26	05	37	09.4	40.967 S	175.465 E	11.7	1.7	0.3	7
W1803	26	07	30	17.4	41.298 S	175.125 E	24.5	1.4	0.0	6
W1804	26	09	27	01.4	41.450 S	174.080 E	33.7	1.8	0.1	6
W1805	26	19	03	19.7	41.332 S	174.516 E	33.3	1.6	0.2	6
W1806	26	21	37	09.5	41.092 S	174.473 E	40.4	1.5	0.1	6
W1807	26	22	48	36.5	40.898 S	175.615 E	26.8	2.2	0.2	7
W1808	26	23	00	23.0	41.382 S	174.683 E	31.7	1.4	0.1	7
W1809	27	13	55	58.5	40.958 S	175.473 E	32.1	3.1	0.2	11
W1810	27	14	07	25.1	40.988 S	175.470 E	29.6	1.6	0.0	5
W1811	27	14	20	47.2	40.987 S	175.469 E	28.6	1.4	0.1	5
W1812	27	19	42	04.5	41.232 S	174.853 E	45.0	2.4	0.1	9
W1813	27	20	14	44.2	41.593 S	174.132 E	34.0	2.1	0.1	8
W1814	27	22	52	08.3	41.250 S	175.040 E	30.4	3.0	0.1	9
W1815	27	23	47	28.9	40.962 S	174.850 E	30.5	1.9	0.2	8
W1816	28	03	52	36.0	40.780 S	175.140 E	34.1	2.1	0.2	7
W1817	28	09	18	29.9	41.085 S	174.886 E	32.7	1.6	0.1	6
W1818	28	10	01	38.3	40.938 S	175.208 E	33.6	2.0	0.1	5
W1819	29	06	55	50.8	41.263 S	174.366 E	35.9	2.5	0.1	7
W1820	29	08	42	43.2	41.188 S	174.764 E	31.1	1.8	0.1	6
W1821	29	20	19	08.6	41.105 S	175.428 E	25.8	2.0	0.1	8
W1822	29	22	12	32.6	41.002 S	175.425 E	25.9	2.0	0.1	7
W1823	30	04	16	32.6	41.150 S	174.307 E	37.7	2.3	0.0	7
W1824	30	06	30	54.6	41.779 S	174.454 E	28.9	1.9	0.1	6
W1825	30	06	31	50.7	41.595 S	174.050 E	9.9	1.8	0.1	7
W1826	30	08	22	45.0	41.180 S	174.010 E	58.9	2.6	0.2	7
W1827	30	13	13	13.6	41.250 S	175.050 E	24.8	1.4	0.2	5
W1828	30	16	35	29.1	41.197 S	175.106 E	18.1	1.1	0.1	7
W1829	30	19	28	52.2	41.439 S	174.188 E	22.2	1.5	0.1	6
W1830	31	02	57	14.7	40.843 S	174.144 E	57.4	1.7	0.3	5
W1831	31	05	07	51.9	40.412 S	174.953 E	46.8	4.8	0.2	9
W1832	31	06	07	58.3	40.981 S	174.499 E	42.0	1.8	0.2	7
W1833	31	15	09	28.8	41.126 S	174.497 E	34.5	1.4	0.1	5
W1834	31	16	20	13.2	41.319 S	174.785 E	27.1	1.0	0.0	6
W1835	31	17	22	59.6	40.978 S	174.910 E	29.6	1.6	0.1	6
W1836	31	19	54	31.5	41.032 S	175.423 E	24.9	1.7	0.2	8
W1837	NOV 01	07	37	43.2	41.166 S	175.557 E	15.6	1.5	0.3	7
W1838	01	22	41	16.8	40.819 S	174.536 E	23.8	2.1	0.1	7
W1839	02	05	59	15.4	41.301 S	175.227 E	28.1	1.5	0.1	7
W1840	02	06	33	28.0	41.008 S	175.654 E	24.6	1.7	0.2	6
W1841	02	08	37	27.3	41.285 S	175.241 E	23.7	1.5	0.1	6
W1842	02	12	19	29.7	41.304 S	174.197 E	40.5	2.2	0.0	6
W1843	02	17	00	11.8	41.300 S	175.330 E	31.9	1.4	0.1	5
W1844	02	23	15	16.5	41.329 S	175.073 E	38.4	2.1	0.1	7
W1845	03	15	14	39.8	41.356 S	173.808 E	59.1	2.3	0.3	7
W1846	03	17	29	39.8	41.179 S	174.660 E	34.4	1.5	0.0	7
W1847	03	20	19	14.0	40.930 S	175.227 E	29.3	1.7	0.1	5
W1848	05	00	07	20.0	41.228 S	175.292 E	23.6	1.5	0.2	7
W1849	05	08	15	54.8	41.378 S	175.115 E	28.2	2.4	0.2	7
W1850	05	15	37	08.8	41.040 S	174.412 E	69.6	1.6	0.1	6

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m s						
W1851	NOV 05	15	45	28.9	41.253 S	174.135 E	47.0	2.1	0.1	7
W1852	05	18	03	30.6	41.382 S	174.896 E	29.3	1.9	0.1	7
W1853	05	19	30	15.0	40.708 S	174.824 E	14.3	1.8	0.2	6
W1854	06	00	30	00.7	41.110 S	174.706 E	31.9	2.9	0.1	7
W1855	06	03	01	44.8	41.359 S	175.046 E	29.1	1.7	0.0	6
W1856	07	02	27	07.3	41.286 S	175.314 E	26.6	1.4	0.2	6
W1857	07	05	45	45.3	41.105 S	174.707 E	32.8	1.2	0.1	6
W1858	07	11	15	27.1	41.103 S	175.270 E	24.4	1.4	0.1	5
W1859	07	14	41	37.3	40.928 S	174.923 E	35.5	2.3	0.1	9
W1860	07	17	21	01.4	41.390 S	174.846 E	20.1	1.4	0.1	6
W1861	07	18	25	49.3	41.370 S	175.120 E	27.6	1.9	0.1	10
W1862	08	00	43	31.9	41.136 S	175.573 E	21.2	1.9	0.3	8
W1863	09	10	05	26.3	41.258 S	174.492 E	34.2	1.7	0.2	6
W1864	09	22	29	06.6	41.273 S	174.331 E	61.3	2.0	0.1	7
W1865	09	23	24	15.0	40.977 S	175.622 E	31.8	2.1	0.2	9
W1866	10	00	38	42.7	41.063 S	174.798 E	32.6	1.7	0.1	7
W1867	10	10	55	12.0	41.012 S	175.331 E	24.2	1.8	0.2	6
W1868	10	11	03	45.0	41.395 S	174.431 E	27.9	1.6	0.1	7
W1869	10	11	25	21.7	41.639 S	174.772 E	26.0	1.6	0.1	7
W1870	10	12	16	34.8	41.460 S	175.040 E	25.4	1.5	0.1	7
W1871	10	14	36	26.2	40.949 S	175.115 E	36.3	1.7	0.2	5
W1872	10	14	47	59.6	41.026 S	174.821 E	27.4	1.1	0.2	6
W1873	10	17	18	51.7	41.727 S	174.277 E	8.5	1.4	0.1	6
W1874	10	21	18	49.8	41.090 S	175.209 E	26.6	1.5	0.1	8
W1875	10	21	40	18.3	40.927 S	174.676 E	13.3	1.0	0.2	5
W1876	10	22	03	32.4	41.011 S	174.516 E	38.7	1.8	0.1	7
W1877	10	23	40	44.9	40.913 S	175.182 E	35.5	1.9	0.1	6
W1878	10	23	43	24.5	40.920 S	175.177 E	34.8	1.5	0.0	5
W1879	11	15	41	53.1	40.948 S	175.598 E	29.8	2.6	0.1	9
W1880	12	02	28	32.8	41.190 S	175.454 E	29.2	1.9	0.2	8
W1881	12	04	24	00.4	41.002 S	174.073 E	54.3	2.1	0.1	8
W1882	12	04	28	26.6	41.371 S	175.111 E	25.7	1.5	0.2	7
W1883	12	12	35	13.2	41.400 S	175.323 E	26.3	2.2	0.2	7
W1884	13	03	39	44.0	40.862 S	175.466 E	32.2	2.4	0.1	8
W1885	13	18	24	55.8	41.267 S	175.286 E	21.0	2.4	0.2	8
W1886	14	00	18	38.3	41.560 S	174.262 E	29.5	2.6	0.1	8
W1887	14	00	35	13.2	41.530 S	174.303 E	22.7	2.2	0.1	7
W1888	14	05	36	08.6	41.304 S	175.254 E	29.7	2.5	0.1	9
W1889	14	05	45	01.6	41.299 S	175.247 E	28.9	2.8	0.1	10
W1890	14	06	22	02.3	41.020 S	174.901 E	31.5	1.8	0.2	7
W1891	14	19	25	31.7	41.390 S	174.468 E	32.9	1.7	0.1	6
W1892	15	05	31	25.4	41.086 S	174.507 E	33.7	1.6	0.1	6
W1893	15	15	20	08.0	41.055 S	175.333 E	20.7	1.9	0.0	5
W1894	15	17	07	34.3	41.312 S	175.199 E	30.4	1.7	0.1	7
W1895	15	21	29	48.2	41.285 S	175.322 E	32.5	2.0	0.2	8
W1896	16	23	15	58.4	41.028 S	175.556 E	24.7	2.1	0.2	6
W1897	17	06	45	03.5	41.076 S	174.729 E	35.4	2.5	0.1	10
W1898	17	14	15	29.1	41.030 S	174.657 E	49.0	2.0	0.1	6
W1899	17	14	34	57.9	40.913 S	175.529 E	26.0	2.0	0.1	6
W1900	17	16	59	14.5	41.678 S	174.996 E	29.5	1.9	0.2	8

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W1901	NOV 17	18	36	46.2	41.290 S	174.997 E	23.9	1.6	0.1	7
W1902	17	20	26	40.3	40.974 S	174.130 E	53.3	1.9	0.1	5
W1903	18	03	26	16.2	40.912 S	175.479 E	31.6	1.9	0.2	8
W1904	18	04	01	15.3	41.383 S	175.126 E	27.2	1.3	0.1	7
W1905	18	10	01	48.8	41.069 S	174.659 E	63.2	1.6	0.2	7
W1906	18	15	21	05.0	41.028 S	174.550 E	41.8	3.4	0.1	12
W1907	18	17	09	36.7	41.316 S	175.008 E	26.9	1.8	0.1	10
W1908	18	18	34	51.7	41.381 S	175.124 E	28.2	1.4	0.1	5
W1909	18	20	22	27.0	41.043 S	175.673 E	32.3	2.3	0.1	7
W1910	18	20	39	42.1	41.189 S	173.932 E	64.0	2.5	0.1	6
W1911	19	05	05	23.0	40.940 S	175.180 E	31.4	1.9	0.1	6
W1912	19	08	47	50.6	41.200 S	174.800 E	32.6	1.7	0.0	6
W1913	19	23	40	39.9	41.377 S	174.248 E	35.4	1.9	0.1	6
W1914	20	04	30	28.9	41.063 S	174.375 E	77.5	5.0	0.1	12
W1915	20	06	24	28.3	41.550 S	175.198 E	28.1	1.5	0.1	7
W1916	20	07	14	13.4	41.575 S	174.227 E	56.4	2.0	0.1	5
W1917	20	07	27	54.2	41.504 S	175.681 E	31.2	2.2	0.1	10
W1918	20	08	06	37.9	40.938 S	175.191 E	25.9	1.3	0.0	5
W1919	20	12	17	13.4	41.685 S	174.548 E	30.6	1.7	0.0	5
W1920	20	13	55	50.1	41.227 S	174.531 E	53.8	1.6	0.1	5
W1921	20	15	15	27.8	41.400 S	175.899 E	10.9	1.6	0.2	8
W1922	20	15	31	57.9	40.924 S	174.553 E	14.1	1.7	0.2	6
W1923	20	20	50	38.1	41.284 S	175.147 E	19.4	2.0	0.1	10
W1924	21	01	34	54.0	41.307 S	175.088 E	27.6	1.4	0.1	6
W1925	21	07	30	34.7	41.027 S	175.509 E	22.6	1.9	0.2	6
W1926	21	11	40	34.7	41.328 S	174.330 E	36.0	2.2	0.1	8
W1927	21	18	20	27.5	40.831 S	174.752 E	14.9	1.6	0.1	5
W1928	22	10	26	13.5	41.689 S	174.210 E	10.0 R	1.7	0.1	6
W1929	23	03	45	43.3	41.240 S	174.240 E	41.9	2.4	0.1	8
W1930	23	17	28	18.4	41.268 S	175.113 E	14.2	1.4	0.1	5
W1931	23	22	52	02.6	41.343 S	174.079 E	32.6	2.6	0.2	8
W1932	24	09	29	47.5	41.372 S	174.850 E	31.4	1.5	0.1	5
W1933	24	17	34	22.0	41.163 S	174.735 E	31.5	1.4	0.1	6
W1934	24	21	58	41.6	41.287 S	175.289 E	26.9	1.5	0.2	5
W1935	24	23	27	41.7	41.285 S	175.751 E	15.5	2.9	0.2	9
W1936	24	23	29	07.4	41.291 S	175.846 E	17.4	1.8	0.2	7
W1937	25	00	32	37.2	40.817 S	175.204 E	34.5	2.0	0.1	9
W1938	25	10	46	57.9	41.280 S	175.250 E	23.0	1.4	0.1	5
W1939	26	00	08	19.0	41.621 S	175.212 E	13.0	2.3	0.2	10
W1940	26	01	08	49.0	41.610 S	175.212 E	11.6	2.1	0.2	9
W1941	26	08	57	12.0	41.488 S	175.428 E	16.6	2.3	0.2	10
W1942	26	09	49	55.5	41.361 S	174.970 E	24.6	1.3	0.0	6
W1943	27	22	51	23.5	40.916 S	175.178 E	33.0	1.8	0.1	5
W1944	28	03	42	39.2	41.338 S	175.058 E	30.5	1.6	0.1	7
W1945	28	10	15	49.0	41.272 S	174.627 E	31.2	1.3	0.1	5
W1946	28	10	27	38.8	40.958 S	175.647 E	22.2	1.7	0.3	5
W1947	28	17	15	01.4	40.927 S	174.497 E	49.5	2.3	0.1	6
W1948	28	17	57	24.0	41.425 S	174.482 E	27.1	1.6	0.0	6
W1949	29	03	48	52.5	41.294 S	175.247 E	24.7	1.7	0.2	9
W1950	29	13	49	20.8	41.081 S	174.478 E	41.5	1.7	0.2	6

REF NUM	ORIGIN TIME					LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
			h	m	s						
W1951	NOV	30	14	29	01.9	40.880 S	175.080 E	39.8	1.4	0.2	5
W1952		30	14	38	23.0	40.990 S	174.500 E	5.0 R	1.5	0.1	7
W1953		30	14	58	57.0	41.404 S	174.011 E	40.0	2.2	0.1	7
W1954		30	17	54	05.4	41.587 S	174.484 E	12.5	3.1	0.0	7
W1955	DEC	01	10	16	46.8	41.114 S	173.966 E	52.1	1.9	0.2	6
W1956		01	12	20	55.1	41.033 S	175.384 E	25.0	1.9	0.3	7
W1957		01	12	21	37.0	41.044 S	175.386 E	30.8	1.7	0.1	5
W1958		01	14	48	55.6	41.225 S	174.563 E	18.2	1.5	0.1	7
W1959		01	14	50	49.1	41.609 S	174.504 E	11.6	1.8	0.1	8
W1960		01	22	00	39.9	41.497 S	173.945 E	20.7	2.7	0.1	7
W1961		02	03	19	29.3	41.490 S	173.920 E	22.7	2.8	0.2	8
W1962		02	03	33	49.0	41.470 S	174.482 E	31.0	1.9	0.1	7
W1963		03	08	08	21.8	40.939 S	175.815 E	33.7	2.5	0.2	9
W1964		04	03	16	10.1	41.145 S	175.350 E	19.7	1.9	0.1	7
W1965		04	03	57	58.9	41.154 S	175.356 E	23.0	1.7	0.1	6
W1966		04	06	21	28.4	41.305 S	175.159 E	2.2	1.5	0.2	8
W1967		04	06	25	42.1	41.030 S	174.673 E	39.5	1.4	0.0	6
W1968		04	09	38	55.2	41.761 S	175.135 E	33.4	2.9	0.1	11
W1969		05	07	25	38.1	41.248 S	174.388 E	41.5	2.0	0.2	7
W1970		05	09	56	57.2	41.304 S	174.983 E	24.4	1.2	0.1	6
W1971		05	09	56	59.5	41.305 S	174.983 E	24.4	2.0	0.1	9
W1972		05	14	18	23.8	41.612 S	174.342 E	12.5	2.0	0.1	8
W1973		05	14	37	22.5	41.422 S	175.019 E	10.2	1.6	0.2	8
W1974		05	20	03	52.8	41.284 S	174.856 E	30.1	1.4	0.0	6
W1975		06	13	35	50.4	41.064 S	174.931 E	26.7	1.9	0.1	8
W1976		06	18	11	45.9	41.299 S	174.964 E	30.0	1.6	0.2	7
W1977		07	00	16	59.2	41.266 S	174.689 E	30.2	1.6	0.0	5
W1978		07	13	58	52.8	41.377 S	175.120 E	29.8	1.8	0.1	8
W1979		08	01	30	20.8	41.371 S	174.964 E	10.3	1.9	0.0	9
W1980		08	13	06	24.8	41.385 S	174.678 E	21.9	1.0	0.1	6
W1981		08	14	01	41.2	41.226 S	175.070 E	17.4	1.3	0.1	6
W1982		08	21	16	14.0	40.893 S	175.239 E	31.7	1.9	0.1	5
W1983		09	07	36	07.5	41.053 S	174.400 E	63.8	2.3	0.1	6
W1984		09	08	07	14.5	41.540 S	174.121 E	18.0	1.9	0.1	6
W1985		09	14	58	24.0	41.559 S	174.565 E	28.9	1.8	0.0	5
W1986		09	15	21	15.2	41.246 S	175.262 E	25.4	1.4	0.2	6
W1987		10	10	27	43.6	41.624 S	174.635 E	32.5	2.2	0.0	8
W1988		10	14	03	18.8	41.669 S	174.500 E	17.2	1.9	0.1	7
W1989		10	14	20	46.1	41.622 S	174.497 E	14.7	2.0	0.1	5
W1990		10	18	26	11.3	40.994 S	175.048 E	33.5	1.1	0.0	5
W1991		10	19	16	47.5	41.082 S	174.707 E	37.2	2.2	0.1	8
W1992		10	22	10	26.0	41.134 S	175.477 E	26.1	2.1	0.1	7
W1993		10	23	43	07.4	40.710 S	175.220 E	39.3	1.8	0.0	5
W1994		11	11	37	01.9	41.757 S	174.548 E	35.8	2.3	0.2	7
W1995		11	13	08	08.4	41.623 S	174.642 E	31.0	1.5	0.1	6
W1996		11	15	04	04.9	41.403 S	174.844 E	28.8	1.5	0.2	5
W1997		11	16	58	19.1	41.003 S	174.559 E	54.4	2.2	0.1	7
W1998		12	02	41	20.8	41.602 S	175.241 E	11.2	2.1	0.1	9
W1999		12	02	42	30.6	41.648 S	175.239 E	8.9	1.8	0.1	7
W2000		12	06	23	41.4	41.678 S	175.270 E	10.3	1.8	0.2	7

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W2001 DEC	12	06	48	13.5	41.036 S	174.763 E	35.3	2.0	0.1	8
W2002	13	06	16	46.9	41.429 S	174.577 E	31.9	1.8	0.1	7
W2003	13	19	50	54.4	41.151 S	174.585 E	60.2	2.7	0.2	7
W2004	13	21	43	28.7	41.160 S	175.418 E	31.8	2.1	0.1	7
W2005	13	22	59	53.7	41.247 S	175.016 E	23.7	1.3	0.1	6
W2006	14	03	56	06.0	41.071 S	174.746 E	33.7	2.5	0.1	9
W2007	14	06	01	34.7	41.307 S	175.244 E	23.9	1.3	0.1	6
W2008	14	10	01	36.5	41.278 S	175.126 E	23.1	1.6	0.1	7
W2009	14	13	03	04.7	41.052 S	175.437 E	8.4	1.9	0.1	9
W2010	14	14	38	22.6	41.051 S	175.440 E	25.3	1.9	0.2	7
W2011	15	08	11	46.0	41.160 S	174.940 E	30.3	1.7	0.1	7
W2012	15	19	43	49.1	40.914 S	175.069 E	34.4	1.7	0.2	5
W2013	16	05	29	38.3	41.125 S	174.621 E	35.5	1.3	0.1	6
W2014	16	11	30	30.8	41.435 S	174.084 E	48.2	2.8	0.1	8
W2015	16	11	52	10.3	41.372 S	174.205 E	39.8	2.4	0.1	8
W2016	16	14	34	45.0	41.708 S	174.535 E	29.6	1.9	0.1	8
W2017	16	15	53	47.7	41.552 S	174.140 E	20.1	1.9	0.2	6
W2018	16	18	13	16.8	41.209 S	174.866 E	16.0	1.6	0.0	7
W2019	16	21	23	25.9	40.990 S	175.480 E	35.5	1.9	0.2	6
W2020	16	21	36	46.5	41.234 S	174.139 E	45.7	1.7	0.1	7
W2021	17	01	59	30.2	40.853 S	174.762 E	52.5	2.1	0.1	9
W2022	17	11	29	21.0	40.999 S	174.412 E	69.2	2.2	0.1	7
W2023	17	16	06	59.7	41.449 S	174.698 E	32.8	1.8	0.2	8
W2024	18	09	17	03.4	41.009 S	175.325 E	25.5	1.9	0.1	8
W2025	18	13	47	23.2	41.439 S	174.241 E	30.4	2.0	0.2	6
W2026	18	15	20	38.9	41.638 S	174.906 E	25.7	1.7	0.2	6
W2027	18	23	25	34.9	40.883 S	175.153 E	34.8	1.8	0.3	7
W2028	19	16	02	17.1	41.389 S	174.074 E	35.4	1.7	0.1	6
W2029	20	02	39	45.4	41.003 S	174.609 E	55.9	2.0	0.1	6
W2030	20	16	38	07.5	41.663 S	174.428 E	21.7	2.0	0.1	8
W2031	20	17	24	04.9	40.829 S	174.465 E	49.8	2.7	0.1	11
W2032	21	15	51	58.9	41.270 S	174.710 E	32.3	1.4	0.1	5
W2033	21	16	39	45.0	40.997 S	175.453 E	27.5	2.0	0.0	5
W2034	21	17	04	51.6	40.861 S	175.124 E	37.6	1.8	0.2	6
W2035	21	18	38	31.6	41.725 S	174.541 E	33.5	2.3	0.1	8
W2036	21	19	12	59.3	41.056 S	174.741 E	37.8	2.8	0.1	7
W2037	22	09	43	51.6	41.046 S	175.077 E	27.3	1.5	0.1	7
W2038	22	09	54	34.1	41.073 S	174.780 E	32.7	1.7	0.0	6
W2039	23	09	33	44.8	41.010 S	174.420 E	47.0	1.8	0.2	7
W2040	23	12	28	08.1	41.213 S	175.378 E	29.5	1.8	0.1	7
W2041	23	19	45	16.9	41.267 S	174.691 E	31.1	1.4	0.0	5
W2042	23	22	15	01.0	41.349 S	173.814 E	53.1	2.5	0.2	6
W2043	24	00	31	05.9	41.400 S	175.882 E	11.2	1.9	0.1	7
W2044	24	12	30	02.5	41.458 S	175.047 E	24.8	1.6	0.0	5
W2045	24	16	45	46.9	41.589 S	174.506 E	19.5	1.8	0.2	8
W2046	25	07	17	30.9	41.377 S	174.594 E	55.9	1.7	0.2	6
W2047	25	12	58	47.3	40.828 S	174.745 E	15.1	1.5	0.1	7
W2048	25	16	18	50.0	41.242 S	174.034 E	57.5	1.8	0.2	6
W2049	25	17	26	05.8	41.228 S	175.592 E	20.3	1.4	0.1	5
W2050	26	18	51	41.3	41.023 S	174.154 E	54.3	2.0	0.1	6

REF NUM	ORIGIN TIME				LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS
		h	m	s						
W2051 DEC	27	00	09	22.2	40.733 S	174.410 E	3.3	1.7	0.1	7
W2052	27	03	30	28.5	41.460 S	175.330 E	18.3	1.5	0.2	6
W2053	27	05	30	18.8	41.144 S	174.925 E	54.0	1.9	0.0	5
W2054	27	08	22	05.9	41.157 S	174.811 E	30.5	1.6	0.1	8
W2055	27	10	31	44.0	41.576 S	174.375 E	17.5	2.7	0.1	9
W2056	28	04	42	19.5	41.694 S	174.548 E	33.0	2.1	0.1	7
W2057	29	05	14	53.4	41.226 S	174.941 E	7.7	1.4	0.2	5
W2058	29	13	43	21.9	41.109 S	175.226 E	14.7	1.6	0.1	7
W2059	29	14	02	11.3	41.102 S	175.229 E	14.1	1.5	0.2	7
W2060	30	00	08	06.9	40.924 S	174.953 E	38.6	1.9	0.1	6
W2061	30	05	38	24.3	40.989 S	175.635 E	31.8	2.2	0.2	8
W2062	30	08	16	47.0	41.264 S	174.408 E	62.1	1.6	0.0	6
W2063	30	09	17	40.4	41.031 S	175.254 E	27.9	1.5	0.2	7
W2064	30	23	23	53.9	41.104 S	174.634 E	40.9	1.9	0.1	8
W2065	31	18	10	50.9	41.456 S	174.860 E	16.6	1.1	0.1	6
W2066	31	21	39	52.9	41.063 S	175.409 E	2.7	2.6	0.1	11
W2067	31	22	03	15.5	40.986 S	175.440 E	28.4	1.8	0.1	5

NON-INSTRUMENTAL DATA

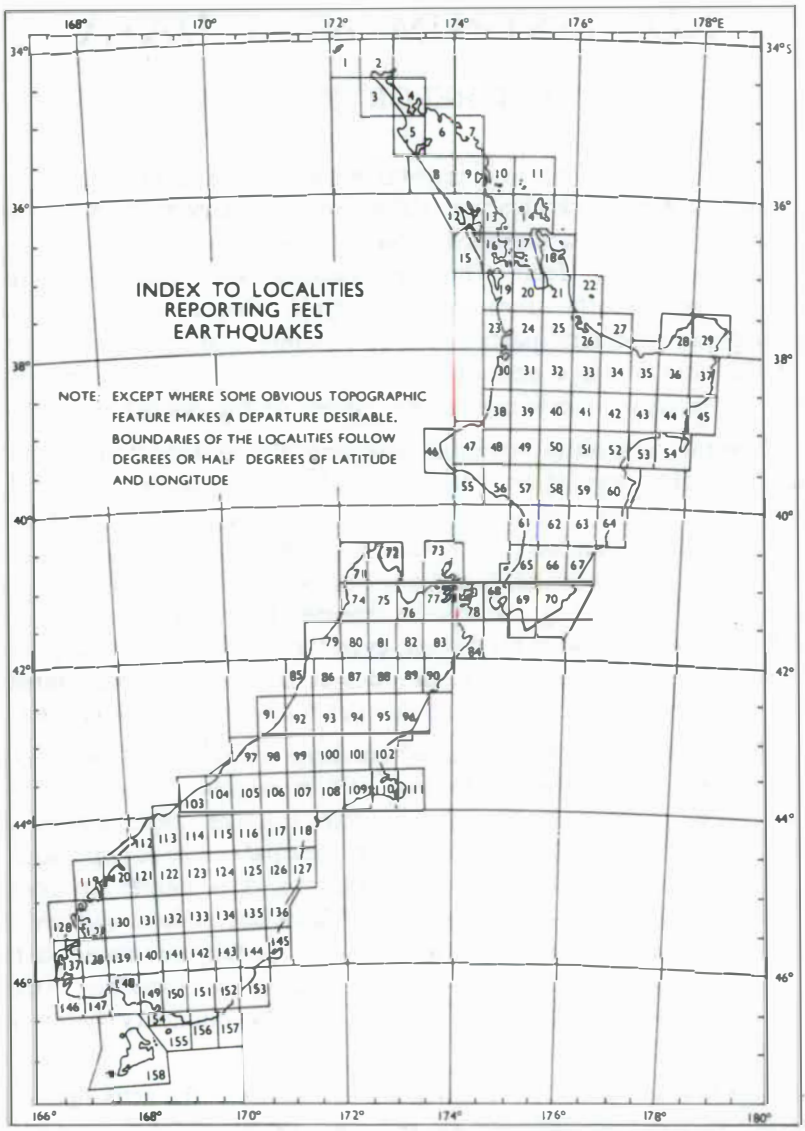
THE FELT REPORTING SYSTEM

In addition to the instrumental network, the Observatory has organised a network of about 400 voluntary observers covering the country, who use a standard form to describe the effects of any earthquake they feel. The Observatory also receives many unsolicited reports from meteorological observers, radio and newspaper reporters, postmasters and members of the local 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 map overleaf. 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 on 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, 9*: 122–9 (1966). A query (?) 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.



'Location map'

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

PLACES REPORTING FELT EARTHQUAKES

79/9 *Jan 6 08h 56m*
MM 4 Evans Creek (98).

79/14 *Jan 7 04h 01m*
MM 3 Wellington (68);
'weak' Waitaria Bay (78).

79/17 *Jan 7 15h 02m*
MM 4 Ohakune (49);
? Turoa Skifield (50).

79/18 *Jan 8 09h 43m*
MM 4 Taupo (41);
'strong' Wairakei (41).

79/19 *Jan 8 09h 44m*
'medium' Wairakei (41).

79/20 *Jan 8 09h 51m*
'medium' Wairakei (41).

79/22 *Jan 8 23h 36m*
'strong' Wairakei (41).

79/26 *Jan 10 10h 02m*
MM 4 Paraparaumu Beach (65); Eastbourne, Lower Hutt, Tawa, Wellington (68);
'force 4' Gracefield, Karori (68);
'force 2' Porirua (68);
'slight' Kelburn (68);
? Tawa, Thorndon, Titahi Bay, Wainuiomata (68).

79/30 *Jan 13 06h 14m*
MM 5 Tawa (68);
MM 4 Paraparaumu Beach, Waikawa Beach (65); Eastbourne, Kelburn, Khandallah, Lower Hutt, Mount Victoria, Wainuiomata, Wellington (68); Collingwood, Farewell Spit (72); Stephens Island (73); Nelson (76); Blenheim (77);
'force 4' Karori, Gracefield (68);
'slight' Appleby (76);
? Kelburn (68); Manaroa (78).

79/31 *Jan 13 14h 27m*
MM 4 Eastbourne (68).

79/34 *Jan 15 19h 36m*
? Wanganui (57).

79/35 *Jan 17 13h 53m*
MM 5 Maketu (26);
MM 4 Tauranga (26);
'sharp' Te Puke, Te Ranga (26).

79/38 *Jan 18 10h 10m*
MM 4 Waipawa, Mount Vernon (60).

79/40 *Jan 19 15h 03m*
MM 4 Maketu (26).

79/41 *Jan 19 18h 38m*
MM 3 Gisborne (45).

79/42 *Jan 20 08h 30m*
MM 4 Parapara Okeore (57); Moawhanga (58).

79/49 *Jan 23 14h 52m*
MM 4 Ohakune (49).

79/50 *Jan 24 17h 30m*
MM 5 Taupo (41);
MM 4 Taupo (41);
'strong' Wairakei (41);
? Taupo (41).

79/54 *Jan 26 19h 33m*
MM 4 Ohakune (49);
? Turoa (50).

79/55 *Jan 27 05h 10m*
MM 4 Ohakune (49);
? Turoa (50).

79/60 *Jan 28 19h 12m*
MM 4 Titahi Bay (68).

79/63 *Jan 29 03h 48m*
'moderate' Wairakei (41).

79/71 *Feb 1 02h 11m*
MM 3 Kelburn (68);
? Wellington (68).

79/74 *Feb 2 08h 55m*
MM 3 Gisborne (45).

79/86 *Feb 9 04h 42m*
MM 4 Whakatane (27).

79/99 *Feb 17 22h 32m*
MM 4 Parapara Okeore (57);
'force 3' Wanganui (57);
? Wanganui (57).

79/102 Feb 18 *17h 35m*
MM 4 Eastbourne (68);
'slight' Miramar, Wellington (68);
? Naenae (68).

79/110 *Feb 23 19h 30m*
MM 3 Gisborne (45).

79/121 *Mar 1 03h 35m*
MM 4 Patoka (52);
MM 3 Moawhango (58).

79/170 *Mar 23 00h 23m*
MM 4 Westport (79).

79/175 *Mar 24 21h 06m*
MM 6 Murchison (80); Ross (91);
MM 5 Greymouth (85); Maruia (87); Inchbonnie (92); Waiau (96);
MM 4 Bainham, Collingwood (72); Karamea (74); Granity, Waimangaroa (79); Mangles Valley (80); Hokitika (91); 'The Poplars' (94); Evans Creek (98);
MM 3 St Arnaud (81);
'force 4–5' Westport (79); Hokitika (91);
'force 3' Appleby (76);
'moderate' Reefton (86);
? Middlehurst (82); Reefton (86); Grey-Robinson (87); Christchurch (110).

79/182 *Mar 27 19h 48m*
MM 4 West Arm Lake Manapouri (138).

79/187 *Mar 29 13h 16m*
MM 4 Ohakune (49); Parapara Okeore, Wanganui (57); Moawhango (58).

79/198 *Apr 2 20h 30m*
MM 4 Puysegur Point (146).

79/201 *Apr 5 10h 39m*
MM 4 Ohakune (49).

79/206 *Apr 7 02h 16m*
MM 3 Maruia (87);
? Murchison (80).

79/207 *Apr 7 13h 36m*
MM 4 Ormond (44); Gisborne (45);
'force 3' Gisborne (45);
? Mahia Beach (54).

79/210 *Apr 8 14h 35m*
'force 2' Middlehurst (82).

79/220 *Apr 10 19h 38m*
MM 4 Otaki, Paraparaumu (65); Eastbourne, Highbury, Wanuiomata, Wellington (68); Stephens Island (73); Blenheim (77); The Brothers (78);
MM 3 Waikawa Beach (65);
'force 5' Kelburn (68);
'force 4' Karori (68);
'force 3–4' Manaroa (78).

79/225 *Apr 12 19h 17m*
MM 4 Murchison (80).

79/227 *Apr 13 10h 16m*
MM 4 Opotiki (35).

79/246 *Apr 19 16h 27m*
'moderate' Pikowai (27);
? Pikowai (27).

79/247 *Apr 19 18h 01m*
MM 4 Waihi Beach (21); Maketu (26); Whakatane (27); Opotiki (35);
'moderate' Pikowai (27);
? Tauranga, Te Puke, Te Ranga (26); Pikowai (27); Rotorua (33); Wainui (35); Gisborne (45).

79/250 *Apr 20 02h 01m*
? Wairakei (41).

79/251 *Apr 20 02h 26m*
? Wairakei (41).

79/253 *Apr 21 02h 58m*
MM 3 Waikawa Beach (65).

79/256 *Apr 21 09h 13m*
MM 4 Taupo (41).

79/261 *Apr 22 19h 44m*
MM 6 Kotemaori, Raupunga, Wairoa (53);
MM 5 Wairoa (53);
MM 4 Tuai (43); Gisborne (45); Portland Island (54);
? Gisborne(45); Napier (52); Waihua Valley (53); Mahia Beach, Nuhaka (54).

79/273 *Apr 28 20h 47m*
MM 4 Mount Aspiring (113); Earnslaw (121).

79/278 *May 2 18h 16m*
MM 4 Raoul Island.

79/281 *May 3 09h 27m*
MM 4 Tuai (43); Ormond (44); Gisborne (45); Wairoa (53);
? Waihua Valley (53); Mahia Beach (54).

79/284 *May 4 21h 05m*
? Ongarue (39).

79/289 *May 8 03h 47m*
? Tokaanu (40).

79/290 *May 8 07h 18m*
'strong' Tokaanu (40);
? Turangi (40).

79/291 *May 10 01h 12m*
? Tokaanu (40).

79/292 *May 10 01h 28m*
? Tokaanu (40).

79/301 *May 15 14h 49m*
MM 4 Wanaka (123); Te Anau Downs (130); Gibbston, Kawerau Falls, Queenstown (132); Manapouri (139); Butterfields Beach, Halfmoon Bay (158);
'force 6' Wanaka (123);
? Milford Sound (120); 'The Branches' (122); Te Anau Downs (130); Manapouri (139); Dunedin (145).

79/308 *May 18 18h 04m*
MM 4 Evans Creek, Harihari (98);
'force 2' Harihari (98).

79/309 *May 19 03h 53m*
MM 4 Mount Aspiring (113).

79/313 *May 20 09h 47m*
MM 4 Murchison (80).

79/336 *Jun 1 23h 41m*
'small' Manapouri (139).

79/342 *Jun 5 12h 58m*
MM 4 Ohakune (49).

79/345 *Jun 8 05h 08m*
'tremor' Okaiawa (55).

79/346 *Jun 8 19h 08m*
MM 4 Waimangaroa (79).

79/348 *Jun 9 00h 38m*
MM 4 Ohakune (49).

79/351 *Jun 13 19h 16m*
MM 4 Wharanui (84).

79/353 *Jun 15 04h 48m*
MM 4 Palmerston North (62);
MM 1 Wellington (68).

79/355 *Jun 15 14h 52m*
MM 4 Ohakune (49).

79/357 *Jun 17 14h 15m*
MM 6 Wanganui (57);
MM 5 Moawhanga 58); Palmerston North (62); Eketahuna (66);
MM 4 Purangi (48); Ohakune (49); Okoia, Wanganui (57); Feilding (62); Totaramoa (63); Aramoana (64); Levin, Waikawa Beach (65); Eastbourne, Linden, Lower Hutt, Northland, Tawa, Wainuiomata (68); Akaroa (111);
MM 3 Ormond (44); Gisborne (45); Hawera (55); Ongaonga (59); Waipawa (60); Foxton (61); Lower Hutt (68); Wairongomai (69);
MM 1 Upper Hutt (69);
'force 4' Karori (68);
'force 3–4' Levin, Mahunoa, Paraparaumu (65); Kelburn (68);
'slight' New Plymouth (47); Nelson (76);
? Mahia Beach (54); Ohingaiti (58); Ohakea (61); Feilding, Palmerston North (62); Paekakariki (65); Hillwood (66); Ashdown (77).

79/366 *Jun 20 07h 45m*
MM 4 'The Poplars' (94); Cheviot (96); Okuti Valley (110); Akaroa (111);
? Hawarden (95); Fernlehurst (96).

79/377 *Jun 28 11h 46m*
MM 4 Ohakune(49).

79/382 *Jun 29 06h 45m*
'light' Ohingaiti (58).

79/389 *Jul 1 15h 24m*
MM 4 Wanganui (57);
'light' Ohingaiti (58).

79/398 *Jul 6 07h 58m*
MM 4 Kelburn (68);
? Highbury (68).

79/413 *Jul 13 10h 36m*
MM 4 Ohakune (49).

79/428 *Jul 25 17h 13m*
MM 4 Ohakune (49).

79/442 *Aug 4 04h 33m*
MM 4 Te Anau Downs (130);
'force 5' Manapouri (139).

79/451 *Aug 7 07h 02m*
MM 4 Ohakune (49);
'small' Mahoenui (38).

79/456 *Aug 9 10h 58m*
MM 4 Ohakune (49);
? Okato (46).

79/471 *Aug 13 23h 03m*
MM 3 Eastbourne (68).

79/499 *Aug 22 11h 09m*
MM 4 Masterton (66).

79/500 *Aug 22 18h 46m*
'light' Mahia Beach (54).

79/504 *Aug 26 10h 31m*
MM 4 Wellington (68); Farewell Spit (72); Nelson (76); Blenheim (77); Manaroa (78); Murchison (80);
MM 3 Purangi (48);
'force 4' Appleby (76);
'sharp jolt' Picton (77); Ashdown (90);
'jolt' Ocean Bay (78);
'felt' Christchurch (110).

79/505 *Aug 26 10h 35m*
MM 4 Levin (65); Wellington (68); Nelson (76); The Brothers (78);
MM 3 Wellington(68);
'force 4' Appleby (76);
'sharp jolt' Picton (77); Ashdown (90);
'jolt' Ocean Bay (78);
? Whangamoa (76); Waitara Bay (78).

79/506 *Aug 26 20h 35m*
MM 4 Ohakune (49).

79/507 *Aug 27 18h 54m*
MM 4 Ohakune (49).

79/508 *Aug 27 20h 14m*
? Waiau (96).

79/509 *Aug 28 17h 29m*
MM 4 Taupo (41).

79/517 *Sep 1 17h 33m*
MM 4 Waipawa (60).

79/519 *Sep 1 22h 33m*
? Bainham (72).

79/520 *Sep 2 08h 39m*
MM 4 Taupo (41).

79/522 *Sep 3 07h 17m*
MM 5 Eastbourne, Lower Hutt (68); Fabians Valley (77);
MM 4 Stratford Mountain House(47); Manakau (65); Eastbourne, Kelburn, Khandallah, Lower Hutt, Naenae, Roseneath, Tawa, Wellington (68); Blenheim (77); The Brothers (78);
MM 3 Highbury (68); Featherston (69); Nelson (76);
'force 4' Karori (68); Appleby (76);
'force 3' Pukerua Bay, Kelburn (68);
'strong' Pokokini (75);
'sharp' Picton (78);
'moderate' Waimate West (55);
'slight' Nelson Airport (76);
'felt' Wanganui (57); Palmerston North (62); Levin (65);
? Okaiawa (55); Bainham, Totaranui (72); Whangamoa (76); Ashdown (77); Manaroa, Waitaria Bay (78).

79/523 *Sep 4 06h 22m*
? Stratford Mountain House (47).

79/530 *Sep 7 16h 30m*
? Cloverly (27).

79/543 *Sep 12 03h 45m*
MM 4 Murchison (80); Maruia, Springs Junction (87);
MM 3 Culverden (75);
'force 3–4' Kaikoura (90);
'slight' Nelson (76);
'short' Waiau (96).

79/546 *Sep 13 05h 15m*
? Mahia Beach (54).

79/547 *Sep 13 06h 56m*
MM 4 Tuai (43).

79/549 *Sep 14 05h 00m*
MM 4 Patoka (52).

79/554 *Sep 18 15h 29m*
? Wairoa (53).

79/558 *Sep 20 04h 41m*
'slight' Onamalutu (77);
? Picton (77); Manaroa (78).

79/559 *Sep 20 17h 36m*
MM 3 Maruia (87);
? Okaiawa (55).

79/565 *Sep 22 23h 15m*
MM 4 Napier, Patoka (52); Waipawa (60);
MM 3 Hastings (60); Palmerston North (62).

79/566 *Sep 23 09h 07m*
MM 4 Ohope Beach (35).

79/571 *Sep 29 10h 14m*
? Mahia Beach (54).

79/572 *Sep 29 20h 22m*
MM 4 Feilding (62); Levin (65); Masterton (65);
'force 3' Pukerua Bay (68);
'light jolt' Manakau (65);
? Feilding (62).

79/577 *Oct 1 03h 05m*
MM 4 Waipawa (60).

79/613 *Oct 12 10h 25m*
MM 5 Wanaka (123); Manapouri (138); Puysegur Point (146); Papatotara, Tuatapere (148); Boggyburn, Invercargill (149); Mokotua (150); Halfmoon Bay (158);
MM 4 Harihari (98); Mount Aspiring station (113); Milford Sound (120); Glenorchy (121); Wanaka (123); Te Anau Downs (130); Queenstown, Wakatipu (132); Lumsden (140); Invercargill, Waikiwi, Winton (149); Gore, Mataura (150); Awarua Radio, Bluff (154); Quarry Hills (156); Halfmoon Bay (158);
MM 3 Lake Coleridge (100); Christchurch (110); Haka Valley (125); Clyde, Cromwell (133); Oamaru (136); Invercargill (149);
'force 4' Invercargill (149);
'force 3' Dunedin (145);
'felt' Haast (103); Timaru (118); Lake Benmore (116);
? Poringa (103); Wanaka (123); Queenstown (132); Manapouri (139); Dunrobin (140); West Tapanui (142); 'The Mains' (144); Te Tipuna, Woodlands (150); Baverstock (152); Tiwai Point (154).

79/623 *Oct 12 10h 56m*
MM 3 Puysegur Point (146).

79/626 *Oct 12 11h 13m*
MM 2 Puysegur Point (146).

79/642 *Oct 12 13h 35m*
MM 2 Puysegur Point (146);
'force 2' Invercargill (149).

79/704 *Oct 14 07h 20m*
MM 4 Lower Hutt (68);
'felt' Kelburn, Tawa (68).

79/712 *Oct 14 22h 27m*
'force 3' Dunedin (144).

79/715 *Oct 15 06h 18m*
? Te Ranga (26).

79/717 *Oct 15 16h 26m*
MM 3 Eastbourne (68).

79/726 *Oct 17 07h 16m*
MM 5 Wairoa (53);
MM 4 Whakatane (27); Murupara (34); Opotiki (35); Ormond (44);
MM 3 Kelburn (68);
? Port Ohope (35).

79/735 *Oct 20 14h 12m*
MM 4 Te Anau Downs Station (130); West Arm Manapouri (138); Manapouri (139); Gore (150);
? Te Anau Downs (130); Manapouri (139).

79/750 *Oct 24 06h 10m*
'short' Ashdown (77); Waitaria (78).

79/779 *Oct 27 22h 52m*
MM 4 Lower Hutt (68);
MM 3 Eastbourne (68).

79/798 *Oct 31 05h 07m*
MM 4 Levin (65); Khandallah (68);
MM 3 Palmerston North (62);
'medium' Manakau (65);
'force 2' Kairanga (61);
'felt' Lower Hutt, Porirua, Tawa, Wainui (68).

79/803 *Nov 1 09h 32m*
MM 4 Wanganui (57); Table Flat (58); Palmerston North (62);
MM 3 Onga Onga (60); Levin (65);
MM 2 Ormond (44).

79/805 *Nov 1 13h 40m*
MM 5 Te Teko (34).

79/822 *Nov 8 15h 56m*
MM 4 Ormond (44); Gisborne (45); Napier (52); Wairoa (53); Waipawa (60);
'slight' Hastings (60).

79/828 *Nov 11 00h 51m*
MM 4 Waipawa (60).

79/831 *Nov 13 07h 40m*
MM 4 Te Teko (34).

79/834 *Nov 14 22h 58m*
MM 4 Wairakei (41).

79/843 *Nov 18 15h 21m*
MM 3 Eastbourne, Tawa (68).

79/846 *Nov 20 04h 30m*
MM 4 Stratford (47); Ohakune (49); Hawera (55); Okoia (57); Palmerston North (62); Levin, Paraparaumu Beach (65); Eastbourne, Lower Hutt, Wainuiomata (68); Nelson (76); Picton (78);
MM 3 Normanby (55); Waitotara (56); Kimbolton (62); Waikawa Beach (65); Kelburn (68);
? Kelburn, Wellington Airport (68); Picton (78).

79/853 *Nov 24 20h 24m*
MM 4 Ross (91).

79/861 *Nov 28 10h 07m*
MM 4 Tolaga Bay (37); Gisborne (45).

79/908 *Dec 20 17h 31m*
MM 4 Ormond (44).

79/913 *Dec 23 06h 06m*
MM 4 Ohakune (49);
MM 3 Taihape (58).

79/930 *Dec 31 14h 14m*
MM 4 Ohakune (49).

EARTHQUAKES FELT IN STANDARD LOCALITIES

Localities within which earthquakes were felt are listed in alphabetical order, each 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. An asterisk (*) indicates that the particular intensity was not evaluated from the standard questionnaire. The instrumental magnitude may be found from the epicentre list, and places that actually reported the shock from the table of 'Places Reporting Felt Earthquakes'.

111	Akaroa	357 (4),	366 (4).
133	Alexandra	613 (3).	
122	Arrowtown	301 (?).	
152	Balclutha	613 (?)	

77	Blenheim	30 (4),	220 (4),	357 (?),	504 (4),	505(4*),
		522 (5),	558(3*),	750(3*).		
154	Bluff	613 (4).				
61	Bulls	357 (3),	798(2*).			
84	Cape Campbell	351 (4).				
46	Cape Egmont	456 (?).				
50	Chateau	17 (?),	54 (?),	55 (?).		
96	Cheviot	175 (5),	366 (4),	508 (?),	543(3*).	
110	Christchurch	175 (?),	366 (4),	504(3*),	613 (3).	
95	Culverden	366 (?).				
63	Dannevirke	357 (4).				
145	Dunedin	301 (?),	613(3*).			
73	D'Urville Island	30 (4),	220 (4).			
69	Featherston	357 (3),	522 (3).			
45	Gisborne	41 (3),	74 (3),	110 (3),	207 (4),	247 (?),
		261 (4),	281 (4),	357 (3),	822 (4),	861 (4).
81	Glenhope	175 (3).				
121	Glenorchy	273 (4),	613 (4).			
150	Gore	613 (5),	735 (4).			
85	Greymouth	175 (5).				
103	Haast	613(3*).				
98	Hari Hari	9 (4),	175 (4),	308 (4),	613 (4).	
60	Hastings	38 (4),	357 (3),	517 (4),	565 (4),	577 (4),
		803 (3),	822 (4),	828 (4).		
55	Hawera	345(3*),	357 (3),	522(4*),	559 (?),	846 (4).
91	Hokitika	175 (6),	853 (4).			
149	Invercargill	613 (5),	642(2*).			
113	Jackson's Bay	273 (4),	309 (4),	613 (4).		
90	Kaikoura	504(4*),	505(4*),	543(3*).		
74	Karamea	175 (4).				
132	Kingston	301 (4),	613 (4).			
92	Kumara	175 (5).				
125	Kurow	613 (3).				
100	Lake Coleridge	613 (3).				
94	Lake Sumner	175 (4),	366 (4).			
54	Mahia	207 (?),	261 (4),	281 (?),	357 (?),	500(3*),
		546 (?),	571 (?).			
87	Maruia	175 (5),	206 (3),	543 (4),	559 (3).	
66	Masterton	357 (5),	499 (4).			
120	Milford	301 (?),	613 (4).			
38	Mokau	451(3*).				
139	Monowai	301 (4),	336(3*),	442(5*),	613 (?),	735 (4).
140	Mossburn	613 (4).				
75	Motueka	522(5*),	543 (3).			
80	Murchison	175 (6),	206 (?),	225 (4),	313 (4),	504 (4),
		543 (4).				
34	Murupara	726 (4),	805 (5),	831 (4).		
52	Napier	121 (4),	261 (?),	549 (4),	565 (4),	822 (4).

76 Nelson	30 (4),	175(3*),	357(3*),	504 (4),	505 (4),
	522 (3),	543(3*),	846 (4).		
47 New Plymouth	357(3*),	522 (4),	523 (?),	846 (4).	
136 Oamaru	613 (3).				
49 Ohakune	17 (4),	49 (4),	54 (4),	55 (4),	187 (4),
	201 (4),	342 (4),	348 (4),	355 (4),	357 (4),
	377 (4),	413 (4),	428 (4),	451 (4),	456 (4),
	506 (4),	507 (4),	846 (4),	913 (4),	930 (4).
35 Opotiki	227 (4),	247 (4),	566 (4),	726 (4).	
65 Otaki	26 (4),	30 (4),	220 (4),	253 (3),	357 (4),
	505 (4),	522 (4),	572 (4),	798 (4),	803 (3),
	846 (4).				
144 Outram	613 (?),	712(3*).			
62 Palmerston North	353 (4),	357 (5),	522(3*),	565 (3),	572 (4),
	798 (3),	803 (4),	846 (4).		
78 Picton	14(3*),	30 (?),	220 (4),	504 (4),	505 (4),
	522 (4),	558 (?),	750(3*),	846 (4).	
138 Pillans Pass	182 (4),	613 (5),	735 (4).		
64 Porangahau	357 (4).				
116 Pukaki	613(3*).				
146 Puysegur Point	198 (4),	613 (5),	623 (3),	626 (2),	642 (2).
86 Reefton	175(4*).				
33 Rotorua	247 (?).				
142 Roxburgh	613 (?).				
59 Ruahine	357 (3).				
158 Stewart Is.	301 (4),	613 (5).			
156 Tahakopa	613 (4).				
58 Taihape	42 (4),	121 (3),	187 (4),	357 (?),	382(3*),
	389(3*),	803 (4),	913 (3).		
72 Takaka	30 (4),	175 (4),	504 (4),	519 (?),	522 (?).
39 Taumarunui	284 (?).				
41 Taupo	18 (4),	19(4*),	20(4*),	22(5*),	50 (5),
	63(4*),	250 (?),	251 (?),	256 (4),	509 (4),
	520 (4),	834 (4).			
26 Tauranga	35 (5),	40 (4),	247 (4),	715 (?).	
130 Te Anau	301 (4),	442 (4),	613 (4),	735 (4).	
21 Thames	247 (4).				
118 Timaru	613(3*).				
40 Tokaanu	289 (?),	290(5*),	291 (?),	292 (?).	
37 Tolaga Bay	861 (4).				
43 Tuai	261 (4),	281 (4),	547 (4).		
148 Tuatapere	613 (5).				
82 Wairau	175 (?),	210(2*).			
53 Wairoa	261 (6),	281 (4),	554 (?),	726 (5),	822 (4).
123 Wanaka	301 (4),	613 (5).			
57 Wanganui	34 (?),	42 (4),	99 (4),	187 (4),	357 (6),
	389 (4),	522(3*),	803 (4),	846 (4).	
56 Waverley	846 (3).				

68 Wellington	14 (3),	26 (4),	30 (5),	31 (4),	60 (4),
	71 (3),	102 (4),	220 (4),	353 (1),	357 (4),
	398 (4),	471 (3),	504 (4),	505 (4),	522 (5),
	572(3*),	704 (4),	717 (3),	726 (3),	779 (4),
	798 (4),	843 (3),	846 (4).		
79 Westport	170 (4),	175 (4),	346 (4).		
44 Whakapunaki	207 (4),	281 (4),	357 (3),	726 (4),	803 (2),
	822 (4),	908 (4).			
27 Whakatane	86 (4),	246(4*),	247 (4),	530 (?),	726 (4).
48 Whangamomona	357 (4),	504 (3).			

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	*7*	*03h 00m*	'The Poplars' (94)	MM 3
	7	*'late pm'*	Wairakei (41)	'strong'
	9	*'early am'*	Lyall Bay (68)	MM 4
	12	*06h 00m*	Turoa (50)	?
Feb	*25*	*'approx 10h'*	Whakamaru (32)	'slight'
	25	*'before 16h'*	Whakamaru (32)	?
	25	*16h 02m*	Whakamaru (32)	MM 3
Mar	*22*	*06h 41m*	Taupo (41)	MM 4
Apr	*15*	*19h 45m*	Whakatane (27)	?
	15			
or	*16*	-	Te Puke (26)	?
	18	*15h 00m*	Te Puke (26)	?
	21	*18h 42m*	Murchison (80)	MM 4
May	*5*	*10h 39m*	Mount Ruapehu (50)	MM 4
			National Park (50)	?
	20	*16h 03m*	Harihari (98)	?
Jun	*2*	*06h 55m*	Lake Coleridge (100)	MM 4
	3	*17h*	Eastbourne (68)	MM 4
	19	*19h 30m*	Akaroa (111)	MM 4
	24	*13h 33m*	Karori (68)	'force 3'
	29	*11h 26m*	Ohakune (49)	MM 4
Aug	*10*	*18h 25m*	Opunake (46)	?
	16	*22h 15m*	Lake Coleridge (100)	MM 4
	27	*10h 00m*	Totaranui (72)	?
Sep	*3*	*21h 44m*	Gisborne (45)	MM 3
	3	*23h 57m*	Okaiawa (55)	'tremor'
	7	*19h 00m*	Manakau (65)	'slight'

	13	*02h 30m*	Mahia Beach (54)	?
	13	*03h 35m*	Mahia Beach (54)	?
	20	*09h 45m*	Point Hardy (73)	?
Oct	*11*	*10h 28m*	Earnscleugh (133)	?
	11	*21h 23m*	Eastbourne (68)	MM 4
		Shock probably due to blasting at local quarry		
	11	*21h 25m*	'The Branches' (122)	MM 3
	12	-	Bunnythorpe (62)	?
	15	*07h 15m*	Te Ranga (26)	'slight'
Nov	*1*	*?*	Sherenden (52)	'slight'
Dec	*6*	*21h 30m*	Waikanae (65)	MM 4
	31	*21h 30m*	Te Ranga (26)	?

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 intensities are those given by the observers, and not those assigned by the Observatory. This year the following reports were received:

Jan	*15*	*13h 00m*	Raoul Island	MM 3
	25	*04h 08m*	Raoul Island	'strength 3'
	26	*01h 17m*	Raoul Island	MM 4
	27	*05h 00m*	Raoul Island	MM 4
	27	*07h 04m*	Raoul Island	'force 3'
Feb	*2*	*23h 25m*	Raoul Island	MM 3
	3	*08h 40m*	Raoul Island	'felt'
	3	*08h 41m*	Raoul Island	MM 4
	3	*09h 41m*	Raoul Island	'force 4'
	11	*22h 31m*	Raoul Island	MM 4
Mar	*1*	*13h 34m*	Raoul Island	MM 4
	10	*17h 22m*	Raoul Island	MM 4
	23	*10h 00m*	Raoul Island	MM 4
Apr	*23*	*10h 11m*	Raoul Island	'force 3'
May	*2*	*18h 17m*	Raoul Island	MM 4
			Raoul Island	'force 3'
	30	*11h 15m*	Raoul Island	MM 3
Jun	*1*	*01h 17m*	Raoul Island	MM 3
	2	*13h 17m*	Raoul Island	MM 4
	19	*12h 25m*	Raoul Island	MM 3
Jul	*11*	*17h 45m*	Raoul Island	MM 3
	15	*18h 09m*	Raoul Island	MM 4
	16	-	Raoul Island	'force 3'
Nov	*13*	*20h 45m*	Tonga	MM 5

PUBLICATIONS BY STAFF MEMBERS

During 1979 the following papers by members of the Seismological Observatory staff were published:

S–249 ROBINSON, R.: Variation of energy release, rate of occurrence and *b*-value of earthquakes in the main seismic region, New Zealand.

Phys. Earth Planet. Inter. 18 : 209–22.

Time variations in the rate of occurrence, *b*-value and cumulative energy release have been calculated for earthquakes in the Main Seismic Region (MSR) of New Zealand from 1950 to 1977, and energy release also estimated over the longer period from 1840 to 1977. Although there were no clear premonitory changes in these parameters prior to the magnitude 7·1 earthquake at Inangahua in May, 1968, this event was followed by a marked increase in both the rate of occurrence and *b*-value of shallow earthquakes, other than aftershocks, throughout the MSR. There was also an increase in the rate of deep shocks. Despite the increase in numbers of events the rate of energy release since the Inangahua earthquake is much less than the preceding 16 years. These observations seem to require more extensive stress relief than can be accounted for by the Inangahua event in itself. The overall rate of energy release for shallow shocks, 1950–1977, is only about 12% of the average rate for the longer period 1840–1977, thus continuing a period of relative quiescence that existed since the very active period 1929–1934. A similar long quiescent period followed another active period from 1843–1855. The energy release during the two active periods is approximately the same. If this long-term pattern of energy release is extrapolated the years from about 2000 could mark a change to another active period.

S–250 CALHAEM, I.M.: Pukaki earthquake of 17 December 1978.

Bull. N.Z. Natl. Soc. Earthq. Eng. 12 : 7–10.

On 17 December 1978 an earthquake of magnitude M_L 4·8 occurred 10 km west of the Pukaki High Dam. This is the largest earthquake recorded in the region since the seismic network around Lake Pukaki, South Island, New Zealand began operating in June 1975. The seismic activity associated with this earthquake differs from that observed during the previous three and a half years. Since the activity occurred at a time when the lake was filling rapidly it appears possible that the activity could be reservoir induced.

S–251 ROBINSON, R.: Seismicity within a zone of plate convergence - the Wellington region, New Zealand.

Geophys. J. R. Astr. Soc. 55 : 693–702.

A telemetered network of sensitive seismographs is being used to study the seismicity of the Wellington region, within the broad shear belt through New Zealand that marks the convergence of the Pacific and Indian plates. On average about 4 events/day are detected within 75 km of the network centre. Of the events located during the first two years of operation, the majority define a band of relatively intense activity, at depths from 20 to 40 km, dipping gently to the north-west and marking some surface near the top of the underthrust Pacific lithosphere. There is less intense and more diffuse activity both above and below this zone. The shallower activity does not correlate with major surface faults and reflects the widespread nature of shallow deformation throughout the shear belt. The mechanism of shallow events well above the band of high activity appears to be a mixture of strike-slip and thrust faulting, while that of at least part of the activity in the band is normal faulting. The rate of activity and *b* value, as functions of time, show significant variations, some of which may be related to the occurrence of the largest shock of the period, M_L 6·1.

S–252 SMITH, W.D. (Comp.): Seismology and related research in New Zealand 1975–1978.

New Zealand D.S.I.R. Information Series 140.

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

S–253 HAINES, A.J.: Seismic wave velocities in the uppermost mantle beneath New Zealand.

N.Z. J. Geol. Geophys. 22 : 245–57

. The extent of lateral inhomogeneity in the uppermost mantle beneath New Zealand has been studied by mapping the variation of Pn and Sn velocities. Ten regions of constant structure were required to model the distribution of velocities, which range from 7·4 km/s and 3·95 km/s for Pn and Sn respectively, beneath the central North Island, to 8·7 km/s and 4·8 km/s beneath Nelson. It is suggested that the regions partition the uppermost mantle according to whether its constituents are ultramafic or mafic and according to the concentrations of open cracks and melt.

S–254 ADAMS, R.D.: *T*-phase recordings at Rarotonga from underground nuclear explosions.

Geophys. J. R. Astr. Soc. 58 : 361–9.

Exceptionally strong *T* phases, with amplitudes up to 30 times greater than those of the associated *P* phases have been recorded at the Rarotonga seismograph station from underground nuclear explosions detonted in French Polynesia since 1975. Later arrivals in the *T* wavetrain are identified as reflections from neighbouring islands, and the slow velocity of *T*-phase propagation enables various source areas in French Polynesia to be differentiated. The lack of correlation between *T*-phase amplitude and explosion size suggests a saturation of the *T*-phase propagation mechanism close to the source. *T*-phase durations have been used to estimate the seismic yield of the underground explosions.

S–256 SMITH, E.C.G.: A micro-earthquake survey of the Rangitikei and Manawatu Basins.

N.Z. J. Geol. Geophys. 22 : 473–8.

The distribution of micro-earthquakes observed in a 17 day survey of the Rangitikei-Manawatu region in February 1977, was similar to the long-term earthquake distribution. From the spatial distribution of the micro-earthquakes observed, it is concluded that most of the micro-earthquakes were associated with the Indian plate-Pacific plate interface, or occurred within the subducting Pacific plate. The average dip of the Pacific plate in the region surveyed is estimated to be 15°.

——— EIBY, G.A.: New Zealand and Antarctic Seismology.

Earthquake Information Bull. 11: 170–4.

A brief history of New Zealand involvement in Antarctic research.

——— HAINES, A.J., CALHAEM, I.M. and WARE, D.E.: Crustal seismicity near Lake Pukaki, South Island, New Zealand, between June 1975 and October 1978.

The Origin of the Southern Alps: Royal Soc. N.Z. Bull. 18 : 87–94.

A telemetered seismograph network of 9 stations near Lake Pukaki has been operated since 1975 June. This has enabled a detailed study of the local seismicity during the raising of the lake. So far, earthquake activity has not shown dependence on the level of the lake, nor has it been obviously related to the surface geology.

E–160 New Zealand Seismological Report, 1978.

OBSERVATORY SERVICES

EXCHANGE AGREEMENTS

The Seismological Observatory issues the following series of publications:

1. *E-bulletins*. These consist of the '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 they have 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 typewritten 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.

4. *P-bulletins*. These are listings of microearthquakes located by the Pukaki network. They are issued monthly to people needing rapid access to these data, and are not intended to have a wide circulation.

The Observatory will be pleased to consider exchange agreements for any of this material.

COMPUTER FILE

The Observatory has a master file of over 19,000 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. Natl. Soc. Earthq. Eng.*, Vol.9, No.2, pp.136–7, or *N.Z. J. 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.

THE NEW ZEALAND TIME SERVICE

The Seismological Observatory is administratively responsible for the New Zealand Time Service, which distributes accurate time for civil and scientific purposes, both by radio and by land-line. Its principal time-standards are three Hewlett-Packard double-oven quartz-crystal oscillators, having a measured stability exceeding two parts in 10^{11}. From these suitable signals for wider distribution are generated by electronic subdivision. Stand-by power supplies and duplicated equipment ensure that failures are rare.

The Observatory does not make regular astronomical observations, though it is equipped with a Danjon impersonal prismatic astrolabe, and has participated in three International Longitude Campaigns and in the revision of the places of some southern stars. At present, the source of time is the caesium beam primary frequency standard at the Department's Physics and Engineering Laboratory at Lower Hutt, which is periodically compared by flying clock with the standards at the U.S. National Bureau of Standards and elsewhere. At the Observatory clock errors are also determined by daily comparison with long- and short-wave signals transmitted by observatories co-operating with the Bureau International de l'Heure, appropriate allowances being made for propagation times.

The error of signals leaving the Observatory seldom exceeds 100 microseconds, but delays are introduced by the circuits between the Observatory and the individual radio transmitters. A typical delay (that for station 2YA) is 1·8 milliseconds.

The most widely used signals are the six-pip signals transmitted by those stations of the Broadcasting Corporation of New Zealand that carry the National Programme. The beginnings of the pips mark the 55th to 60th seconds of a particular minute, and each consists of 150 ms of 1 kHz tone, except when the pip marks an exact hour and its length is doubled. Signals are normally transmitted on each hour and at $22^h\ 58^m$ and $22^h\ 59^m$ U.T.

Similar signals are also transmitted on 891 kHz by Radio Windy (Wellington), but those from other private stations are not under Observatory control. They are sometimes subject to large errors and should on no account be used for navigational or scientific purposes.

A signal intended for navigational purposes and other uses calling for a more extended transmission is provided by Wellington Radio on 417·5 kHz using the call sign ZMO. Details are as follows:

$22^h\ 54^m\ 00^s$ U.T. to $22^h\ 54^m\ 55^s$	Call Sign, ZMO (- - - · · - - - - - -) A series of dots commencing on each exact second. They each consist of 150 ms of 1 kHz tone, except for those marking an exact minute, which are lengthened to 300 ms.
$22^h\ 55^m\ 00^s$ U.T. to $23^h\ 00^m\ 00^s$	

In addition to the radio signals, hourly signals are sent to the New Zealand Railways by land-line.

It should also be noted that the frame and line synchronisation pulses of the two national television networks are also linked with the Time Service and the caesium beam oscillators of the Department's Physics and Engineering Laboratory.

For most purposes the signals transmitted from the Observatory may be considered to define a close approximation to Universal Time (U.T.), which is itself an approximation to the mean solar time obtained by observing the transits of stars, and called UT0. Derived time scales known as UT1 and UT2 are corrected for motion of the Earth's rotational pole and for seasonal variations in the Earth's rotational speed respectively. These astronomical time-scales are compared with atomic time-scales based upon an energy-level transition of the caesium atom to derive the Coordinated Universal

Time (UTC) of the U.S. Naval Observatory and other Observatories cooperating with the Bureau International de l'Heure, and to which the New Zealand signals are most directly related. A more formal discussion of the various time-scales is to be found in the Time Service Reports, Series 11 of the U.S. Naval Observatory. To the accuracies required for seismology and for the great majority of civil purposes the above distinctions are of no consequence.

The Time Service is the oldest section of the Observatory, having been founded as the Colonial Observatory in 1869. The transit instrument and clocks were obtained from a still earlier observatory operated by the Wellington Provincial Government. The Colonial Observatory stood on the site now occupied by the Richard Seddon monument in the Bolton Street cemetery. Operations were transferred to the present building at Kelburn in 1907, where it was known for a time first as the Hector and then as the Dominion Observatory. Before the establishment of the Carter Observatory in 1942, the Observatory also undertook visual sunspot and auroral observations, double-star measurements, the timing of occultations, some planetary and cometary work, and positional measurements of Eros.

Retirement of Mr. G. A. Eiby

Mr George Allison Eiby, for the past 18 months Superintendent of the Seismological Observatory, but for many years the country's best known seismologist, retired on July 24 after 40 years public service.

Mr Eiby's early career was disturbed by World War II (during which he served with the radar section of the Royal Air Force) and the necessity to build the Observatory's facilities afterwards. This latter activity stood him in good stead throughout his career however, for it meant an apprenticeship in all aspects of instrumentation and procedures not only in seismology but also in the New Zealand Time Service.

He thus did not start writing until the early 1950's but since then there has been a constant flow of papers, about half of which were research works. The others were of a public information nature and Mr Eiby took this role seriously as befits a public servant. His early papers brought together tectonics and seismology in New Zealand for the first time ('The Direction of Fault Movement in New Zealand', 1955; 'The Structure of New Zealand from Seismic Evidence', 1958). A significant work in 1964 ('The New Zealand Subcrustal Rift') introduced lateral changes in the physical properties of the mantle in advance of its later acceptance in plate tectonic hypotheses.

He has also taken a great interest in the physical effects of earthquakes and was responsible for forming and maintaining the network of 'felt' reporters throughout New Zealand.

His book 'Earthquakes' has now appeared in its third and enlarged Edition some 25 years after it was first written.

Mr Eiby has also written widely on the New Zealand Time Service and Astronomy, being Editor of 'Southern Stars' for many years. His interests and knowledge of the theatre, history, music and indeed a wide range of Western culture are well known to both colleagues and others.

Mr Eiby is continuing his work on earthquakes in retirement as Research Associate with the Observatory.

- adopted from *Bull. N.Z. Natl. Soc. Earthq. Eng. 12*:574.

ADDENDA

The following data should have appeared in chronological order commencing on page 471.

79/ 934

DEC 27 $10^h49^m11^s.4$ 37°.13S 179°.91E 33 km M = 4.7

± 0.9 0.04 0.09 R S.E. of RES. 1.0

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	Sn-Pn			26		1.5	99	2.12	224		4.6	4.6
WTZ	Pn	10	49	48.8		0.1	100	2.47	249		5.1	
TUA	Pn	10	49	51.8		−0.6	100	2.75	232		4.6	4.7
	eP*			57.8		−1.7						
	e		50	18.5								
	i(Sn)			27.8		4.4						
TRZ	Pn	10	50	02.3		0.6	100	3.43	224		4.9	
	Sn			43.0		3.3						
	i			46.0								
KRP	Pn	10	50	04.3		0.7	100	3.56	256		5.0	
	eSn			42.5		−0.5	100					
GBZ	Pn	10	50	04.3		−0.7	100	3.67	283			
	iP*			13.0		−2.2						
NGZ	Pn	10	50	10.0		1.0	100	3.96	237			
	e			17.0								
	iSn			55.2		2.8						
CNZ	Pn	10	50	11.2		1.5	99	4.01	238			
	eP*			18.7		−2.2						
GSZ	Pn	10	50	10.9		1.0		4.02	236			
	e			15.8								
ONE	ePn	10	50	18.5		−0.2	100	4.67	285			
TNZ	ePn	10	50	21.3		0.6	100	4.81	243		5.1	
	e			29								
	eP*			35		0.3						
MNG	ePn	10	50	20.8		−1.1	100	4.90	223		4.3	4.5
	e			26.5								
	Sn		51	14.5		−0.7	100					
WEL	Sn	10	51	35		−0.7	100	5.76	222	4.7		

AMPLITUDES:											
	GNZ	6.7	11	WTZ	23		TUA	1.7	2.2
	TRZ	2.6		KRP	3.7		GBZ	2.6	
	NGZ	2.9	6.5	CNZ	1.4		GSZ	2.1	
	TNZ	0.5		MNG	1.7	3.2	WEL	0.6	

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DEC 27 $10^h51^m42^s.4$ 37°.03S 179°.96W 33 km M = 4.4

± 1.0 0.05 0.10 R S.E. of RES. 0.7

STN	PHASE	H	M	S	DIR	RES	WT	DIST	AZ	W-A	W P	W S
GNZ	Sn-Pn			25		−0.9	99	2.27	224		4.3	4.4
WTZ	Pn	10	52	20.6		−0.9	99	2.61	248		4.7	
	eP*			29.3		1.2						
TUA	ePn	10	52	25.7		0.3	100	2.90	231		4.3	4.4
	e			29.4								
	Sn			58.8		0.9	99					
TRZ	Pn	10	52	34.0		−0.7	100	3.57	224		4.3	4.5

	(Sn)		53	19.0	4.8						
KRP	Pn	10	52	36.2	−0.1	100	3.69	255		4.7	
GBZ	Pn	10	52	37	−0.2	100	3.75	281			
	eP*			44.0	−3.6						
NGZ	ePn	10	52	42.2	0.3	100	4.10	237			
	iP*			57.5	4.0						
	eSn		53	24.8	−2.1						
GSZ	ePn	10	52	45.5	2.7		4.17	236			
	e(Sn)		53	24	−4.4						
ONE	ePn	10	52	51	0.3	100	4.75	284			
TNZ	ePn	10	52	57	3.4		4.96	243		4.9	
	e		53	00.3							
MNG	eSn	10	53	48	−1.7		5.05	223		4.1	4.3
WEL	eSn	10	54	06	−4.2		5.90	222	4.5		

AMPLITUDES:										
GNZ	3.0	6.2	WTZ	7.7	TUA	0.8	1.0
TRZ	0.7	1.6	KRP	1.6	GBZ	0.9	
NGZ	1.8	2.0	GSZ	0.7	1.5	TNZ	0.3
MNG	1.0	1.7	WEL	0.3			

SUMMARY OF ADDENDA

The following data should have appeared in chronological order on page 498.

REF NUM	ORIGIN TIME h m s	LATITUDE deg	LONGITUDE deg	DEPTH km	MAG	S.E.	NUM OBS	NUM STN
934	DEC 27 10 49 11.4	37.13 S	179.91 E	33 R	4.7	1.0	14	13
935	27 10 51 42.4	37.03 S	179.96 W	33 R	4.4	0.7	9	12

LIST OF MAPS 1979

(In pocket inside back cover.)

Epicentres from the Standard Network

1. Normal Focus.
2. Deep Focus.

Epicentres of Microearthquakes

3. Pukaki Network.
4. Wellington Network: depth ≤ 20 km.
5. Wellington Network: depth 20 - 40 km.
6. Wellington Network: depth > 40 km.

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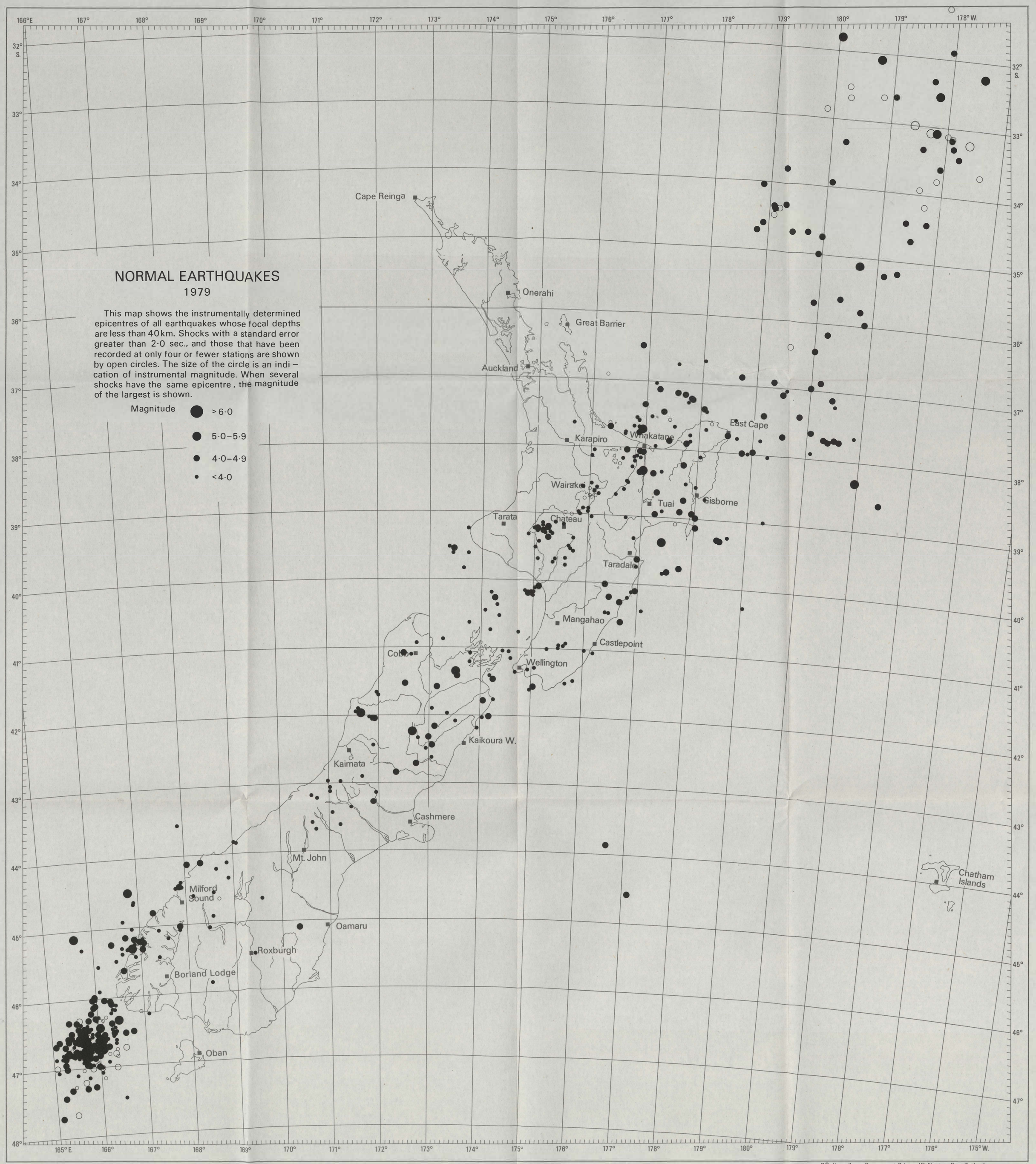
55648c—350/3/81 PT



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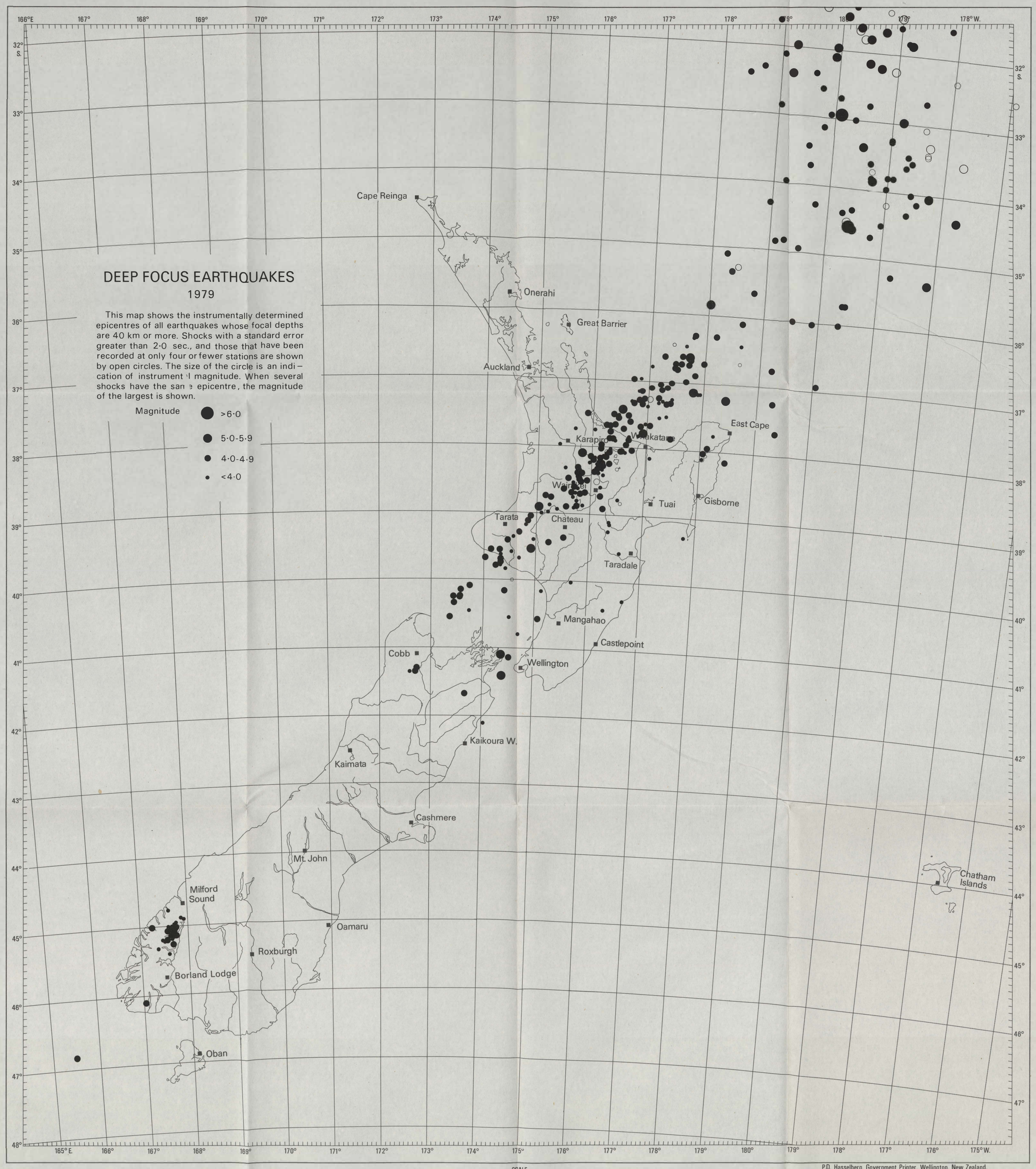

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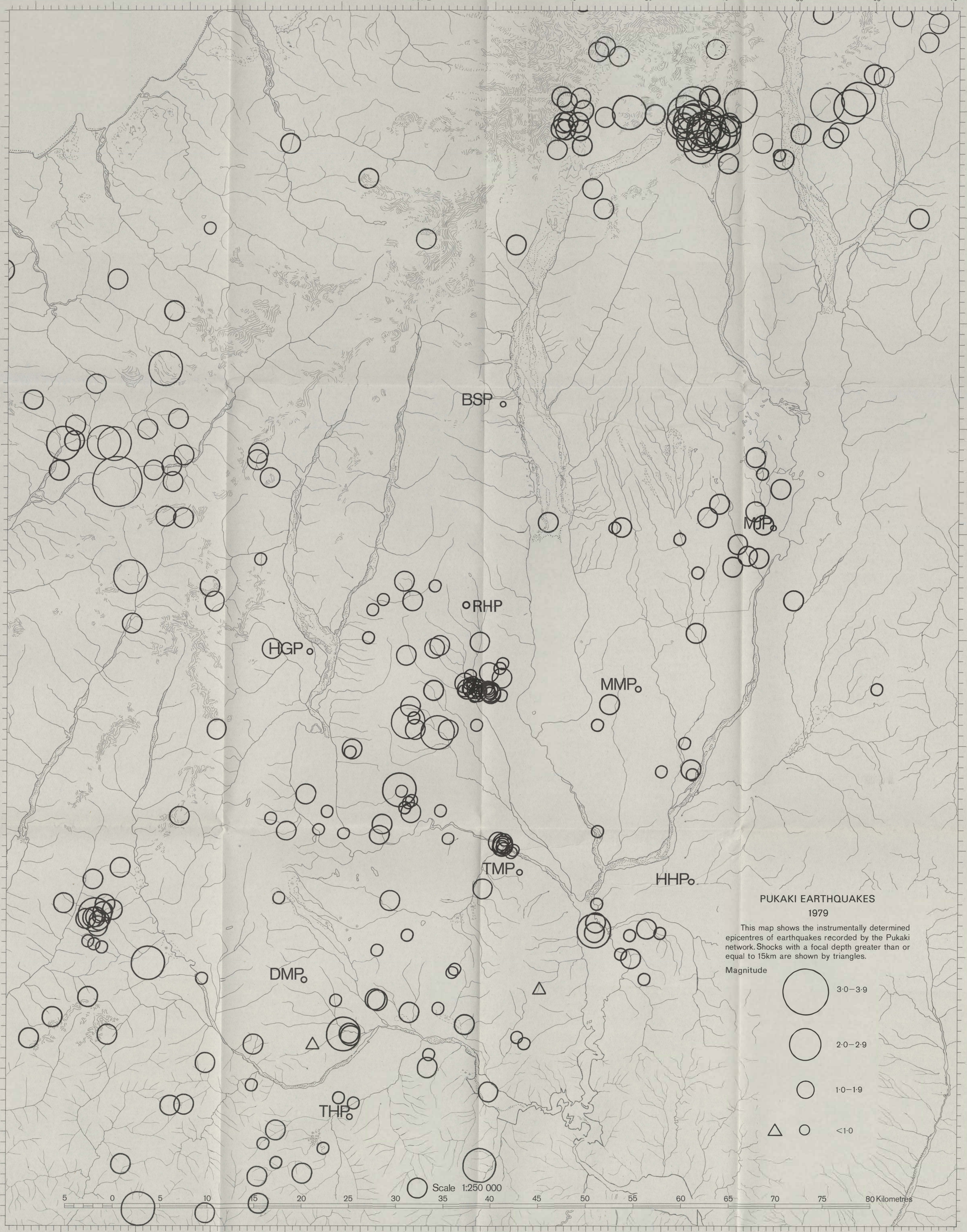
PUKAKI NETWORK



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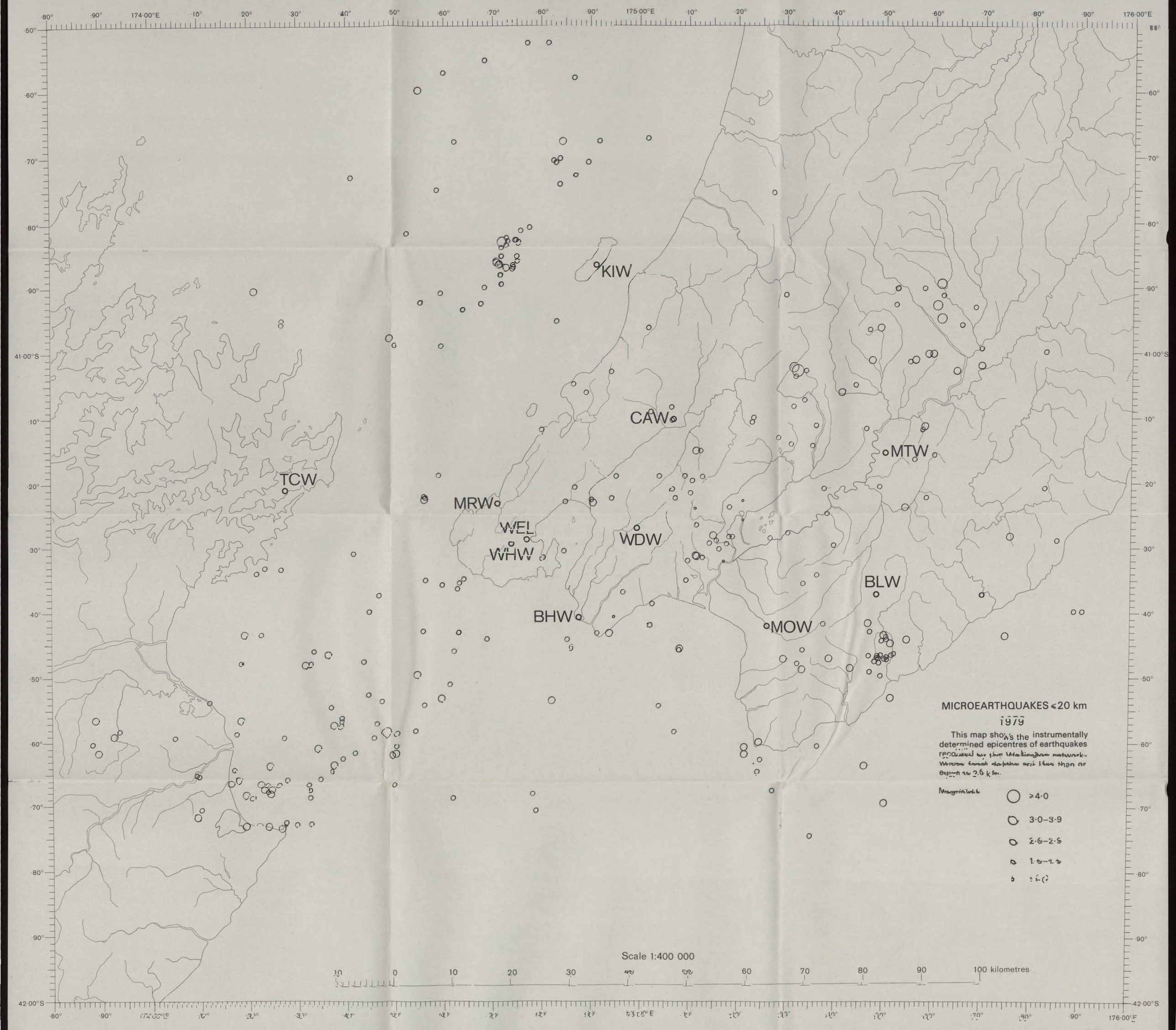
Map 3

WELLINGTON NETWORK



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Map 4

WELLINGTON NETWORK

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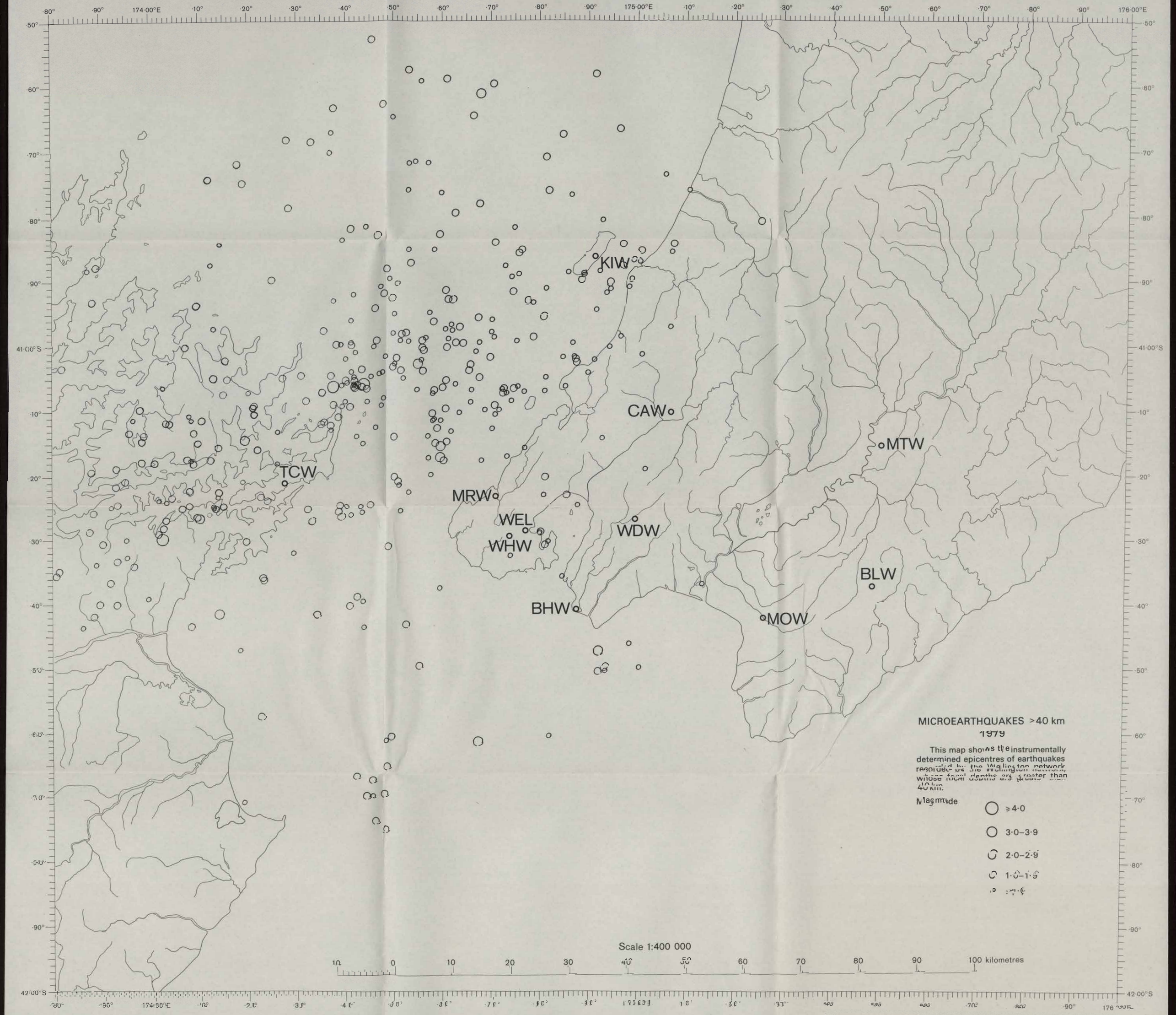
WELLINGTON NETWORK



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Publ. 1981 Department of Scientific and Industrial Research 1981

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Map 6

1979

NEW ZEALAND SEISMOLOGICAL REPORT

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