99/20

New Zealand seismological report 1997

Seismological Observatory
Bulletin
E-180

D E Maunder (ed.)

1999

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Institute of Geological & Nuclear Sciences science report 99/20

Institute of Geological & Nuclear Sciences Limited
Lower Hutt, New Zealand
December 1999

RECOMMENDED BIBLIOGRAPHIC REFERENCE

Maunder, D.E. (ed.) 1999. New Zealand seismological report 1997. Seismological Observatory Bulletin E-180. *Institute of Geological & Nuclear Sciences science report* 99/20. 167p.

POSTAL SERVICE

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

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ISSN 1171-9184
ISBN 0-478-09674-7

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INTRODUCTION

The form of this Report follows lines established in recent years. The main list of regional shocks contains only earthquakes of magnitude 3.5 or greater located within 10° of Wellington, and smaller earthquakes known to have been felt in New Zealand. Many other earthquakes have however been assigned serial numbers, so the serials of the shocks listed are often not consecutive.

Phase data are not published here, but are instead sent to the International Seismological Centre, and appear in their bulletins, which constitute the only medium now in use for routine reporting of arrival time observations made in New Zealand. The lists of origin coordinates and magnitudes include sufficient supplementary information for assessment of the quality of the data on which they are based.

There is also a list of origins of earthquakes in the Wellington area with magnitudes of 2.0 or more. This list gives less information on the quality of individual determinations, but the density of recording stations in the area and their easy accessibility for maintenance ensure that errors are small.

Seismologists urgently requiring unpublished New Zealand data may apply to the Observatory. Historical data are also available but it is the Observatory's practice to make a charge for recovery of this material unless a two-way information exchange is involved. Definitive origins for local earthquakes are usually available within a few months of their occurrence.

The Report for 1993 is still in preparation and will be published when the aftershock sequence for the 1993 Secretary Island earthquake (1993 Aug 10) has been analysed.

D E Maunder
Editor

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NEW ZEALAND SEISMICITY IN 1997

It was another quiet year for earthquakes throughout New Zealand. This was the second successive year in which we have had no large damaging earthquakes. In 1997, most activity was concentrated around the middle of the country, but we also experienced gentle shaking from very large earthquakes well to the north of New Zealand.

There were bursts of earthquake activity in various locations. In June, Wellington was shaken several times by a sequence of earthquakes near The Brothers, north of the Marlborough Sounds. The two largest of these occurred on June 19 (Event 97/9735), M_L 5.1 and June 20 (Event 97/9771) M_L 5.4. They caused minor damage near Upper Hutt and were felt from Blenheim to northern Taranaki. In all there were seven events larger than magnitude 3.5 over a period of two weeks. A similar sequence located within 15 km occurred in 1950 and the largest event on that occasion (M_L 5.7) also caused minor damage in Wellington. In October, Seddon and the immediate area experienced a sequence of earthquakes. The largest of these (Event 97/12921) had a magnitude of 4.4. While the earthquakes were smaller than the sequence located near The Brothers they were very shallow and caused minor damage to the contents of houses close to the epicentre. A small swarm of earthquakes occurred near Rerewhakaaitu (south east of Rotorua) in January. The largest earthquake of the swarm (Event 97/206) M_L 4.0 occurred on January 4, and caused minor damage at Reporoa and Waimangu. The largest event of a smaller swarm located slightly west of the January earthquakes occurred on December 18 (Event 97/15203) M_L 3.1 and caused minor damage at Reporoa.

There were other earthquakes that caused minor damage during the year. A shallow event on April 24 (Event 97/6966) M_L 4.1 near Cape Egmont caused minor damage and power loss in a very localised area near the epicentre. Goods were shaken off shelves in Waipawa by a shallow event of M_L 5.4 on November 7 (Event 97/14214) located off the Wairarapa coast near Cape Turnagain. A shallow earthquake of M_L 5.2 on November 24 (Event 97/14556), centred 51 km north west of Otaki, was felt widely from Taranaki to Wellington causing damage near Foxton. On November 29 (Event 97/14692), a deep event of M_L 5.7 north east of Nelson, which caused minor damage near Blenheim, was felt from Taranaki to Christchurch.

In the South Island, two shallow magnitude 5.0 earthquakes (Events 97/12444 and 97/12463) occurred on September 16 and were located between Fox Glacier and Mount Cook. They were felt at Mount Cook and from Whataroa to Mahitahi on the West Coast. Three portable seismographs were installed in the Fox Glacier area to obtain accurate locations for the associated sequence.

As usual there were several deep earthquakes of magnitude 5.0 and greater under the central North Island. Three of the larger events, July 20 (Event 97/10623) M_L 5.0, October 31 (Event 97/13997) M_L 5.1 and December 19 (Event 97/15467) M_L 5.2 were felt, but no damage was reported.

The largest earthquake of the year, M_L 6.1, occurred in the Bay of Plenty on May 27 (Event 97/8779). It was felt from East Cape to Wellington, but because of its depth (212 km) there were no reports of damage. Another smaller earthquake in the same area, March 25 (Event 97/5200), 111km deep and M_L 5.9, was felt only in the East Cape area.

The Tonga-Kermadec region is one of the world's most active zones of deep activity, so large events occur there every year and are often felt in New Zealand. Two such events occurred during the year. The largest, an event 450 km deep and M_W 7.1 (USGS) occurred on May 25 (Event 97/8737). This was felt throughout the country from Auckland to Dunedin, but because of its distance, the shaking was minor. The other event, on May 3 (Event 97/8737) M_W 6.9 (USGS), was felt less widely.

INSTRUMENTATION IN 1997

By the end of 1997, the New Zealand network consisted of 33 digital stations (22 three-component and 11 single component), four analogue stations (excluding the stations from regional networks that record visually as well as digitally), seven regional networks and an IRIS system. We also received analogue records from three stations outside New Zealand (RAO, RAR, and VNDA). As well, a temporary network operated in the Fox Glacier area during September and October.

The change from visual records, needing to be changed daily, to digital tapes which run for a week has meant that it has been possible to install instruments at seismically quieter sites. Those analogue stations left are used to add data to a few poorly determined epicentres and as displays in museums or other public areas. Continuous recording by the IRIS system for the registration of teleseisms and the use of pen-recorders at some sites for immediate inspection of large events continued.

Two types of event-recording system are used by the Observatory. The older system, SNARE (Seismic Network Automatic Recording Equipment) is a 16-channel system which relies on a combination of spectral analysis of seismometer outputs and coincidence detection to trigger recording by the whole network. EARSS (Equipment for the Automatic Recording of Seismograph Signals) was developed from SNARE as a single station system which can operate unattended for at least a week. Because it is a single station system it relies solely on a frequency-spectrum algorithm for event detection. An improvement on SNARE is the introduction of automatic magnification adjustment ("gain-ranging") to allow faithful recording of large-amplitude wave-forms. A 16-channel version of EARSS has superseded SNARE. HBN, and the backup for WLN networks are still recorded on SNARE. Not included in the current re-equipment programme are instruments owned by organisations other than IGNS. In 1997, organisations cooperating in continuous or *ad hoc* seismic monitoring were: the Universities of Auckland and Wellington and Taranaki Civil Defence.

INSTRUMENTAL CHANGES IN 1997

There were few changes to the New Zealand networks in 1997.

In February a new station, Kakaramea (KATZ), was added to the Taupo Volcano-Seismic Network. This station has a Mark-Products L4-C short-period vertical instrument with the signal recorded digitally at IGNS Wairakei.

A new station, Rainy Point (RAEZ), was installed in May as part of the Taranaki Volcano-Seismic Network. The instrument is a Mark-Products L4-C short-period vertical seismometer recorded digitally at New Plymouth.

The station at Tomahawk Gully (TMP) was closed late in April.

Six of the Hawkes Bay network stations were closed at the end of July. The stations still operating, Panekirikiri (PAHZ), Taradale Trig (TTH) and Wakarara (WAHZ), are telemetered to Havelock North and recorded on a three-channel EARSS digital recorder.

At Wellington, the Imamaura instrument ceased operating in December. Also the Benioff and Press Ewing instruments were decommissioned in November. Visual recording of the Wellington network station, Makara Radio (MRW), ceased in August. It is still recorded digitally.

Visual recording at Rarotonga (RAR) stopped in July. The digital records are sent to NEIS in USA, and analysis is no longer carried out in New Zealand.

Recording at Auckland Museum (AUC) stopped while renovations were being carried out, so no records are available for 1997.

The seismometer at Raoul Island (RAO) failed early in December and no recordings have been received since.

INDEX OF STATION CODES AND POSITIONS

The number of seismograph stations has grown so much in recent years that it is not always possible to find short mnemonic codes that are unique in the world. Nearly all the codes used below are recognised and used by the United States NEIS and by ISC, but some of those for stations in the telemetered networks may not be.

CODE	NAME	LATITUDE d m s				LONGITUDE d m s				ALTTITUDE metres
SEISMIC RESEARCH OBSERVATORY										
SNZO	South Karori	41	18	37	S	174	42	17	E	-10
STANDARD NETWORK										
AUC	Auckland	36	51	36	S	174	46	41	E	79
AXZ	Alexandra	45	16	02	S	169	19	52	E	260
BFZ	Birch Farm	40	40	54	S	176	14	46	E	318
BSZ	Bushy Park	39	47	55	S	174	55	52	E	150
BWZ	Berwen	44	31	54	S	169	52	59	E	500
CHR	Christchurch	43	31	58	S	172	37	36	E	8
DCZ	Deep Cove	45	28	04	S	167	09	15	E	20
DSZ	Denniston North	41	44	49	S	171	48	09	E	630
EWZ	Erewhon	43	30	42	S	170	51	09	E	650
HBZ	Hicks Bay	37	35	57	S	178	18	05	E	0
KHZ	Kahutara	42	25	05	S	173	32	25	E	70
KUZ	Kuaotunu	36	44	50	S	175	43	12	E	40
LMZ	Lake Moeraki	43	42	59.5	S	169	16	10	E	-50
LTZ	Lake Taylor	42	46	58	S	172	16	08	E	640
MLZ	Mavora Lakes	45	20	52	S	168	10	22	E	640
MOZ	Mahoenui	38	30	21	S	174	48	11	E	160
MQZ	McQueen's Valley	43	42	28	S	172	39	08	E	60
MRZ	Mangatainoka River	40	39	45	S	175	34	45	E	320
MSZ	Milford Sound	44	40	31.5	S	167	55	39	E	90
NOZ	North Gisborne	38	37	05	S	178	02	12	E	60
NRZ	Ngariki	39	20	15	S	173	55	59	E	250
ODZ	Otahua Downs	45	02	43	S	170	38	40	E	270
OIZ	Oio	39	02	48	S	175	23	33	E	470
OUZ	Omahuta	35	13	17	S	173	35	46	E	40
PUZ	Puketiti	38	04	24	S	178	15	26	E	420
QRZ	Quartz Range	40	49	39	S	172	31	44	E	260
RAO	Raoul Island	29	15	06	S	177	55	06	W	110
RAR	Rarotonga	21	12	45	S	159	46	24	W	28
RTY	Rotoiti	41	48	27	S	172	50	35	E	635
SIZ	Stewart Island	46	52	30	S	168	07	59	E	60

THZ	Top House	41	45	50	S	172	54	13	E	760
TMP	Tomahawk Gully (until April)	44	18	54	S	170	07	12	E	720
TUZ	Tuapeka	45	57	22	S	169	37	56	E	110
URZ	Urewera	38	15	37	S	177	06	37	E	100
VNDA	Vanda	77	30	50.2	S	161	50	44.2	E	-2
WCZ	Waipu Caves	35	56	28	S	174	20	40	E	140
WEL	Wellington	41	17	10	S	174	46	06	E	122
WHZ	Wether Hill	45	53	41	S	167	56	51	E	320
WLZ	Whitehall	37	52	12	S	175	35	46	E	190
WVZ	Waitaha Valley	43	04	35	S	170	44	10	E	75

AUCKLAND VOLCANO-SEISMIC NETWORK

MKAZ	Moumoukai	37	06	41.1	S	175	09	59.6	E	120
MTAZ	Motutapu	36	47	17.3	S	174	54	36.2	E	60
OTAZ	Otara	36	57	04	S	174	55	29	E	140
WTAZ	Waiatarua	36	56	03.1	S	174	34	26.0	E	340

BAY OF PLENTY VOLCANO-SEISMIC NETWORK

EDRZ	Edgecumbe	38	06	27.5	S	176	44	17	E	780
HARZ	Haroharo	38	05	28	S	176	30	07	E	740
LIRZ	Lichensteins Road	38	00	18	S	176	23	03	E	340
MARZ	Manawahe	37	59	12	S	176	40	28	E	480
PARZ	Papamoa	37	44	01	S	176	17	24	E	180
PATZ	Paeroa	38	22	53	S	176	15	30	E	940
TAZ	Tarawera	38	13	59	S	176	30	28	E	1037
UTU	Utuhina	38	10	39	S	176	11	32	E	410
WIZ	White Island	37	31	42	S	177	11	21	E	40

HAWKES BAY NETWORK

HNH	Havelock North	39	39	55	S	176	52	52	E	10
MAHZ	Mahia	39	11	18	S	177	52	51	E	336
MOH	Mohaka	39	07	57	S	177	08	52	E	245
PAHZ	Panekirikiri	38	51	33	S	177	03	15	E	563
TAHZ	Taraponui	39	08	09	S	176	44	25	E	1297
TEHZ	Te Atua	39	59	22	S	176	48	40	E	407
TTH	Taradale Trig	39	32	29	S	176	49	34	E	120
WAHZ	Wakarara	39	41	57	S	176	21	19	E	657
WHH	Whakatau	38	53	04	S	176	29	42	E	921

TARANAKI VOLCANO-SEISMIC NETWORK

DFE	Dawson Falls	39	19	39	S	174	06	13	E	880
NEZ	North Egmont	39	16	19	S	174	05	44	E	920
NRZ	Ngariki	39	20	15	S	173	55	59	E	250
NWEZ	Newall Rd	39	16	30	S	173	52	00	E	230
PKE	Puketiti	39	11	44	S	173	59	14	E	485
RAEZ	Rainy Point (from June)	39	17	18	5	174	23	36	E	326

TAUPO VOLCANO-SEISMIC NETWORK

HATZ	Hinemaiaia	38	57	32	S	176	05	31	E	492
KATZ	Kakaramea (from February)	38	58	36	S	175	41	40	E	1280
RATZ	Rangitukia	38	52	07	S	175	46	16	E	649
WATZ	Waihaha	38	42	35	S	175	43	58.5	E	520
WHTZ	Whakaroa	38	40	04	S	175	57	27	E	780

TONGARIRO VOLCANO-SEISMIC NETWORK

CNZ	Chateau	39	12	00	S	175	32	51	E	1116
DRZ	Dome Shelter	39	16	35	S	175	33	49	E	2600
KAVZ	Karewarewa	39	05	55	S	175	38	45	E	1200
MGZ	Maungaku	39	00	07	S	175	32	20	E	806
NGZ	Ngaruhoe	39	10	37	S	175	36	04	E	806
TUVZ	Tukino	39	16	09	S	175	39	13	E	1410

WELLINGTON NETWORK

AMW	Mt Adams	41	18	34	S	175	45	39	E	400
BBW	Blackbirch	41	42	45	S	173	52	42	E	250
BHW	Baring Head	41	24	33	S	174	52	17	E	10
BLW	Big Hill	41	22	07	S	175	28	29	E	340
CAW	Cannon Point	41	06	32	S	175	04	04	E	330
CCW	Cape Campbell	41	45	03	S	174	13	01	E	216
DIW	D'Urville Island	40	48	08	S	173	55	19	E	460
GFW	Glenfield	41	27	24	S	173	49	51	E	230
KIW	Kapiti Island	40	51	50	S	174	54	42	E	320
MOW	Moikau	41	25	18	S	175	15	07	E	430
MRW	Makara Radio	41	13	57	S	174	42	18	E	235
MTW	Mount Morrison	41	09	34	S	175	30	07	E	282
OTW	Orongorongo Valley	41	16	39	S	175	00	15	E	230
TCW	Tory Channel	41	12	48	S	174	16	33	E	150
WEL	Wellington	41	17	10	S	174	46	06	E	122

INSTRUMENTATION AND LITHOLOGY

STANDARD NETWORK AND CONTRIBUTING STATIONS

Stations are listed in alphabetical order of their abbreviations. Pendulum period, T_o, is given in seconds. Damping when not listed, may be assumed to be critical. Magnifications listed are for the period of maximum response, except for World-Wide Standard Station instruments, where the magnifications are given at the conventional periods of 1.0 and 15 seconds. Response curve for Mark Products L4-C seismographs and an EARSS system is shown at the end of this section.

	Instrument	Compt.	To	Damping	Magnification
AUC	AUCKLAND				
	Foundation: Volcanic beds on Tertiary sandstone and mudstone.				
	Willmore II (with Kinemetrics VR-1 pen-recorder).				
		Z	1.0		3 800 at 0.25s
AXZ	ALEXANDRA				
	Foundation: Schist.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
BFZ	BIRCH FARM				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
BSZ	BUSHY PARK				
	Foundation: Quaternary marine sediments.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
BWZ	BERWEN				
	Foundation: Greywacke.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
CHR	CHRISTCHURCH				
	Foundation: Alluvial sands, silts and gravels.				
	Willmore II (with Kinemetrics VR-1 pen-recorder).				
		Z	1.0		
DCZ	DEEP COVE				
	Foundation: Granite.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
DSZ	DENNISTON NORTH				
	Foundation: Upper Precambrian greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		

	Instrument	Compt.	To	Damping	Magnification
EWZ	EREWHON				
	Foundation: Triassic Greywacke.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
HBZ	HICKS BAY				
	Foundation: Consolidated conglomerate.				
	Mark Products L4-C in borehole (with EARSS digital gain-ranging recorder).				
		Z	1.0		67 500 at 0.10s
KHZ	KAHUTARA				
	Foundation: Jurassic Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
KUZ	KUAOTUNU				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
LMZ	LAKE MOERAKI				
	Foundation: Precambrian Greywacke.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
LTZ	LAKE TAYLOR				
	Foundation: Triassic Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
MLZ	MAVORA LAKES				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
MOZ	MAHOENUI				
	Foundation: Jurassic Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
MQZ	McQUEEN'S VALLEY				
	Foundation: Miocene Volcanics.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
MRZ	MANGATAINOKA				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
MSZ	MILFORD SOUND				
	Foundation: Gneiss.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		

	Instrument	Compt.	To	Damping	Magnification
NOZ	NORTH GISBORNE Foundation: Upper Miocene Siltstone. Mark Products L4-C (with EARSS digital gain-ranging recorder).	Z	1.0		
NRZ	NGARIKI Foundation: Andesite. Mark Products L4-C (with EARSS digital gain-ranging recorder).	Z	1.0		
ODZ	OTAHUA DOWNS Foundation: Greywacke. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0		
OIZ	OIO Foundation: Tertiary sandstone. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0		
OUZ	OMAHUTA Foundation: Greywacke. Mark Products L4-C (with EARSS digital gain-ranging recorder).	Z	1.0		
PUZ	PUKETITI Foundation: Cretaceous Greywacke. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0		
QRZ	QUARTZ RANGE Foundation: Golden Bay Schist. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0		
RAO	RAOUL ISLAND Foundation: Volcanic rock. Willmore II (with Kinemetrics VR-1 pen-recorder).	Z	1.0		4 800 at 0.25s
RAR	RAROTONGA (World-Wide Standard Station) Foundation: Basalt. GeoTech KS36000i broad band seismometer recorded on IRIS-2 digital recording system. Until July Benioff Signal also recorded by EARSS digital event recorder tuned to trigger on T-waves.	ZNE	1.0		6 250 at 1.0s
RTY	ROTOITI Foundation: Glacial gravels. Mark Products L4-C (with Kinemetrics VR-1 pen-recorder).	Z	1.0		Uncertain

	Instrument	Compt.	To	Damping	Magnification
SIZ	STEWART ISLAND				
	Foundation: Granite.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
THZ	TOPHOUSE				
	Foundation: Permian Greywacke.				
	Willmore II (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
TMP	TOMAHAWK GULLY (until April)				
	Foundation: Mesozoic Greywacke.				
	Mark Products L4-C (telemetered to separate Kinemetrics VR-1 pen-recorders).				
		Z	1.0		750 000 at 0.20s
		N	1.0		100 000 at 0.20s
TUZ	TUAPEKA				
	Foundation: Haast Schist.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
URZ	UREWERA				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
VNDA	VANDA				
	Foundation: Granite gneiss intruded by quartz porphyry dykes.				
	GeoTech K53 6000i broadband 3-D seismometer recorded at Scott Base.				
		Z	1.0		
		ZNE	15		
WCZ	WAIPU CAVES				
	Foundation: Limestone.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
WEL	WELLINGTON (World-Wide Standard Station)				
	Foundation: Greywacke.				
	Benioff	Z	1.0		6 250 at 1.0s
	Press-Ewing	ZNE	15		375 at 15s
	Imamura	Z	1	5:1	2
		NE	4	5:1	2
	The Imamura instrument stopped recording in December and the Benioff and Press-Ewing instruments were decommissioned in November.				
	Kinemetrics force-balance accelerometer (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
WHZ	WETHER HILL				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		

	Instrument	Compt.	To	Damping	Magnification
WLZ	WHITEHALL				
	Foundation: Jurassic Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
WVZ	WAITAHA VALLEY				
	Foundation: Granite.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		

BROADBAND IRIS STATION

This station is sponsored by the United States Geological Survey. A three-component GeoTech KS36000i BD broadband seismometer sealed in a gas-filled capsule is located in a borehole 165 mm in diameter and about 100 m deep, at a quiet site several kilometres from the Observatory. The ground surface there is 88 m above, and the seismometer 10 m below, sea level. The lithological foundation is Jurassic-Permian Greywacke. Both digital and analogue recordings are made from the three long-period and the vertical component short-period outputs. The digital signal is recorded by an IRIS-2 system. Paper analogue records are archived by the Observatory, but the digital tape records of detected events are held by the USGS. The recorder is at the observatory site in Kelburn, and the signals are transmitted to it by landline. Analogue recording was discontinued during November.

Magnifications given below are for the analogue recorder.

Code	Station	Component	Magnification
SNZO	South Karori	ZNE Z	1 500 at 15s 6 250 at 1.0s

AUCKLAND VOLCANO-SEISMIC NETWORK

This network has been installed in Auckland to monitor seismic activity associated with volcanic and tectonic processes in the Auckland volcanic region and is operated by Auckland Regional Council in conjunction with IGNS Wairakei and the University of Auckland. The instruments are single component L4-C seismometers telemetered to an EARSS digital recorder, and are also recorded on VR-1 visual recorders.

Code	Station	Component	Foundation
MKAZ	Moumoukai	Z	Greywacke
MTAZ	Motuapu	Z	Jurassic mudstone
OTAZ	Otara	Z	Sandstone
WTAZ	Waiatarua	Z	Miocene volcanoclastics

BAY OF PLENTY VOLCANO-SEISMIC NETWORK

This network is operated by the Volcanology Programme in conjunction with the Seismological Observatory and monitors seismic activity associated with volcano, geothermal and tectonic processes in the northern portion of the Taupo Volcanic Zone.

Data from these stations are telemetered to a 16-channel EARSS at Rotorua and also Wairakei. Selected stations are also recorded on VR-1 pen-and-ink visual recorders. The seismometers are Mark Products L4-C (1 Hz) short-period vertical seismometers.

Code	Station	Component	Lithology
EDRZ	Edgecumbe	Z	Andesite
HARZ	Haroharo	Z	Rhyolite
LIRZ	Lichensteins Rd	Z	Rotoiti breccia
MARZ	Manawahe	Z	Andesite
PARZ	Papamoa	Z	Andesite
PATZ	Paeroa	Z	Ignimbrite
TAZ	Tarawera	Z	Ryolite lava
UTU	Utuhina	Z	Ignimbrite
WIZ	White Island	Z	Recent Andesite

HAWKES BAY NETWORK

The Hawkes Bay network was installed to monitor seismicity in an area which has not only some potential for hydroelectric power generation, but also a history of severe earthquakes. Until July, Havelock North produced high and low-gain records from a three–component seismometer, and the network was recorded on a SNARE System at Havelock North.

In July the SNARE was replaced by a three-channel EARSS digital gain-ranging recorder which receives signals from Panekirikiri (PAHZ), Taradale Trig (TTH) and Wakarara (WAHZ). The other stations were closed. One of the stations, usually Wakakara (WAHZ), is also recorded on a VR-1 pen-and-ink visual recorder.

Code	Station	Component(s)	Foundation
HNH	Havelock North	ZNE (High gain) ZNE (Low gain)	Greywacke gravel " "
MAHZ	Mahia	Z	Mudstone
MOH	Mohaka	Z	Dune sand
PAHZ	Panekirikiri	Z	Pumice tuff
TAHZ	Taraponui	Z	Limestone
TEHZ	Te Atua	Z	Limestone
TTH	Taradale Trig	Z	Calcareous mudstone
WAHZ	Wakarara	Z	Greywacke
WHH	Whakatau	Z	Ignimbrite

TARANAKI VOLCANO-SEISMIC NETWORK

This network is operated by the Taranaki Civil Defence and IGNS Wairakei to monitor volcanic activity around Taranaki volcano. The stations are single component L4-C seismometers telemetered to a 16-channel EARSS recorder at New Plymouth. NRZ (Ngariki) is also part of the New Zealand Seismic Network. Rainy Point (RAEZ) was installed in June.

Code	Station	Component(s)	Foundation
DFE	Dawson Falls	Z	Volcanic ash
NEZ	North Egmont	Z	Volcanic ash
NRZ	Ngariki	Z	Andesite
NWEZ	Newall Rd	Z	Andesite
PKE	Pukeiti	Z	Andesite
RAEZ	Rainy Point	Z	

TAUPO VOLCANO-SEISMIC NETWORK

This network is operated by the Volcanology Programme in conjunction with the Seismological Observatory and monitors seismic activity associated with volcanic and tectonic processes in the central part of the Taupo Volcanic Zone. Data from the stations are telemetered to a 16-channel EARSS at Wairakei. One station is usually also recorded on a VR-1 pen-and-ink visual recorder. The seismometers are all Mark Products L4-C (1 Hz) vertical-component instruments. The equipment for the network was funded by a grant from the New Zealand Lottery Grants Board's Science Research Committee.

Code	Station	Component(s)	Foundation
HATZ	Hinemaiaia	Z	Ignimbrite
KATZ	Kakaramea	Z	Ignimbrite
RATZ	Rangitukia	Z	Ignimbrite
WATZ	Waihaha	Z	Ignimbrite
WHTZ	Whakaroa	Z	Pumice alluvium

TONGARIRO VOLCANO-SEISMIC NETWORK

This network is operated jointly by the Volcanology programme and the Seismological Observatory to monitor seismic activity associated with volcanic and tectonic processes about Tongariro Volcanic Centre. The instruments at all sites are Mark Products L4-C short-period vertical seismometers and their signals are telemetered and recorded on a 16-channel EARSS at the Chateau Observatory. The signals from selected stations are also recorded on VR-1 pen-and-ink recorders.

Code	Station	Component(s)	Foundation
CNZ	Chateau	Z	Andesitic ash
DRZ	Dome Shelter	Z	Andesite ash
KAVZ	Karewarewa	Z	Lava
MGZ	Maungaku	Z	Andesite
NGZ	Ngaruhoe	Z	Andesite lava
TUVZ	Tukino	Z	Tephra

WELLINGTON NETWORK

The stations of the Wellington network are linked by radio or land-line to event-detecting and recording systems at the Observatory at Kelburn. The primary recording of the Wellington network was moved to a 16-channel EARSS in April, but the SNARE magnetic tape system was retained as a backup. The EARSS recording system sends detected events directly to the Observatory computers. The instrument at WEL is a Kinemetrics force balance accelerometer and the seismometer at MRW is a Mark Products L4-3D. The seismometers for the rest of the network are Mark Products L4-C instruments with a period of 1.0 second. Until August the MRW vertical component was also transmitted to a heated stylus recorder. The lithological foundation at most stations is Jurassic-Permian Greywacke. The exceptions are BBW (schist), CCW (Miocene sandstone) and DIW (Granodiorite).

Code	Station	Component(s)
AMW	Mt Adams	Z
BBW	Blackbirch	Z
BHW	Baring Head	Z
BLW	Big Hill	Z
CAW	Cannon Point	Z
CCW	Cape Campbell	Z
DIW	D'Urville Island	Z
GFW	Glenfield	Z
KIW	Kapiti Island	Z
MOW	Moikau	Z
MRW	Makara Radio	ZNE
MTW	Mount Morrison	Z
OTW	Orongorongo Valley	Z
TCW	Tory Channel	Z
WEL	Wellington	ZNE

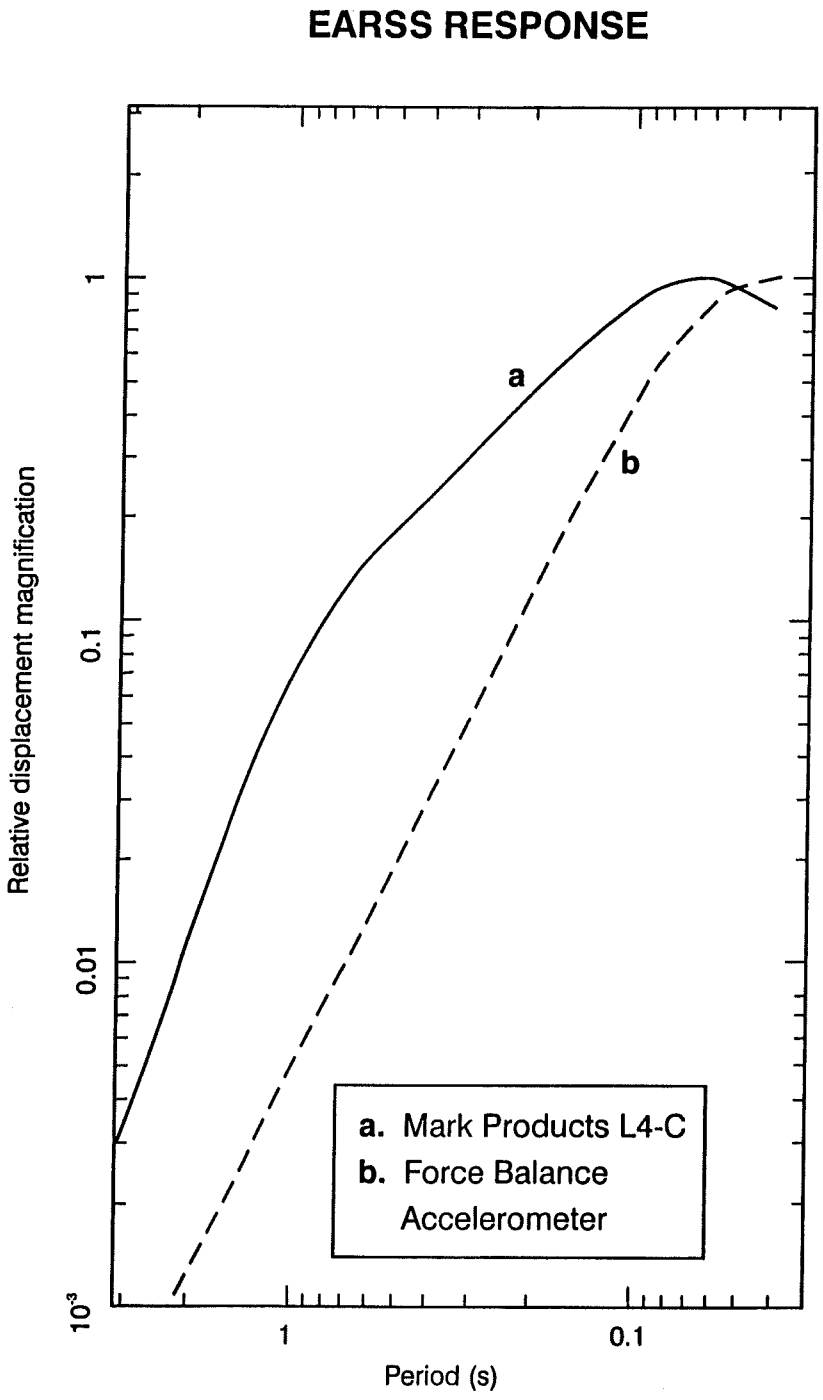
FOX GLACIER NETWORK

This temporary network was installed to obtain accurate locations for the earthquake sequence located near Fox Glacier on 16 September, in order to determine whether they were on the Alpine Fault. Mt Cook Village (MTCA) operated between 19 September and 10 October. The other stations were installed on 20 September.

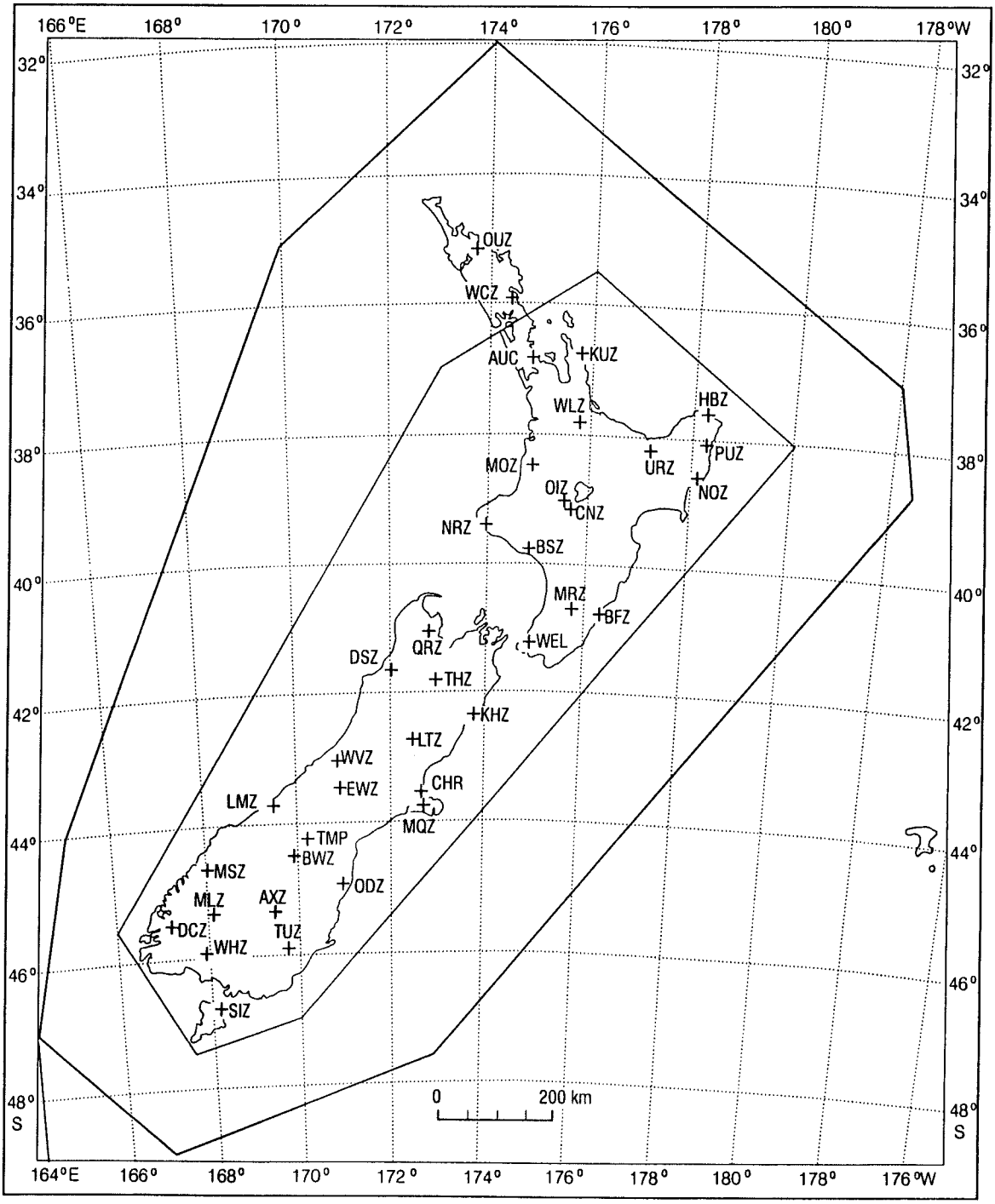
Fox Glacier recorded until 28 October and Gillespies Beach (GLAA) until 30 October. The instruments were three-component short period seismometers recorded on EARSS digital recorders.

The station codes are not internationally recognised.

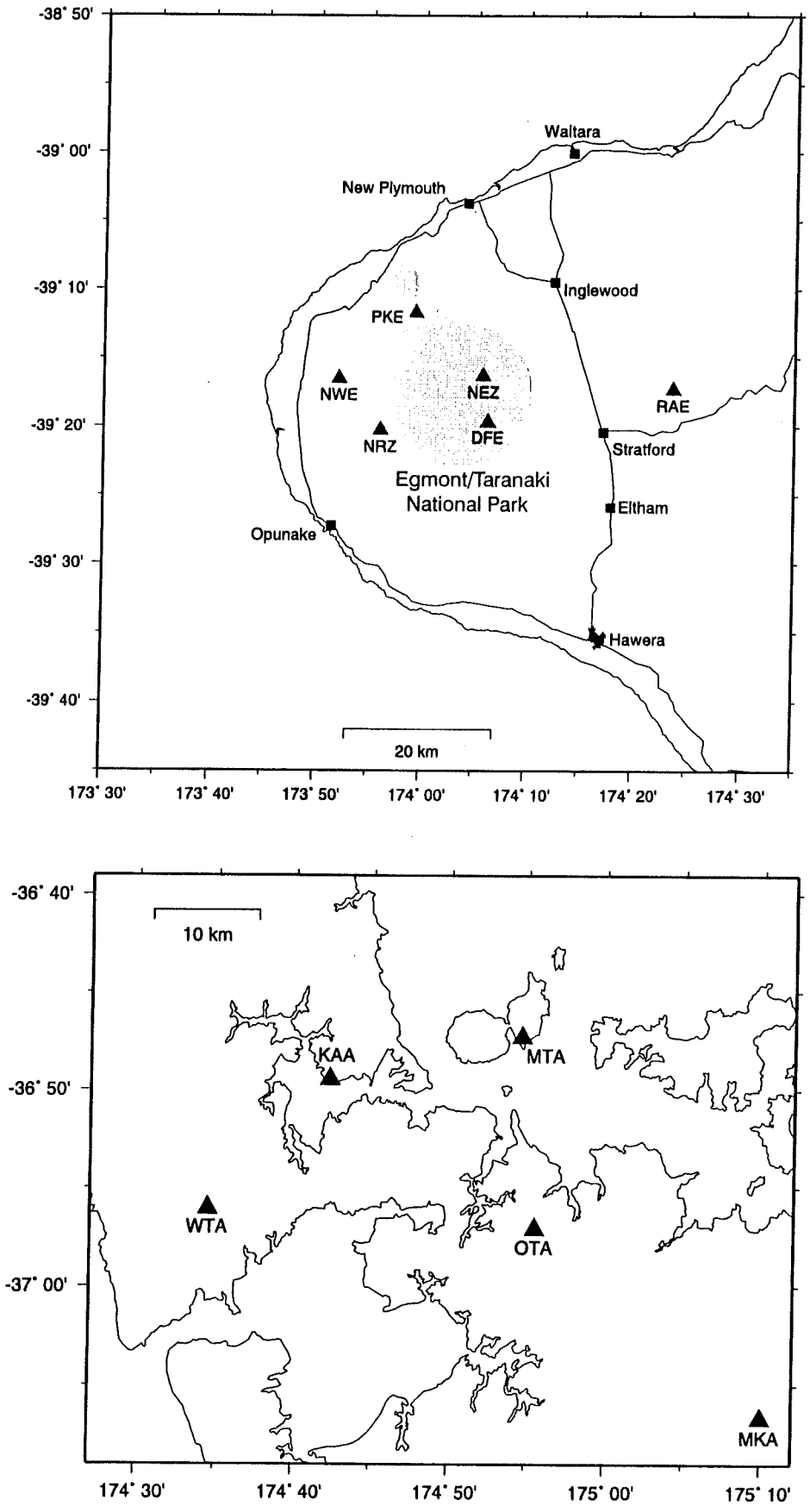
CODE	NAME	LATITUDE d	m	s		LONGITUDE d	m	s		ALTTITUDE metres
FOXA	Fox Glacier	43	29	23	S	170	01	55	E	240
GLAA	Gillespies Beach	43	25	25	S	169	59	51	E	25
MTCA	Mount Cook	43	44	09	S	170	05	28	E	858



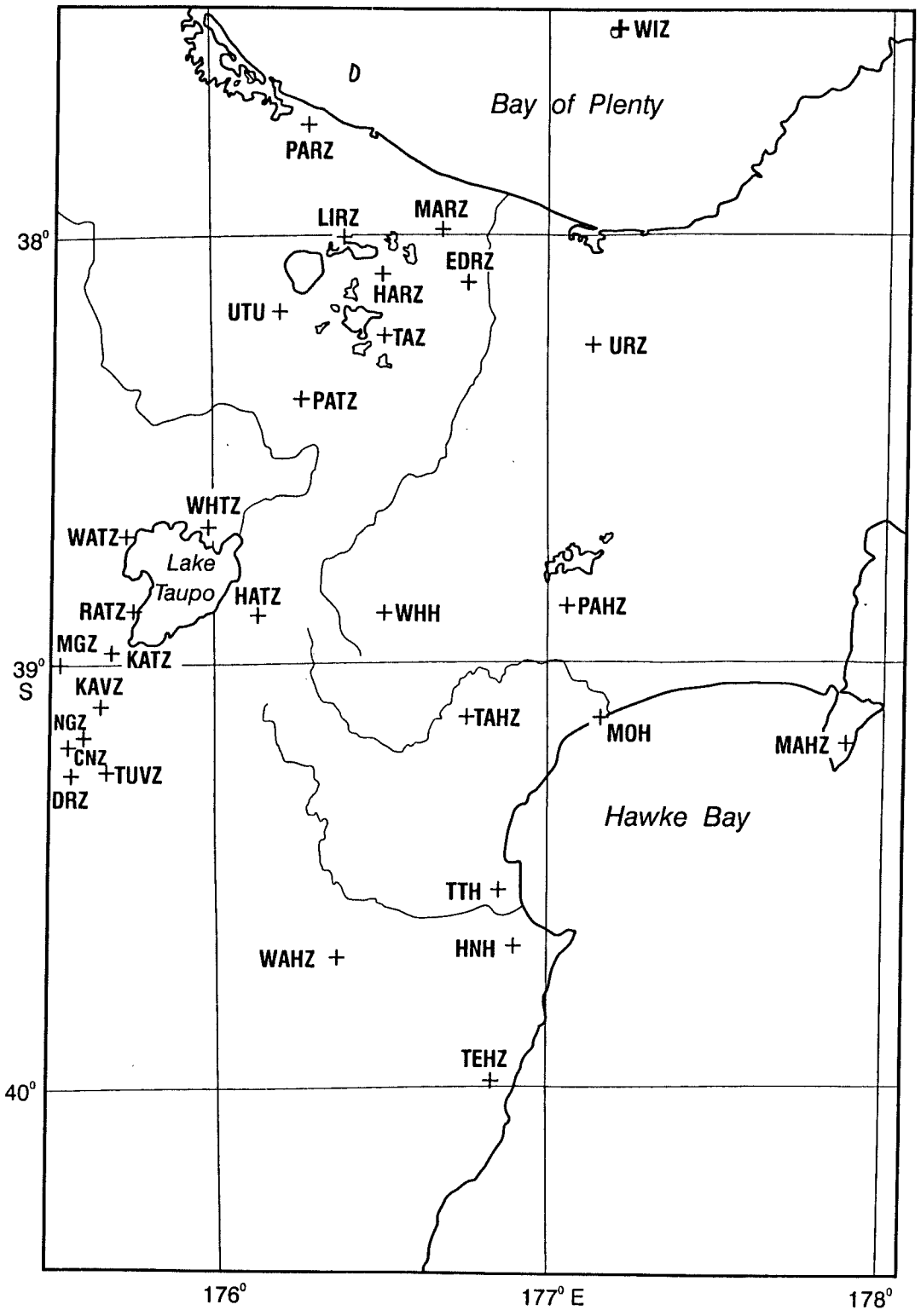
Period response curve of L4-C seismometers with EARSS recorders.



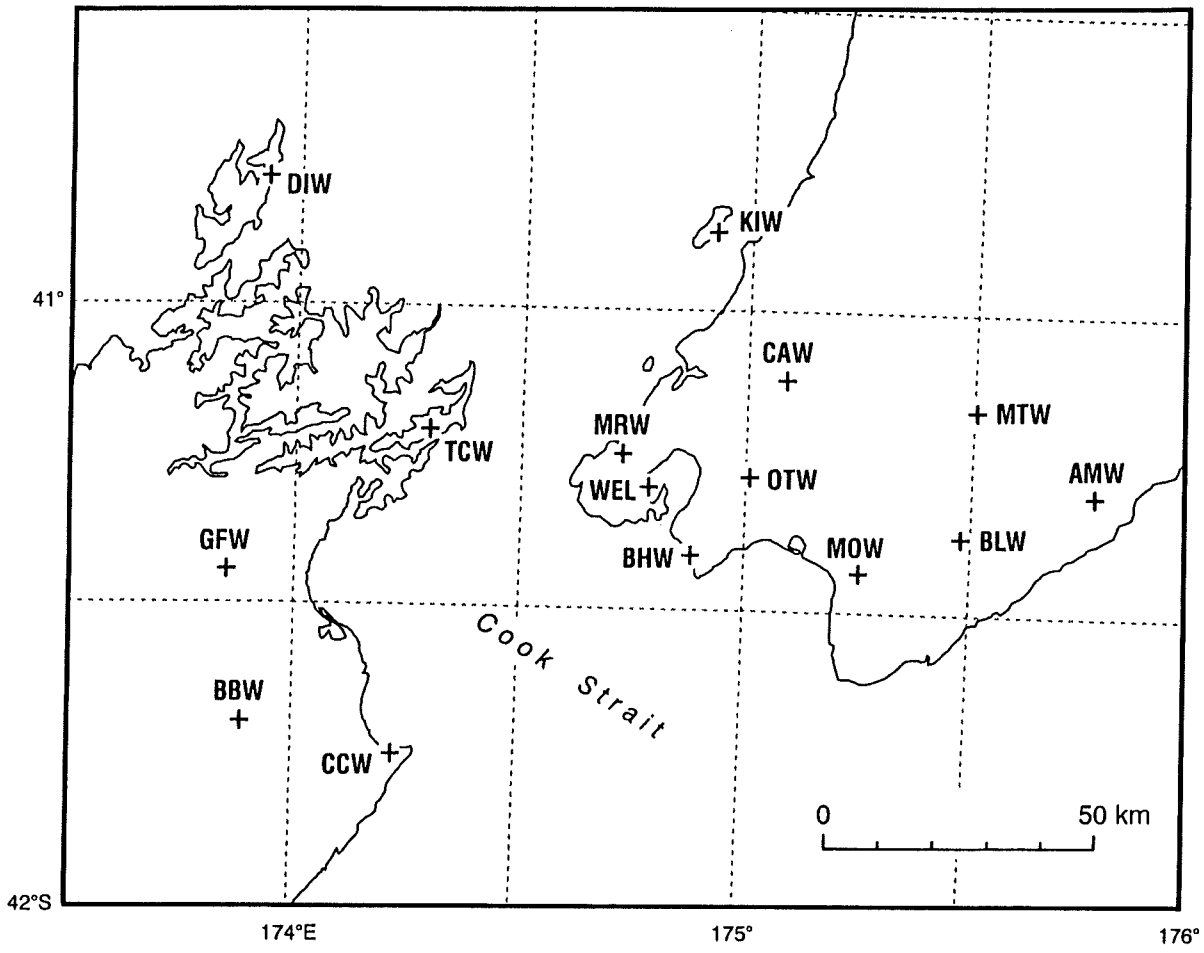
Stations of the National Seismograph Network. Some stations that are too closely spaced to show on this scale are shown instead on the map of the Volcano-seismic and Hawkes Bay Networks.The inner and outer polygons define areas where accuracy of epicentre locations is considered reliable, less reliable and inadequate.



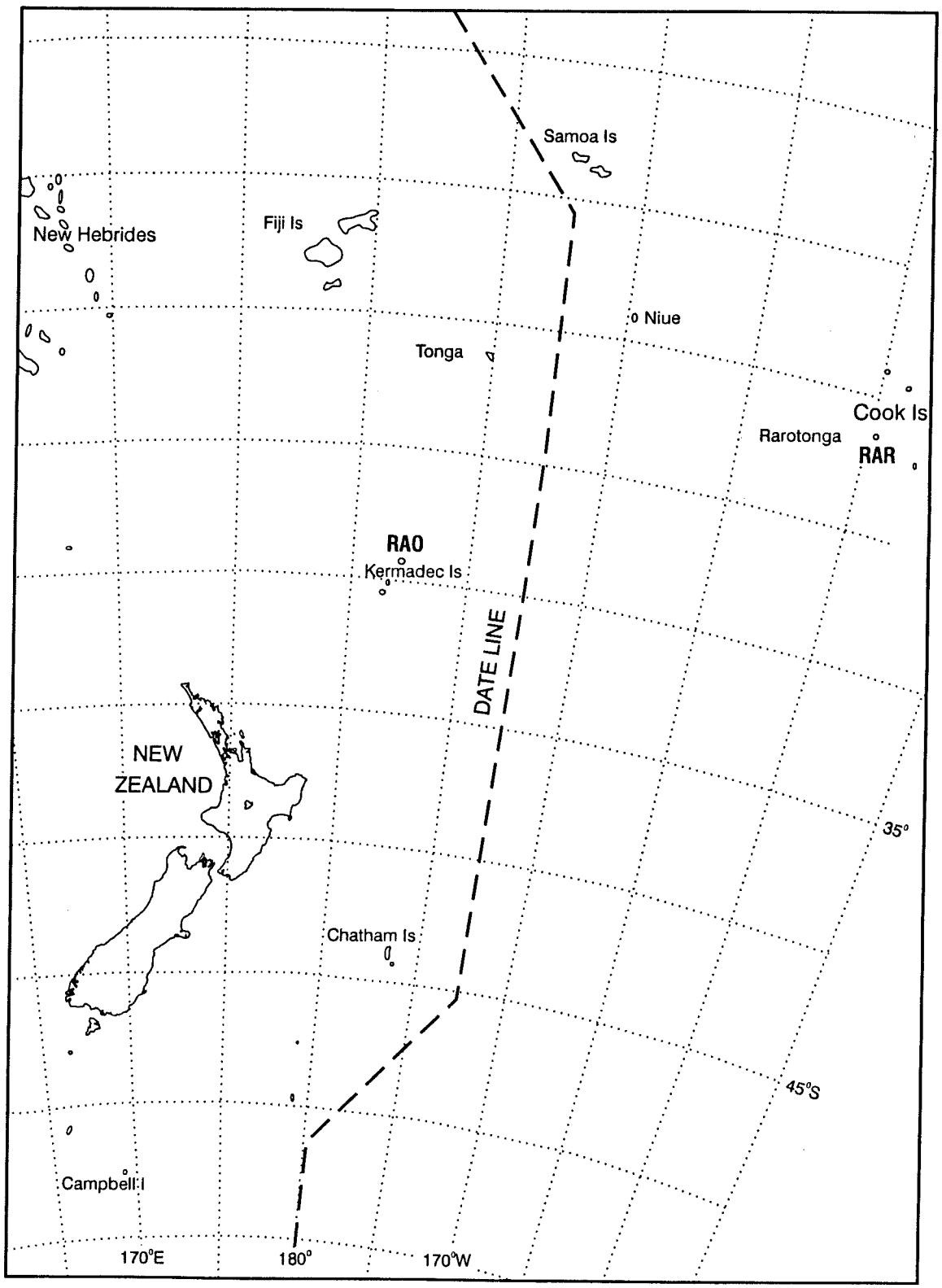
Stations of Taranaki and Auckland Volcano-seismic Networks.



Stations of the Volcano-seismic and Hawkes Bay Networks. Other stations lying within the boundaries of the map are also shown.



The Wellington Network includes stations on both sides of Cook Strait.



Pacific Island Stations

TIMING ARRANGEMENTS

Unless stated otherwise, times in this Report are given in Universal Time (U.T. or, more strictly, U.T.C., which is basically atomically kept time, adjusted when necessary by one second steps ("leap seconds") to agree with the astronomically determined time known as UT1). For most seismological and civil purposes this may be regarded as the Mean Solar Time of the Greenwich meridian.

On paper seismograms made by the national network, minute marks, derived from quartz crystal clocks of high stability, appear on records as abrupt trace deflections of about two seconds duration. Radio time signals also operate the trace deflector so that the relationship between the locally generated minute marks and Universal Time can be established. In most cases the radio signals are those of the New Zealand Time Service, transmitted hourly through the stations of Radio New Zealand, but in areas where local reception is bad, a time signal broadcast from overseas may be used. It is estimated that the total error in time-signal recording resulting from signal transmission and delay in operation of the trace deflector should never exceed 30 milliseconds.

SNARE and EARSS instruments are also equipped with high stability clocks and radio receivers tuned to pick up Time Service signals. A software routine establishes a clock drift rate and applies a correcting signal calculated to bring the clock smoothly into synchronism with the time signals (which are usually received hourly). The difference between internally kept time and Time Service times is recorded and a correction applied by CUSP interactive display software to the phase onset times chosen by analysts. Corrected arrival times are expressed to a precision of one hundredth of a second, usually with an accuracy of a few hundredths, but errors of almost a tenth of a second have occasionally been detected.

Stations of the World-Wide Standard Seismograph Network have the timing arrangements usual at such stations. At other stations beyond New Zealand, time signals originating from the national Time Service or some other reliable time service are used.

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 hours, and New Zealand Daylight Time 13 hours, ahead of U.T. The period of Daylight Time is specified by Order in Council, as provided by the Act, and in 1997 Daylight Time was in effect until 02h NZST on March 16th, and from 02h NZST on October 5th until the end of the 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 kept elsewhere in the South Pacific are set by the governments of the respective countries. Those used in places which sometimes report earthquakes to the Observatory are listed below.

Western Samoa	11h 00m behind U.T.
Niue	11h 00m behind U.T.
Rarotonga	10h 00m behind U.T.
Tonga	13h 00m ahead of U.T.
Norfolk Island	11h 30m ahead of U.T.
French Polynesia	10h 00m behind U.T.

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

ORIGIN INFORMATION

CONTENT

This section contains origin times, epicentres, focal depths, and magnitudes of earthquakes in the New Zealand region that the Observatory has located from instrumental data, together with indicators of the quality of the data used.

In the areas within the inner and outer polygons outlined on the map on page 20, the Observatory attempts to determine origins for all shallow earthquakes of M_L 3.5 or more, and all shocks of M_L 4.0 or more, respectively. (Origins are regarded as shallow if their depth is less than 60 km.) Origins are also calculated for smaller or more distant earthquakes reported to have been felt in New Zealand. Weak shocks felt during earthquake swarms do not automatically get this individual attention, but an origin is found for at least one shock in any sequence giving rise to felt reports.

DETERMINATION OF ORIGINS

Earthquake origins are determined using P & S phases or first-arriving crustal P & S phases. Four different velocity/depth structures are used to calculate travel-times of rays passing through and immediately beneath the crust in different parts of the country (see table below). Beneath the "Moho" defined by these models, velocities are smoothly merged with those of the Jeffreys-Bullen Tables (British Association for the Advancement of Science, 1958). The Standard velocity model is used to calculate crustal velocities beneath all regions except those defined in the following table.

MODEL	UPPER DEPTH BOUNDARY (km)	Vp (km/s)	Vs (km/s)	CORNERS OF REGION Lat.	Long.
				(in clockwise order)	
New Zealand Standard	0.0	5.5	3.3		
	12.0	6.5	3.7		
	33.0	8.1	4.6		
Wellington	0.0	4.40	2.54	41.0 S	178.0 E
	0.4	5.63	3.16	43.5 S	175.0 E
	5.0	5.77	3.49	42.0 S	173.0 E
	15.0	6.39	3.50	39.7 S	175.7 E
	25.0	6.79	3.92		
	35.0	8.07	4.80		
	45.0	8.77	4.86		
Taupo	0.0	3.00	1.70	35.6 S	180.0 E
	2.0	5.30	3.00	38.0 S	177.5 E
	5.0	6.00	3.50	39.7 S	175.7 E
	15.0	7.40	4.30	39.0 S	175.0 E
	33.0	7.78	4.39	37.0 S	176.0 E
	65.0	7.94	4.51	34.6 S	178.5 E
	96.4	8.08	4.52		
Clyde	0.0	4.4	2.6	45.5 S	172.0 E
	0.5	6.0	3.3	49.0 S	167.0 E
	12.0	6.5	3.7	44.5 S	168.0 E
	33.0	8.1	4.6	44.0 S	169.0 E

Seismograms are displayed on high-resolution graphics monitor screens under the control of CUSP (Caltech-USGS Seismic Processor) interactive software, for an analyst to select phase onset times by positioning a cursor on the trace. The analyst also selects the amplitude maximum to be used in magnitude calculations. Whenever possible, locations are based exclusively on times of first-arriving P and S phases.

Weights are initially assigned to phase arrival times by analysts according to the precision of the measurement. The weight of readings is further modified by the location program, which, after each iteration, weights the residuals used to adjust the trial origin. The procedure (see Jeffreys, H., 1939: Probability Theory, Cambridge University Press) greatly reduces the weight given to phases with residuals greater than three standard errors.

In general, all four coordinates 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 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 usually assigned, according to the crustal phases present and the goodness of fit of the resulting solution. Less often, the depth is restricted to a smaller value, particularly when the strengths of locally reported felt intensities indicate an uncommonly shallow focus. The letter R printed after the depth in the lists which follow indicates a restriction for any of the foregoing reasons. There are also times when data not suitable for input to the location program (e.g. overseas PKP readings), indicate the depth of focus; in such cases the depth is similarly fixed and the restriction shown by following the depth by the letter G (to indicate intervention by a Geophysicist). When convergence of the location program fails for lack of enough data, both epicentre and depth are fixed at values consistent with the available information, and computation limited to finding a compatible origin time. Such doubly-restricted origins have the letters RR printed after the depth.

In routine origin determinations, sufficient of the stations nearest to the epicentre are read to ensure that there will be enough data for a satisfactory solution. When enough near observations are available, arrival times recorded at stations more distant from the epicentre are excluded from the calculations. Observatory analysts are free to completely reject data which they think to be unreliable, or to assign a low initial weight to it in the location program's procedure for minimising mean residuals. (See earlier details of how the weights are used).

In using the results in this section, it is essential to keep in mind that the positions of earthquakes with epicentres outside the network of seismograph stations can be very uncertain, even though the mean residual is small. With the aim of helping the reader to assess the reliability of the results presented here, the positional relationships between an epicentre, and the stations which recorded the data used to find it, are given after the calculated origin coordinates. Similarly, the number of magnitude estimates contributing to the mean value, and an indication of their scatter, are also shown.

The solutions presented here are in all cases based upon uniform procedures applied to laterally homogeneous models. Because well-established local models have been used to calculate the origins of shocks within the Wellington and Clyde Networks, systematic errors in these areas should be smaller than in other parts of the country.

The extensive development of CUSP software necessary to adapt it for use in New Zealand was undertaken by Dr T Webb and Dr E Smith.

MAGNITUDES

The magnitudes assigned to local earthquakes are intended to be the 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, to take account of the observed characteristics of energy propagation in New Zealand, including the effect of focal depth (Haines, A.J., Bull. Seism. Soc. Am. 71: 275-94, 1981).

For stations more than 100 km away from the epicentre, an amplitude-distance relationship of the form

$$A = A_0 R^{-N} \exp (- \alpha R)$$

where A is an amplitude recorded at an epicentral distance R, A_0 is a calibration function, N is a geometric spreading factor and α is an inelastic attenuation coefficient, has been found appropriate for all parts of the country.

For all New Zealand crustal earthquakes N is 2 and α generally takes a value close to 0. With these values, the relationship describes head-wave propagation with no attenuation. In the Central Volcanic Region, however, (see Map, page 30), α takes values of 0.8 deg^{-1} for P waves and 1.05 deg^{-1} for S waves. Adjustments are therefore made 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 ($N = 2$, $\alpha = 0$), 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 there necessitates different spreading and attenuation terms.

For deep earthquakes in Fiordland the same amplitude-distance relationship is used, with (i) N given the value 1 (body wave propagation), (ii) α increasing with focal depth, and (iii) stations in the North Island not used, because of variations of the coefficients N and α. Milford Sound (MSZ), Wether Hill (WHZ), and Deep Cove (DCZ) should ideally be excluded for the same reason, but as they are sometimes the only stations from which any estimate of magnitude can be made, they are used when necessary, with $N = 2$ and $\alpha = 0$.

For stations closer than 100 km to the epicentre, the formula

$$M_A = \log_{10} A + 1.0 \log_{10} R + 0.0029 R + K$$

developed by R. Robinson (Pageoph 125: 579-596, 1987) is used, where A is the maximum digital count, R is the slant distance from the station to the earthquake focus (in kilometres) and K is a station correction allowing for site factors.

Empirical corrections are applied to allow for differences in site effects. They are made in such a manner as to give the most consistent estimates of magnitude from the different stations, and their 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 previously published New Zealand magnitudes. Station corrections (see Table on page 29 for synthetic Wood-Anderson values) are added to the individual estimates of magnitude, which are then averaged.

The amplitudes on which magnitude calculations are based are no longer published, but the number of measurements and the number of stations contributing to the average magnitude are listed (e.g. "5M/4stn" appearing in a data summary indicates that 5 amplitude measurements of records from 4 stations were used to compute an average).

The definitive local magnitude is finally calculated as a weighted average of all station estimates. Estimates from stations at distances less than 100 km are given half weight, as are stations WHZ, DCZ, and MSZ for deep earthquakes in Fiordland. When 8 or more synthetic Wood-Anderson readings are available, magnitudes derived from vertical component amplitudes are given zero weight.

CALCULATION OF AMPLITUDES

Synthetic Wood-Anderson seismograms are computed for all horizontal components at non-telemetered EARSS stations having Mark Products L4-C 1Hz seismometers or, in the case of WEL, a Kinemetrics force-balance accelerometer (see Map, page 30). The Wood-Anderson gain used is 2080. The maximum amplitude for each computed trace is picked automatically, but can be updated by the analyst. Only amplitudes exceeding a pre-determined level for each station are given weight in the calculations to avoid amplitudes being picked from micro-seismic noise.

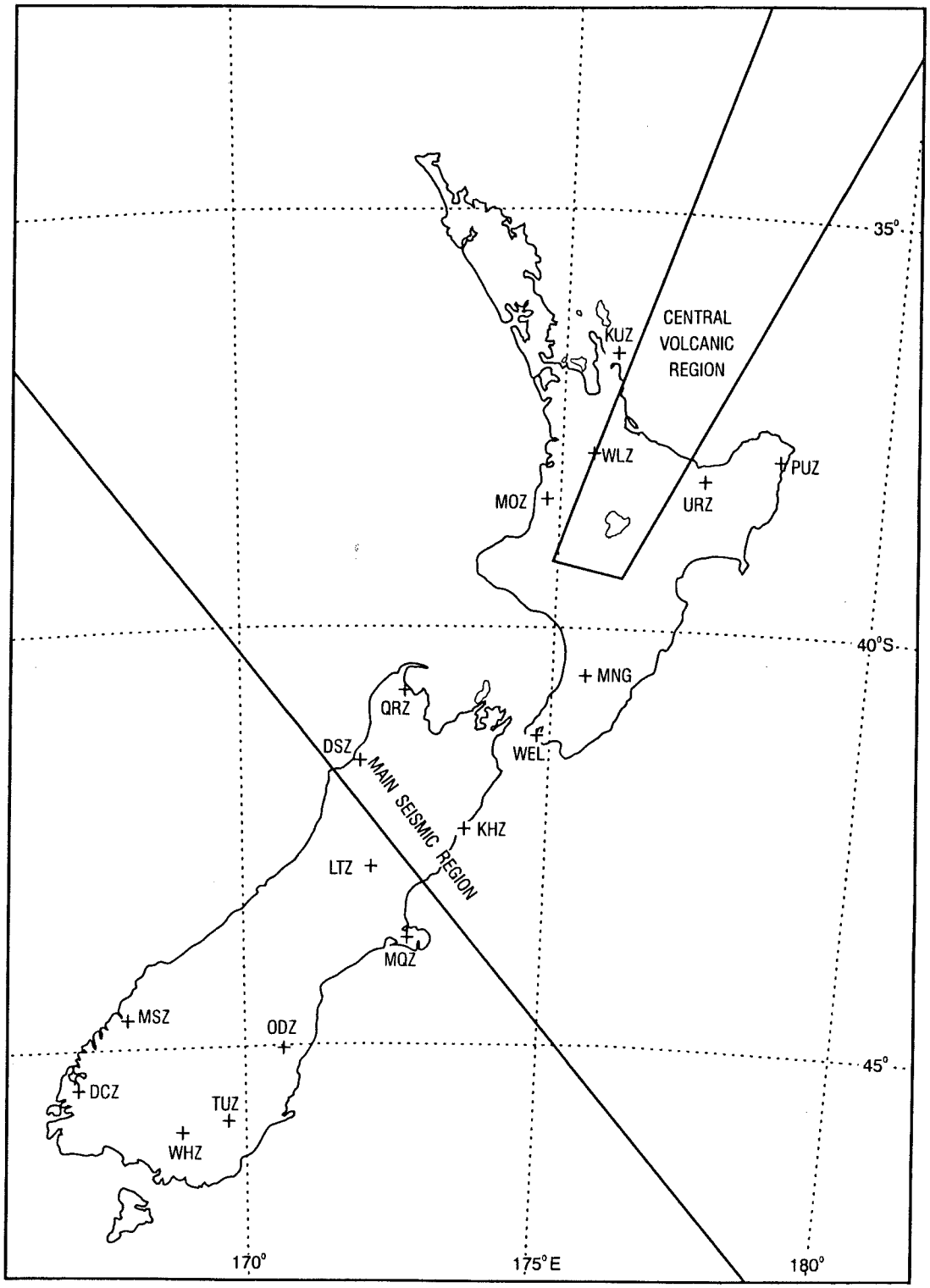
Maximum amplitudes are also picked off vertical traces for both telemetered and non-telemetered stations. This is necessary to obtain readings for small events. For very small events, traces are high-pass filtered to enable an amplitude to be picked. Magnitudes are unable to be calculated for only a few small deep events for which no east coast station has been triggered.

Note that there are usually two horizontal seismograms for each 3-component station, so that synthetic Wood-Anderson values tend to dominate the average magnitude.

Magnitude corrections for the two classes of focal depth, for earthquakes recorded on synthetic Wood-Anderson seismograms.

Station	Component		Correction (h≤33 km)	Correction (h>33 km)
DCZ	H	Fiordland only		+0.59
DCZ	H	All shallow	+0.60	
DSZ	H	Fiordland only		+0.22
DSZ	H	All shallow	+0.22	
KHZ	H		+0.43	+0.33
KUZ	H		+0.36	
LTZ	H		+0.59	
MNG	H		+0.51	+0.45
MOZ	H		+0.36	
MQZ	H		+0.46	
ODZ	H		+0.45	
PUZ	H		+0.29	+0.57
QRZ	H		+0.35	
TUZ	H		+0.31	
URZ	H		+0.35	+0.67
WEL	N		0.00	0.00
WEL	E		+0.09	+0.09
WHZ	H	Fiordland only		+0.35
WHZ	H	All shallow	+0.19	
WLZ	H	All shallow	+0.30	

H refers to horizontal seismometers, either N/S or E/W.
Note that WEL E needs a slight empirical correction to agree with the N component and with the standard Wood-Anderson instrument.



Stations and regions used for determination of synthetic Wood-Anderson magnitudes from digital records.

DATA FROM THE NATIONAL NETWORK

LAYOUT

The first entry for each earthquake is the reference number, used throughout the Report. The second line gives the origin coordinates and the magnitude and the third line shows, beneath each of the coordinates in line two, its standard error. Where depth has been restricted, the letter R or G in place of the standard error indicates the fact. The fourth line starts with Rsd, the standard deviation of residuals, an indication of how well the adopted origin reconciles the available data with the earth models used by the location program. Formally,

$$\text{Rsd} = \left[\sum_{i=1}^{n} \{(w_i \, r_i \, / \, 100)^2 \, / \, (n - m)\} \right]^{1/2}$$

where r_i is the ith residual, w_i its weight, n the number of readings and m the number of parameters determined (4 for unrestricted depth, 3 when depth is restricted.) When the number of readings used and the number of parameters are the same, the standard errors and Rsd are not defined. This is shown by the letters ND. The remainder of the fourth line and most of the fifth line present information indicating to the reader the degree of constraint on the adopted origin. Xph/Ystn shows that X phases from Y stations were used in the determination of the origin. (All phases given non-zero weight are counted but stations which failed to provide such a phase are not). Dmin is the distance from the epicentre to the nearest of these Y stations and Az. gap is the greatest angular gap in their distribution about the epicentre.

Corr. is the correlation coefficient of the errors in latitude and longitude. It may be used to construct an epicentral confidence region. (See Flinn, E.A., 1965, "Confidence regions and error determinations for seismic event locations". Rev. Geophys. 3: 156-185.) pM/Qstn shows that p magnitude estimates from phases recorded at Q stations contributed to the average value shown on line two. Msd is the standard deviation of the magnitude estimates.

The numbers of upward and downward first motions recorded are indicated at the end of line five.

Additional information may be appended to the above. This usually consists of a short summary of the places where a shock has been felt and the intensities there, but may include other comments. Further details of reports received by the Observatory concerning the effects of earthquakes and the intensities assessed from these observations appear in later sections of this Report.

The telemetered networks all detect earthquakes of very small magnitude in their respective regions. These are all located and the data are held in the Observatory's archives. The following list, however, contains only those events which were of magnitude 3.5 or greater, or were reported felt. Smaller events have been excluded, as have events located more than 10° from Wellington.

97/18
JAN 01 070525.3s 37.16S 176.96E 239km M=4.3
0.4 0.03 0.01 4
Rsd 0.1s 15ph/14stn Dmin 46km Az.gap 174°
Corr. 0.014 12M/11stn Msd 0.2 4↑ 1↓

97/66
JAN 01 224614.3s 36.83S 176.97E 236km M=4.3
0.4 0.02 0.02 4
Rsd 0.1s 12ph/10stn Dmin 146km Az.gap 194°
Corr. 0.086 12M/11stn Msd 0.2 3↑ 1↓

97/69
JAN 01 230859.3s 38.69S 175.78E 152km M=3.5
0.4 0.02 0.03 3
Rsd 0.2s 15ph/10stn Dmin 40km Az.gap 129°
Corr. 0.089 9M/9stn Msd 0.2 1↑

97/98
JAN 02 102905.3s 40.49S 176.04E 56km M=4.4
0.2 0.01 0.02 3
Rsd 0.1s 30ph/25stn Dmin 28km Az.gap 102°
Corr. -0.499 17M/12stn Msd 0.3 6↑ 4↓
Felt Marton (61) to Waitarere Beach (65), MM4.

97/103
JAN 02 112336.9s 38.27S 175.89E 140km M=3.6
0.4 0.06 0.03 4
Rsd 0.1s 11ph/10stn Dmin 51km Az.gap 224°
Corr. -0.731 4M/4stn Msd 0.2 1↑

97/129
JAN 03 023107.4s 38.40S 175.91E 188km M=4.1
0.4 0.03 0.02 4
Rsd 0.1s 16ph/13stn Dmin 38km Az.gap 165°
Corr. 0.137 10M/10stn Msd 0.3 6↑ 2↓

97/132
JAN 03 035802.0s 37.36S 176.79E 155km M=3.9
1.0 0.06 0.06 15
Rsd 0.2s 8ph/6stn Dmin 136km Az.gap 249°
Corr. -0.673 5M/4stn Msd 0.1

97/160
JAN 03 131417.6s 36.89S 177.30E 12km M=3.6
1.1 0.09 0.03 R
Rsd 0.3s 6ph/4stn Dmin 119km Az.gap 257°
Corr. 0.344 5M/4stn Msd 0.4

97/165
JAN 03 154955.1s 40.30S 174.24E 80km M=3.7
0.2 0.01 0.02 4
Rsd 0.2s 34ph/27stn Dmin 62km Az.gap 113°
Corr. -0.116 9M/9stn Msd 0.3 1↓

97/184
JAN 04 025748.9s 38.20S 176.38E 5km M=4.0
0.1 0.01 0.01 R
Rsd 0.3s 22ph/20stn Dmin 11km Az.gap 102°
Corr. -0.562 20M/13stn Msd 0.4
Felt Okareka (33).

97/187
JAN 04 030045.4s 38.33S 176.48E 5km M=2.2
0.4 0.02 0.02 R
Rsd 0.2s 6ph/5stn Dmin 11km Az.gap 212°
Corr. -0.851 4M/4stn Msd 0.2
Felt Okareka and Waimangu (33).

97/188
JAN 04 030052.8s 38.26S 176.40E 5km M=3.3
0.1 0.01 0.01 R
Rsd 0.3s 10ph/8stn Dmin 10km Az.gap 151°
Corr. -0.415 6M/6stn Msd 0.2
Felt Waimangu (33).

97/189
JAN 04 030128.8s 38.31S 176.44E 5km M=2.9
0.3 0.02 0.02 R
Rsd 0.3s 5ph/4stn Dmin 10km Az.gap 204°
Corr. -0.815 4M/4stn Msd 0.2
Felt Waimangu (33).

97/190
JAN 04 030431.1s 38.19S 176.40E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.3s 17ph/14stn Dmin 11km Az.gap 103°
Corr. -0.366 17M/13stn Msd 0.4 1↓

97/191
JAN 04 030542.1s 38.20S 176.40E 5km M=3.8
0.1 0.01 0.01 R
Rsd 0.3s 19ph/16stn Dmin 11km Az.gap 100°
Corr. -0.331 19M/13stn Msd 0.4
Felt Waimangu (33).

97/192
JAN 04 030640.4s 38.25S 176.43E 5km M=3.1
0.2 0.02 0.01 R
Rsd 0.3s 7ph/6stn Dmin 7km Az.gap 146°
Corr. -0.503 6M/6stn Msd 0.2
Felt Waimangu (33).

97/193
JAN 04 030702.5s 38.22S 176.38E 5km M=3.2
0.2 0.02 0.01 R
Rsd 0.3s 6ph/4stn Dmin 11km Az.gap 115°
Corr. 0.024 4M/4stn Msd 0.1
Felt Waimangu (33).

97/201
JAN 04 031343.3s 38.26S 176.40E 5km M=3.2
0.1 0.01 0.01 R
Rsd 0.2s 10ph/8stn Dmin 10km Az.gap 150°
Corr. -0.343 6M/6stn Msd 0.2 1↓
Felt Waimangu (33).

97/202
JAN 04 031420.1s 38.26S 176.40E 5km M=3.4
0.1 0.01 0.00 R
Rsd 0.2s 11ph/10stn Dmin 10km Az.gap 146°
Corr. -0.348 12M/12stn Msd 0.5 1↑
Felt Okareka and Waimangu (33).

97/203
JAN 04 031524.0s 38.48S 176.55E 5km M=3.4
1.0 0.05 0.04 R
Rsd 0.4s 6ph/5stn Dmin 27km Az.gap 272°
Corr. -0.675 3M/3stn Msd 0.1
Felt Waimangu (33). Two events.

97/206
JAN 04 031832.5s 38.23S 176.39E 5km M=4.0
0.2 0.01 0.02 R
Rsd 0.5s 20ph/19stn Dmin 10km Az.gap 92°
Corr. -0.385 13M/9stn Msd 0.4 1↓
Felt from Lake Tarawera to Reporoa (33). This is the largest event of a swarm near Rerewhakaaitu.

97/215
JAN 04 032740.7s 38.26S 176.39E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.3s 11ph/10stn Dmin 10km Az.gap 114°
Corr. -0.337 9M/8stn Msd 0.4 1↑
Felt Waimangu (33).

97/220
JAN 04 033255.0s 38.26S 176.40E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.2s 11ph/9stn Dmin 10km Az.gap 156°
Corr. -0.327 11M/8stn Msd 0.5

97/228
JAN 04 034535.4s 38.27S 176.35E 5km M=3.6
0.2 0.01 0.01 R
Rsd 0.3s 9ph/6stn Dmin 15km Az.gap 138°
Corr. -0.020 9M/9stn Msd 0.6

97/275
JAN 04 063600.5s 45.03S 167.46E 122km M=3.8
0.4 0.03 0.02 4
Rsd 0.2s 12ph/7stn Dmin 54km Az.gap 199°
Corr. -0.135 9M/5stn Msd 0.3 1↑ 5↓

97/277
JAN 04 081326.9s 39.33S 175.36E 14km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 18ph/11stn Dmin 19km Az.gap 258°
Corr. 0.613 8M/6stn Msd 0.3 3↑ 3↓

97/288
JAN 04 130814.7s 45.11S 167.32E 113km M=4.8
0.3 0.03 0.02 3
Rsd 0.2s 11ph/7stn Dmin 42km Az.gap 208°
Corr. 0.223 11M/7stn Msd 0.2 3↑ 1↓

97/289
JAN 04 143659.9s 38.13S 176.15E 240km M=4.5
0.8 0.03 0.02 6
Rsd 0.2s 17ph/15stn Dmin 6km Az.gap 105°
Corr. -0.427 12M/10stn Msd 0.3 5↑ 4↓

97/297
JAN 05 054344.2s 38.65S 175.15E 255km M=3.8
3.3 0.10 0.06 26
Rsd 0.1s 10ph/10stn Dmin 71km Az.gap 288°
Corr. 0.473 5M/5stn Msd 0.2

97/305
JAN 05 114127.1s 37.81S 179.32E 12km M=3.5
0.1 0.00 0.01 R
Rsd 0.0s 5ph/3stn Dmin 93km Az.gap 307°
Corr. -0.292 4M/2stn Msd 0.1 1↓

97/316
JAN 05 221228.3s 38.66S 175.95E 183km M=3.8
1.0 0.03 0.04 9
Rsd 0.3s 10ph/6stn Dmin 65km Az.gap 213°
Corr. -0.685 4M/4stn Msd 0.3

97/367
JAN 06 212034.7s 38.78S 175.29E 214km M=4.3
0.3 0.03 0.02 3
Rsd 0.2s 22ph/18stn Dmin 31km Az.gap 108°
Corr. -0.316 13M/12stn Msd 0.1 11↑ 6↓

97/368
JAN 06 215217.6s 36.28S 179.61W 12km M=4.1
0.1 0.01 0.01 R
Rsd 0.0s 5ph/3stn Dmin 236km Az.gap 347°
Corr. -0.814 5M/3stn Msd 0.2

97/386
JAN 07 044710.7s 37.71S 179.13E 33km M=3.8
0.8 0.03 0.06 R
Rsd 0.3s 10ph/8stn Dmin 74km Az.gap 289°
Corr. -0.093 14M/12stn Msd 0.3 1↑ 1↓

97/388
JAN 07 045429.3s 37.65S 178.88E 82km M=3.9
0.5 0.03 0.07 5
Rsd 0.2s 9ph/5stn Dmin 51km Az.gap 298°
Corr. -0.615 9M/7stn Msd 0.5 1↓

97/467
JAN 08 033348.6s 38.31S 175.82E 216km M=3.9
2.5 0.06 0.05 22
Rsd 0.2s 13ph/13stn Dmin 42km Az.gap 175°
Corr. 0.080 14M/13stn Msd 0.2

97/503
JAN 08 201745.8s 36.19S 177.24E 12km M=4.5
0.8 0.07 0.03 R
Rsd 0.4s 12ph/9stn Dmin 149km Az.gap 259°
Corr. 0.658 11M/7stn Msd 0.3 1↓

97/504
JAN 08 202028.4s 36.08S 177.26E 33km M=4.5
1.8 0.14 0.06 R
Rsd 0.8s 8ph/6stn Dmin 157km Az.gap 270°
Corr. 0.657 14M/10stn Msd 0.3 1↓

97/507
JAN 08 222521.4s 36.86S 177.08E 340km M=3.7
1.8 0.08 0.06 14
Rsd 0.1s 14ph/11stn Dmin 171km Az.gap 285°
Corr. -0.506 5M/5stn Msd 0.3

97/511
JAN 09 000449.4s 36.26S 176.41E 12km M=4.3
0.6 0.06 0.07 R
Rsd 0.2s 5ph/3stn Dmin 224km Az.gap 340°
Corr. 0.539 4M/3stn Msd 0.3

97/521
JAN 09 035811.6s 37.90S 175.97E 290km M=4.2
0.3 0.04 0.03 3
Rsd 0.1s 16ph/12stn Dmin 92km Az.gap 115°
Corr. -0.259 11M/11stn Msd 0.3

97/529
JAN 09 055751.0s 37.32S 176.10E 257km M=3.6
0.7 0.07 0.06 9
Rsd 0.2s 9ph/7stn Dmin 197km Az.gap 255°
Corr. -0.764 10M/10stn Msd 0.2

97/547
JAN 09 121815.5s 39.74S 174.49E 110km M=3.6
0.4 0.01 0.01 5
Rsd 0.3s 29ph/26stn Dmin 57km Az.gap 88°
Corr. -0.399 10M/10stn Msd 0.3 4↑ 4↓

97/550
JAN 09 130603.1s 36.93S 177.81E 12km M=3.7
1.2 0.09 0.05 R
Rsd 0.3s 6ph/4stn Dmin 86km Az.gap 268°
Corr. 0.844 5M/4stn Msd 0.2

97/576
JAN 10 042616.0s 45.02S 167.39E 104km M=4.4
0.3 0.02 0.02 3
Rsd 0.2s 12ph/7stn Dmin 53km Az.gap 206°
Corr. -0.043 8M/4stn Msd 0.1 1↑ 4↓

97/583
JAN 10 093314.6s 37.77S 176.06E 299km M=3.9
1.5 0.05 0.06 15
Rsd 0.1s 11ph/10stn Dmin 197km Az.gap 227°
Corr. -0.737 10M/10stn Msd 0.2
Poor station coverage.

97/592
JAN 10 203657.5s 36.99S 177.80E 245km M=4.3
0.7 0.10 0.55 16
Rsd 0.1s 6ph/3stn Dmin 80km Az.gap 333°
Corr. -0.915 5M/3stn Msd 0.3

97/609
JAN 11 184947.9s 44.95S 167.54E 123km M=3.8
0.4 0.02 0.02 3
Rsd 0.2s 14ph/7stn Dmin 65km Az.gap 198°
Corr. -0.213 12M/6stn Msd 0.2 2↑ 2↓

97/617
JAN 12 054109.2s 39.08S 174.76E 209km M=4.5
0.4 0.02 0.02 3
Rsd 0.2s 24ph/21stn Dmin 55km Az.gap 104°
Corr. -0.371 16M/13stn Msd 0.3

97/619
JAN 12 064715.3s 37.98S 179.03E 22km M=4.1
0.3 0.01 0.02 2
Rsd 0.1s 7ph/5stn Dmin 69km Az.gap 288°
Corr. -0.426 8M/6stn Msd 0.2 1↑ 2↓

97/622
JAN 12 094427.0s 37.97S 179.02E 23km M=4.1
0.4 0.01 0.03 2
Rsd 0.2s 7ph/5stn Dmin 68km Az.gap 287°
Corr. -0.339 8M/6stn Msd 0.2 1↑ 2↓

97/624
JAN 12 104501.4s 42.93S 171.93E 5km M=3.5
0.1 0.01 0.01 R
Rsd 0.2s 15ph/9stn Dmin 32km Az.gap 95°
Corr. -0.242 14M/8stn Msd 0.2 1↑ 1↓

97/667
JAN 13 103552.1s 38.56S 175.89E 153km M=3.6
0.3 0.01 0.01 2
Rsd 0.1s 13ph/12stn Dmin 21km Az.gap 123°
Corr. -0.317 4M/3stn Msd 0.3 1↑

97/686
JAN 13 214921.1s 45.37S 167.07E 50km M=3.7
0.2 0.01 0.01 2
Rsd 0.1s 12ph/7stn Dmin 13km Az.gap 257°
Corr. 0.416 16M/9stn Msd 0.3 1↑

97/693
JAN 14 012657.1s 38.94S 175.72E 206km M=3.7
0.6 0.04 0.04 5
Rsd 0.2s 13ph/12stn Dmin 17km Az.gap 169°
Corr. -0.829 7M/7stn Msd 0.2

97/698
JAN 14 055728.0s 37.68S 179.34E 16km M=4.1
0.3 0.01 0.01 1
Rsd 0.1s 12ph/8stn Dmin 92km Az.gap 301°
Corr. -0.380 23M/19stn Msd 0.4

97/725
JAN 14 213101.8s 37.12S 177.08E 253km M=5.2
0.4 0.04 0.03 3
Rsd 0.2s 31ph/25stn Dmin 46km Az.gap 179°
Corr. 0.491 8M/4stn Msd 0.3 5↑ 1↓

97/727
JAN 14 224930.6s 39.85S 177.01E 12km M=3.5
0.2 0.01 0.02 R
Rsd 0.2s 9ph/7stn Dmin 112km Az.gap 212°
Corr. -0.519 6M/6stn Msd 0.5

97/730
JAN 15 004758.1s 37.78S 176.54E 153km M=3.8
0.4 0.03 0.01 4
Rsd 0.2s 15ph/13stn Dmin 74km Az.gap 178°
Corr. -0.500 13M/11stn Msd 0.2

97/774
JAN 15 212103.9s 36.64S 176.92E 252km M=3.8
0.8 0.14 0.08 12
Rsd 0.2s 9ph/7stn Dmin 180km Az.gap 300°
Corr. -0.843 3M/3stn Msd 0.1

97/777
JAN 16 001940.8s 38.74S 175.95E 106km M=4.2
0.3 0.01 0.01 3
Rsd 0.2s 29ph/23stn Dmin 8km Az.gap 72°
Corr. -0.593 17M/13stn Msd 0.2 1↑ 1↓

97/787
JAN 16 070315.8s 38.61S 175.53E 228km M=3.7
1.3 0.10 0.08 10
Rsd 0.3s 12ph/10stn Dmin 50km Az.gap 214°
Corr. -0.357 11M/11stn Msd 0.3

97/791
JAN 16 082246.6s 41.72S 173.80E 15km M=3.8
0.1 0.01 0.01 2
Rsd 0.2s 23ph/17stn Dmin 6km Az.gap 100°
Corr. -0.401 26M/20stn Msd 0.4

97/815
JAN 16 151829.6s 40.67S 174.76E 48km M=3.5
0.1 0.01 0.01 6
Rsd 0.3s 32ph/26stn Dmin 55km Az.gap 75°
Corr. 0.175 12M/11stn Msd 0.2 1↑ 1↓

97/829
JAN 17 001939.1s 38.71S 175.21E 201km M=3.7
0.6 0.03 0.03 4
Rsd 0.2s 13ph/10stn Dmin 42km Az.gap 132°
Corr. -0.622 5M/5stn Msd 0.2

97/833
JAN 17 025836.6s 37.69S 177.34E 76km M=3.8
0.2 0.03 0.02 3
Rsd 0.2s 10ph/8stn Dmin 66km Az.gap 215°
Corr. -0.804 7M/3stn Msd 0.2 1↑

97/837
JAN 17 050339.8s 39.58S 174.13E 188km M=4.0
0.5 0.02 0.04 5
Rsd 0.2s 27ph/22stn Dmin 124km Az.gap 167°
Corr. -0.499 13M/13stn Msd 0.3 1↑ 5↓

97/846
JAN 17 122709.3s 38.57S 177.58E 54km M=4.0
0.2 0.01 0.01 3
Rsd 0.1s 26ph/21stn Dmin 54km Az.gap 159°
Corr. -0.385 17M/13stn Msd 0.3

97/852
JAN 17 144423.1s 38.37S 176.17E 162km M=4.0
0.4 0.02 0.02 3
Rsd 0.2s 22ph/16stn Dmin 7km Az.gap 87°
Corr. -0.492 15M/12stn Msd 0.2

97/868
JAN 18 052654.2s 35.21S 178.19E 283km M=4.2
1.0 0.15 0.21 4
Rsd 0.1s 10ph/8stn Dmin 266km Az.gap 328°
Corr. -0.983 5M/5stn Msd 0.4

97/885
JAN 18 233512.9s 39.86S 176.85E 29km M=3.8
0.4 0.01 0.03 3
Rsd 0.3s 13ph/10stn Dmin 46km Az.gap 202°
Corr. -0.179 8M/8stn Msd 0.3

97/901
JAN 19 145611.5s 37.80S 179.20E 22km M=5.4
0.3 0.01 0.02 2
Rsd 0.1s 25ph/22stn Dmin 82km Az.gap 282°
Corr. -0.069 23M/12stn Msd 0.2 1↓

97/902
JAN 19 151209.4s 37.28S 177.62E 107km M=4.0
0.4 0.02 0.02 3
Rsd 0.2s 19ph/16stn Dmin 47km Az.gap 231°
Corr. 0.170 17M/13stn Msd 0.3 1↓

97/919
JAN 20 001730.4s 40.12S 174.35E 89km M=3.6
0.3 0.01 0.01 4
Rsd 0.2s 36ph/27stn Dmin 84km Az.gap 107°
Corr. 0.115 11M/11stn Msd 0.3

97/969
JAN 20 164614.4s 39.82S 176.76E 58km M=4.5
0.2 0.01 0.02 4
Rsd 0.2s 40ph/32stn Dmin 37km Az.gap 164°
Corr. -0.306 8M/4stn Msd 0.2 7↑ 2↓
Felt Mt Vernon (60), Waipukurau (63), MM4.

97/971
JAN 20 171405.4s 37.73S 177.08E 128km M=3.8
0.2 0.02 0.02 2
Rsd 0.1s 10ph/8stn Dmin 59km Az.gap 224°
Corr. -0.676 9M/9stn Msd 0.3

97/976
JAN 20 193143.4s 39.13S 176.29E 69km M=3.6
0.3 0.02 0.02 4
Rsd 0.3s 18ph/16stn Dmin 31km Az.gap 105°
Corr. -0.249 2M/1stn Msd 0.1 2↑ 2↓

97/984
JAN 21 001406.7s 38.36S 175.91E 195km M=3.6
0.4 0.03 0.08 3
Rsd 0.1s 14ph/13stn Dmin 41km Az.gap 330°
Corr. -0.255 4M/4stn Msd 0.2 1↑

97/1029
JAN 22 033603.0s 38.38S 176.18E 163km M=4.2
0.2 0.01 0.01 2
Rsd 0.1s 28ph/23stn Dmin 54km Az.gap 107°
Corr. 0.094 19M/16stn Msd 0.3 2↑ 1↓

97/1030
JAN 22 045648.6s 40.42S 176.00E 52km M=3.9
0.2 0.01 0.02 4
Rsd 0.2s 26ph/23stn Dmin 36km Az.gap 108°
Corr. -0.476 14M/12stn Msd 0.3 1↑ 2↓

97/1034
JAN 22 082147.2s 36.87S 176.93E 220km M=3.9
0.6 0.09 0.06 7
Rsd 0.3s 7ph/4stn Dmin 146km Az.gap 310°
Corr. -0.266 6M/4stn Msd 0.4

97/1044
JAN 22 125753.5s 38.04S 176.24E 161km M=3.7
0.5 0.04 0.02 4
Rsd 0.3s 10ph/7stn Dmin 62km Az.gap 145°
Corr. 0.268 13M/9stn Msd 0.3

97/1050
JAN 22 172149.5s 37.67S 176.37E 196km M=4.4
0.4 0.02 0.02 3
Rsd 0.2s 36ph/32stn Dmin 48km Az.gap 117°
Corr. 0.298 24M/18stn Msd 0.3 9↑ 5↓

97/1081
JAN 23 052523.4s 41.87S 174.27E 49km M=3.8
0.1 0.01 0.01 2
Rsd 0.2s 26ph/19stn Dmin 14km Az.gap 148°
Corr. -0.626 18M/13stn Msd 0.2 4↑ 10↓

97/1086
JAN 23 071830.6s 38.84S 175.80E 224km M=3.6
0.3 0.03 0.03 2
Rsd 0.1s 11ph/7stn Dmin 32km Az.gap 205°
Corr. -0.736 8M/8stn Msd 0.2

97/1094
JAN 23 102042.3s 35.73S 178.52E 246km M=4.0
1.3 0.17 0.19 16
Rsd 0.5s 7ph/5stn Dmin 208km Az.gap 341°
Corr. -0.644 5M/4stn Msd 0.2

97/1103
JAN 23 133104.6s 35.90S 178.13E 225km M=3.8
1.6 0.21 0.21 19
Rsd 0.6s 7ph/5stn Dmin 189km Az.gap 333°
Corr. -0.611 5M/5stn Msd 0.2

97/1119
JAN 23 220834.8s 36.98S 177.08E 217km M=4.3
0.7 0.07 0.03 8
Rsd 0.3s 13ph/11stn Dmin 117km Az.gap 249°
Corr. -0.127 21M/15stn Msd 0.2 3↑ 1↓

97/1132
JAN 24 051319.6s 37.23S 176.94E 255km M=4.3
0.8 0.07 0.04 5
Rsd 0.3s 17ph/15stn Dmin 116km Az.gap 237°
Corr. -0.155 20M/16stn Msd 0.2

97/1142
JAN 24 085500.9s 36.81S 177.14E 280km M=5.0
0.8 0.06 0.04 7
Rsd 0.2s 21ph/19stn Dmin 79km Az.gap 200°
Corr. 0.362 10M/5stn Msd 0.2 13↑ 1↓

97/1143
JAN 24 091122.7s 47.23S 165.55E 12km M=3.7
0.4 0.04 0.04 R
Rsd 0.1s 7ph/3stn Dmin 232km Az.gap 341°
Corr. -0.408 3M/3stn Msd 0.6 1↓

97/1163
JAN 24 153908.3s 35.60S 177.89E 248km M=3.8
1.7 0.24 0.25 21
Rsd 0.5s 6ph/4stn Dmin 225km Az.gap 332°
Corr. -0.750 4M/4stn Msd 0.3

97/1178
JAN 24 211209.1s 37.53S 179.33E 12km M=3.5
0.9 0.05 0.05 R
Rsd 0.4s 6ph/4stn Dmin 91km Az.gap 318°
Corr. -0.023 7M/5stn Msd 0.2

97/1211
JAN 25 115704.5s 37.09S 177.29E 193km M=3.6
1.1 0.10 0.08 9
Rsd 0.4s 8ph/5stn Dmin 106km Az.gap 283°
Corr. -0.418 6M/5stn Msd 0.4

97/1215
JAN 25 125053.4s 37.52S 179.96W 12km M=3.8
1.4 0.06 0.10 R
Rsd 0.7s 9ph/7stn Dmin 154km Az.gap 300°
Corr. 0.181 8M/6stn Msd 0.3

97/1216
JAN 25 125223.2s 37.48S 179.84E 12km M=3.7
1.6 0.08 0.11 R
Rsd 0.6s 8ph/7stn Dmin 136km Az.gap 298°
Corr. 0.029 10M/8stn Msd 0.3

97/1218
JAN 25 131215.4s 37.43S 179.89E 12km M=3.7
0.7 0.05 0.04 R
Rsd 0.2s 12ph/7stn Dmin 142km Az.gap 298°
Corr. 0.143 9M/7stn Msd 0.3

97/1226
JAN 25 172844.9s 38.19S 176.32E 156km M=4.4
0.3 0.01 0.01 2
Rsd 0.2s 36ph/31stn Dmin 12km Az.gap 90°
Corr. 0.072 8M/4stn Msd 0.2 13↑ 3↓

97/1227
JAN 25 175148.3s 36.90S 177.01E 284km M=3.7
1.6 0.13 0.09 11
Rsd 0.3s 9ph/8stn Dmin 152km Az.gap 307°
Corr. -0.456 5M/5stn Msd 0.1

97/1231
JAN 25 192055.2s 40.15S 176.65E 52km M=3.6
0.2 0.01 0.02 4
Rsd 0.3s 40ph/32stn Dmin 23km Az.gap 173°
Corr. -0.498 17M/15stn Msd 0.2 1↑

97/1239
JAN 25 232659.5s 37.03S 177.46E 133km M=3.7
0.3 0.03 0.02 3
Rsd 0.1s 14ph/10stn Dmin 97km Az.gap 276°
Corr. -0.649 8M/7stn Msd 0.2

97/1244
JAN 26 010814.5s 37.91S 179.21E 19km M=3.8
0.3 0.01 0.02 1
Rsd 0.1s 16ph/14stn Dmin 85km Az.gap 284°
Corr. 0.172 36M/30stn Msd 0.3

97/1248
JAN 26 021300.7s 36.76S 177.42E 191km M=3.8
1.0 0.09 0.09 8
Rsd 0.4s 12ph/10stn Dmin 122km Az.gap 287°
Corr. -0.521 15M/13stn Msd 0.4

97/1255
JAN 26 060405.6s 36.52S 178.60E 61km M=4.5
0.8 0.05 0.04 11
Rsd 0.3s 21ph/17stn Dmin 123km Az.gap 272°
Corr. 0.487 16M/10stn Msd 0.2

97/1264
JAN 26 112135.7s 45.22S 168.72E 12km M=3.4
0.2 0.02 0.02 R
Rsd 0.4s 11ph/6stn Dmin 45km Az.gap 136°
Corr. -0.694 6M/5stn Msd 0.2 1↑ 1↓
Felt Arthurs Point (122) MM4.

97/1276
JAN 26 153146.0s 37.85S 177.12E 151km M=3.8
0.9 0.07 0.04 8
Rsd 0.6s 9ph/6stn Dmin 46km Az.gap 166°
Corr. -0.085 5M/4stn Msd 0.2 1↑

97/1295
JAN 26 223054.8s 38.60S 175.90E 218km M=3.7
0.2 0.01 0.02 2
Rsd 0.1s 10ph/9stn Dmin 230km Az.gap 328°
Corr. -0.195 4M/4stn Msd 0.2 1↓
Very poor station coverage.

97/1321
JAN 27 062505.1s 39.94S 179.89E 12km M=3.9
1.1 0.04 0.08 R
Rsd 0.5s 13ph/7stn Dmin 217km Az.gap 269°
Corr. -0.157 14M/13stn Msd 0.4

97/1356
JAN 27 181716.1s 38.54S 175.82E 154km M=4.0
0.7 0.02 0.02 6
Rsd 0.3s 24ph/21stn Dmin 18km Az.gap 80°
Corr. -0.144 19M/15stn Msd 0.2 1↑

97/1412
JAN 28 143214.6s 37.78S 176.22E 134km M=3.6
0.4 0.04 0.04 4
Rsd 0.2s 7ph/5stn Dmin 94km Az.gap 254°
Corr. -0.904 6M/5stn Msd 0.2

97/1420
JAN 28 161156.9s 38.51S 175.86E 152km M=4.0
0.4 0.02 0.01 3
Rsd 0.2s 27ph/21stn Dmin 25km Az.gap 83°
Corr. 0.062 21M/18stn Msd 0.3 7↑ 4↓

97/1466
JAN 29 095129.5s 36.11S 179.72E 12km M=3.7
0.5 0.03 0.04 R
Rsd 0.1s 8ph/5stn Dmin 208km Az.gap 327°
Corr. -0.209 6M/5stn Msd 0.4

97/1525
JAN 30 041018.6s 37.96S 176.34E 156km M=3.8
0.3 0.03 0.01 3
Rsd 0.2s 13ph/10stn Dmin 75km Az.gap 192°
Corr. -0.403 18M/15stn Msd 0.2

97/1534
JAN 30 082357.1s 40.02S 175.73E 68km M=3.8
0.2 0.01 0.01 3
Rsd 0.2s 43ph/34stn Dmin 64km Az.gap 85°
Corr. -0.138 24M/21stn Msd 0.3 2↑ 5↓

97/1545
JAN 30 110755.6s 37.69S 176.61E 154km M=3.8
0.4 0.03 0.01 3
Rsd 0.1s 18ph/15stn Dmin 54km Az.gap 171°
Corr. 0.070 19M/18stn Msd 0.2

97/1583
JAN 30 231024.8s 38.46S 175.94E 178km M=3.9
0.4 0.02 0.02 3
Rsd 0.2s 23ph/18stn Dmin 33km Az.gap 74°
Corr. -0.021 17M/15stn Msd 0.3 4↑ 2↓

97/1611
JAN 31 070847.2s 38.61S 177.95E 50km M=3.9
0.4 0.03 0.02 5
Rsd 0.2s 14ph/11stn Dmin 8km Az.gap 112°
Corr. -0.586 22M/16stn Msd 0.2 2↑ 1↓

97/1626
JAN 31 105413.7s 37.50S 176.47E 191km M=3.5
0.5 0.04 0.04 3
Rsd 0.2s 8ph/6stn Dmin 101km Az.gap 296°
Corr. -0.726 3M/3stn Msd 0.2
Poor station coverage.

97/1638
JAN 31 144509.4s 38.27S 176.36E 134km M=4.0
0.3 0.02 0.01 2
Rsd 0.1s 16ph/14stn Dmin 65km Az.gap 144°
Corr. -0.345 13M/11stn Msd 0.3 3↑ 2↓

97/1657
JAN 31 225220.1s 45.67S 165.07E 33km M=3.7
0.4 0.05 0.02 R
Rsd 0.2s 11ph/5stn Dmin 164km Az.gap 317°
Corr. 0.157 8M/8stn Msd 0.2 1↓

97/1712
FEB 01 141748.1s 38.16S 176.24E 5km M=2.7
0.1 0.01 0.00 R
Rsd 0.1s 12ph/8stn Dmin 5km Az.gap 123°
Corr. 0.058 9M/9stn Msd 0.3 1↑ 1↓
Felt Mamaku and Rotorua (33), MM4.

97/1724
FEB 01 163001.9s 35.79S 178.56E 191km M=4.2
0.3 0.05 0.02 8
Rsd 0.1s 12ph/9stn Dmin 202km Az.gap 317°
Corr. 0.507 15M/13stn Msd 0.2

97/1739
FEB 01 212854.1s 36.70S 179.67W 125km M=4.1
0.8 0.11 0.12 16
Rsd 0.2s 8ph/5stn Dmin 206km Az.gap 342°
Corr. -0.862 7M/5stn Msd 0.3

97/1741
FEB 01 221504.2s 37.53S 179.87E 12km M=3.5
0.5 0.05 0.04 R
Rsd 0.2s 6ph/3stn Dmin 139km Az.gap 341°
Corr. -0.616 6M/4stn Msd 0.3 1↑

97/1763
FEB 02 085849.8s 36.64S 177.85E 166km M=4.8
0.5 0.03 0.02 5
Rsd 0.1s 17ph/15stn Dmin 114km Az.gap 254°
Corr. -0.178 20M/14stn Msd 0.2 3↑ 1↓

97/1782
FEB 02 155346.6s 40.10S 179.85W 12km M=4.2
1.3 0.05 0.09 R
Rsd 0.7s 24ph/19stn Dmin 246km Az.gap 266°
Corr. -0.543 32M/27stn Msd 0.3 1↑

97/1785
FEB 02 171704.7s 38.43S 176.06E 164km M=3.6
0.3 0.04 0.03 3
Rsd 0.1s 14ph/11stn Dmin 55km Az.gap 209°
Corr. -0.884 9M/9stn Msd 0.2 1↑

97/1822
FEB 03 020716.0s 42.18S 174.30E 29km M=4.1
0.2 0.01 0.01 1
Rsd 0.1s 24ph/17stn Dmin 48km Az.gap 173°
Corr. -0.693 13M/7stn Msd 0.3 3↑ 6↓

97/1827
FEB 03 034341.7s 37.77S 175.92E 182km M=3.6
0.8 0.06 0.08 6
Rsd 0.3s 6ph/3stn Dmin 118km Az.gap 293°
Corr. -0.779 4M/3stn Msd 0.2 1↑
Poor station coverage.

97/1889
FEB 04 051356.7s 39.99S 176.86E 45km M=4.2
0.1 0.01 0.01 2
Rsd 0.2s 29ph/26stn Dmin 37km Az.gap 180°
Corr. -0.679 21M/15stn Msd 0.2 3↑ 1↓
Felt Kairakau Beach and Waipukurau (63).

97/1892
FEB 04 065057.9s 35.92S 177.82E 215km M=4.0
0.2 0.03 0.03 4
Rsd 0.1s 6ph/4stn Dmin 191km Az.gap 334°
Corr. -0.503 5M/4stn Msd 0.2

97/1917
FEB 05 005414.1s 37.18S 177.25E 155km M=3.8
0.4 0.03 0.02 4
Rsd 0.2s 7ph/5stn Dmin 104km Az.gap 242°
Corr. -0.252 7M/5stn Msd 0.2 1↑

97/1920
FEB 05 084012.0s 40.59S 174.55E 79km M=3.6
0.1 0.01 0.01 2
Rsd 0.1s 30ph/22stn Dmin 58km Az.gap 121°
Corr. -0.332 14M/12stn Msd 0.2 2↑ 2↓

97/1926
FEB 05 140838.9s 36.78S 177.43E 158km M=3.5
0.5 0.05 0.05 5
Rsd 0.2s 5ph/3stn Dmin 120km Az.gap 311°
Corr. -0.617 3M/3stn Msd 0.3

97/1933
FEB 05 185626.0s 40.00S 176.89E 38km M=3.8
0.1 0.01 0.02 5
Rsd 0.2s 34ph/28stn Dmin 37km Az.gap 169°
Corr. -0.646 19M/15stn Msd 0.3 4↑ 1↓

97/1937
FEB 05 202526.7s 44.50S 168.80E 12km M=3.9
0.1 0.01 0.01 R
Rsd 0.2s 14ph/9stn Dmin 86km Az.gap 153°
Corr. -0.445 10M/6stn Msd 0.3 4↑ 1↓
Felt Mt Aspiring Stn (113) MM4.

97/1956
FEB 06 040007.9s 39.56S 174.16E 190km M=3.8
0.5 0.02 0.04 5
Rsd 0.3s 23ph/19stn Dmin 121km Az.gap 167°
Corr. -0.150 12M/11stn Msd 0.2 2↑ 4↓

97/1968
FEB 06 091845.0s 38.62S 177.86E 36km M=3.5
0.2 0.01 0.02 4
Rsd 0.3s 20ph/17stn Dmin 15km Az.gap 90°
Corr. -0.253 13M/9stn Msd 0.3 2↑ 1↓

97/2021
FEB 06 185246.5s 37.05S 177.04E 216km M=3.8
0.8 0.05 0.03 7
Rsd 0.3s 16ph/14stn Dmin 127km Az.gap 249°
Corr. -0.309 16M/15stn Msd 0.2

97/2022
FEB 06 185550.0s 38.64S 177.85E 28km M=3.9
0.2 0.01 0.01 2
Rsd 0.3s 22ph/19stn Dmin 17km Az.gap 138°
Corr. -0.482 24M/19stn Msd 0.3 3↑ 3↓

97/2054
FEB 07 060619.7s 38.31S 175.93E 165km M=3.5
0.7 0.04 0.03 6
Rsd 0.2s 12ph/11stn Dmin 64km Az.gap 232°
Corr. -0.484 14M/14stn Msd 0.2 1↑ 1↓

97/2111
FEB 07 230358.4s 37.48S 176.57E 260km M=3.9
1.6 0.18 0.15 9
Rsd 0.6s 7ph/5stn Dmin 99km Az.gap 291°
Corr. -0.644 3M/3stn Msd 0.1

97/2121
FEB 08 064701.1s 40.10S 179.87W 33km M=3.5
0.7 0.03 0.04 R
Rsd 0.2s 6ph/4stn Dmin 244km Az.gap 273°
Corr. -0.434 3M/3stn Msd 0.2 .

97/2131
FEB 08 130758.7s 36.98S 177.58E 111km M=4.5
0.4 0.03 0.01 5
Rsd 0.2s 17ph/14stn Dmin 70km Az.gap 256°
Corr. 0.092 23M/19stn Msd 0.2 1↓

97/2141
FEB 08 193723.9s 39.68S 174.30E 194km M=4.3
0.6 0.02 0.02 6
Rsd 0.3s 30ph/25stn Dmin 42km Az.gap 98°
Corr. -0.170 19M/15stn Msd 0.2 6↑ 1↓

97/2142
FEB 08 200638.4s 39.50S 174.45E 212km M=4.1
0.7 0.02 0.02 6
Rsd 0.3s 30ph/26stn Dmin 36km Az.gap 71°
Corr. -0.146 22M/19stn Msd 0.2 6↑ 6↓

97/2149
FEB 08 214441.4s 35.35S 178.36E 234km M=4.5
0.3 0.04 0.05 6
Rsd 0.1s 13ph/10stn Dmin 250km Az.gap 320°
Corr. -0.574 15M/12stn Msd 0.2

97/2163
FEB 09 033439.8s 36.93S 176.90E 227km M=3.9
0.3 0.04 0.03 4
Rsd 0.1s 10ph/7stn Dmin 145km Az.gap 263°
Corr. -0.784 6M/5stn Msd 0.4 1↓

97/2169
FEB 09 053129.6s 37.40S 176.71E 182km M=3.7
0.2 0.02 0.02 2
Rsd 0.1s 13ph/10stn Dmin 102km Az.gap 247°
Corr. -0.510 10M/9stn Msd 0.4 1↓

97/2170
FEB 09 054902.2s 35.29S 178.86E 246km M=4.2
1.0 0.41 0.14 56
Rsd 0.3s 6ph/3stn Dmin 313km Az.gap 345°
Corr. -0.654 4M/3stn Msd 0.4

97/2181
FEB 09 095851.2s 39.43S 179.18E 12km M=3.6
0.6 0.03 0.04 R
Rsd 0.2s 9ph/6stn Dmin 134km Az.gap 293°
Corr. -0.243 7M/7stn Msd 0.4 .

97/2204
FEB 09 145215.6s 37.15S 176.69E 245km M=3.6
1.0 0.12 0.12 9
Rsd 0.5s 8ph/6stn Dmin 129km Az.gap 266°
Corr. -0.749 6M/6stn Msd 0.2

97/2249
FEB 10 021313.7s 45.04S 167.46E 99km M=3.7
0.3 0.05 0.02 4
Rsd 0.2s 11ph/6stn Dmin 53km Az.gap 227°
Corr. -0.469 7M/4stn Msd 0.3 1↑

97/2251
FEB 10 103822.0s 39.70S 174.94E 117km M=3.8
0.4 0.01 0.01 4
Rsd 0.2s 27ph/22stn Dmin 76km Az.gap 68°
Corr. 0.329 16M/14stn Msd 0.2 1↑ 2↓

97/2261
FEB 10 190434.3s 36.94S 177.46E 171km M=4.2
0.3 0.02 0.01 3
Rsd 0.1s 12ph/10stn Dmin 70km Az.gap 222°
Corr. 0.530 18M/14stn Msd 0.3

97/2278
FEB 10 224715.5s 40.47S 176.81E 12km M=3.5
0.2 0.01 0.02 R
Rsd 0.2s 22ph/16stn Dmin 94km Az.gap 197°
Corr. -0.384 21M/17stn Msd 0.4
Felt Porongahau Beach (64) MM4.

97/2293
FEB 11 082510.0s 43.30S 172.64E 28km M=3.6
0.1 0.01 0.01 1
Rsd 0.2s 11ph/7stn Dmin 45km Az.gap 138°
Corr. 0.162 14M/9stn Msd 0.3 1↑

97/2300
FEB 11 104552.5s 38.54S 175.95E 130km M=4.3
0.4 0.01 0.01 4
Rsd 0.2s 33ph/25stn Dmin 14km Az.gap 65°
Corr. -0.275 24M/18stn Msd 0.2 1↑

97/2314
FEB 11 172201.1s 38.80S 177.30E 28km M=4.0
0.1 0.01 0.01 1
Rsd 0.2s 28ph/25stn Dmin 22km Az.gap 69°
Corr. 0.105 8M/4stn Msd 0.1 8↑ 5↓

97/2388
FEB 12 112645.8s 38.42S 176.03E 159km M=4.6
0.4 0.02 0.01 3
Rsd 0.2s 39ph/34stn Dmin 28km Az.gap 64°
Corr. 0.180 8M/4stn Msd 0.4 10↑ 2↓

97/2391
FEB 12 114933.7s 45.10S 167.44E 131km M=3.9
0.5 0.03 0.02 4
Rsd 0.3s 11ph/7stn Dmin 47km Az.gap 195°
Corr. -0.051 11M/7stn Msd 0.2 1↑ 1↓

97/2395
FEB 12 122751.5s 37.48S 177.75E 88km M=3.8
0.3 0.02 0.01 4
Rsd 0.2s 17ph/15stn Dmin 51km Az.gap 209°
Corr. 0.065 9M/5stn Msd 0.2 2↑ 4↓

97/2447
FEB 13 083659.9s 41.84S 172.76E 82km M=3.8
0.5 0.02 0.02 6
Rsd 0.3s 22ph/16stn Dmin 80km Az.gap 109°
Corr. -0.435 11M/11stn Msd 0.2

97/2455
FEB 13 103556.9s 45.15S 167.36E 100km M=3.7
0.3 0.04 0.02 3
Rsd 0.1s 11ph/7stn Dmin 39km Az.gap 199°
Corr. -0.140 14M/9stn Msd 0.2 1↑

97/2461
FEB 13 115119.7s 38.05S 176.43E 141km M=3.5
0.4 0.03 0.02 3
Rsd 0.2s 16ph/13stn Dmin 64km Az.gap 233°
Corr. -0.336 16M/16stn Msd 0.2

97/2471
FEB 13 155811.3s 36.16S 177.64E 274km M=3.7
1.4 0.20 0.26 13
Rsd 0.4s 6ph/4stn Dmin 170km Az.gap 321°
Corr. -0.881 4M/4stn Msd 0.1

97/2528
FEB 14 065128.6s 44.18S 167.59E 12km M=3.7
0.7 0.04 0.04 R
Rsd 0.6s 14ph/8stn Dmin 137km Az.gap 219°
Corr. -0.530 11M/8stn Msd 0.3

97/2531
FEB 14 074629.1s 43.47S 169.90E 12km M=3.6
0.1 0.01 0.01 R
Rsd 0.1s 15ph/10stn Dmin 58km Az.gap 156°
Corr. -0.554 19M/15stn Msd 0.2 2↑ 1↓

97/2585
FEB 14 182239.2s 38.27S 176.51E 123km M=3.6
0.7 0.04 0.01 4
Rsd 0.2s 16ph/14stn Dmin 53km Az.gap 215°
Corr. 0.047 16M/15stn Msd 0.2 1↑

97/2606
FEB 14 232152.6s 38.83S 175.95E 5km M=3.9
0.1 0.01 0.01 R
Rsd 0.2s 32ph/29stn Dmin 14km Az.gap 40°
Corr. -0.408 11M/6stn Msd 0.3 2↑ 1↓
Felt Taupo (41).

97/2615
FEB 15 023601.3s 36.09S 178.00E 226km M=3.6
1.0 0.28 0.11 28
Rsd 0.3s 6ph/3stn Dmin 221km Az.gap 336°
Corr. 0.285 4M/3stn Msd 0.5

97/2703
FEB 15 211012.2s 41.71S 173.05E 94km M=4.1
0.2 0.02 0.01 3
Rsd 0.2s 22ph/18stn Dmin 69km Az.gap 107°
Corr. -0.604 16M/13stn Msd 0.3 1↑ 2↓

97/2713
FEB 15 234304.0s 37.65S 176.64E 227km M=4.4
0.4 0.03 0.02 3
Rsd 0.2s 28ph/25stn Dmin 32km Az.gap 191°
Corr. -0.021 26M/20stn Msd 0.2 1↑

97/2779
FEB 16 150200.5s 35.41S 177.78E 233km M=3.7
0.0 0.00 0.00 0
Rsd 0.0s 4ph/3stn Dmin 248km Az.gap 338°
Corr. -0.849 3M/3stn Msd 0.2

97/2789
FEB 16 172124.0s 36.84S 178.23E 83km M=3.9
0.4 0.02 0.02 4
Rsd 0.1s 15ph/13stn Dmin 84km Az.gap 291°
Corr. 0.428 11M/7stn Msd 0.3 1↓

97/2811
FEB 17 002833.7s 37.67S 176.42E 223km M=4.3
0.6 0.04 0.02 5
Rsd 0.2s 19ph/17stn Dmin 76km Az.gap 192°
Corr. -0.319 22M/17stn Msd 0.2 1↑

97/2871
FEB 17 131626.2s 37.28S 177.10E 172km M=4.1
0.2 0.02 0.01 3
Rsd 0.1s 13ph/10stn Dmin 108km Az.gap 183°
Corr. 0.342 17M/13stn Msd 0.3 1↑

97/2894
FEB 17 171241.0s 42.53S 172.86E 5km M=2.9
0.2 0.01 0.01 R
Rsd 0.1s 8ph/4stn Dmin 56km Az.gap 233°
Corr. 0.155 5M/4stn Msd 0.3 1↑
Felt Hanmer Springs (88) MM4.

97/2915
FEB 17 222313.6s 38.70S 175.26E 214km M=4.6
0.4 0.02 0.01 3
Rsd 0.2s 34ph/26stn Dmin 41km Az.gap 79°
Corr. -0.102 8M/4stn Msd 0.3 3↑ 1↓

97/2979
FEB 18 203811.7s 37.87S 179.34E 12km M=3.8
0.3 0.01 0.02 R
Rsd 0.1s 10ph/8stn Dmin 97km Az.gap 297°
Corr. 0.177 11M/7stn Msd 0.2 1↓

97/2992
FEB 18 232946.3s 37.74S 179.80W 12km M=4.0
1.2 0.07 0.08 R
Rsd 0.6s 9ph/6stn Dmin 168km Az.gap 315°
Corr. 0.059 8M/5stn Msd 0.1

97/3018
FEB 19 080027.9s 42.31S 172.68E 12km M=4.2
0.1 0.01 0.01 R
Rsd 0.2s 17ph/15stn Dmin 62km Az.gap 115°
Corr. -0.310 11M/6stn Msd 0.3 3↑ 2↓

97/3032
FEB 19 114854.6s 38.21S 175.63E 168km M=3.7
0.4 0.03 0.03 4
Rsd 0.2s 14ph/11stn Dmin 129km Az.gap 234°
Corr. -0.844 12M/11stn Msd 0.1 1↓

97/3123
FEB 20 052105.2s 38.75S 176.42E 72km M=3.5
0.2 0.02 0.02 3
Rsd 0.2s 10ph/9stn Dmin 57km Az.gap 181°
Corr. -0.911 2M/1stn Msd 0.2 1↓

97/3135
FEB 20 091554.7s 42.81S 171.36E 33km M=3.5
0.2 0.02 0.01 R
Rsd 0.3s 14ph/9stn Dmin 59km Az.gap 138°
Corr. -0.400 21M/16stn Msd 0.3 2↑ 2↓

97/3149
FEB 20 121147.8s 41.72S 174.52E 31km M=4.0
0.1 0.01 0.01 1
Rsd 0.2s 19ph/16stn Dmin 25km Az.gap 148°
Corr. -0.648 26M/21stn Msd 0.3 2↑ 4↓
Felt Eastbourne and Hutt Valley (68).

97/3161
FEB 20 150457.9s 37.57S 176.65E 176km M=3.6
0.3 0.04 0.02 3
Rsd 0.2s 15ph/12stn Dmin 47km Az.gap 240°
Corr. -0.643 17M/16stn Msd 0.2 1↑

97/3171
FEB 20 164826.5s 40.88S 175.03E 31km M=4.3
0.1 0.01 0.01 1
Rsd 0.2s 31ph/28stn Dmin 10km Az.gap 65°
Corr. -0.528 9M/5stn Msd 0.2 4↑ 3↓
Felt Paraparaumu (65), Wellington (68) and Hutt Vallley (68,69).

97/3192
FEB 20 222330.0s 38.71S 175.17E 203km M=3.7
1.1 0.06 0.04 9
Rsd 0.3s 11ph/9stn Dmin 40km Az.gap 129°
Corr. -0.156 13M/13stn Msd 0.2

97/3206
FEB 21 014457.5s 39.40S 177.10E 31km M=3.6
0.1 0.01 0.01 1
Rsd 0.2s 20ph/17stn Dmin 28km Az.gap 142°
Corr. -0.465 22M/20stn Msd 0.4 1↑

97/3290
FEB 21 202756.4s 36.58S 179.93E 33km M=4.0
0.4 0.04 0.03 R
Rsd 0.1s 10ph/8stn Dmin 184km Az.gap 342°
Corr. -0.318 11M/8stn Msd 0.3

97/3295
FEB 21 211621.0s 39.94S 173.87E 188km M=3.9
0.6 0.01 0.02 5
Rsd 0.3s 29ph/26stn Dmin 67km Az.gap 140°
Corr. -0.050 14M/13stn Msd 0.4 2↑ 4↓

97/3302
FEB 21 221734.7s 39.21S 174.74E 204km M=4.3
0.5 0.02 0.02 4
Rsd 0.2s 30ph/27stn Dmin 56km Az.gap 93°
Corr. -0.156 8M/4stn Msd 0.3 5↑ 3↓

97/3340
FEB 22 062750.2s 39.16S 175.78E 94km M=4.0
0.2 0.01 0.01 2
Rsd 0.2s 38ph/30stn Dmin 14km Az.gap 107°
Corr. -0.425 20M/15stn Msd 0.2 1↑

97/3374
FEB 22 155530.2s 36.19S 177.59E 203km M=3.7
0.3 0.03 0.03 4
Rsd 0.1s 6ph/4stn Dmin 168km Az.gap 328°
Corr. -0.248 5M/4stn Msd 0.3

97/3504
FEB 24 005822.0s 37.29S 177.50E 160km M=3.8
1.1 0.09 0.05 10
Rsd 0.6s 8ph/6stn Dmin 79km Az.gap 227°
Corr. -0.062 9M/5stn Msd 0.2 1↑

97/3516
FEB 24 023652.7s 37.30S 176.74E 240km M=4.2
0.4 0.05 0.03 4
Rsd 0.1s 14ph/11stn Dmin 111km Az.gap 245°
Corr. -0.357 17M/12stn Msd 0.1

97/3519
FEB 24 035636.9s 36.29S 178.70E 12km M=3.7
1.7 0.10 0.12 R
Rsd 0.6s 6ph/3stn Dmin 202km Az.gap 328°
Corr. -0.070 4M/3stn Msd 0.2

97/3552
FEB 24 104957.1s 38.72S 175.89E 125km M=4.2
0.3 0.01 0.01 2
Rsd 0.2s 31ph/27stn Dmin 8km Az.gap 70°
Corr. -0.604 20M/15stn Msd 0.3 2↑

97/3581
FEB 24 201835.6s 40.40S 173.65E 121km M=3.9
0.2 0.01 0.01 3
Rsd 0.1s 27ph/21stn Dmin 50km Az.gap 142°
Corr. 0.397 16M/14stn Msd 0.3 4↑ 1↓

97/3593
FEB 25 083734.2s 38.11S 176.92E 179km M=3.7
0.3 0.08 0.17 4
Rsd 0.1s 11ph/8stn Dmin 24km Az.gap 280°
Corr. -0.962 5M/4stn Msd 0.4
Poor station coverage.

97/3616
FEB 25 183614.7s 37.38S 177.73E 93km M=3.8
0.3 0.02 0.01 3
Rsd 0.1s 15ph/12stn Dmin 51km Az.gap 224°
Corr. 0.246 11M/7stn Msd 0.2 1↓

97/3632
FEB 26 003102.9s 38.30S 175.98E 163km M=3.8
0.3 0.05 0.03 3
Rsd 0.1s 13ph/11stn Dmin 51km Az.gap 218°
Corr. -0.911 12M/9stn Msd 0.4 1↑

97/3644
FEB 26 063429.6s 37.22S 176.85E 247km M=3.8
0.7 0.07 0.07 6
Rsd 0.3s 5ph/3stn Dmin 118km Az.gap 292°
Corr. -0.620 4M/3stn Msd 0.3
Poor station coverage.

97/3652
FEB 26 105919.0s 45.21S 167.43E 112km M=3.6
0.5 0.04 0.02 3
Rsd 0.2s 11ph/7stn Dmin 36km Az.gap 198°
Corr. -0.343 9M/7stn Msd 0.1

97/3669
FEB 26 141837.8s 38.16S 176.13E 213km M=3.9
0.4 0.05 0.02 3
Rsd 0.1s 13ph/11stn Dmin 59km Az.gap 126°
Corr. -0.703 16M/14stn Msd 0.3

97/3685
FEB 26 210806.4s 37.69S 175.97E 139km M=3.6
2.0 0.24 0.35 34
Rsd 0.6s 7ph/5stn Dmin 119km Az.gap 253°
Corr. -0.959 5M/4stn Msd 0.4
Poor station coverage.

97/3702
FEB 27 074942.4s 36.25S 177.79E 12km M=4.4
2.1 0.12 0.11 R
Rsd 0.6s 7ph/4stn Dmin 151km Az.gap 315°
Corr. 0.566 7M/3stn Msd 0.3

97/3704
FEB 27 083414.8s 36.17S 177.68E 12km M=4.0
1.1 0.06 0.06 R
Rsd 0.3s 6ph/4stn Dmin 157km Az.gap 301°
Corr. 0.493 4M/2stn Msd 0.4

97/3706
FEB 27 085420.6s 36.65S 177.89E 12km M=3.7
2.3 0.14 0.11 R
Rsd 0.7s 7ph/3stn Dmin 111km Az.gap 320°
Corr. 0.278 7M/3stn Msd 0.4

97/3708
FEB 27 091538.0s 36.50S 177.75E 12km M=3.9
1.6 0.11 0.10 R
Rsd 0.7s 7ph/4stn Dmin 132km Az.gap 257°
Corr. 0.806 5M/3stn Msd 0.5

97/3712
FEB 27 113921.5s 36.10S 177.91E 12km M=4.3
1.7 0.10 0.09 R
Rsd 0.5s 6ph/4stn Dmin 171km Az.gap 306°
Corr. 0.595 5M/3stn Msd 0.2

97/3719
FEB 27 141209.1s 36.36S 177.64E 12km M=4.4
0.9 0.06 0.04 R
Rsd 0.3s 10ph/7stn Dmin 136km Az.gap 297°
Corr. 0.326 12M/7stn Msd 0.5

97/3720
FEB 27 152653.8s 36.37S 177.71E 12km M=3.9
1.1 0.08 0.05 R
Rsd 0.4s 5ph/3stn Dmin 195km Az.gap 297°
Corr. 0.522 4M/2stn Msd 0.4

97/3723
FEB 27 160321.9s 36.35S 177.57E 12km M=3.6
0.2 0.01 0.01 R
Rsd 0.1s 5ph/3stn Dmin 153km Az.gap 324°
Corr. -0.201 3M/3stn Msd 0.5

97/3724
FEB 27 162800.9s 36.22S 177.55E 12km M=4.1
1.1 0.07 0.06 R
Rsd 0.3s 7ph/4stn Dmin 149km Az.gap 324°
Corr. -0.371 5M/3stn Msd 0.5

97/3727
FEB 27 175050.7s 36.31S 177.71E 12km M=4.6
0.8 0.05 0.04 R
Rsd 0.4s 8ph/5stn Dmin 143km Az.gap 293°
Corr. -0.074 7M/5stn Msd 0.5

97/3729
FEB 27 181037.9s 36.26S 177.82E 12km M=4.0
1.1 0.07 0.06 R
Rsd 0.6s 9ph/5stn Dmin 151km Az.gap 271°
Corr. 0.613 8M/4stn Msd 0.5

97/3731
FEB 27 195245.3s 36.28S 177.76E 12km M=4.3
1.1 0.07 0.08 R
Rsd 0.4s 6ph/4stn Dmin 147km Az.gap 327°
Corr. -0.260 5M/2stn Msd 0.3

97/3736
FEB 27 205443.6s 39.10S 175.36E 138km M=3.6
0.6 0.03 0.03 4
Rsd 0.2s 19ph/16stn Dmin 7km Az.gap 121°
Corr. 0.391 12M/11stn Msd 0.3

97/3737
FEB 27 210239.7s 36.26S 177.69E 12km M=4.4
0.5 0.03 0.03 R
Rsd 0.2s 7ph/4stn Dmin 147km Az.gap 322°
Corr. -0.214 7M/3stn Msd 0.5

97/3739
FEB 27 213352.3s 36.33S 177.87E 12km M=4.4
0.4 0.03 0.02 R
Rsd 0.2s 7ph/5stn Dmin 146km Az.gap 300°
Corr. 0.198 8M/4stn Msd 0.4

97/3740
FEB 27 214801.3s 37.47S 179.15E 5km M=4.0
0.4 0.02 0.03 R
Rsd 0.2s 10ph/8stn Dmin 76km Az.gap 296°
Corr. -0.252 13M/9stn Msd 0.2

97/3741
FEB 27 220614.4s 36.29S 177.67E 12km M=4.1
0.7 0.04 0.04 R
Rsd 0.2s 6ph/4stn Dmin 144km Az.gap 322°
Corr. -0.285 7M/3stn Msd 0.4

97/3742
FEB 27 222237.2s 36.30S 177.71E 12km M=4.3
0.9 0.05 0.06 R
Rsd 0.4s 9ph/5stn Dmin 143km Az.gap 272°
Corr. 0.539 5M/2stn Msd 0.4

97/3743
FEB 27 222251.1s 36.34S 177.75E 12km M=4.4
0.6 0.04 0.03 R
Rsd 0.3s 11ph/6stn Dmin 141km Az.gap 272°
Corr. 0.699 9M/5stn Msd 0.3

97/3744
FEB 27 222529.2s 36.39S 177.71E 12km M=3.9
2.2 0.13 0.11 R
Rsd 0.7s 7ph/3stn Dmin 183km Az.gap 269°
Corr. 0.746 2M/1stn Msd 0.1

97/3748
FEB 27 234435.2s 36.27S 177.83E 12km M=4.2
0.6 0.04 0.03 R
Rsd 0.3s 6ph/3stn Dmin 196km Az.gap 275°
Corr. 0.656 7M/3stn Msd 0.3

97/3755
FEB 28 023730.5s 36.16S 177.61E 12km M=4.3
0.8 0.05 0.05 R
Rsd 0.4s 6ph/4stn Dmin 157km Az.gap 325°
Corr. -0.179 7M/3stn Msd 0.5 1↑

97/3759
FEB 28 032725.8s 36.28S 177.64E 12km M=4.2
0.9 0.06 0.05 R
Rsd 0.4s 6ph/4stn Dmin 145km Az.gap 322°
Corr. -0.189 4M/2stn Msd 0.4

97/3760
FEB 28 042106.7s 36.43S 177.77E 12km M=3.7
0.3 0.02 0.02 R
Rsd 0.1s 5ph/3stn Dmin 138km Az.gap 324°
Corr. -0.682 5M/3stn Msd 0.4

97/3762
FEB 28 042921.3s 36.21S 177.47E 12km M=4.1
0.4 0.03 0.03 R
Rsd 0.2s 7ph/4stn Dmin 149km Az.gap 324°
Corr. 0.156 5M/3stn Msd 0.4

97/3763
FEB 28 044302.7s 36.36S 177.67E 12km M=4.0
1.5 0.10 0.08 R
Rsd 0.6s 6ph/4stn Dmin 136km Az.gap 320°
Corr. -0.040 5M/3stn Msd 0.4

97/3766
FEB 28 045458.9s 36.36S 177.64E 12km M=4.3
0.7 0.04 0.04 R
Rsd 0.3s 9ph/5stn Dmin 136km Az.gap 269°
Corr. 0.569 12M/6stn Msd 0.3

97/3767
FEB 28 045650.5s 36.27S 177.40E 12km M=4.4
0.7 0.04 0.04 R
Rsd 0.3s 16ph/13stn Dmin 168km Az.gap 295°
Corr. 0.343 25M/21stn Msd 0.3

97/3768
FEB 28 050821.2s 36.46S 177.90E 12km M=3.9
2.5 0.15 0.12 R
Rsd 0.6s 7ph/4stn Dmin 132km Az.gap 317°
Corr. -0.188 5M/3stn Msd 0.4

97/3769
FEB 28 051754.8s 36.34S 177.68E 12km M=4.1
1.6 0.10 0.09 R
Rsd 0.5s 9ph/5stn Dmin 139km Az.gap 319°
Corr. -0.014 10M/7stn Msd 0.4

97/3770
FEB 28 052854.9s 36.38S 177.78E 12km M=4.1
1.8 0.12 0.09 R
Rsd 0.6s 7ph/4stn Dmin 138km Az.gap 319°
Corr. -0.152 5M/3stn Msd 0.5

97/3771
FEB 28 053519.6s 36.62S 177.81E 12km M=3.7
1.5 0.09 0.07 R
Rsd 0.3s 5ph/3stn Dmin 117km Az.gap 319°
Corr. -0.219 5M/3stn Msd 0.4

97/3772
FEB 28 053822.0s 36.35S 177.49E 12km M=4.1
1.7 0.10 0.10 R
Rsd 0.4s 5ph/3stn Dmin 157km Az.gap 324°
Corr. -0.264 4M/2stn Msd 0.3

97/3773
FEB 28 053902.9s 36.31S 177.89E 12km M=3.8
1.7 0.11 0.10 R
Rsd 0.4s 6ph/4stn Dmin 147km Az.gap 321°
Corr. -0.145 5M/3stn Msd 0.7

97/3774
FEB 28 054333.7s 36.17S 177.89E 12km M=4.2
2.6 0.16 0.15 R
Rsd 0.7s 6ph/4stn Dmin 162km Az.gap 325°
Corr. -0.051 6M/3stn Msd 0.7

97/3775
FEB 28 054900.9s 36.40S 177.69E 12km M=4.0
0.6 0.04 0.03 R
Rsd 0.1s 6ph/4stn Dmin 133km Az.gap 319°
Corr. -0.101 5M/3stn Msd 0.4

97/3776
FEB 28 055707.4s 36.32S 177.87E 12km M=4.0
0.7 0.04 0.04 R
Rsd 0.2s 6ph/4stn Dmin 147km Az.gap 321°
Corr. -0.274 5M/3stn Msd 0.4

97/3779
FEB 28 061926.4s 36.43S 177.76E 12km M=3.8
1.0 0.06 0.05 R
Rsd 0.2s 6ph/4stn Dmin 132km Az.gap 317°
Corr. -0.589 5M/3stn Msd 0.6

97/3781
FEB 28 063759.5s 36.44S 178.09E 12km M=4.0
4.0 0.25 0.22 R
Rsd 0.9s 5ph/3stn Dmin 130km Az.gap 329°
Corr. -0.177 5M/3stn Msd 0.5

97/3783
FEB 28 065146.8s 36.36S 177.81E 12km M=3.7
1.9 0.11 0.10 R
Rsd 0.4s 5ph/3stn Dmin 145km Az.gap 327°
Corr. -0.215 5M/3stn Msd 0.4

97/3787
FEB 28 074800.7s 36.31S 178.01E 12km M=4.0
2.3 0.14 0.14 R
Rsd 0.7s 6ph/3stn Dmin 145km Az.gap 330°
Corr. -0.356 5M/3stn Msd 0.7

97/3788
FEB 28 080557.0s 36.48S 178.07E 12km M=3.9
1.7 0.11 0.09 R
Rsd 0.6s 8ph/4stn Dmin 126km Az.gap 317°
Corr. -0.121 5M/3stn Msd 0.6

97/3789
FEB 28 081324.0s 36.28S 177.93E 12km M=4.4
1.5 0.09 0.07 R
Rsd 0.7s 8ph/5stn Dmin 150km Az.gap 297°
Corr. 0.366 11M/7stn Msd 0.4

97/3790
FEB 28 082749.5s 36.48S 178.21E 12km M=4.1
1.7 0.10 0.10 R
Rsd 0.7s 7ph/3stn Dmin 125km Az.gap 330°
Corr. -0.246 5M/3stn Msd 0.5

97/3791
FEB 28 082853.7s 36.33S 177.88E 12km M=4.3
2.3 0.13 0.09 R
Rsd 0.8s 7ph/5stn Dmin 146km Az.gap 269°
Corr. 0.141 11M/6stn Msd 0.5

97/3792
FEB 28 083714.9s 36.24S 177.56E 12km M=3.8
0.9 0.06 0.05 R
Rsd 0.2s 5ph/4stn Dmin 147km Az.gap 324°
Corr. -0.614 4M/3stn Msd 0.6

97/3793
FEB 28 084533.7s 36.30S 177.77E 12km M=4.0
2.1 0.13 0.07 R
Rsd 0.7s 6ph/5stn Dmin 146km Az.gap 268°
Corr. 0.330 7M/4stn Msd 0.4

97/3795
FEB 28 085748.8s 36.37S 177.62E 12km M=4.5
1.5 0.10 0.08 R
Rsd 0.5s 7ph/5stn Dmin 134km Az.gap 316°
Corr. -0.237 9M/4stn Msd 0.5

97/3796
FEB 28 090158.6s 36.28S 177.76E 12km M=4.5
0.7 0.04 0.04 R
Rsd 0.3s 10ph/6stn Dmin 147km Az.gap 274°
Corr. 0.580 8M/4stn Msd 0.4

97/3797
FEB 28 090629.1s 36.37S 177.77E 12km M=4.1
1.9 0.12 0.08 R
Rsd 0.7s 7ph/5stn Dmin 139km Az.gap 264°
Corr. 0.185 5M/3stn Msd 0.5

97/3799
FEB 28 092220.2s 36.33S 177.83E 12km M=4.1
1.4 0.09 0.06 R
Rsd 0.5s 10ph/6stn Dmin 145km Az.gap 268°
Corr. 0.278 11M/7stn Msd 0.5

97/3801
FEB 28 093614.1s 36.29S 177.94E 12km M=4.5
1.7 0.11 0.08 R
Rsd 0.9s 9ph/6stn Dmin 149km Az.gap 273°
Corr. 0.683 17M/12stn Msd 0.4

97/3802
FEB 28 094746.8s 36.42S 178.17E 12km M=3.9
0.5 0.03 0.03 R
Rsd 0.2s 8ph/4stn Dmin 132km Az.gap 330°
Corr. 0.037 6M/4stn Msd 0.6

97/3804
FEB 28 101547.4s 47.64S 166.03E 12km M=3.6
0.8 0.05 0.05 R
Rsd 0.4s 10ph/6stn Dmin 180km Az.gap 317°
Corr. -0.042 4M/3stn Msd 0.5

97/3805
FEB 28 102300.4s 36.31S 177.80E 12km M=4.5
0.9 0.06 0.05 R
Rsd 0.4s 11ph/8stn Dmin 145km Az.gap 268°
Corr. 0.757 14M/9stn Msd 0.4

97/3806
FEB 28 103049.0s 36.37S 177.85E 12km M=4.5
1.5 0.10 0.06 R
Rsd 0.7s 11ph/6stn Dmin 141km Az.gap 267°
Corr. 0.692 14M/9stn Msd 0.4

97/3807
FEB 28 103840.5s 36.37S 178.11E 12km M=4.5
1.0 0.07 0.06 R
Rsd 0.4s 8ph/4stn Dmin 138km Az.gap 329°
Corr. -0.108 12M/7stn Msd 0.4

97/3809
FEB 28 105602.8s 36.45S 177.80E 12km M=3.9
2.1 0.14 0.10 R
Rsd 0.7s 7ph/4stn Dmin 131km Az.gap 317°
Corr. -0.340 5M/3stn Msd 0.6

97/3810
FEB 28 105952.9s 36.26S 177.43E 12km M=4.2
1.1 0.07 0.07 R
Rsd 0.4s 5ph/3stn Dmin 168km Az.gap 326°
Corr. -0.109 5M/3stn Msd 0.5

97/3811
FEB 28 110335.4s 36.33S 177.54E 12km M=4.0
1.1 0.08 0.05 R
Rsd 0.3s 6ph/4stn Dmin 136km Az.gap 322°
Corr. -0.189 5M/3stn Msd 0.6

97/3812
FEB 28 111251.9s 36.41S 177.85E 12km M=3.9
3.0 0.18 0.16 R
Rsd 0.8s 7ph/4stn Dmin 138km Az.gap 318°
Corr. -0.593 6M/4stn Msd 0.4

97/3813
FEB 28 112417.7s 36.32S 178.06E 12km M=3.8
1.8 0.11 0.10 R
Rsd 0.4s 5ph/3stn Dmin 143km Az.gap 331°
Corr. -0.195 5M/3stn Msd 0.6

97/3814
FEB 28 112942.2s 36.26S 177.83E 12km M=4.1
2.9 0.18 0.17 R
Rsd 0.9s 5ph/3stn Dmin 154km Az.gap 328°
Corr. -0.251 6M/3stn Msd 0.5

97/3815
FEB 28 113641.9s 36.33S 177.67E 12km M=3.8
1.7 0.11 0.10 R
Rsd 0.5s 5ph/3stn Dmin 152km Az.gap 326°
Corr. -0.311 5M/3stn Msd 0.4

97/3816
FEB 28 114145.8s 36.33S 177.69E 12km M=4.1
0.9 0.06 0.04 R
Rsd 0.4s 5ph/3stn Dmin 183km Az.gap 271°
Corr. 0.367 7M/4stn Msd 0.4

97/3820
FEB 28 114434.1s 36.35S 177.79E 12km M=4.8
0.5 0.03 0.02 R
Rsd 0.3s 10ph/7stn Dmin 142km Az.gap 266°
Corr. 0.487 9M/5stn Msd 0.4

97/3821
FEB 28 115231.1s 36.35S 177.66E 12km M=3.7
1.0 0.06 0.05 R
Rsd 0.3s 5ph/3stn Dmin 150km Az.gap 325°
Corr. -0.335 5M/3stn Msd 0.5

97/3826
FEB 28 120238.5s 36.34S 177.74E 12km M=4.5
1.1 0.07 0.06 R
Rsd 0.4s 6ph/5stn Dmin 140km Az.gap 299°
Corr. 0.382 12M/8stn Msd 0.4

97/3827
FEB 28 120852.7s 36.39S 177.75E 12km M=4.0
1.8 0.11 0.10 R
Rsd 0.5s 6ph/4stn Dmin 136km Az.gap 319°
Corr. -0.505 5M/3stn Msd 0.5

97/3828
FEB 28 121630.6s 36.29S 177.96E 12km M=4.3
1.7 0.11 0.07 R
Rsd 0.7s 10ph/6stn Dmin 149km Az.gap 273°
Corr. 0.218 11M/7stn Msd 0.4

97/3829
FEB 28 122302.7s 36.25S 177.89E 12km M=4.3
1.5 0.09 0.06 R
Rsd 0.5s 8ph/5stn Dmin 154km Az.gap 272°
Corr. 0.313 10M/6stn Msd 0.4

97/3831
FEB 28 123658.3s 36.34S 177.94E 12km M=4.0
2.0 0.13 0.09 R
Rsd 0.7s 9ph/4stn Dmin 143km Az.gap 320°
Corr. 0.147 5M/3stn Msd 0.4

97/3832
FEB 28 124527.0s 36.31S 177.84E 12km M=4.0
1.6 0.09 0.06 R
Rsd 0.5s 8ph/5stn Dmin 147km Az.gap 269°
Corr. 0.156 6M/4stn Msd 0.5

97/3833
FEB 28 130744.1s 36.48S 178.21E 12km M=3.9
2.3 0.15 0.10 R
Rsd 0.6s 5ph/3stn Dmin 124km Az.gap 330°
Corr. -0.354 5M/3stn Msd 0.5

97/3834
FEB 28 131006.4s 36.49S 178.03E 12km M=3.6
1.8 0.11 0.09 R
Rsd 0.4s 5ph/3stn Dmin 126km Az.gap 327°
Corr. -0.168 3M/2stn Msd 0.7

97/3837
FEB 28 134130.7s 36.29S 177.90E 12km M=4.6
0.6 0.03 0.03 R
Rsd 0.3s 12ph/7stn Dmin 150km Az.gap 271°
Corr. 0.536 21M/15stn Msd 0.4

97/3838
FEB 28 135105.9s 36.28S 177.73E 12km M=4.7
1.0 0.07 0.05 R
Rsd 0.4s 12ph/8stn Dmin 147km Az.gap 270°
Corr. 0.785 19M/13stn Msd 0.4

97/3841
FEB 28 142354.4s 36.30S 177.74E 12km M=4.0
0.3 0.02 0.01 R
Rsd 0.1s 7ph/4stn Dmin 145km Az.gap 273°
Corr. 0.260 6M/3stn Msd 0.3

97/3843
FEB 28 143858.4s 36.59S 177.61E 12km M=3.6
1.3 0.09 0.05 R
Rsd 0.4s 5ph/3stn Dmin 128km Az.gap 318°
Corr. -0.260 5M/3stn Msd 0.5

97/3844
FEB 28 144029.7s 36.36S 177.60E 12km M=3.8
1.4 0.09 0.06 R
Rsd 0.5s 7ph/4stn Dmin 135km Az.gap 320°
Corr. -0.258 5M/3stn Msd 0.5

97/3845
FEB 28 144459.8s 36.18S 177.50E 12km M=4.3
0.1 0.01 0.01 R
Rsd 0.0s 6ph/3stn Dmin 173km Az.gap 328°
Corr. 0.060 5M/3stn Msd 0.5

97/3846
FEB 28 144850.9s 36.19S 177.42E 12km M=3.5
0.7 0.04 0.04 R
Rsd 0.2s 5ph/3stn Dmin 175km Az.gap 326°
Corr. -0.289 3M/3stn Msd 0.5

97/3849
FEB 28 152443.4s 36.07S 177.91E 12km M=4.5
1.3 0.08 0.06 R
Rsd 0.4s 9ph/6stn Dmin 173km Az.gap 280°
Corr. 0.186 14M/9stn Msd 0.4

97/3850
FEB 28 152716.2s 36.23S 177.69E 12km M=3.8
1.7 0.11 0.10 R
Rsd 0.6s 6ph/4stn Dmin 151km Az.gap 324°
Corr. -0.065 4M/4stn Msd 0.2

97/3851
FEB 28 152930.9s 36.25S 177.73E 12km M=3.7
2.1 0.14 0.11 R
Rsd 0.8s 6ph/4stn Dmin 158km Az.gap 321°
Corr. -0.069 4M/4stn Msd 0.4

97/3852
FEB 28 154619.1s 36.36S 177.86E 12km M=3.8
2.1 0.13 0.12 R
Rsd 0.6s 6ph/3stn Dmin 143km Az.gap 327°
Corr. -0.481 5M/3stn Msd 0.5

97/3853
FEB 28 155113.6s 36.23S 178.00E 12km M=4.4
1.6 0.10 0.07 R
Rsd 0.6s 11ph/7stn Dmin 154km Az.gap 276°
Corr. 0.463 15M/10stn Msd 0.4

97/3854
FEB 28 155659.3s 36.14S 178.03E 12km M=3.8
4.1 0.25 0.26 R
Rsd 0.9s 4ph/3stn Dmin 164km Az.gap 333°
Corr. -0.012 5M/3stn Msd 0.5

97/3855
FEB 28 160751.0s 36.42S 177.78E 12km M=4.4
0.4 0.03 0.02 R
Rsd 0.2s 11ph/7stn Dmin 134km Az.gap 271°
Corr. 0.584 11M/7stn Msd 0.4

97/3856
FEB 28 160938.3s 36.44S 177.69E 12km M=4.2
0.9 0.06 0.05 R
Rsd 0.4s 7ph/5stn Dmin 189km Az.gap 269°
Corr. 0.671 8M/5stn Msd 0.3

97/3857
FEB 28 162458.0s 36.45S 177.82E 12km M=4.4
0.5 0.03 0.03 R
Rsd 0.2s 9ph/6stn Dmin 133km Az.gap 265°
Corr. 0.674 15M/11stn Msd 0.3

97/3858
FEB 28 162944.0s 36.27S 177.83E 12km M=3.9
2.9 0.18 0.17 R
Rsd 0.9s 5ph/3stn Dmin 154km Az.gap 328°
Corr. -0.219 5M/3stn Msd 0.4

97/3859
FEB 28 164514.3s 36.36S 177.93E 12km M=4.3
2.0 0.13 0.07 R
Rsd 0.7s 10ph/7stn Dmin 142km Az.gap 270°
Corr. 0.608 14M/8stn Msd 0.4

97/3860
FEB 28 164612.1s 36.38S 177.80E 12km M=4.8
1.0 0.07 0.05 R
Rsd 0.4s 11ph/6stn Dmin 139km Az.gap 265°
Corr. 0.565 8M/4stn Msd 0.4

97/3862
FEB 28 175023.4s 36.28S 177.80E 12km M=4.1
1.8 0.11 0.07 R
Rsd 0.8s 7ph/5stn Dmin 149km Az.gap 269°
Corr. 0.260 8M/4stn Msd 0.4

97/3864
FEB 28 180301.8s 36.91S 177.00E 251km M=4.2
0.3 0.06 0.04 4
Rsd 0.1s 13ph/11stn Dmin 138km Az.gap 266°
Corr. -0.849 16M/13stn Msd 0.2

97/3865
FEB 28 180642.9s 36.30S 177.73E 12km M=4.2
1.1 0.08 0.05 R
Rsd 0.3s 7ph/4stn Dmin 145km Az.gap 322°
Corr. -0.089 7M/5stn Msd 0.4

97/3866
FEB 28 182917.6s 36.28S 177.97E 12km M=3.9
2.0 0.13 0.12 R
Rsd 0.6s 6ph/3stn Dmin 149km Az.gap 330°
Corr. -0.326 5M/3stn Msd 0.5

97/3867
FEB 28 183647.5s 36.26S 177.72E 12km M=4.0
2.5 0.17 0.12 R
Rsd 0.7s 6ph/4stn Dmin 148km Az.gap 323°
Corr. -0.125 5M/3stn Msd 0.5

97/3868
FEB 28 184016.9s 36.40S 178.09E 12km M=4.0
2.8 0.17 0.16 R
Rsd 0.6s 5ph/3stn Dmin 134km Az.gap 329°
Corr. -0.186 5M/3stn Msd 0.5

97/3869
FEB 28 185002.1s 36.41S 177.86E 12km M=3.8
2.2 0.14 0.11 R
Rsd 0.6s 6ph/4stn Dmin 138km Az.gap 318°
Corr. -0.231 5M/3stn Msd 0.5

97/3870
FEB 28 185725.1s 36.32S 177.75E 12km M=4.2
2.6 0.17 0.12 R
Rsd 0.9s 7ph/4stn Dmin 143km Az.gap 321°
Corr. -0.149 7M/3stn Msd 0.3

97/3871
FEB 28 190002.6s 36.36S 177.80E 12km M=4.3
1.1 0.07 0.05 R
Rsd 0.5s 9ph/6stn Dmin 140km Az.gap 272°
Corr. 0.205 9M/5stn Msd 0.4

97/3873
FEB 28 190758.1s 36.29S 178.05E 12km M=3.6
2.1 0.13 0.13 R
Rsd 0.6s 6ph/3stn Dmin 147km Az.gap 330°
Corr. -0.254 5M/3stn Msd 0.6

97/3875
FEB 28 194959.6s 36.39S 178.10E 12km M=4.0
2.3 0.13 0.13 R
Rsd 0.8s 7ph/4stn Dmin 135km Az.gap 299°
Corr. 0.092 8M/4stn Msd 0.3

97/3876
FEB 28 195141.5s 36.40S 178.01E 12km M=3.9
1.5 0.09 0.08 R
Rsd 0.4s 6ph/3stn Dmin 136km Az.gap 328°
Corr. -0.370 6M/3stn Msd 0.5

97/3878
FEB 28 195857.2s 36.33S 177.89E 12km M=3.6
2.2 0.13 0.11 R
Rsd 0.6s 7ph/4stn Dmin 146km Az.gap 321°
Corr. -0.319 5M/3stn Msd 0.5

97/3881
FEB 28 202647.7s 36.20S 177.54E 12km M=3.7
1.3 0.07 0.09 R
Rsd 0.3s 5ph/3stn Dmin 170km Az.gap 328°
Corr. -0.474 3M/3stn Msd 0.6

97/3882
FEB 28 202926.5s 36.00S 177.91E 12km M=5.0
2.0 0.12 0.10 R
Rsd 0.8s 10ph/6stn Dmin 181km Az.gap 283°
Corr. 0.537 9M/5stn Msd 0.5 1↑

97/3883
FEB 28 204414.2s 36.19S 177.54E 12km M=4.4
0.3 0.02 0.02 R
Rsd 0.1s 5ph/3stn Dmin 152km Az.gap 331°
Corr. -0.214 7M/3stn Msd 0.4

97/3885
FEB 28 205608.6s 36.36S 177.69E 12km M=3.9
1.7 0.11 0.09 R
Rsd 0.5s 5ph/3stn Dmin 148km Az.gap 326°
Corr. -0.219 5M/3stn Msd 0.5

97/3886
FEB 28 210148.2s 36.36S 177.94E 12km M=4.0
2.4 0.15 0.12 R
Rsd 0.7s 8ph/5stn Dmin 141km Az.gap 320°
Corr. 0.053 8M/5stn Msd 0.5

97/3888
FEB 28 211549.7s 36.31S 177.93E 12km M=4.2
1.3 0.08 0.05 R
Rsd 0.4s 10ph/7stn Dmin 147km Az.gap 272°
Corr. 0.346 10M/6stn Msd 0.2

97/3889
FEB 28 212015.0s 36.42S 178.03E 12km M=3.9
4.4 0.25 0.23 R
Rsd 1.0s 6ph/3stn Dmin 133km Az.gap 329°
Corr. -0.683 4M/2stn Msd 0.5

97/3890
FEB 28 212324.3s 36.27S 177.54E 12km M=3.9
0.3 0.02 0.02 R
Rsd 0.1s 6ph/3stn Dmin 162km Az.gap 326°
Corr. -0.444 5M/3stn Msd 0.4

97/3893
FEB 28 215758.7s 36.38S 177.97E 12km M=4.0
2.7 0.18 0.12 R
Rsd 0.8s 6ph/4stn Dmin 138km Az.gap 296°
Corr. 0.327 6M/4stn Msd 0.4

97/3894
FEB 28 222243.4s 36.37S 177.92E 12km M=4.2
2.3 0.15 0.10 R
Rsd 0.8s 7ph/5stn Dmin 140km Az.gap 295°
Corr. 0.559 10M/6stn Msd 0.4

97/3895
FEB 28 223857.2s 36.28S 177.89E 12km M=4.2
2.5 0.16 0.14 R
Rsd 0.8s 6ph/4stn Dmin 151km Az.gap 322°
Corr. -0.013 7M/3stn Msd 0.5

97/3897
FEB 28 224619.3s 37.70S 176.64E 189km M=4.1
0.8 0.04 0.03 6
Rsd 0.3s 19ph/17stn Dmin 32km Az.gap 186°
Corr. -0.133 17M/11stn Msd 0.2 1↑

97/3898
FEB 28 231908.3s 36.47S 178.03E 12km M=3.9
1.1 0.06 0.06 R
Rsd 0.3s 6ph/3stn Dmin 128km Az.gap 327°
Corr. -0.355 6M/3stn Msd 0.5

97/3900
FEB 28 235720.8s 36.35S 177.96E 12km M=4.5
2.1 0.14 0.09 R
Rsd 0.8s 9ph/5stn Dmin 142km Az.gap 297°
Corr. 0.188 9M/5stn Msd 0.5

97/3901
FEB 28 235948.7s 36.33S 177.78E 12km M=4.2
1.9 0.12 0.08 R
Rsd 0.8s 9ph/5stn Dmin 143km Az.gap 267°
Corr. 0.131 8M/4stn Msd 0.5

97/3902
MAR 01 000051.1s 36.34S 177.98E 12km M=3.8
2.3 0.14 0.14 R
Rsd 0.7s 6ph/3stn Dmin 143km Az.gap 329°
Corr. -0.430 5M/3stn Msd 0.4

97/3903
MAR 01 002543.4s 36.33S 177.69E 12km M=3.7
0.4 0.02 0.02 R
Rsd 0.1s 5ph/3stn Dmin 151km Az.gap 326°
Corr. -0.275 4M/3stn Msd 0.6

97/3904
MAR 01 005851.4s 36.31S 177.55E 12km M=3.9
0.4 0.03 0.02 R
Rsd 0.1s 5ph/3stn Dmin 158km Az.gap 325°
Corr. -0.209 5M/3stn Msd 0.5

97/3905
MAR 01 010814.1s 36.36S 177.67E 12km M=3.9
0.7 0.04 0.03 R
Rsd 0.2s 6ph/4stn Dmin 136km Az.gap 320°
Corr. -0.087 6M/3stn Msd 0.5

97/3906
MAR 01 011414.6s 36.45S 177.59E 12km M=3.7
1.4 0.08 0.07 R
Rsd 0.3s 5ph/3stn Dmin 142km Az.gap 322°
Corr. -0.260 5M/3stn Msd 0.5

97/3909
MAR 01 015010.2s 36.34S 177.75E 12km M=4.4
0.7 0.05 0.04 R
Rsd 0.3s 10ph/5stn Dmin 141km Az.gap 266°
Corr. 0.668 16M/9stn Msd 0.4

97/3912
MAR 01 022145.3s 36.17S 177.98E 12km M=4.1
0.8 0.05 0.05 R
Rsd 0.2s 9ph/6stn Dmin 161km Az.gap 302°
Corr. 0.658 8M/6stn Msd 0.7

97/3915
MAR 01 024643.6s 36.34S 177.78E 12km M=3.6
2.8 0.17 0.16 R
Rsd 0.7s 5ph/3stn Dmin 148km Az.gap 327°
Corr. -0.266 5M/3stn Msd 0.5

97/3916
MAR 01 030023.1s 36.25S 177.56E 12km M=4.1
0.8 0.05 0.05 R
Rsd 0.2s 6ph/4stn Dmin 146km Az.gap 324°
Corr. -0.383 5M/3stn Msd 0.5

97/3917
MAR 01 030138.6s 36.27S 177.78E 12km M=4.1
1.6 0.10 0.08 R
Rsd 0.4s 6ph/4stn Dmin 149km Az.gap 322°
Corr. -0.056 6M/3stn Msd 0.5

97/3918
MAR 01 030742.4s 36.33S 177.60E 12km M=3.6
1.4 0.09 0.08 R
Rsd 0.3s 5ph/3stn Dmin 154km Az.gap 325°
Corr. -0.286 4M/3stn Msd 0.5

97/3919
MAR 01 032206.5s 36.24S 177.47E 12km M=4.0
1.2 0.08 0.07 R
Rsd 0.3s 5ph/3stn Dmin 169km Az.gap 326°
Corr. -0.274 5M/3stn Msd 0.5

97/3920
MAR 01 032551.0s 36.33S 177.50E 12km M=3.6
0.8 0.05 0.04 R
Rsd 0.2s 5ph/3stn Dmin 158km Az.gap 325°
Corr. -0.262 4M/3stn Msd 0.5

97/3921
MAR 01 033946.9s 36.34S 177.80E 12km M=4.1
1.8 0.11 0.10 R
Rsd 0.5s 6ph/4stn Dmin 142km Az.gap 320°
Corr. -0.273 7M/3stn Msd 0.4

97/3922
MAR 01 034134.1s 36.27S 177.97E 12km M=4.5
1.6 0.10 0.08 R
Rsd 0.5s 7ph/5stn Dmin 151km Az.gap 299°
Corr. 0.408 11M/7stn Msd 0.4

97/3924
MAR 01 034345.7s 36.37S 177.89E 12km M=4.3
1.6 0.10 0.08 R
Rsd 0.4s 7ph/4stn Dmin 142km Az.gap 319°
Corr. -0.232 7M/3stn Msd 0.4

97/3925
MAR 01 034740.2s 36.53S 177.91E 12km M=3.8
3.1 0.20 0.15 R
Rsd 0.8s 5ph/3stn Dmin 123km Az.gap 324°
Corr. -0.107 7M/3stn Msd 0.4

97/3926
MAR 01 035346.4s 36.40S 177.90E 12km M=3.6
3.1 0.19 0.17 R
Rsd 0.9s 6ph/3stn Dmin 138km Az.gap 326°
Corr. 0.002 5M/3stn Msd 0.4

97/3927
MAR 01 041428.5s 36.33S 178.11E 12km M=4.1
1.9 0.12 0.12 R
Rsd 0.5s 5ph/3stn Dmin 141km Az.gap 331°
Corr. -0.259 7M/3stn Msd 0.4

97/3929
MAR 01 042358.0s 36.31S 177.62E 12km M=3.7
0.6 0.04 0.03 R
Rsd 0.2s 5ph/3stn Dmin 155km Az.gap 325°
Corr. -0.068 4M/3stn Msd 0.4

97/3930
MAR 01 042455.0s 36.30S 177.96E 12km M=4.9
1.3 0.07 0.06 R
Rsd 0.4s 11ph/8stn Dmin 147km Az.gap 273°
Corr. 0.708 10M/6stn Msd 0.4

97/3931
MAR 01 045532.5s 36.37S 177.72E 12km M=3.7
2.6 0.16 0.15 R
Rsd 0.6s 5ph/3stn Dmin 146km Az.gap 325°
Corr. -0.303 5M/3stn Msd 0.6

97/3933
MAR 01 050717.1s 36.41S 177.65E 12km M=3.8
1.0 0.06 0.05 R
Rsd 0.2s 5ph/3stn Dmin 145km Az.gap 323°
Corr. -0.244 5M/3stn Msd 0.4

97/3934
MAR 01 050958.1s 36.37S 178.01E 12km M=4.4
1.4 0.09 0.08 R
Rsd 0.4s 8ph/6stn Dmin 139km Az.gap 297°
Corr. 0.464 15M/11stn Msd 0.4

97/3935
MAR 01 052720.4s 36.44S 177.73E 12km M=3.6
1.5 0.09 0.08 R
Rsd 0.4s 5ph/3stn Dmin 138km Az.gap 324°
Corr. -0.275 4M/3stn Msd 0.6

97/3936
MAR 01 063840.7s 36.46S 177.73E 12km M=4.7
0.9 0.06 0.05 R
Rsd 0.3s 10ph/7stn Dmin 128km Az.gap 259°
Corr. 0.737 9M/5stn Msd 0.4

97/3938
MAR 01 074120.5s 45.94S 166.59E 5km M=4.2
0.5 0.02 0.03 R
Rsd 0.2s 10ph/7stn Dmin 68km Az.gap 268°
Corr. -0.111 20M/13stn Msd 0.4

97/3939
MAR 01 075848.6s 36.15S 177.75E 12km M=4.7
2.1 0.13 0.07 R
Rsd 0.9s 9ph/6stn Dmin 161km Az.gap 273°
Corr. 0.340 7M/3stn Msd 0.6

97/3940
MAR 01 075908.3s 36.22S 177.73E 12km M=5.0
0.8 0.04 0.04 R
Rsd 0.3s 11ph/5stn Dmin 153km Az.gap 271°
Corr. 0.640 8M/5stn Msd 0.3

97/3943
MAR 01 084137.4s 36.41S 177.50E 12km M=3.8
1.7 0.10 0.10 R
Rsd 0.4s 5ph/3stn Dmin 150km Az.gap 322°
Corr. -0.301 5M/3stn Msd 0.5

97/3944
MAR 01 091735.7s 36.36S 177.98E 12km M=4.3
0.9 0.05 0.05 R
Rsd 0.3s 9ph/8stn Dmin 141km Az.gap 271°
Corr. 0.687 14M/9stn Msd 0.3

97/3947
MAR 01 101212.6s 36.30S 178.00E 12km M=4.2
1.4 0.09 0.06 R
Rsd 0.4s 8ph/5stn Dmin 147km Az.gap 298°
Corr. 0.289 9M/5stn Msd 0.4

97/3951
MAR 01 112150.0s 36.99S 177.65E 12km M=3.6
1.1 0.06 0.04 R
Rsd 0.3s 5ph/3stn Dmin 89km Az.gap 301°
Corr. -0.184 5M/3stn Msd 0.6

97/3952
MAR 01 131209.3s 36.28S 177.78E 12km M=4.1
1.2 0.07 0.06 R
Rsd 0.3s 6ph/4stn Dmin 148km Az.gap 322°
Corr. -0.436 5M/3stn Msd 0.5

97/3953
MAR 01 134554.6s 36.28S 177.49E 12km M=4.3
0.7 0.04 0.04 R
Rsd 0.2s 5ph/3stn Dmin 164km Az.gap 325°
Corr. -0.171 5M/3stn Msd 0.6

97/3954
MAR 01 135249.3s 36.28S 177.75E 12km M=3.9
0.5 0.03 0.03 R
Rsd 0.1s 6ph/4stn Dmin 147km Az.gap 322°
Corr. -0.152 5M/3stn Msd 0.5

97/3955
MAR 01 135834.9s 36.43S 177.82E 12km M=4.8
0.6 0.04 0.04 R
Rsd 0.3s 12ph/9stn Dmin 134km Az.gap 262°
Corr. 0.664 9M/5stn Msd 0.3

97/3956
MAR 01 143515.6s 36.29S 177.91E 12km M=3.9
1.1 0.07 0.07 R
Rsd 0.3s 5ph/3stn Dmin 201km Az.gap 329°
Corr. 0.038 8M/6stn Msd 0.4

97/3958
MAR 01 145755.2s 36.29S 177.66E 12km M=3.6
0.5 0.03 0.03 R
Rsd 0.1s 5ph/3stn Dmin 156km Az.gap 326°
Corr. -0.125 3M/3stn Msd 0.6

97/3959
MAR 01 150347.0s 36.30S 177.84E 12km M=4.4
0.5 0.03 0.03 R
Rsd 0.1s 9ph/6stn Dmin 148km Az.gap 269°
Corr. 0.634 30M/24stn Msd 0.5

97/3960
MAR 01 151307.2s 36.28S 177.78E 12km M=3.8
1.1 0.07 0.06 R
Rsd 0.3s 5ph/3stn Dmin 154km Az.gap 327°
Corr. -0.224 6M/3stn Msd 0.5

97/3962
MAR 01 152103.6s 36.16S 177.42E 12km M=4.1
0.3 0.02 0.02 R
Rsd 0.1s 5ph/3stn Dmin 178km Az.gap 327°
Corr. -0.275 4M/2stn Msd 0.5

97/3963
MAR 01 152826.1s 36.38S 177.67E 12km M=4.2
1.0 0.06 0.04 R
Rsd 0.4s 5ph/3stn Dmin 180km Az.gap 269°
Corr. 0.495 4M/2stn Msd 0.4

97/3964
MAR 01 154228.1s 36.25S 177.69E 12km M=4.2
1.1 0.07 0.07 R
Rsd 0.3s 5ph/4stn Dmin 149km Az.gap 323°
Corr. -0.711 5M/3stn Msd 0.5

97/3965
MAR 01 154314.1s 36.33S 177.79E 12km M=4.4
1.7 0.11 0.06 R
Rsd 0.7s 8ph/6stn Dmin 143km Az.gap 267°
Corr. 0.600 11M/5stn Msd 0.4

97/3966
MAR 01 154615.5s 36.33S 177.77E 12km M=4.1
1.4 0.10 0.07 R
Rsd 0.4s 6ph/5stn Dmin 142km Az.gap 320°
Corr. -0.313 7M/4stn Msd 0.5

97/3967
MAR 01 155020.9s 36.33S 177.86E 12km M=4.5
1.1 0.07 0.05 R
Rsd 0.6s 13ph/11stn Dmin 146km Az.gap 268°
Corr. 0.342 23M/18stn Msd 0.4

97/3968
MAR 01 155215.7s 36.41S 177.75E 12km M=4.7
0.8 0.05 0.04 R
Rsd 0.4s 8ph/6stn Dmin 141km Az.gap 262°
Corr. 0.642 18M/11stn Msd 0.4

97/3969
MAR 01 160311.7s 36.29S 177.66E 12km M=3.7
1.2 0.07 0.05 R
Rsd 0.4s 5ph/3stn Dmin 181km Az.gap 272°
Corr. 0.458 3M/3stn Msd 0.5

97/3970
MAR 01 163329.8s 36.10S 178.22E 12km M=3.9
0.4 0.02 0.03 R
Rsd 0.1s 4ph/3stn Dmin 166km Az.gap 335°
Corr. 0.314 4M/2stn Msd 0.5

97/3971
MAR 01 164456.7s 36.25S 177.81E 12km M=4.2
1.9 0.12 0.07 R
Rsd 0.7s 7ph/5stn Dmin 156km Az.gap 271°
Corr. 0.196 11M/8stn Msd 0.4

97/3973
MAR 01 165932.1s 36.33S 177.73E 12km M=4.1
1.1 0.06 0.04 R
Rsd 0.5s 10ph/6stn Dmin 150km Az.gap 265°
Corr. 0.375 15M/9stn Msd 0.4

97/3974
MAR 01 170234.2s 36.56S 178.18E 12km M=3.9
0.5 0.03 0.03 R
Rsd 0.1s 7ph/4stn Dmin 115km Az.gap 314°
Corr. 0.340 8M/4stn Msd 0.5

97/3975
MAR 01 171025.9s 36.32S 177.74E 12km M=3.7
1.1 0.07 0.07 R
Rsd 0.3s 5ph/3stn Dmin 151km Az.gap 327°
Corr. -0.196 4M/3stn Msd 0.4

97/3976
MAR 01 171140.3s 36.44S 177.88E 12km M=3.8
1.6 0.10 0.09 R
Rsd 0.5s 6ph/4stn Dmin 136km Az.gap 314°
Corr. -0.031 5M/3stn Msd 0.4

97/3977
MAR 01 171738.2s 36.32S 177.82E 12km M=4.0
2.7 0.17 0.17 R
Rsd 1.0s 6ph/3stn Dmin 149km Az.gap 327°
Corr. -0.510 5M/3stn Msd 0.4

97/3978
MAR 01 172849.1s 36.38S 177.81E 12km M=4.6
0.5 0.03 0.03 R
Rsd 0.2s 14ph/11stn Dmin 138km Az.gap 265°
Corr. 0.736 8M/4stn Msd 0.4

97/3979
MAR 01 173625.7s 36.25S 177.78E 12km M=4.2
1.6 0.10 0.06 R
Rsd 0.7s 7ph/5stn Dmin 151km Az.gap 270°
Corr. 0.443 8M/4stn Msd 0.4

97/3982
MAR 01 180645.9s 36.41S 177.82E 12km M=4.7
0.5 0.03 0.03 R
Rsd 0.2s 12ph/10stn Dmin 136km Az.gap 262°
Corr. 0.723 10M/6stn Msd 0.3

97/3983
MAR 01 181325.2s 36.15S 177.83E 12km M=4.0
2.2 0.12 0.08 R
Rsd 0.8s 7ph/4stn Dmin 166km Az.gap 275°
Corr. 0.483 7M/4stn Msd 0.4

97/3984
MAR 01 183725.9s 36.16S 177.85E 12km M=4.2
2.3 0.14 0.13 R
Rsd 1.0s 7ph/4stn Dmin 165km Az.gap 299°
Corr. 0.446 5M/3stn Msd 0.3

97/3986
MAR 01 184633.1s 36.43S 177.87E 12km M=3.8
2.6 0.17 0.15 R
Rsd 0.9s 7ph/3stn Dmin 135km Az.gap 326°
Corr. -0.137 5M/3stn Msd 0.5

97/3987
MAR 01 184956.4s 36.05S 177.89E 12km M=4.1
2.1 0.13 0.07 R
Rsd 0.8s 7ph/4stn Dmin 176km Az.gap 280°
Corr. 0.370 6M/4stn Msd 0.4

97/3988
MAR 01 190215.8s 36.40S 178.00E 12km M=4.0
3.9 0.24 0.21 R
Rsd 0.9s 5ph/3stn Dmin 136km Az.gap 328°
Corr. -0.192 5M/3stn Msd 0.5

97/3989
MAR 01 191840.8s 36.56S 178.16E 12km M=3.8
2.4 0.14 0.12 R
Rsd 0.9s 6ph/3stn Dmin 116km Az.gap 328°
Corr. 0.121 4M/3stn Msd 0.4

97/3990
MAR 01 191855.6s 36.31S 178.17E 12km M=4.2
2.7 0.16 0.17 R
Rsd 0.9s 7ph/3stn Dmin 144km Az.gap 332°
Corr. -0.450 7M/3stn Msd 0.4

97/3993
MAR 01 200053.5s 36.40S 177.66E 12km M=3.6
0.8 0.05 0.04 R
Rsd 0.2s 5ph/3stn Dmin 145km Az.gap 324°
Corr. -0.241 4M/3stn Msd 0.5

97/3994
MAR 01 200217.5s 36.35S 177.99E 12km M=4.0
2.6 0.16 0.15 R
Rsd 0.6s 5ph/3stn Dmin 141km Az.gap 329°
Corr. -0.197 4M/2stn Msd 0.6

97/3995
MAR 01 201858.6s 36.28S 178.07E 12km M=4.3
0.8 0.05 0.05 R
Rsd 0.3s 9ph/6stn Dmin 148km Az.gap 301°
Corr. 0.229 11M/6stn Msd 0.5

97/3996
MAR 01 203700.4s 36.27S 177.92E 12km M=4.1
1.5 0.09 0.06 R
Rsd 0.6s 10ph/6stn Dmin 152km Az.gap 273°
Corr. 0.197 8M/5stn Msd 0.5

97/3997
MAR 01 204153.7s 36.38S 178.00E 12km M=4.9
0.8 0.04 0.04 R
Rsd 0.2s 14ph/11stn Dmin 138km Az.gap 269°
Corr. 0.070 11M/6stn Msd 0.4

97/3998
MAR 01 210010.0s 36.28S 177.89E 12km M=4.2
1.9 0.12 0.08 R
Rsd 0.7s 8ph/5stn Dmin 151km Az.gap 271°
Corr. 0.169 9M/5stn Msd 0.5

97/4000
MAR 01 213448.4s 36.33S 178.02E 12km M=4.0
2.9 0.17 0.17 R
Rsd 0.9s 6ph/3stn Dmin 143km Az.gap 330°
Corr. -0.344 5M/3stn Msd 0.6

97/4002
MAR 01 215552.9s 36.31S 178.06E 12km M=4.3
0.9 0.05 0.06 R
Rsd 0.3s 9ph/6stn Dmin 145km Az.gap 299°
Corr. 0.115 12M/8stn Msd 0.5

97/4003
MAR 01 215711.4s 36.36S 177.79E 12km M=4.6
1.4 0.08 0.06 R
Rsd 0.6s 10ph/6stn Dmin 145km Az.gap 266°
Corr. 0.323 8M/5stn Msd 0.4

97/4004
MAR 01 215815.0s 36.34S 177.82E 12km M=5.0
1.3 0.08 0.05 R
Rsd 0.6s 10ph/7stn Dmin 144km Az.gap 267°
Corr. 0.388 10M/6stn Msd 0.4

97/4005
MAR 01 220043.6s 36.21S 177.51E 12km M=3.9
0.4 0.02 0.02 R
Rsd 0.1s 7ph/4stn Dmin 169km Az.gap 292°
Corr. 0.150 6M/4stn Msd 0.5

97/4006
MAR 01 220358.7s 36.46S 177.53E 12km M=3.8
0.8 0.05 0.04 R
Rsd 0.2s 5ph/3stn Dmin 144km Az.gap 321°
Corr. -0.111 6M/3stn Msd 0.4

97/4008
MAR 01 223555.2s 36.32S 177.97E 12km M=3.7
2.3 0.14 0.13 R
Rsd 0.6s 5ph/3stn Dmin 145km Az.gap 330°
Corr. -0.060 3M/3stn Msd 0.7

97/4009
MAR 01 224637.9s 36.26S 178.04E 12km M=4.2
1.4 0.08 0.07 R
Rsd 0.3s 6ph/4stn Dmin 150km Az.gap 323°
Corr. 0.278 8M/4stn Msd 0.5

97/4010
MAR 01 230653.4s 36.46S 177.80E 12km M=3.9
1.2 0.08 0.07 R
Rsd 0.3s 5ph/3stn Dmin 135km Az.gap 324°
Corr. -0.296 5M/3stn Msd 0.4

97/4011
MAR 01 231336.9s 36.36S 177.61E 12km M=4.1
2.5 0.16 0.13 R
Rsd 0.7s 5ph/3stn Dmin 151km Az.gap 324°
Corr. -0.238 6M/3stn Msd 0.5

97/4012
MAR 01 233705.5s 36.51S 177.92E 12km M=3.6
3.3 0.20 0.16 R
Rsd 0.8s 5ph/3stn Dmin 125km Az.gap 325°
Corr. -0.044 5M/3stn Msd 0.4

97/4013
MAR 01 234437.8s 36.56S 177.88E 12km M=3.6
3.8 0.24 0.19 R
Rsd 0.9s 5ph/3stn Dmin 121km Az.gap 322°
Corr. -0.260 5M/3stn Msd 0.5

97/4014
MAR 01 235308.2s 36.39S 178.01E 12km M=4.0
1.6 0.10 0.09 R
Rsd 0.4s 6ph/4stn Dmin 137km Az.gap 319°
Corr. -0.213 5M/3stn Msd 0.5

97/4015
MAR 02 001046.2s 36.24S 177.45E 12km M=4.0
1.8 0.11 0.11 R
Rsd 0.5s 5ph/3stn Dmin 169km Az.gap 326°
Corr. -0.372 5M/3stn Msd 0.5

97/4018
MAR 02 010742.9s 36.32S 178.12E 12km M=4.4
1.5 0.09 0.09 R
Rsd 0.5s 6ph/4stn Dmin 143km Az.gap 302°
Corr. 0.307 13M/10stn Msd 0.4

97/4026
MAR 02 033858.3s 36.44S 177.96E 12km M=3.9
0.9 0.06 0.04 R
Rsd 0.3s 9ph/5stn Dmin 133km Az.gap 294°
Corr. 0.043 7M/5stn Msd 0.3

97/4028
MAR 02 042209.9s 36.40S 177.86E 12km M=4.0
1.1 0.07 0.05 R
Rsd 0.4s 9ph/5stn Dmin 138km Az.gap 292°
Corr. -0.008 6M/4stn Msd 0.3

97/4029
MAR 02 043504.2s 36.35S 178.05E 12km M=4.3
1.3 0.09 0.06 R
Rsd 0.4s 9ph/7stn Dmin 141km Az.gap 299°
Corr. 0.223 12M/10stn Msd 0.3

97/4030
MAR 02 044243.3s 36.37S 177.93E 12km M=4.5
1.0 0.06 0.05 R
Rsd 0.4s 10ph/8stn Dmin 140km Az.gap 270°
Corr. 0.573 17M/12stn Msd 0.3

97/4034
MAR 02 061209.6s 36.39S 178.06E 12km M=4.6
0.3 0.02 0.02 R
Rsd 0.1s 10ph/8stn Dmin 136km Az.gap 271°
Corr. 0.321 36M/29stn Msd 0.5

97/4035
MAR 02 061642.3s 36.34S 177.93E 12km M=4.6
1.0 0.06 0.04 R
Rsd 0.3s 7ph/5stn Dmin 144km Az.gap 296°
Corr. 0.203 11M/7stn Msd 0.4

97/4038
MAR 02 064549.6s 36.27S 177.99E 12km M=4.3
2.4 0.15 0.14 R
Rsd 0.8s 6ph/4stn Dmin 150km Az.gap 299°
Corr. 0.410 9M/6stn Msd 0.4

97/4047
MAR 02 094529.8s 36.27S 178.09E 12km M=3.9
0.7 0.04 0.04 R
Rsd 0.3s 7ph/5stn Dmin 148km Az.gap 302°
Corr. 0.335 6M/4stn Msd 0.4

97/4049
MAR 02 095258.1s 36.36S 177.90E 12km M=3.5
2.9 0.18 0.17 R
Rsd 0.9s 6ph/3stn Dmin 142km Az.gap 328°
Corr. -0.480 4M/3stn Msd 0.5

97/4050
MAR 02 095534.5s 36.20S 177.83E 12km M=4.6
1.3 0.09 0.07 R
Rsd 0.5s 10ph/7stn Dmin 158km Az.gap 275°
Corr. 0.802 16M/11stn Msd 0.4

97/4052
MAR 02 100504.8s 36.38S 178.04E 12km M=3.8
2.5 0.15 0.14 R
Rsd 0.7s 6ph/3stn Dmin 138km Az.gap 329°
Corr. -0.341 5M/3stn Msd 0.6

97/4053
MAR 02 101112.5s 36.23S 178.17E 12km M=3.9
2.7 0.17 0.15 R
Rsd 0.8s 6ph/3stn Dmin 153km Az.gap 334°
Corr. 0.088 5M/3stn Msd 0.4

97/4055
MAR 02 101533.4s 36.22S 177.66E 12km M=4.1
2.4 0.15 0.15 R
Rsd 0.9s 6ph/3stn Dmin 163km Az.gap 328°
Corr. -0.003 7M/4stn Msd 0.4

97/4056
MAR 02 101627.4s 36.20S 177.46E 12km M=4.4
1.4 0.08 0.09 R
Rsd 0.6s 7ph/3stn Dmin 172km Az.gap 327°
Corr. -0.155 7M/3stn Msd 0.3

97/4057
MAR 02 101706.3s 36.69S 177.44E 12km M=4.3
0.5 0.02 0.02 R
Rsd 0.1s 6ph/3stn Dmin 127km Az.gap 314°
Corr. -0.176 7M/3stn Msd 0.5

97/4058
MAR 02 101915.8s 36.24S 177.30E 33km M=4.9
1.0 0.06 0.07 R
Rsd 0.4s 7ph/3stn Dmin 176km Az.gap 326°
Corr. -0.135 7M/3stn Msd 0.5

97/4061
MAR 02 103750.5s 36.16S 177.70E 12km M=4.5
1.7 0.10 0.10 R
Rsd 0.7s 10ph/5stn Dmin 159km Az.gap 322°
Corr. -0.111 10M/6stn Msd 0.4

97/4062
MAR 02 104433.6s 36.38S 177.79E 12km M=3.9
1.4 0.08 0.07 R
Rsd 0.4s 7ph/3stn Dmin 143km Az.gap 326°
Corr. -0.367 5M/3stn Msd 0.5

97/4065
MAR 02 112147.5s 36.34S 177.80E 12km M=3.7
2.7 0.17 0.17 R
Rsd 0.9s 6ph/3stn Dmin 147km Az.gap 327°
Corr. -0.398 4M/3stn Msd 0.5

97/4067
MAR 02 112247.1s 36.34S 177.87E 12km M=3.7
2.0 0.12 0.10 R
Rsd 0.5s 6ph/4stn Dmin 145km Az.gap 321°
Corr. -0.312 5M/3stn Msd 0.3

97/4069
MAR 02 112727.9s 36.41S 177.83E 12km M=4.6
0.5 0.03 0.03 R
Rsd 0.2s 13ph/9stn Dmin 137km Az.gap 263°
Corr. 0.569 38M/31stn Msd 0.4

97/4071
MAR 02 114030.7s 36.31S 177.89E 12km M=3.7
2.8 0.16 0.16 R
Rsd 0.8s 6ph/3stn Dmin 147km Az.gap 328°
Corr. -0.085 5M/3stn Msd 0.5

97/4072
MAR 02 114155.7s 36.35S 178.03E 12km M=4.7
1.8 0.12 0.07 R
Rsd 0.6s 10ph/6stn Dmin 141km Az.gap 298°
Corr. 0.539 9M/5stn Msd 0.4

97/4073
MAR 02 114425.1s 36.42S 177.66E 12km M=4.6
0.5 0.04 0.02 R
Rsd 0.2s 9ph/5stn Dmin 143km Az.gap 288°
Corr. 0.318 14M/9stn Msd 0.4

97/4074
MAR 02 114545.5s 36.41S 177.61E 12km M=4.5
1.1 0.07 0.04 R
Rsd 0.4s 7ph/4stn Dmin 146km Az.gap 287°
Corr. 0.116 9M/5stn Msd 0.3

97/4076
MAR 02 115837.3s 36.43S 178.08E 12km M=3.6
2.9 0.18 0.17 R
Rsd 0.9s 6ph/3stn Dmin 131km Az.gap 328°
Corr. -0.419 5M/3stn Msd 0.4

97/4077
MAR 02 120329.1s 36.39S 178.16E 12km M=3.6
3.3 0.20 0.18 R
Rsd 0.8s 6ph/3stn Dmin 135km Az.gap 331°
Corr. -0.540 5M/3stn Msd 0.5

97/4079
MAR 02 123236.7s 36.40S 177.98E 12km M=3.6
3.2 0.20 0.18 R
Rsd 0.9s 6ph/3stn Dmin 136km Az.gap 328°
Corr. -0.339 5M/3stn Msd 0.4

97/4080
MAR 02 123324.7s 36.24S 177.88E 12km M=4.1
2.6 0.16 0.15 R
Rsd 0.9s 7ph/3stn Dmin 156km Az.gap 329°
Corr. -0.029 4M/2stn Msd 0.2

97/4081
MAR 02 125639.4s 36.17S 177.95E 12km M=4.2
1.3 0.07 0.08 R
Rsd 0.5s 8ph/4stn Dmin 161km Az.gap 325°
Corr. 0.058 7M/3stn Msd 0.4

97/4082
MAR 02 125915.5s 36.34S 177.92E 12km M=3.7
3.3 0.19 0.18 R
Rsd 0.8s 6ph/3stn Dmin 144km Az.gap 328°
Corr. -0.476 5M/3stn Msd 0.4

97/4083
MAR 02 130021.1s 36.31S 177.99E 12km M=4.0
1.9 0.12 0.11 R
Rsd 0.5s 6ph/3stn Dmin 145km Az.gap 329°
Corr. -0.240 5M/3stn Msd 0.4

97/4084
MAR 02 131550.1s 36.22S 177.50E 12km M=3.8
1.1 0.07 0.07 R
Rsd 0.4s 7ph/4stn Dmin 148km Az.gap 324°
Corr. -0.272 4M/3stn Msd 0.5

97/4086
MAR 02 132056.2s 36.13S 178.01E 12km M=4.0
2.3 0.14 0.14 R
Rsd 0.8s 6ph/4stn Dmin 166km Az.gap 326°
Corr. -0.038 7M/3stn Msd 0.4

97/4087
MAR 02 132855.7s 36.35S 177.94E 12km M=3.6
2.8 0.16 0.15 R
Rsd 0.9s 6ph/3stn Dmin 142km Az.gap 328°
Corr. -0.374 5M/3stn Msd 0.7

97/4088
MAR 02 133055.1s 36.34S 178.03E 12km M=4.4
1.0 0.06 0.06 R
Rsd 0.4s 14ph/12stn Dmin 142km Az.gap 271°
Corr. 0.765 18M/13stn Msd 0.3

97/4089
MAR 02 133523.3s 36.41S 178.21E 12km M=3.9
2.1 0.13 0.11 R
Rsd 0.7s 11ph/8stn Dmin 133km Az.gap 318°
Corr. 0.383 9M/6stn Msd 0.4

97/4092
MAR 02 134234.4s 36.45S 178.05E 12km M=3.6
2.4 0.15 0.13 R
Rsd 0.9s 6ph/3stn Dmin 130km Az.gap 328°
Corr. -0.505 5M/3stn Msd 0.4

97/4093
MAR 02 134238.1s 35.86S 177.83E 12km M=4.2
1.5 0.08 0.10 R
Rsd 0.5s 7ph/3stn Dmin 198km Az.gap 335°
Corr. -0.276 4M/2stn Msd 0.4

97/4094
MAR 02 134416.2s 36.33S 178.16E 12km M=3.9
2.2 0.14 0.12 R
Rsd 0.7s 5ph/3stn Dmin 141km Az.gap 332°
Corr. -0.351 8M/4stn Msd 0.4

97/4096
MAR 02 140800.7s 36.44S 178.14E 12km M=3.6
1.9 0.12 0.11 R
Rsd 0.6s 6ph/3stn Dmin 130km Az.gap 330°
Corr. -0.416 5M/3stn Msd 0.6

97/4097
MAR 02 141728.8s 36.36S 177.92E 12km M=4.3
1.4 0.09 0.07 R
Rsd 0.6s 10ph/6stn Dmin 142km Az.gap 295°
Corr. 0.258 12M/8stn Msd 0.4

97/4098
MAR 02 142115.2s 36.38S 177.86E 12km M=4.0
3.1 0.18 0.18 R
Rsd 0.8s 5ph/3stn Dmin 141km Az.gap 327°
Corr. -0.046 7M/3stn Msd 0.4

97/4101
MAR 02 143132.6s 36.39S 177.94E 12km M=4.8
0.6 0.03 0.03 R
Rsd 0.3s 16ph/12stn Dmin 138km Az.gap 267°
Corr. 0.415 11M/6stn Msd 0.4

97/4102
MAR 02 143353.9s 36.37S 178.44E 12km M=5.3
1.4 0.07 0.09 R
Rsd 0.2s 13ph/10stn Dmin 137km Az.gap 284°
Corr. 0.852 11M/6stn Msd 0.4

97/4103
MAR 02 144653.6s 36.46S 177.98E 12km M=4.1
2.5 0.15 0.14 R
Rsd 0.6s 6ph/4stn Dmin 137km Az.gap 317°
Corr. 0.201 9M/5stn Msd 0.4

97/4104
MAR 02 145009.1s 36.54S 177.71E 12km M=4.4
0.6 0.04 0.03 R
Rsd 0.2s 10ph/7stn Dmin 129km Az.gap 257°
Corr. 0.596 28M/23stn Msd 0.4

97/4105
MAR 02 145413.6s 36.33S 177.89E 12km M=3.9
1.6 0.10 0.08 R
Rsd 0.5s 8ph/5stn Dmin 145km Az.gap 320°
Corr. -0.026 10M/7stn Msd 0.5

97/4108
MAR 02 151119.2s 36.36S 178.00E 12km M=4.4
1.1 0.06 0.06 R
Rsd 0.5s 13ph/8stn Dmin 140km Az.gap 270°
Corr. 0.491 14M/10stn Msd 0.3

97/4110
MAR 02 151848.4s 36.46S 177.91E 12km M=3.6
2.4 0.14 0.13 R
Rsd 0.7s 6ph/3stn Dmin 131km Az.gap 326°
Corr. -0.353 5M/3stn Msd 0.5

97/4111
MAR 02 151957.1s 36.29S 178.01E 12km M=4.9
0.5 0.03 0.03 R
Rsd 0.2s 12ph/10stn Dmin 147km Az.gap 272°
Corr. 0.759 8M/4stn Msd 0.4

97/4112
MAR 02 152349.5s 36.32S 177.99E 12km M=4.5
1.4 0.08 0.06 R
Rsd 0.4s 11ph/6stn Dmin 145km Az.gap 298°
Corr. 0.208 11M/6stn Msd 0.5

97/4113
MAR 02 154039.8s 36.38S 177.74E 12km M=3.7
2.8 0.17 0.16 R
Rsd 0.9s 6ph/3stn Dmin 145km Az.gap 325°
Corr. -0.457 4M/3stn Msd 0.5

97/4114
MAR 02 154750.8s 36.40S 178.03E 12km M=3.9
2.7 0.17 0.14 R
Rsd 0.8s 7ph/4stn Dmin 136km Az.gap 319°
Corr. -0.179 5M/3stn Msd 0.5

97/4116
MAR 02 155214.7s 36.38S 177.67E 12km M=3.7
1.2 0.08 0.07 R
Rsd 0.4s 5ph/3stn Dmin 146km Az.gap 325°
Corr. -0.268 5M/3stn Msd 0.4

97/4118
MAR 02 155338.1s 36.32S 178.07E 12km M=4.2
2.0 0.12 0.11 R
Rsd 0.6s 7ph/4stn Dmin 143km Az.gap 328°
Corr. -0.121 9M/5stn Msd 0.5

97/4119
MAR 02 161137.5s 36.55S 177.60E 12km M=4.5
1.0 0.06 0.05 R
Rsd 0.3s 7ph/4stn Dmin 179km Az.gap 290°
Corr. 0.290 9M/5stn Msd 0.4

97/4120
MAR 02 162307.1s 36.46S 177.69E 12km M=5.3
0.7 0.04 0.03 R
Rsd 0.1s 19ph/13stn Dmin 127km Az.gap 256°
Corr. 0.710 10M/6stn Msd 0.3

97/4121
MAR 02 164013.7s 36.42S 177.97E 12km M=3.9
2.5 0.15 0.14 R
Rsd 0.7s 6ph/3stn Dmin 134km Az.gap 327°
Corr. -0.230 6M/3stn Msd 0.3

97/4127
MAR 02 172056.7s 36.25S 177.93E 12km M=3.7
3.0 0.18 0.17 R
Rsd 1.0s 5ph/3stn Dmin 154km Az.gap 330°
Corr. -0.074 4M/3stn Msd 0.5

97/4128
MAR 02 172939.4s 36.49S 178.10E 12km M=3.6
1.7 0.10 0.09 R
Rsd 0.6s 7ph/3stn Dmin 124km Az.gap 328°
Corr. -0.354 5M/3stn Msd 0.5

97/4129
MAR 02 173725.3s 36.40S 177.65E 12km M=4.4
0.8 0.04 0.05 R
Rsd 0.3s 8ph/4stn Dmin 132km Az.gap 325°
Corr. 0.118 5M/3stn Msd 0.3

97/4130
MAR 02 174711.6s 36.37S 178.00E 12km M=3.7
1.6 0.09 0.08 R
Rsd 0.6s 9ph/4stn Dmin 140km Az.gap 320°
Corr. 0.119 5M/3stn Msd 0.3

97/4131
MAR 02 175526.5s 36.25S 177.81E 12km M=3.7
3.0 0.18 0.17 R
Rsd 0.7s 7ph/4stn Dmin 152km Az.gap 323°
Corr. -0.492 4M/3stn Msd 0.5

97/4132
MAR 02 180310.4s 36.32S 177.85E 12km M=3.8
2.4 0.15 0.14 R
Rsd 0.7s 7ph/4stn Dmin 146km Az.gap 320°
Corr. -0.467 5M/3stn Msd 0.4

97/4133
MAR 02 181202.8s 36.37S 178.00E 12km M=3.7
3.2 0.20 0.16 R
Rsd 0.7s 7ph/4stn Dmin 139km Az.gap 320°
Corr. -0.416 5M/3stn Msd 0.5

97/4134
MAR 02 181838.0s 36.33S 177.95E 12km M=3.8
3.0 0.17 0.16 R
Rsd 0.7s 6ph/3stn Dmin 144km Az.gap 328°
Corr. -0.584 5M/3stn Msd 0.5

97/4135
MAR 02 182813.3s 36.31S 177.96E 12km M=3.8
3.0 0.18 0.17 R
Rsd 0.9s 6ph/3stn Dmin 146km Az.gap 329°
Corr. -0.457 5M/3stn Msd 0.5

97/4136
MAR 02 184636.9s 36.33S 178.02E 12km M=3.9
3.9 0.23 0.22 R
Rsd 1.0s 6ph/3stn Dmin 143km Az.gap 330°
Corr. -0.541 5M/3stn Msd 0.8

97/4138
MAR 02 190153.7s 36.41S 178.04E 12km M=5.2
0.9 0.06 0.05 R
Rsd 0.4s 13ph/9stn Dmin 134km Az.gap 269°
Corr. 0.385 10M/6stn Msd 0.4

97/4140
MAR 02 192338.3s 36.32S 178.00E 12km M=4.9
0.9 0.06 0.04 R
Rsd 0.4s 11ph/7stn Dmin 145km Az.gap 298°
Corr. 0.265 9M/5stn Msd 0.4

97/4143
MAR 02 194258.8s 36.31S 177.85E 12km M=4.0
1.7 0.11 0.10 R
Rsd 0.6s 8ph/4stn Dmin 147km Az.gap 321°
Corr. -0.319 4M/2stn Msd 0.5

97/4146
MAR 02 195341.7s 36.31S 178.13E 12km M=3.7
2.9 0.17 0.18 R
Rsd 0.8s 6ph/3stn Dmin 144km Az.gap 332°
Corr. -0.365 5M/3stn Msd 0.3

97/4147
MAR 02 195644.6s 36.37S 177.93E 12km M=3.9
1.4 0.08 0.08 R
Rsd 0.5s 7ph/4stn Dmin 141km Az.gap 319°
Corr. -0.195 6M/3stn Msd 0.5

97/4149
MAR 02 200402.0s 36.40S 178.11E 12km M=4.2
1.9 0.12 0.10 R
Rsd 0.5s 10ph/8stn Dmin 134km Az.gap 315°
Corr. -0.373 6M/3stn Msd 0.5

97/4150
MAR 02 200426.0s 36.37S 177.75E 12km M=4.6
0.3 0.02 0.01 R
Rsd 0.1s 7ph/4stn Dmin 137km Az.gap 298°
Corr. 0.192 14M/8stn Msd 0.4

97/4151
MAR 02 200654.7s 36.52S 177.91E 12km M=4.6
0.8 0.05 0.03 R
Rsd 0.3s 13ph/10stn Dmin 125km Az.gap 290°
Corr. 0.545 16M/10stn Msd 0.5

97/4152
MAR 02 203941.0s 36.39S 177.93E 12km M=4.5
1.8 0.12 0.07 R
Rsd 0.7s 8ph/5stn Dmin 138km Az.gap 294°
Corr. 0.329 14M/11stn Msd 0.4

97/4153
MAR 02 205302.0s 38.50S 175.76E 174km M=3.6
0.4 0.06 0.03 4
Rsd 0.1s 13ph/10stn Dmin 24km Az.gap 216°
Corr. -0.757 11M/10stn Msd 0.2

97/4154
MAR 02 205919.6s 36.14S 178.22E 12km M=4.1
3.8 0.24 0.25 R
Rsd 0.9s 5ph/3stn Dmin 162km Az.gap 289°
Corr. 0.777 5M/3stn Msd 0.4

97/4156
MAR 02 215443.7s 36.34S 178.05E 12km M=3.9
3.1 0.20 0.14 R
Rsd 0.7s 6ph/4stn Dmin 141km Az.gap 321°
Corr. 0.603 5M/3stn Msd 0.6

97/4157
MAR 02 220120.0s 36.48S 177.94E 12km M=4.2
1.4 0.10 0.05 R
Rsd 0.4s 13ph/10stn Dmin 129km Az.gap 293°
Corr. 0.563 18M/14stn Msd 0.4

97/4159
MAR 02 222440.9s 35.99S 177.77E 12km M=4.4
2.3 0.15 0.13 R
Rsd 0.7s 6ph/4stn Dmin 179km Az.gap 325°
Corr. 0.120 5M/3stn Msd 0.6

97/4160
MAR 02 225722.0s 36.24S 178.01E 12km M=4.7
1.7 0.11 0.09 R
Rsd 0.6s 7ph/5stn Dmin 153km Az.gap 300°
Corr. 0.402 13M/8stn Msd 0.4

97/4161
MAR 02 232907.9s 36.36S 177.85E 12km M=4.5
1.7 0.11 0.08 R
Rsd 0.5s 9ph/6stn Dmin 194km Az.gap 299°
Corr. 0.407 12M/10stn Msd 0.3

97/4165
MAR 03 004414.0s 36.41S 177.79E 12km M=5.1
0.6 0.05 0.03 R
Rsd 0.1s 12ph/11stn Dmin 135km Az.gap 261°
Corr. 0.913 8M/5stn Msd 0.3

97/4166
MAR 03 005254.5s 40.17S 173.84E 5km M=4.0
0.1 0.01 0.02 R
Rsd 0.3s 31ph/26stn Dmin 71km Az.gap 157°
Corr. 0.348 25M/20stn Msd 0.4 1↓

97/4170
MAR 03 023529.3s 36.43S 177.86E 12km M=4.9
1.7 0.13 0.10 R
Rsd 0.4s 10ph/9stn Dmin 135km Az.gap 262°
Corr. 0.922 40M/34stn Msd 0.4

97/4173
MAR 03 034819.7s 38.66S 175.97E 175km M=3.9
0.5 0.03 0.03 4
Rsd 0.2s 13ph/11stn Dmin 29km Az.gap 196°
Corr. -0.637 14M/10stn Msd 0.2

97/4177
MAR 03 063244.9s 36.35S 177.97E 12km M=4.6
1.3 0.09 0.05 R
Rsd 0.5s 8ph/5stn Dmin 142km Az.gap 297°
Corr. 0.225 14M/9stn Msd 0.3

97/4179
MAR 03 072136.3s 36.38S 177.94E 12km M=4.0
2.4 0.15 0.11 R
Rsd 0.7s 7ph/4stn Dmin 139km Az.gap 319°
Corr. 0.363 7M/5stn Msd 0.5

97/4184
MAR 03 083833.7s 36.37S 177.90E 12km M=4.4
0.9 0.06 0.04 R
Rsd 0.3s 8ph/5stn Dmin 141km Az.gap 294°
Corr. 0.145 11M/8stn Msd 0.5

97/4186
MAR 03 102011.6s 39.74S 175.07E 33km M=3.9
0.1 0.01 0.01 R
Rsd 0.2s 35ph/28stn Dmin 67km Az.gap 113°
Corr. -0.159 30M/25stn Msd 0.3
Felt Wanganui (57) MM4.

97/4189
MAR 03 124902.9s 36.31S 178.00E 12km M=4.6
1.7 0.11 0.09 R
Rsd 0.5s 7ph/5stn Dmin 145km Az.gap 298°
Corr. 0.565 7M/5stn Msd 0.4

97/4191
MAR 03 133357.9s 36.39S 177.93E 12km M=4.3
1.8 0.12 0.07 R
Rsd 0.5s 7ph/4stn Dmin 139km Az.gap 294°
Corr. 0.322 6M/4stn Msd 0.4

97/4192
MAR 03 134754.6s 36.48S 177.87E 12km M=4.2
2.8 0.18 0.10 R
Rsd 0.6s 4ph/3stn Dmin 130km Az.gap 290°
Corr. 0.588 5M/3stn Msd 0.4

97/4193
MAR 03 134936.7s 36.30S 177.86E 12km M=4.4
1.6 0.10 0.07 R
Rsd 0.5s 10ph/6stn Dmin 149km Az.gap 296°
Corr. 0.484 8M/5stn Msd 0.6

97/4194
MAR 03 141322.1s 35.86S 178.43E 12km M=5.4
0.8 0.04 0.04 R
Rsd 0.1s 9ph/9stn Dmin 193km Az.gap 315°
Corr. 0.736 8M/5stn Msd 0.4

97/4202
MAR 03 172733.4s 40.09S 175.27E 12km M=4.3
0.1 0.00 0.01 R
Rsd 0.2s 29ph/25stn Dmin 69km Az.gap 128°
Corr. -0.435 9M/6stn Msd 0.3 1↑ 4↓
Felt Wanganui (57) to Marton (61), MM4.

97/4211
MAR 03 193418.5s 38.10S 176.19E 259km M=3.9
0.4 0.02 0.02 3
Rsd 0.1s 14ph/12stn Dmin 78km Az.gap 213°
Corr. -0.820 11M/9stn Msd 0.2 1↓

97/4212
MAR 03 194151.6s 36.26S 177.67E 12km M=3.8
1.6 0.09 0.10 R
Rsd 0.6s 7ph/3stn Dmin 159km Az.gap 327°
Corr. -0.198 5M/3stn Msd 0.6

97/4214
MAR 03 195118.6s 36.39S 177.58E 12km M=3.8
1.2 0.08 0.07 R
Rsd 0.4s 5ph/3stn Dmin 148km Az.gap 324°
Corr. -0.395 5M/3stn Msd 0.6

97/4215
MAR 03 195837.5s 38.65S 176.03E 138km M=3.8
0.4 0.03 0.02 3
Rsd 0.1s 14ph/12stn Dmin 26km Az.gap 164°
Corr. -0.879 16M/12stn Msd 0.2 1↑

97/4219
MAR 03 205902.8s 36.27S 177.92E 12km M=3.8
3.1 0.18 0.19 R
Rsd 0.9s 7ph/3stn Dmin 152km Az.gap 329°
Corr. -0.305 6M/4stn Msd 0.6

97/4221
MAR 03 210204.0s 36.42S 177.76E 12km M=4.4
0.4 0.02 0.02 R
Rsd 0.2s 10ph/6stn Dmin 133km Az.gap 264°
Corr. 0.620 21M/16stn Msd 0.4

97/4224
MAR 03 230851.2s 36.47S 177.64E 12km M=4.2
0.5 0.04 0.03 R
Rsd 0.1s 5ph/3stn Dmin 186km Az.gap 330°
Corr. -0.239 6M/3stn Msd 0.4

97/4225
MAR 03 231403.6s 36.36S 177.88E 12km M=4.6
2.2 0.14 0.08 R
Rsd 0.7s 10ph/6stn Dmin 143km Az.gap 295°
Corr. -0.058 11M/7stn Msd 0.5

97/4226
MAR 03 231540.0s 36.40S 177.61E 12km M=4.9
0.7 0.04 0.03 R
Rsd 0.2s 10ph/6stn Dmin 131km Az.gap 287°
Corr. 0.210 8M/4stn Msd 0.4

97/4228
MAR 03 232407.8s 36.41S 177.68E 12km M=3.9
0.6 0.04 0.03 R
Rsd 0.2s 5ph/4stn Dmin 131km Az.gap 318°
Corr. -0.610 5M/3stn Msd 0.5

97/4229
MAR 03 233725.5s 36.23S 177.71E 12km M=4.0
1.2 0.07 0.07 R
Rsd 0.4s 6ph/4stn Dmin 151km Az.gap 323°
Corr. -0.359 7M/3stn Msd 0.6

97/4230
MAR 04 001346.0s 36.49S 177.87E 12km M=3.8
2.4 0.17 0.10 R
Rsd 0.7s 6ph/5stn Dmin 129km Az.gap 316°
Corr. -0.239 7M/4stn Msd 0.4

97/4231
MAR 04 002421.6s 36.17S 177.53E 12km M=4.4
0.9 0.06 0.06 R
Rsd 0.2s 4ph/3stn Dmin 173km Az.gap 328°
Corr. -0.599 5M/3stn Msd 0.6

97/4233
MAR 04 011955.4s 36.42S 178.12E 5km M=4.3
1.8 0.12 0.10 R
Rsd 0.5s 7ph/6stn Dmin 132km Az.gap 329°
Corr. -0.409 10M/6stn Msd 0.5

97/4235
MAR 04 015806.0s 36.27S 177.60E 5km M=4.0
0.9 0.05 0.06 R
Rsd 0.3s 7ph/5stn Dmin 145km Az.gap 322°
Corr. -0.452 6M/4stn Msd 0.4

97/4237
MAR 04 030812.6s 36.19S 177.58E 12km M=4.1
0.4 0.03 0.03 R
Rsd 0.1s 4ph/3stn Dmin 168km Az.gap 328°
Corr. -0.572 5M/3stn Msd 0.5

97/4238
MAR 04 035916.4s 36.25S 177.70E 12km M=4.4
0.9 0.06 0.07 R
Rsd 0.3s 6ph/4stn Dmin 149km Az.gap 328°
Corr. -0.440 4M/2stn Msd 0.4

97/4239
MAR 04 040716.1s 36.27S 177.61E 12km M=4.0
1.3 0.09 0.07 R
Rsd 0.3s 5ph/4stn Dmin 160km Az.gap 327°
Corr. -0.516 3M/2stn Msd 0.5

97/4244
MAR 04 071809.0s 36.60S 177.94E 12km M=3.7
1.5 0.10 0.07 R
Rsd 0.6s 6ph/5stn Dmin 115km Az.gap 288°
Corr. 0.363 7M/5stn Msd 0.5

97/4245
MAR 04 072651.0s 36.40S 177.78E 12km M=4.7
0.4 0.03 0.02 R
Rsd 0.2s 15ph/12stn Dmin 135km Az.gap 261°
Corr. 0.618 22M/15stn Msd 0.4

97/4246
MAR 04 074101.4s 36.45S 177.74E 12km M=5.1
0.4 0.03 0.02 R
Rsd 0.2s 11ph/8stn Dmin 129km Az.gap 262°
Corr. 0.585 9M/5stn Msd 0.4

97/4249
MAR 04 075549.5s 36.42S 177.75E 12km M=3.6
0.3 0.02 0.02 R
Rsd 0.1s 5ph/3stn Dmin 140km Az.gap 325°
Corr. -0.060 5M/3stn Msd 0.6

97/4250
MAR 04 081940.0s 37.24S 177.80E 110km M=3.6
0.2 0.02 0.01 3
Rsd 0.1s 14ph/10stn Dmin 60km Az.gap 245°
Corr. -0.175 10M/8stn Msd 0.3

97/4252
MAR 04 084108.6s 36.44S 177.94E 12km M=4.4
2.0 0.13 0.07 R
Rsd 0.6s 10ph/6stn Dmin 133km Az.gap 293°
Corr. 0.434 11M/7stn Msd 0.4

97/4254
MAR 04 090801.2s 36.30S 177.48E 12km M=3.8
0.5 0.03 0.03 R
Rsd 0.2s 7ph/3stn Dmin 161km Az.gap 325°
Corr. -0.169 4M/3stn Msd 0.3

97/4255
MAR 04 092412.4s 36.19S 177.60E 12km M=4.4
1.5 0.08 0.10 R
Rsd 0.4s 6ph/4stn Dmin 168km Az.gap 327°
Corr. -0.252 8M/4stn Msd 0.3

97/4256
MAR 04 095011.5s 36.15S 177.70E 12km M=4.4
1.6 0.10 0.08 R
Rsd 0.6s 10ph/7stn Dmin 160km Az.gap 298°
Corr. 0.008 10M/6stn Msd 0.5

97/4262
MAR 04 141852.2s 36.23S 177.47E 12km M=3.9
0.5 0.03 0.03 R
Rsd 0.1s 6ph/3stn Dmin 169km Az.gap 326°
Corr. -0.451 5M/3stn Msd 0.5

97/4263
MAR 04 150605.6s 36.39S 177.96E 12km M=3.9
2.4 0.16 0.11 R
Rsd 0.7s 9ph/7stn Dmin 138km Az.gap 295°
Corr. 0.297 8M/5stn Msd 0.4

97/4264
MAR 04 153125.4s 36.44S 177.98E 12km M=3.5
1.8 0.10 0.09 R
Rsd 0.3s 5ph/3stn Dmin 132km Az.gap 326°
Corr. -0.751 3M/2stn Msd 0.5

97/4267
MAR 04 153401.5s 37.27S 177.50E 154km M=3.6
0.8 0.07 0.03 7
Rsd 0.4s 11ph/8stn Dmin 80km Az.gap 229°
Corr. -0.011 12M/11stn Msd 0.2

97/4269
MAR 04 154505.5s 36.34S 177.59E 12km M=3.8
0.4 0.02 0.03 R
Rsd 0.1s 5ph/3stn Dmin 202km Az.gap 332°
Corr. -0.161 5M/3stn Msd 0.5

97/4272
MAR 04 161633.4s 36.35S 177.66E 12km M=3.8
1.5 0.09 0.11 R
Rsd 0.4s 6ph/3stn Dmin 198km Az.gap 332°
Corr. -0.428 5M/3stn Msd 0.5

97/4276
MAR 04 233520.0s 36.36S 177.93E 12km M=3.8
3.2 0.19 0.18 R
Rsd 0.8s 6ph/3stn Dmin 141km Az.gap 327°
Corr. -0.475 5M/3stn Msd 0.5

97/4277
MAR 04 234706.1s 36.32S 177.91E 12km M=4.6
2.0 0.13 0.09 R
Rsd 0.8s 10ph/7stn Dmin 146km Az.gap 296°
Corr. 0.432 13M/7stn Msd 0.4

97/4279
MAR 04 235239.7s 36.47S 178.11E 12km M=3.9
1.9 0.12 0.09 R
Rsd 0.6s 6ph/4stn Dmin 127km Az.gap 318°
Corr. 0.168 7M/3stn Msd 0.4

97/4280
MAR 05 002943.5s 36.27S 177.85E 12km M=3.6
2.7 0.15 0.15 R
Rsd 0.7s 7ph/3stn Dmin 153km Az.gap 329°
Corr. -0.438 4M/3stn Msd 0.4

97/4281
MAR 05 013120.7s 36.35S 177.90E 12km M=3.6
2.2 0.13 0.11 R
Rsd 0.6s 6ph/4stn Dmin 144km Az.gap 320°
Corr. 0.239 5M/3stn Msd 0.6

97/4285
MAR 05 044659.4s 36.24S 178.15E 12km M=4.0
2.0 0.12 0.13 R
Rsd 0.6s 7ph/4stn Dmin 151km Az.gap 333°
Corr. -0.430 6M/4stn Msd 0.5

97/4287
MAR 05 052144.7s 37.34S 177.37E 123km M=3.6
0.3 0.02 0.01 3
Rsd 0.2s 10ph/7stn Dmin 87km Az.gap 219°
Corr. -0.191 9M/7stn Msd 0.2

97/4288
MAR 05 062155.4s 36.33S 177.76E 12km M=3.8
1.7 0.10 0.13 R
Rsd 0.5s 6ph/3stn Dmin 198km Az.gap 332°
Corr. -0.609 5M/3stn Msd 0.5

97/4290
MAR 05 065624.5s 36.22S 177.40E 12km M=3.9
0.3 0.01 0.02 R
Rsd 0.1s 5ph/3stn Dmin 220km Az.gap 334°
Corr. -0.271 4M/3stn Msd 0.4

97/4292
MAR 05 082042.6s 36.24S 177.91E 12km M=3.9
3.4 0.20 0.22 R
Rsd 1.0s 7ph/3stn Dmin 155km Az.gap 330°
Corr. -0.304 5M/3stn Msd 0.5

97/4293
MAR 05 092138.6s 36.22S 177.86E 12km M=4.1
2.5 0.17 0.13 R
Rsd 0.7s 7ph/5stn Dmin 157km Az.gap 324°
Corr. 0.113 7M/4stn Msd 0.6

97/4296
MAR 05 103806.2s 36.55S 177.81E 12km M=3.8
2.6 0.17 0.13 R
Rsd 0.8s 7ph/4stn Dmin 124km Az.gap 321°
Corr. 0.060 6M/4stn Msd 0.5

97/4297
MAR 05 113114.4s 36.12S 177.70E 12km M=3.8
2.6 0.16 0.19 R
Rsd 0.8s 5ph/3stn Dmin 222km Az.gap 335°
Corr. -0.357 5M/3stn Msd 0.5

97/4298
MAR 05 122135.2s 36.28S 177.53E 12km M=3.6
1.2 0.08 0.08 R
Rsd 0.4s 5ph/3stn Dmin 209km Az.gap 332°
Corr. -0.170 2M/2stn Msd 0.5

97/4299
MAR 05 131514.9s 36.48S 177.91E 12km M=3.7
2.7 0.17 0.15 R
Rsd 0.6s 6ph/4stn Dmin 129km Az.gap 325°
Corr. -0.169 6M/4stn Msd 0.5

97/4300
MAR 05 135431.7s 36.35S 177.57E 12km M=3.6
1.2 0.08 0.06 R
Rsd 0.3s 6ph/4stn Dmin 154km Az.gap 324°
Corr. -0.160 5M/4stn Msd 0.3

97/4301
MAR 05 135640.5s 36.41S 177.91E 12km M=3.9
1.5 0.09 0.07 R
Rsd 0.4s 7ph/5stn Dmin 137km Az.gap 318°
Corr. -0.557 7M/4stn Msd 0.4

97/4304
MAR 05 152047.1s 36.18S 177.91E 12km M=3.9
2.9 0.18 0.17 R
Rsd 1.0s 6ph/4stn Dmin 161km Az.gap 331°
Corr. -0.132 6M/4stn Msd 0.4

97/4307
MAR 05 155959.7s 36.35S 177.87E 12km M=4.7
2.1 0.15 0.09 R
Rsd 0.8s 10ph/7stn Dmin 144km Az.gap 295°
Corr. 0.510 13M/7stn Msd 0.4

97/4309
MAR 05 170954.0s 36.68S 177.88E 12km M=3.8
2.9 0.19 0.13 R
Rsd 0.8s 6ph/4stn Dmin 109km Az.gap 319°
Corr. 0.062 8M/4stn Msd 0.4

97/4310
MAR 05 172041.1s 36.19S 177.47E 12km M=3.7
0.8 0.05 0.05 R
Rsd 0.2s 5ph/3stn Dmin 173km Az.gap 327°
Corr. -0.197 4M/3stn Msd 0.5

97/4313
MAR 05 215410.8s 36.37S 177.68E 12km M=3.8
0.8 0.05 0.05 R
Rsd 0.2s 6ph/4stn Dmin 136km Az.gap 326°
Corr. -0.389 3M/3stn Msd 0.5

97/4329
MAR 06 035716.3s 36.41S 178.00E 12km M=3.8
2.1 0.14 0.08 R
Rsd 0.7s 9ph/6stn Dmin 134km Az.gap 319°
Corr. 0.060 11M/8stn Msd 0.4

97/4333
MAR 06 045706.6s 38.48S 175.85E 144km M=3.8
0.5 0.06 0.03 4
Rsd 0.1s 13ph/12stn Dmin 27km Az.gap 221°
Corr. -0.904 8M/5stn Msd 0.4

97/4335
MAR 06 051837.7s 36.49S 177.76E 12km M=3.6
1.4 0.08 0.07 R
Rsd 0.3s 6ph/3stn Dmin 133km Az.gap 323°
Corr. -0.402 3M/3stn Msd 0.6

97/4338
MAR 06 060122.0s 36.25S 177.94E 12km M=5.0
1.8 0.12 0.09 R
Rsd 0.6s 10ph/8stn Dmin 153km Az.gap 299°
Corr. 0.595 9M/5stn Msd 0.4

97/4341
MAR 06 073841.2s 36.43S 177.81E 12km M=3.6
3.4 0.22 0.18 R
Rsd 0.9s 5ph/3stn Dmin 136km Az.gap 325°
Corr. -0.195 6M/3stn Msd 0.5

97/4343
MAR 06 082612.5s 36.32S 177.96E 12km M=3.8
2.5 0.16 0.12 R
Rsd 0.7s 7ph/5stn Dmin 145km Az.gap 321°
Corr. 0.193 6M/4stn Msd 0.5

97/4351
MAR 06 104957.5s 37.43S 178.41E 43km M=4.8
0.4 0.02 0.02 2
Rsd 0.1s 15ph/11stn Dmin 21km Az.gap 269°
Corr. 0.779 18M/12stn Msd 0.3 3↑ 1↓

97/4358
MAR 06 130909.4s 36.36S 177.77E 12km M=3.6
1.5 0.09 0.08 R
Rsd 0.5s 5ph/3stn Dmin 146km Az.gap 326°
Corr. -0.171 5M/3stn Msd 0.4

97/4361
MAR 06 135135.2s 36.37S 177.77E 12km M=3.6
1.3 0.07 0.08 R
Rsd 0.4s 7ph/4stn Dmin 144km Az.gap 326°
Corr. -0.351 6M/4stn Msd 0.5

97/4367
MAR 06 153603.5s 39.42S 174.57E 185km M=4.6
0.4 0.01 0.02 4
Rsd 0.2s 36ph/32stn Dmin 41km Az.gap 91°
Corr. -0.307 8M/4stn Msd 0.3 4↑ 6↓

97/4372
MAR 06 175751.5s 36.39S 177.89E 12km M=3.9
2.8 0.18 0.14 R
Rsd 0.8s 6ph/4stn Dmin 139km Az.gap 319°
Corr. -0.227 6M/3stn Msd 0.4

97/4373
MAR 06 180615.2s 36.35S 177.74E 12km M=3.6
3.2 0.19 0.19 R
Rsd 0.8s 6ph/3stn Dmin 147km Az.gap 326°
Corr. -0.540 5M/3stn Msd 0.5

97/4375
MAR 06 200734.0s 39.34S 174.96E 189km M=3.9
1.0 0.02 0.08 10
Rsd 0.3s 16ph/15stn Dmin 50km Az.gap 185°
Corr. -0.208 9M/7stn Msd 0.3

97/4382
MAR 06 223747.8s 37.72S 176.74E 127km M=4.0
0.6 0.05 0.02 6
Rsd 0.4s 10ph/7stn Dmin 68km Az.gap 183°
Corr. 0.055 9M/5stn Msd 0.2 1↑ 1↓

97/4387
MAR 07 033046.8s 37.57S 177.12E 132km M=3.6
0.4 0.03 0.02 4
Rsd 0.2s 6ph/4stn Dmin 77km Az.gap 271°
Corr. -0.509 6M/4stn Msd 0.3 1↑

97/4389
MAR 07 082737.3s 37.75S 179.31E 12km M=5.1
1.0 0.04 0.07 R
Rsd 0.4s 13ph/11stn Dmin 90km Az.gap 293°
Corr. 0.155 13M/7stn Msd 0.2 2↑ 1↓

97/4390
MAR 07 102823.5s 36.20S 177.49E 12km M=4.0
0.2 0.01 0.02 R
Rsd 0.1s 7ph/3stn Dmin 219km Az.gap 334°
Corr. -0.112 3M/2stn Msd 0.6

97/4391
MAR 07 121159.9s 34.91S 178.35E 33km M=4.2
0.5 0.03 0.05 R
Rsd 0.1s 6ph/3stn Dmin 351km Az.gap 345°
Corr. -0.277 3M/3stn Msd 0.4

97/4393
MAR 07 185334.7s 36.31S 177.52E 12km M=3.7
1.5 0.09 0.10 R
Rsd 0.4s 5ph/3stn Dmin 159km Az.gap 325°
Corr. -0.314 4M/3stn Msd 0.5

97/4396
MAR 07 224435.4s 36.41S 177.82E 5km M=3.8
2.7 0.17 0.15 R
Rsd 1.0s 5ph/3stn Dmin 139km Az.gap 325°
Corr. -0.146 5M/3stn Msd 0.4

97/4400
MAR 08 021625.3s 37.59S 177.08E 154km M=3.7
0.7 0.05 0.03 6
Rsd 0.3s 12ph/11stn Dmin 75km Az.gap 194°
Corr. -0.106 11M/9stn Msd 0.1

97/4402
MAR 08 032450.5s 35.21S 178.14E 235km M=3.9
2.5 0.35 0.38 24
Rsd 0.6s 6ph/4stn Dmin 266km Az.gap 337°
Corr. -0.859 4M/4stn Msd 0.1
Poor station coverage.

97/4404
MAR 08 042907.7s 36.25S 177.79E 12km M=3.8
3.0 0.18 0.19 R
Rsd 1.0s 5ph/3stn Dmin 157km Az.gap 328°
Corr. -0.231 5M/3stn Msd 0.4

97/4406
MAR 08 060318.6s 36.10S 177.70E 12km M=4.3
2.7 0.15 0.19 R
Rsd 0.9s 7ph/3stn Dmin 175km Az.gap 330°
Corr. -0.291 5M/3stn Msd 0.5

97/4407
MAR 08 061912.5s 36.46S 177.97E 12km M=3.9
3.0 0.20 0.16 R
Rsd 0.9s 5ph/3stn Dmin 130km Az.gap 326°
Corr. -0.258 5M/3stn Msd 0.6

97/4409
MAR 08 072433.1s 36.24S 177.50E 12km M=4.0
0.2 0.01 0.01 R
Rsd 0.1s 6ph/3stn Dmin 166km Az.gap 326°
Corr. 0.072 5M/3stn Msd 0.5

97/4410
MAR 08 080859.9s 38.43S 176.06E 158km M=3.9
0.7 0.03 0.03 6
Rsd 0.3s 12ph/8stn Dmin 77km Az.gap 112°
Corr. -0.283 11M/11stn Msd 0.4

97/4412
MAR 08 090030.4s 39.57S 174.33E 198km M=3.7
0.6 0.02 0.03 5
Rsd 0.2s 22ph/18stn Dmin 33km Az.gap 86°
Corr. 0.379 13M/12stn Msd 0.3 1↓

97/4418
MAR 08 125334.1s 37.27S 176.82E 335km M=4.5
0.5 0.10 0.04 5
Rsd 0.2s 20ph/18stn Dmin 70km Az.gap 227°
Corr. 0.331 18M/12stn Msd 0.2 1↑

97/4427
MAR 08 163729.0s 36.35S 177.89E 12km M=4.0
2.6 0.15 0.16 R
Rsd 0.9s 7ph/4stn Dmin 143km Az.gap 327°
Corr. -0.015 5M/3stn Msd 0.6

97/4432
MAR 08 174732.5s 38.00S 179.12E 25km M=3.6
0.9 0.03 0.05 5
Rsd 0.4s 10ph/7stn Dmin 76km Az.gap 283°
Corr. -0.283 9M/7stn Msd 0.2 1↑

97/4433
MAR 08 175201.9s 36.99S 177.43E 154km M=3.8
2.1 0.17 0.18 15
Rsd 0.8s 6ph/4stn Dmin 103km Az.gap 291°
Corr. -0.778 3M/3stn Msd 0.6 1↑

97/4456
MAR 09 054938.2s 41.29S 173.18E 116km M=3.7
0.3 0.03 0.02 3
Rsd 0.3s 26ph/19stn Dmin 58km Az.gap 131°
Corr. -0.608 14M/12stn Msd 0.2 1↑

97/4457
MAR 09 060100.7s 39.08S 175.82E 95km M=3.7
0.3 0.02 0.02 3
Rsd 0.2s 28ph/22stn Dmin 15km Az.gap 105°
Corr. -0.748 12M/9stn Msd 0.3

97/4472
MAR 09 151629.8s 36.29S 177.58E 12km M=3.7
0.2 0.01 0.01 R
Rsd 0.1s 5ph/3stn Dmin 159km Az.gap 325°
Corr. -0.299 4M/3stn Msd 0.5

97/4474
MAR 09 161637.2s 36.43S 177.82E 12km M=4.1
1.7 0.11 0.07 R
Rsd 0.8s 11ph/6stn Dmin 135km Az.gap 291°
Corr. 0.196 9M/5stn Msd 0.3

97/4477
MAR 09 170133.1s 36.39S 177.87E 12km M=4.1
1.1 0.07 0.06 R
Rsd 0.5s 10ph/6stn Dmin 139km Az.gap 318°
Corr. -0.084 7M/4stn Msd 0.3

97/4480
MAR 09 174041.5s 36.54S 178.10E 12km M=3.9
1.5 0.09 0.08 R
Rsd 0.5s 7ph/4stn Dmin 119km Az.gap 315°
Corr. -0.083 7M/3stn Msd 0.5

97/4485
MAR 09 205506.0s 38.29S 175.71E 152km M=3.6
0.7 0.12 0.08 9
Rsd 0.3s 11ph/9stn Dmin 46km Az.gap 237°
Corr. -0.926 10M/8stn Msd 0.3

97/4505
MAR 10 084941.1s 39.91S 175.23E 81km M=3.9
0.2 0.01 0.01 4
Rsd 0.3s 38ph/30stn Dmin 28km Az.gap 100°
Corr. 0.069 19M/14stn Msd 0.3 4↑ 2↓
Felt Marton (61) MM4.

97/4513
MAR 10 132052.9s 36.50S 178.00E 12km M=3.7
1.2 0.07 0.06 R
Rsd 0.4s 8ph/4stn Dmin 125km Az.gap 316°
Corr. 0.220 5M/3stn Msd 0.5

97/4515
MAR 10 140702.8s 36.37S 177.76E 12km M=5.3
0.8 0.05 0.04 R
Rsd 0.3s 10ph/7stn Dmin 138km Az.gap 292°
Corr. 0.549 11M/6stn Msd 0.3

97/4518
MAR 10 143904.9s 36.60S 177.85E 12km M=3.8
2.6 0.16 0.14 R
Rsd 0.8s 7ph/4stn Dmin 118km Az.gap 321°
Corr. 0.297 8M/4stn Msd 0.4

97/4519
MAR 10 151146.9s 36.45S 177.79E 12km M=3.9
1.8 0.12 0.09 R
Rsd 0.5s 6ph/4stn Dmin 132km Az.gap 323°
Corr. 0.113 5M/3stn Msd 0.3

97/4521
MAR 10 153955.6s 36.30S 177.88E 12km M=4.0
2.1 0.14 0.12 R
Rsd 0.6s 8ph/5stn Dmin 149km Az.gap 323°
Corr. -0.090 9M/5stn Msd 0.4

97/4532
MAR 10 190735.9s 36.52S 177.85E 12km M=3.7
1.6 0.09 0.09 R
Rsd 0.4s 5ph/3stn Dmin 127km Az.gap 323°
Corr. 0.397 6M/3stn Msd 0.3

97/4533
MAR 10 201336.9s 36.58S 177.80E 12km M=3.8
1.9 0.12 0.12 R
Rsd 0.7s 7ph/5stn Dmin 121km Az.gap 317°
Corr. 0.347 9M/5stn Msd 0.4

97/4539
MAR 11 003151.9s 37.87S 177.92E 52km M=4.4
0.5 0.02 0.02 6
Rsd 0.3s 13ph/9stn Dmin 38km Az.gap 109°
Corr. -0.325 8M/4stn Msd 0.1 1↑ 1↓

97/4547
MAR 11 093506.6s 39.21S 177.22E 29km M=3.6
0.3 0.02 0.02 5
Rsd 0.3s 17ph/13stn Dmin 92km Az.gap 160°
Corr. -0.787 15M/11stn Msd 0.4

97/4560
MAR 12 024751.9s 38.08S 176.38E 179km M=4.0
0.6 0.03 0.03 4
Rsd 0.2s 14ph/12stn Dmin 67km Az.gap 178°
Corr. 0.342 11M/10stn Msd 0.1

97/4561
MAR 12 050358.0s 37.77S 177.13E 144km M=3.9
0.2 0.03 0.01 3
Rsd 0.1s 7ph/4stn Dmin 55km Az.gap 174°
Corr. -0.116 11M/8stn Msd 0.3 1↑

97/4563
MAR 12 070805.3s 39.26S 174.84E 207km M=4.2
0.7 0.02 0.03 6
Rsd 0.2s 27ph/22stn Dmin 53km Az.gap 146°
Corr. -0.173 15M/12stn Msd 0.2 4↑ 2↓

97/4575
MAR 12 153029.0s 36.10S 179.50E 12km M=5.7
0.5 0.03 0.03 R
Rsd 0.2s 17ph/14stn Dmin 198km Az.gap 287°
Corr. 0.139 19M/10stn Msd 0.3
Felt Whakatane (27).

97/4633
MAR 13 065248.1s 39.26S 174.93E 203km M=3.9
0.5 0.02 0.02 4
Rsd 0.1s 25ph/20stn Dmin 46km Az.gap 152°
Corr. -0.212 12M/12stn Msd 0.2 5↑ 2↓

97/4650
MAR 13 100529.3s 40.45S 177.15E 12km M=3.6
0.4 0.02 0.03 R
Rsd 0.3s 18ph/16stn Dmin 81km Az.gap 231°
Corr. -0.462 20M/18stn Msd 0.3

97/4727
MAR 14 025402.1s 42.64S 173.74E 12km M=3.6
0.2 0.01 0.01 R
Rsd 0.3s 24ph/17stn Dmin 103km Az.gap 167°
Corr. -0.603 15M/13stn Msd 0.3 1↓

97/4732
MAR 14 040836.3s 40.13S 174.99E 12km M=4.0
0.1 0.01 0.01 R
Rsd 0.4s 33ph/25stn Dmin 37km Az.gap 79°
Corr. -0.123 26M/21stn Msd 0.3 1↓

97/4746
MAR 14 073333.9s 38.46S 176.11E 132km M=3.7
0.3 0.05 0.03 3
Rsd 0.1s 15ph/11stn Dmin 78km Az.gap 200°
Corr. -0.955 15M/12stn Msd 0.3

97/4783
MAR 14 143724.5s 43.01S 171.33E 5km M=3.8
0.1 0.01 0.00 R
Rsd 0.1s 14ph/9stn Dmin 49km Az.gap 115°
Corr. -0.328 9M/5stn Msd 0.2 1↑

97/4785
MAR 14 162345.6s 37.83S 176.54E 191km M=3.7
0.3 0.03 0.02 3
Rsd 0.2s 12ph/9stn Dmin 69km Az.gap 172°
Corr. -0.313 12M/12stn Msd 0.2 1↑ 1↓

97/4797
MAR 15 065159.9s 37.72S 179.86E 12km M=3.6
0.9 0.09 0.06 R
Rsd 0.2s 5ph/3stn Dmin 138km Az.gap 339°
Corr. -0.435 4M/3stn Msd 0.1

97/4802
MAR 15 191250.7s 38.39S 176.01E 164km M=4.8
0.2 0.01 0.01 2
Rsd 0.2s 18ph/15stn Dmin 71km Az.gap 93°
Corr. -0.192 18M/13stn Msd 0.3 7↑ 8↓

97/4803
MAR 15 194942.7s 40.43S 174.18E 89km M=4.1
0.2 0.01 0.01 3
Rsd 0.2s 28ph/22stn Dmin 47km Az.gap 115°
Corr. 0.450 13M/12stn Msd 0.2 1↑ 3↓

97/4807
MAR 15 225636.2s 39.34S 175.62E 93km M=3.6
0.4 0.02 0.01 4
Rsd 0.2s 20ph/17stn Dmin 17km Az.gap 123°
Corr. 0.333 9M/9stn Msd 0.2 1↑

97/4825
MAR 17 015634.8s 40.96S 176.14E 43km M=3.8
0.2 0.01 0.02 2
Rsd 0.2s 16ph/12stn Dmin 33km Az.gap 205°
Corr. -0.588 11M/10stn Msd 0.3 1↑ 2↓

97/4878
MAR 18 081224.4s 43.12S 171.42E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.2s 15ph/9stn Dmin 56km Az.gap 97°
Corr. -0.034 8M/4stn Msd 0.2 2↑ 1↓
Felt Coleridge (100) MM4.

97/4924
MAR 19 001718.9s 38.65S 179.37E 12km M=3.6
0.6 0.04 0.04 R
Rsd 0.2s 5ph/3stn Dmin 117km Az.gap 321°
Corr. -0.151 7M/3stn Msd 0.2

97/4951
MAR 19 100748.7s 35.92S 178.94E 149km M=4.4
0.8 0.06 0.05 12
Rsd 0.3s 11ph/9stn Dmin 195km Az.gap 302°
Corr. 0.160 17M/13stn Msd 0.3

97/4966
MAR 19 145243.7s 37.37S 177.36E 12km M=3.6
0.3 0.02 0.01 R
Rsd 0.2s 8ph/5stn Dmin 23km Az.gap 216°
Corr. -0.325 10M/6stn Msd 0.2 1↑

97/4980
MAR 19 220821.1s 37.35S 177.79E 103km M=3.9
0.1 0.01 0.01 2
Rsd 0.1s 5ph/3stn Dmin 53km Az.gap 271°
Corr. -0.662 4M/3stn Msd 0.2

97/4993
MAR 20 025922.5s 37.19S 177.47E 147km M=3.7
0.6 0.08 0.02 9
Rsd 0.3s 7ph/4stn Dmin 87km Az.gap 236°
Corr. -0.196 5M/3stn Msd 0.1

97/5083
MAR 21 162056.7s 37.51S 177.22E 140km M=4.1
0.7 0.05 0.02 7
Rsd 0.3s 11ph/8stn Dmin 83km Az.gap 149°
Corr. 0.299 16M/11stn Msd 0.2 3↑ 2↓

97/5099
MAR 22 010727.2s 37.81S 179.28E 12km M=3.5
0.4 0.02 0.02 R
Rsd 0.1s 6ph/3stn Dmin 90km Az.gap 326°
Corr. -0.447 5M/3stn Msd 0.1

97/5105
MAR 22 041050.1s 37.86S 177.81E 26km M=3.7
0.1 0.01 0.01 3
Rsd 0.2s 15ph/13stn Dmin 45km Az.gap 112°
Corr. -0.185 18M/14stn Msd 0.2 2↑ 1↓

97/5110
MAR 22 052918.8s 43.16S 170.88E 5km M=3.6
0.1 0.00 0.01 R
Rsd 0.1s 15ph/9stn Dmin 15km Az.gap 89°
Corr. 0.049 12M/9stn Msd 0.3 1↓

97/5143
MAR 22 201613.8s 36.50S 179.30W 12km M=3.6
0.4 0.06 0.05 R
Rsd 0.1s 5ph/3stn Dmin 246km Az.gap 350°
Corr. -0.759 2M/2stn Msd 0.2

97/5145
MAR 23 022455.1s 37.45S 177.71E 117km M=3.7
0.4 0.02 0.02 3
Rsd 0.2s 11ph/7stn Dmin 47km Az.gap 209°
Corr. -0.310 7M/4stn Msd 0.1

97/5150
MAR 23 035151.7s 38.07S 176.09E 297km M=3.6
0.8 0.04 0.08 9
Rsd 0.2s 10ph/9stn Dmin 92km Az.gap 242°
Corr. -0.775 6M/6stn Msd 0.2
Poor station coverage.

97/5159
MAR 23 095223.2s 45.09S 167.38E 89km M=3.6
0.3 0.04 0.02 3
Rsd 0.2s 11ph/7stn Dmin 46km Az.gap 231°
Corr. -0.349 8M/5stn Msd 0.2 2↑ 3↓

97/5183
MAR 24 004248.1s 37.49S 179.37E 12km M=3.8
0.7 0.04 0.05 R
Rsd 0.3s 5ph/3stn Dmin 95km Az.gap 334°
Corr. -0.469 6M/3stn Msd 0.2

97/5192
MAR 24 105456.6s 37.86S 178.49E 41km M=3.6
0.1 0.00 0.01 1
Rsd 0.1s 6ph/3stn Dmin 31km Az.gap 251°
Corr. -0.647 5M/3stn Msd 0.5 1↓

97/5199
MAR 24 232525.9s 37.47S 179.01E 17km M=3.5
0.9 0.04 0.06 4
Rsd 0.3s 5ph/3stn Dmin 64km Az.gap 328°
Corr. -0.117 6M/3stn Msd 0.1

97/5200
MAR 25 021804.7s 37.03S 177.62E 111km M=5.9
0.5 0.03 0.02 5
Rsd 0.2s 22ph/17stn Dmin 67km Az.gap 198°
Corr. 0.430 8M/4stn Msd 0.4 2↑ 8↓
Felt Whakatane (27) to Gisborne (45), maximum intensity MM4.

97/5202
MAR 25 025054.4s 36.89S 177.39E 12km M=3.9
0.6 0.04 0.02 R
Rsd 0.2s 9ph/7stn Dmin 113km Az.gap 278°
Corr. -0.474 14M/10stn Msd 0.2

97/5206
MAR 25 045422.4s 36.47S 177.89E 12km M=3.7
1.8 0.11 0.09 R
Rsd 0.5s 8ph/4stn Dmin 130km Az.gap 316°
Corr. -0.476 6M/3stn Msd 0.3

97/5241
MAR 25 185431.7s 38.28S 176.11E 180km M=4.2
0.4 0.02 0.02 3
Rsd 0.2s 28ph/21stn Dmin 58km Az.gap 81°
Corr. 0.034 24M/18stn Msd 0.2 5↑ 3↓

97/5269
MAR 26 113644.1s 37.79S 176.46E 204km M=3.8
0.7 0.05 0.06 5
Rsd 0.2s 12ph/9stn Dmin 77km Az.gap 241°
Corr. -0.804 14M/11stn Msd 0.2

97/5283
MAR 26 162335.4s 39.56S 174.45E 198km M=4.5
0.4 0.01 0.02 4
Rsd 0.2s 47ph/40stn Dmin 39km Az.gap 77°
Corr. -0.172 8M/4stn Msd 0.4 3↑ 3↓

97/5284
MAR 26 163030.1s 38.42S 175.90E 134km M=3.8
0.3 0.02 0.01 2
Rsd 0.2s 22ph/18stn Dmin 27km Az.gap 163°
Corr. -0.481 17M/14stn Msd 0.3 1↑

97/5294
MAR 27 002753.0s 37.28S 177.53E 263km M=3.7
0.9 0.16 0.19 5
Rsd 0.2s 11ph/7stn Dmin 77km Az.gap 255°
Corr. -0.929 9M/8stn Msd 0.4
Poor station coverage.

97/5301
MAR 27 052643.0s 36.93S 177.67E 127km M=4.1
0.8 0.07 0.05 13
Rsd 0.2s 12ph/9stn Dmin 94km Az.gap 263°
Corr. -0.348 18M/13stn Msd 0.3 1↓

97/5304
MAR 27 074801.0s 37.93S 176.53E 162km M=3.8
0.9 0.04 0.04 7
Rsd 0.3s 12ph/10stn Dmin 63km Az.gap 208°
Corr. 0.336 14M/12stn Msd 0.3 1↑ 2↓

97/5340
MAR 28 025920.9s 38.57S 175.77E 152km M=4.5
0.3 0.01 0.01 3
Rsd 0.2s 43ph/35stn Dmin 16km Az.gap 75°
Corr. -0.363 25M/19stn Msd 0.2 9↑ 3↓

97/5341
MAR 28 032115.9s 41.92S 177.74E 12km M=3.8
0.9 0.08 0.05 R
Rsd 0.2s 7ph/5stn Dmin 186km Az.gap 339°
Corr. 0.215 5M/5stn Msd 0.7
No Wellington net data.

97/5343
MAR 28 040920.9s 38.65S 175.97E 7km M=2.9
0.1 0.01 0.01 2
Rsd 0.3s 19ph/14stn Dmin 3km Az.gap 74°
Corr. -0.231 12M/11stn Msd 0.3 1↓
Felt Waihora Rd (40) MM4.

97/5354
MAR 28 103637.7s 42.88S 171.43E 5km M=3.5
0.2 0.01 0.01 R
Rsd 0.2s 14ph/8stn Dmin 60km Az.gap 125°
Corr. -0.132 22M/18stn Msd 0.3 1↑

97/5370
MAR 28 223115.6s 36.91S 177.86E 112km M=3.6
1.1 0.12 0.09 12
Rsd 0.5s 7ph/4stn Dmin 86km Az.gap 308°
Corr. -0.683 6M/4stn Msd 0.2

97/5375
MAR 29 002505.6s 38.50S 178.83E 27km M=3.8
0.3 0.01 0.02 3
Rsd 0.1s 15ph/13stn Dmin 69km Az.gap 245°
Corr. -0.118 21M/16stn Msd 0.3 1↑

97/5414
MAR 29 141353.9s 40.34S 173.44E 181km M=3.9
0.4 0.01 0.02 4
Rsd 0.2s 33ph/27stn Dmin 65km Az.gap 156°
Corr. -0.013 16M/13stn Msd 0.3 2↑ 4↓

97/5417
MAR 29 150921.6s 44.99S 167.42E 106km M=3.8
0.4 0.03 0.02 3
Rsd 0.2s 14ph/8stn Dmin 58km Az.gap 204°
Corr. -0.245 10M/8stn Msd 0.1 2↑ 3↓

97/5448
MAR 30 075109.9s 37.10S 176.99E 271km M=4.1
0.6 0.06 0.03 5
Rsd 0.3s 21ph/19stn Dmin 129km Az.gap 240°
Corr. -0.437 16M/14stn Msd 0.2

97/5472
MAR 30 151325.0s 38.03S 177.66E 33km M=3.7
0.1 0.03 0.01 R
Rsd 0.3s 14ph/11stn Dmin 53km Az.gap 125°
Corr. -0.181 16M/12stn Msd 0.3 2↑ 1↓

97/5524
MAR 31 072757.3s 36.08S 178.57E 12km M=3.8
0.8 0.06 0.05 R
Rsd 0.3s 6ph/4stn Dmin 170km Az.gap 331°
Corr. -0.235 7M/6stn Msd 0.4

97/5538
MAR 31 144859.4s 37.11S 177.64E 118km M=4.1
0.5 0.03 0.02 5
Rsd 0.1s 17ph/14stn Dmin 61km Az.gap 248°
Corr. 0.196 19M/13stn Msd 0.2 1↓

97/5553
MAR 31 192225.4s 38.04S 177.01E 126km M=3.5
0.1 0.01 0.01 1
Rsd 0.1s 7ph/4stn Dmin 26km Az.gap 225°
Corr. -0.759 5M/3stn Msd 0.4 1↑

97/5559
APR 01 010349.7s 46.04S 165.59E 12km M=4.1
0.8 0.04 0.06 R
Rsd 0.3s 12ph/7stn Dmin 138km Az.gap 292°
Corr. -0.407 10M/5stn Msd 0.2

97/5568
APR 01 070124.7s 39.16S 176.57E 57km M=3.7
0.2 0.01 0.01 4
Rsd 0.2s 34ph/27stn Dmin 51km Az.gap 138°
Corr. -0.609 19M/13stn Msd 0.3 2↑ 6↓

97/5577
APR 01 132659.2s 40.23S 173.57E 155km M=4.8
0.3 0.01 0.01 3
Rsd 0.2s 42ph/33stn Dmin 70km Az.gap 139°
Corr. 0.232 8M/4stn Msd 0.2 4↑ 13↓
Felt Paekakariki (65) and Plimmerton (68).

97/5596
APR 01 220655.3s 38.67S 175.75E 158km M=4.1
0.4 0.02 0.02 3
Rsd 0.3s 31ph/23stn Dmin 5km Az.gap 69°
Corr. -0.501 15M/10stn Msd 0.2 10↑ 3↓

97/5606
APR 02 011813.8s 41.05S 174.58E 62km M=4.0
0.1 0.01 0.01 2
Rsd 0.2s 34ph/28stn Dmin 23km Az.gap 49°
Corr. -0.362 18M/14stn Msd 0.3 6↑ 2↓

97/5627
APR 02 055959.6s 39.83S 174.72E 18km M=4.1
0.1 0.01 0.01 3
Rsd 0.3s 31ph/28stn Dmin 18km Az.gap 80°
Corr. -0.153 9M/5stn Msd 0.2 1↑
Felt Wanganui (57).

97/5638
APR 02 083752.6s 36.50S 178.17E 12km M=3.6
0.2 0.01 0.01 R
Rsd 0.0s 5ph/3stn Dmin 123km Az.gap 330°
Corr. 0.112 5M/3stn Msd 0.5

97/5658
APR 02 121354.5s 37.89S 176.31E 285km M=3.8
0.8 0.19 0.15 9
Rsd 0.3s 12ph/8stn Dmin 81km Az.gap 219°
Corr. -0.948 13M/12stn Msd 0.2 1↑

97/5660
APR 02 130152.7s 41.34S 172.58E 184km M=3.7
0.5 0.03 0.02 4
Rsd 0.3s 20ph/15stn Dmin 54km Az.gap 173°
Corr. -0.577 11M/11stn Msd 0.2 1↑ 1↓

97/5669
APR 02 145034.4s 41.66S 173.98E 10km M=3.6
0.1 0.01 0.01 1
Rsd 0.2s 21ph/17stn Dmin 10km Az.gap 88°
Corr. -0.291 23M/19stn Msd 0.3 4↑ 3↓

97/5714
APR 03 031353.2s 38.54S 176.74E 58km M=4.3
0.2 0.01 0.01 2
Rsd 0.2s 32ph/26stn Dmin 39km Az.gap 121°
Corr. -0.610 17M/11stn Msd 0.2 4↑ 6↓

97/5718
APR 03 033913.9s 45.01S 167.44E 88km M=3.8
0.3 0.02 0.01 2
Rsd 0.2s 14ph/9stn Dmin 54km Az.gap 202°
Corr. -0.268 9M/5stn Msd 0.2 2↑ 1↓

97/5727
APR 03 050938.2s 36.70S 177.86E 108km M=4.1
0.5 0.02 0.02 5
Rsd 0.1s 15ph/13stn Dmin 107km Az.gap 251°
Corr. 0.582 8M/4stn Msd 0.1 1↓

97/5750
APR 03 093004.9s 38.07S 177.09E 66km M=4.0
0.2 0.01 0.01 2
Rsd 0.2s 28ph/23stn Dmin 22km Az.gap 84°
Corr. -0.120 19M/13stn Msd 0.3 1↑ 4↓

97/5760
APR 03 130952.7s 38.64S 175.44E 246km M=3.6
1.2 0.07 0.05 10
Rsd 0.4s 15ph/13stn Dmin 39km Az.gap 141°
Corr. -0.445 8M/8stn Msd 0.2

97/5799
APR 03 200953.9s 43.25S 171.51E 5km M=3.3
0.0 0.00 0.00 R
Rsd 0.1s 11ph/7stn Dmin 61km Az.gap 81°
Corr. 0.051 14M/11stn Msd 0.2 1↓
Felt Coleridge Village (100) MM4.

97/5818
APR 04 013407.9s 39.50S 174.42E 147km M=3.9
0.4 0.02 0.04 3
Rsd 0.1s 7ph/5stn Dmin 55km Az.gap 288°
Corr. -0.570 1M/1stn Msd 0.0

97/5934
APR 05 185918.7s 40.28S 176.44E 50km M=3.5
0.3 0.01 0.02 3
Rsd 0.1s 13ph/9stn Dmin 47km Az.gap 185°
Corr. -0.585 5M/2stn Msd 0.4 1↓

97/5955
APR 06 101352.4s 37.80S 176.41E 151km M=3.6
0.4 0.06 0.03 5
Rsd 0.2s 11ph/8stn Dmin 80km Az.gap 231°
Corr. -0.904 5M/4stn Msd 0.3

97/5971
APR 07 035302.3s 37.71S 177.49E 58km M=3.5
0.6 0.04 0.02 8
Rsd 0.2s 6ph/3stn Dmin 69km Az.gap 231°
Corr. -0.573 7M/3stn Msd 0.1 1↓

97/5994
APR 07 135532.2s 37.80S 175.74E 5km M=3.4
0.1 0.01 0.01 R
Rsd 0.3s 17ph/13stn Dmin 14km Az.gap 108°
Corr. -0.172 13M/11stn Msd 0.3 1↑
Felt Cambridge, Hamilton (24) and Matamata district (25).

97/6009
APR 07 214927.4s 37.55S 177.71E 143km M=3.6
0.7 0.09 0.08 4
Rsd 0.2s 5ph/4stn Dmin 52km Az.gap 242°
Corr. -0.930 5M/3stn Msd 0.2

97/6014
APR 08 020414.1s 37.07S 177.47E 117km M=3.8
0.7 0.08 0.04 13
Rsd 0.4s 7ph/5stn Dmin 94km Az.gap 247°
Corr. -0.576 8M/4stn Msd 0.2

97/6018
APR 08 032842.6s 37.91S 177.05E 104km M=3.5
0.3 0.03 0.02 2
Rsd 0.2s 10ph/6stn Dmin 39km Az.gap 155°
Corr. -0.609 6M/3stn Msd 0.1

97/6023
APR 08 152328.6s 38.49S 176.21E 100km M=3.5
0.2 0.02 0.01 2
Rsd 0.1s 12ph/10stn Dmin 46km Az.gap 125°
Corr. -0.847 16M/13stn Msd 0.2 1↓

97/6030
APR 08 214354.0s 40.11S 176.76E 33km M=4.0
0.4 0.01 0.04 R
Rsd 0.3s 31ph/28stn Dmin 57km Az.gap 182°
Corr. -0.441 31M/28stn Msd 0.3 1↑

97/6036
APR 09 042032.2s 38.29S 178.17E 31km M=4.3
0.5 0.03 0.03 1
Rsd 0.2s 19ph/16stn Dmin 25km Az.gap 194°
Corr. -0.836 31M/27stn Msd 0.3 1↑

97/6048
APR 09 113132.8s 38.09S 176.60E 149km M=4.1
0.4 0.03 0.01 3
Rsd 0.2s 21ph/18stn Dmin 9km Az.gap 144°
Corr. -0.209 17M/14stn Msd 0.2

97/6059
APR 09 162705.3s 38.86S 175.99E 102km M=4.1
0.3 0.01 0.01 2
Rsd 0.2s 37ph/30stn Dmin 10km Az.gap 64°
Corr. -0.482 21M/16stn Msd 0.2 7↑ 4↓

97/6095
APR 10 062946.9s 37.24S 177.76E 54km M=3.8
0.3 0.02 0.02 7
Rsd 0.2s 16ph/13stn Dmin 60km Az.gap 214°
Corr. 0.241 8M/4stn Msd 0.2 1↑ 1↓

97/6205
APR 11 161417.5s 43.71S 167.94E 5km M=3.6
0.6 0.04 0.03 R
Rsd 0.3s 11ph/7stn Dmin 181km Az.gap 284°
Corr. -0.482 12M/7stn Msd 0.2

97/6206
APR 11 162911.3s 38.59S 175.89E 148km M=4.0
0.3 0.02 0.02 3
Rsd 0.1s 22ph/16stn Dmin 10km Az.gap 117°
Corr. -0.693 18M/12stn Msd 0.2 4↑ 2↓

97/6221
APR 11 190340.5s 37.57S 176.70E 237km M=3.7
0.2 0.03 0.03 3
Rsd 0.1s 7ph/4stn Dmin 85km Az.gap 257°
Corr. -0.724 5M/4stn Msd 0.3

97/6226
APR 11 194639.0s 38.42S 175.64E 287km M=5.2
0.4 0.04 0.03 3
Rsd 0.2s 33ph/24stn Dmin 33km Az.gap 69°
Corr. -0.269 10M/5stn Msd 0.3 3↑ 6↓

97/6257
APR 12 051245.8s 38.00S 179.23E 12km M=3.7
1.3 0.05 0.08 R
Rsd 0.6s 8ph/5stn Dmin 86km Az.gap 288°
Corr. 0.069 8M/6stn Msd 0.2

97/6265
APR 12 064217.4s 37.80S 175.78E 264km M=3.6
0.3 0.02 0.03 4
Rsd 0.1s 13ph/12stn Dmin 71km Az.gap 228°
Corr. -0.911 7M/7stn Msd 0.3

97/6275
APR 12 102014.6s 37.26S 177.36E 201km M=3.7
0.6 0.05 0.05 5
Rsd 0.3s 9ph/6stn Dmin 92km Az.gap 228°
Corr. -0.490 4M/4stn Msd 0.2 1↑

97/6280
APR 12 121130.6s 44.95S 167.49E 85km M=4.5
0.3 0.02 0.01 3
Rsd 0.1s 14ph/8stn Dmin 63km Az.gap 202°
Corr. -0.361 13M/7stn Msd 0.2 6↑ 2↓

97/6293
APR 12 150400.5s 38.21S 176.26E 183km M=3.6
0.5 0.03 0.03 4
Rsd 0.3s 11ph/7stn Dmin 72km Az.gap 126°
Corr. -0.372 11M/11stn Msd 0.2 2↑ 3↓

97/6296
APR 12 153030.1s 37.10S 176.74E 265km M=3.8
0.3 0.08 0.05 5
Rsd 0.2s 11ph/8stn Dmin 133km Az.gap 254°
Corr. -0.897 12M/12stn Msd 0.2

97/6297
APR 12 153426.9s 38.36S 176.02E 174km M=3.6
0.4 0.01 0.01 3
Rsd 0.1s 14ph/12stn Dmin 46km Az.gap 105°
Corr. -0.227 14M/14stn Msd 0.3 2↑ 2↓

97/6305
APR 12 184526.4s 36.73S 178.23E 12km M=3.8
2.3 0.13 0.12 R
Rsd 0.9s 7ph/4stn Dmin 97km Az.gap 313°
Corr. 0.349 5M/3stn Msd 0.2

97/6306
APR 12 192607.6s 42.96S 171.89E 12km M=3.7
0.1 0.01 0.01 R
Rsd 0.2s 14ph/9stn Dmin 37km Az.gap 95°
Corr. -0.283 14M/9stn Msd 0.2 2↑ 1↓

97/6316
APR 12 222440.9s 38.10S 179.43E 12km M=3.6
0.8 0.04 0.05 R
Rsd 0.4s 7ph/5stn Dmin 103km Az.gap 289°
Corr. 0.168 5M/3stn Msd 0.3 1↑ 1↓

97/6322
APR 13 001503.6s 38.05S 179.36E 12km M=3.6
0.8 0.04 0.04 R
Rsd 0.3s 5ph/3stn Dmin 97km Az.gap 325°
Corr. -0.331 7M/4stn Msd 0.2 1↑

97/6326
APR 13 010720.3s 42.65S 172.19E 9km M=4.1
0.2 0.01 0.01 1
Rsd 0.2s 16ph/11stn Dmin 16km Az.gap 94°
Corr. -0.184 12M/7stn Msd 0.2 1↑ 2↓

97/6397
APR 13 222950.2s 37.27S 178.11E 243km M=3.6
0.4 0.07 0.10 3
Rsd 0.1s 5ph/3stn Dmin 40km Az.gap 297°
Corr. -0.936 2M/2stn Msd 0.1

97/6398
APR 13 231456.3s 38.23S 176.03E 157km M=3.9
0.4 0.07 0.04 4
Rsd 0.1s 12ph/10stn Dmin 75km Az.gap 219°
Corr. -0.943 13M/11stn Msd 0.3 1↑

97/6459
APR 14 194429.0s 38.40S 176.06E 161km M=4.4
0.3 0.02 0.01 2
Rsd 0.2s 32ph/27stn Dmin 17km Az.gap 93°
Corr. -0.433 18M/12stn Msd 0.2 7↑ 3↓

97/6490
APR 15 051809.5s 38.25S 175.72E 182km M=4.0
0.3 0.02 0.01 3
Rsd 0.1s 16ph/14stn Dmin 78km Az.gap 183°
Corr. -0.571 14M/12stn Msd 0.1 4↑ 1↓

97/6497
APR 15 063654.2s 35.77S 178.92E 12km M=4.0
0.9 0.07 0.09 R
Rsd 0.3s 5ph/3stn Dmin 210km Az.gap 343°
Corr. -0.384 8M/4stn Msd 0.3 1↓

97/6511
APR 15 120611.9s 41.73S 178.10E 12km M=3.7
0.7 0.04 0.05 R
Rsd 0.3s 21ph/18stn Dmin 194km Az.gap 267°
Corr. -0.587 18M/18stn Msd 0.5 3↑ 2↓

97/6517
APR 15 155010.5s 35.76S 179.18E 12km M=3.9
1.3 0.05 0.10 R
Rsd 0.4s 7ph/5stn Dmin 218km Az.gap 283°
Corr. 0.712 5M/5stn Msd 0.5

97/6518
APR 15 171640.8s 38.55S 176.06E 152km M=3.6
0.2 0.01 0.01 2
Rsd 0.1s 12ph/9stn Dmin 67km Az.gap 200°
Corr. -0.763 5M/4stn Msd 0.4 1↑

97/6544
APR 16 075042.2s 38.15S 176.45E 151km M=4.0
0.5 0.02 0.02 3
Rsd 0.1s 17ph/15stn Dmin 10km Az.gap 168°
Corr. 0.145 10M/8stn Msd 0.3 1↑

97/6547
APR 16 150839.3s 38.14S 177.00E 69km M=3.5
0.2 0.01 0.01 2
Rsd 0.2s 22ph/19stn Dmin 17km Az.gap 69°
Corr. -0.181 7M/5stn Msd 0.1 1↓

97/6548
APR 16 163307.7s 39.00S 175.26E 163km M=3.5
0.2 0.01 0.02 2
Rsd 0.1s 16ph/13stn Dmin 33km Az.gap 273°
Corr. 0.314 7M/7stn Msd 0.1

97/6550
APR 16 170356.1s 36.37S 177.69E 12km M=4.2
2.1 0.14 0.07 R
Rsd 0.7s 10ph/6stn Dmin 147km Az.gap 262°
Corr. 0.575 14M/10stn Msd 0.3

97/6568
APR 17 034204.7s 41.65S 174.82E 29km M=3.7
0.1 0.01 0.01 1
Rsd 0.2s 21ph/17stn Dmin 27km Az.gap 152°
Corr. -0.613 23M/20stn Msd 0.3 1↑ 2↓
Felt Stoke (76).

97/6570
APR 17 052814.5s 38.17S 176.20E 147km M=3.7
0.5 0.02 0.02 4
Rsd 0.2s 10ph/8stn Dmin 65km Az.gap 128°
Corr. -0.161 11M/9stn Msd 0.1

97/6590
APR 17 115627.5s 38.23S 176.02E 157km M=3.7
0.5 0.06 0.03 4
Rsd 0.2s 13ph/10stn Dmin 49km Az.gap 225°
Corr. -0.890 11M/11stn Msd 0.3

97/6599
APR 17 173642.4s 40.04S 173.18E 5km M=3.6
0.3 0.01 0.03 R
Rsd 0.2s 22ph/17stn Dmin 102km Az.gap 208°
Corr. -0.400 18M/17stn Msd 0.4

97/6608
APR 17 215330.1s 46.21S 166.86E 103km M=3.6
0.2 0.01 0.01 2
Rsd 0.1s 11ph/6stn Dmin 86km Az.gap 249°
Corr. 0.280 13M/8stn Msd 0.3 1↑

97/6622
APR 18 064320.0s 37.67S 177.33E 110km M=4.9
0.3 0.02 0.01 3
Rsd 0.2s 29ph/24stn Dmin 20km Az.gap 124°
Corr. 0.121 10M/5stn Msd 0.3 4↑ 4↓

97/6631
APR 18 163725.3s 37.85S 176.41E 290km M=3.6
0.6 0.08 0.12 5
Rsd 0.2s 6ph/5stn Dmin 76km Az.gap 236°
Corr. -0.938 4M/4stn Msd 0.3 1↑
Very poor station coverage.

97/6654
APR 19 152748.9s 38.53S 175.99E 153km M=3.6
0.5 0.02 0.02 4
Rsd 0.1s 13ph/12stn Dmin 30km Az.gap 112°
Corr. -0.356 6M/4stn Msd 0.2

97/6664
APR 19 220102.7s 39.81S 177.32E 33km M=3.5
0.6 0.24 0.11 R
Rsd 0.2s 5ph/3stn Dmin 164km Az.gap 355°
Corr. 0.914 2M/2stn Msd 0.1

97/6680
APR 20 055812.3s 37.14S 179.91W 12km M=3.9
1.5 0.08 0.11 R
Rsd 0.4s 8ph/5stn Dmin 166km Az.gap 332°
Corr. -0.323 6M/4stn Msd 0.3

97/6724
APR 20 215517.3s 37.27S 177.38E 5km M=3.5
0.3 0.02 0.01 R
Rsd 0.3s 8ph/5stn Dmin 33km Az.gap 183°
Corr. 0.389 9M/4stn Msd 0.2

97/6734
APR 21 013151.9s 37.32S 177.38E 12km M=3.8
0.2 0.01 0.01 R
Rsd 0.2s 9ph/6stn Dmin 28km Az.gap 178°
Corr. 0.474 9M/5stn Msd 0.1

97/6751
APR 21 091808.4s 38.40S 176.12E 197km M=3.5
0.5 0.03 0.03 4
Rsd 0.2s 13ph/11stn Dmin 60km Az.gap 205°
Corr. -0.774 8M/8stn Msd 0.2

97/6759
APR 21 143030.6s 35.98S 179.05E 12km M=3.9
1.4 0.09 0.09 R
Rsd 0.5s 6ph/4stn Dmin 191km Az.gap 322°
Corr. 0.382 5M/4stn Msd 0.4

97/6775
APR 21 192355.6s 37.20S 177.30E 162km M=4.1
0.4 0.04 0.01 5
Rsd 0.2s 16ph/13stn Dmin 99km Az.gap 233°
Corr. -0.163 16M/10stn Msd 0.2 1↑

97/6791
APR 22 005624.5s 37.80S 177.50E 63km M=3.5
0.3 0.02 0.01 4
Rsd 0.1s 11ph/7stn Dmin 41km Az.gap 116°
Corr. -0.327 8M/4stn Msd 0.1 1↓

97/6797
APR 22 044401.2s 37.25S 177.40E 5km M=4.6
0.2 0.02 0.01 R
Rsd 0.3s 14ph/11stn Dmin 36km Az.gap 174°
Corr. 0.461 12M/6stn Msd 0.2

97/6802
APR 22 070508.7s 47.26S 164.61E 12km M=3.6
0.5 0.03 0.03 R
Rsd 0.2s 12ph/8stn Dmin 271km Az.gap 323°
Corr. 0.160 9M/9stn Msd 0.3

97/6809
APR 22 124059.4s 37.37S 177.47E 102km M=4.1
0.3 0.02 0.02 3
Rsd 0.2s 18ph/15stn Dmin 30km Az.gap 217°
Corr. 0.106 17M/11stn Msd 0.3 1↓

97/6816
APR 22 143050.3s 36.74S 177.59E 171km M=5.5
0.4 0.03 0.02 3
Rsd 0.1s 22ph/18stn Dmin 95km Az.gap 213°
Corr. 0.568 8M/4stn Msd 0.3 1↑ 6↓

97/6849
APR 23 023054.0s 38.07S 178.10E 57km M=3.6
0.8 0.06 0.05 7
Rsd 0.3s 5ph/3stn Dmin 14km Az.gap 162°
Corr. -0.825 7M/3stn Msd 0.1 1↑

97/6870
APR 23 085027.3s 40.09S 174.89E 33km M=3.7
0.1 0.01 0.01 R
Rsd 0.3s 29ph/25stn Dmin 86km Az.gap 94°
Corr. -0.026 24M/19stn Msd 0.4 2↑ 1↓

97/6886
APR 23 123359.8s 44.91S 167.59E 93km M=3.6
0.5 0.03 0.03 5
Rsd 0.4s 12ph/7stn Dmin 67km Az.gap 229°
Corr. -0.420 12M/7stn Msd 0.1 1↑

97/6902
APR 23 145723.6s 38.22S 176.14E 154km M=3.6
0.4 0.03 0.02 4
Rsd 0.2s 9ph/8stn Dmin 64km Az.gap 120°
Corr. -0.696 9M/8stn Msd 0.1

97/6910
APR 23 170242.8s 37.61S 176.61E 195km M=3.6
0.6 0.05 0.03 5
Rsd 0.3s 14ph/12stn Dmin 85km Az.gap 196°
Corr. -0.419 6M/6stn Msd 0.3 1↑

97/6939
APR 24 005215.0s 37.69S 177.49E 142km M=3.7
0.4 0.03 0.02 3
Rsd 0.3s 10ph/8stn Dmin 71km Az.gap 178°
Corr. -0.202 12M/7stn Msd 0.4 1↓

97/6946
APR 24 022811.7s 39.17S 175.10E 199km M=3.6
0.8 0.03 0.25 9
Rsd 0.3s 12ph/9stn Dmin 38km Az.gap 184°
Corr. -0.249 7M/5stn Msd 0.3 1↓

97/6966
APR 24 070438.1s 39.28S 173.77E 7km M=4.1
0.3 0.01 0.02 1
Rsd 0.2s 27ph/21stn Dmin 8km Az.gap 147°
Corr. -0.247 8M/4stn Msd 0.2 1↓
Felt Oaonui/Okato district (46).

97/7002
APR 24 141016.4s 38.21S 176.19E 154km M=3.8
0.3 0.01 0.01 3
Rsd 0.2s 13ph/10stn Dmin 67km Az.gap 96°
Corr. -0.181 14M/10stn Msd 0.2 1↑ 1↓

97/7036
APR 24 205015.7s 37.89S 179.44E 12km M=4.1
0.3 0.03 0.02 R
Rsd 0.1s 10ph/7stn Dmin 105km Az.gap 281°
Corr. -0.153 13M/9stn Msd 0.2

97/7040
APR 24 214241.5s 40.81S 174.77E 5km M=3.9
0.1 0.01 0.01 R
Rsd 0.2s 24ph/19stn Dmin 13km Az.gap 65°
Corr. -0.026 8M/4stn Msd 0.4 1↓

97/7045
APR 25 000707.3s 41.54S 173.64E 69km M=4.2
0.1 0.02 0.01 2
Rsd 0.2s 23ph/19stn Dmin 18km Az.gap 99°
Corr. -0.579 14M/10stn Msd 0.2 2↑ 9↓

97/7057
APR 25 090643.3s 41.77S 173.66E 78km M=4.3
0.2 0.02 0.01 3
Rsd 0.1s 20ph/15stn Dmin 46km Az.gap 113°
Corr. -0.599 13M/10stn Msd 0.3 4↑ 4↓
Felt Wellington (68), Blenheim (77) and Picton (78).

97/7059
APR 25 095852.1s 38.72S 175.87E 132km M=3.9
0.6 0.05 0.04 4
Rsd 0.2s 11ph/9stn Dmin 18km Az.gap 203°
Corr. -0.517 4M/2stn Msd 0.5 2↑ 1↓

97/7063
APR 25 120310.0s 37.83S 176.44E 195km M=4.4
0.4 0.02 0.02 4
Rsd 0.3s 27ph/22stn Dmin 17km Az.gap 110°
Corr. 0.082 17M/12stn Msd 0.3 2↑ 4↓

97/7082
APR 25 144026.0s 38.59S 175.25E 208km M=4.0
1.2 0.07 0.04 10
Rsd 0.3s 15ph/13stn Dmin 40km Az.gap 146°
Corr. -0.298 12M/10stn Msd 0.2

97/7103
APR 25 173616.9s 34.65S 178.31E 33km M=4.6
1.1 0.07 0.16 R
Rsd 0.3s 6ph/3stn Dmin 328km Az.gap 332°
Corr. -0.205 5M/5stn Msd 0.3

97/7116
APR 25 203234.6s 40.05S 177.10E 33km M=3.8
0.3 0.01 0.03 R
Rsd 0.2s 23ph/19stn Dmin 146km Az.gap 219°
Corr. -0.250 22M/18stn Msd 0.5

97/7160
APR 26 132252.9s 38.04S 176.25E 182km M=3.8
0.1 0.02 0.00 1
Rsd 0.0s 11ph/6stn Dmin 63km Az.gap 144°
Corr. 0.165 14M/11stn Msd 0.2 1↓
Poor station coverage.

97/7193
APR 26 224747.9s 36.99S 177.50E 142km M=3.8
0.2 0.03 0.01 3
Rsd 0.1s 5ph/3stn Dmin 98km Az.gap 301°
Corr. -0.691 6M/3stn Msd 0.5

97/7227
APR 27 142558.3s 38.60S 177.54E 31km M=3.6
0.3 0.01 0.01 3
Rsd 0.2s 21ph/19stn Dmin 53km Az.gap 167°
Corr. -0.376 19M/15stn Msd 0.3

97/7242
APR 27 185705.8s 38.40S 177.63E 65km M=3.9
0.2 0.02 0.01 2
Rsd 0.1s 14ph/12stn Dmin 48km Az.gap 157°
Corr. -0.456 10M/4stn Msd 0.2 1↑ 2↓

97/7259
APR 28 012813.7s 36.86S 177.32E 236km M=4.0
0.5 0.08 0.05 6
Rsd 0.2s 13ph/11stn Dmin 75km Az.gap 264°
Corr. -0.514 10M/8stn Msd 0.2

97/7262
APR 28 022235.9s 39.53S 174.37E 235km M=4.1
0.5 0.02 0.02 4
Rsd 0.2s 26ph/22stn Dmin 32km Az.gap 78°
Corr. -0.172 13M/11stn Msd 0.3 1↑

97/7274
APR 28 051014.2s 38.01S 179.36E 12km M=3.5
0.3 0.01 0.02 R
Rsd 0.1s 6ph/3stn Dmin 97km Az.gap 325°
Corr. -0.237 5M/3stn Msd 0.2 1↑

97/7277
APR 28 061945.6s 37.10S 177.73E 154km M=4.1
0.3 0.03 0.01 3
Rsd 0.1s 16ph/13stn Dmin 76km Az.gap 252°
Corr. -0.334 12M/8stn Msd 0.3 1↓

97/7286
APR 28 094828.4s 36.67S 178.57E 12km M=3.7
1.1 0.06 0.06 R
Rsd 0.3s 5ph/3stn Dmin 106km Az.gap 334°
Corr. 0.209 5M/3stn Msd 0.5

97/7287
APR 28 101139.9s 34.92S 178.36E 12km M=4.0
1.4 0.09 0.11 R
Rsd 0.3s 4ph/3stn Dmin 297km Az.gap 345°
Corr. 0.164 4M/3stn Msd 0.7

97/7299
APR 28 164756.4s 36.64S 177.50E 12km M=3.7
0.7 0.05 0.03 R
Rsd 0.3s 9ph/6stn Dmin 103km Az.gap 276°
Corr. 0.486 5M/5stn Msd 0.4

97/7300
APR 28 173455.4s 35.66S 178.62E 224km M=3.7
0.9 0.17 0.13 24
Rsd 0.2s 7ph/3stn Dmin 217km Az.gap 343°
Corr. -0.733 4M/3stn Msd 0.4

97/7316
APR 29 061750.9s 37.61S 177.54E 129km M=3.8
0.6 0.05 0.04 4
Rsd 0.3s 8ph/5stn Dmin 67km Az.gap 242°
Corr. -0.736 6M/4stn Msd 0.2 1↓

97/7371
APR 29 180359.2s 39.26S 177.13E 12km M=3.6
0.2 0.01 0.01 R
Rsd 0.2s 27ph/24stn Dmin 36km Az.gap 122°
Corr. -0.445 24M/20stn Msd 0.3 1↑

97/7434
APR 30 115107.4s 37.11S 176.45E 307km M=4.2
0.6 0.06 0.03 4
Rsd 0.3s 21ph/18stn Dmin 140km Az.gap 246°
Corr. -0.277 21M/18stn Msd 0.3 1↑

97/7490
MAY 01 063600.2s 38.39S 176.00E 159km M=4.6
0.3 0.01 0.01 3
Rsd 0.2s 40ph/35stn Dmin 29km Az.gap 65°
Corr. 0.067 8M/4stn Msd 0.4 10↑ 3↓

97/7532
MAY 02 010210.1s 45.25S 166.56E 12km M=4.3
0.7 0.03 0.05 R
Rsd 0.3s 11ph/9stn Dmin 53km Az.gap 285°
Corr. 0.666 10M/5stn Msd 0.2 1↓

97/7536
MAY 02 063106.0s 35.43S 179.23E 278km M=4.0
0.8 0.14 0.17 6
Rsd 0.3s 11ph/8stn Dmin 254km Az.gap 340°
Corr. -0.844 7M/6stn Msd 0.4

97/7546
MAY 02 164455.1s 39.25S 176.36E 73km M=4.9
0.2 0.01 0.01 2
Rsd 0.2s 49ph/41stn Dmin 36km Az.gap 44°
Corr. -0.057 8M/4stn Msd 0.2 7↑ 4↓
Felt Taupo (41), Ohakune (49) and Napier (60) MM4.

97/7550
MAY 02 212625.4s 36.43S 179.86E 12km M=3.8
0.5 0.06 0.07 R
Rsd 0.2s 5ph/3stn Dmin 190km Az.gap 348°
Corr. -0.727 4M/3stn Msd 0.3

97/7552
MAY 03 001922.5s 38.62S 176.04E 5km M=2.8
0.1 0.01 0.01 R
Rsd 0.2s 12ph/9stn Dmin 6km Az.gap 99°
Corr. 0.012 8M/8stn Msd 0.2
Felt Wairakei (41) MM4, Waihora Rd (40) and Taupo (41).

97/7564
MAY 03 164601.8s 32.55S 177.98W 135km M=7.1
2.2 0.12 0.14 55
Rsd 0.2s 20ph/18stn Dmin 655km Az.gap 319°
Corr. 0.581 8M/4stn Msd 0.3 1↓
Felt East Cape (29), Wellington (68) and Chatham Island (159), MM4.

97/7568
MAY 03 193329.5s 45.08S 167.44E 121km M=3.6
0.4 0.03 0.02 3
Rsd 0.2s 10ph/6stn Dmin 48km Az.gap 197°
Corr. -0.328 8M/8stn Msd 0.4

97/7572
MAY 03 225034.4s 38.36S 176.12E 150km M=3.9
0.7 0.03 0.02 6
Rsd 0.3s 12ph/11stn Dmin 52km Az.gap 189°
Corr. -0.236 7M/6stn Msd 0.1 1↑

97/7582
MAY 04 114406.7s 36.89S 177.09E 224km M=4.5
0.8 0.06 0.05 7
Rsd 0.3s 18ph/14stn Dmin 71km Az.gap 188°
Corr. 0.567 25M/19stn Msd 0.2 1↑

97/7587
MAY 04 161552.2s 38.33S 176.03E 152km M=3.5
1.2 0.05 0.04 10
Rsd 0.4s 10ph/9stn Dmin 95km Az.gap 187°
Corr. 0.079 18M/16stn Msd 0.3

97/7589
MAY 04 182816.0s 38.62S 176.01E 5km M=2.9
0.1 0.01 0.01 R
Rsd 0.2s 14ph/11stn Dmin 7km Az.gap 60°
Corr. -0.189 8M/7stn Msd 0.3
Felt Waihora Rd(40) and Taupo (41), maximum intensity MM4.

97/7625
MAY 05 044903.7s 38.33S 176.12E 144km M=3.6
0.5 0.02 0.02 4
Rsd 0.2s 12ph/10stn Dmin 54km Az.gap 113°
Corr. -0.367 10M/9stn Msd 0.2

97/7633
MAY 05 075615.0s 37.29S 177.79E 108km M=3.7
0.2 0.03 0.02 3
Rsd 0.1s 15ph/13stn Dmin 57km Az.gap 255°
Corr. -0.825 6M/4stn Msd 0.1 1↓

97/7651
MAY 05 142322.8s 44.87S 168.78E 5km M=3.5
0.2 0.02 0.01 R
Rsd 0.2s 13ph/8stn Dmin 62km Az.gap 166°
Corr. -0.281 10M/5stn Msd 0.3 1↑ 2↓

97/7652
MAY 05 142648.2s 44.88S 168.78E 5km M=2.7
0.2 0.01 0.01 R
Rsd 0.2s 11ph/6stn Dmin 61km Az.gap 184°
Corr. -0.493 6M/6stn Msd 0.2 1↑
Felt Arrowtown (122) MM4 and Queenstown (132).

97/7736
MAY 06 132242.9s 35.51S 179.15E 188km M=4.1
0.8 0.15 0.06 19
Rsd 0.3s 9ph/8stn Dmin 244km Az.gap 325°
Corr. -0.370 4M/4stn Msd 0.2

97/7740
MAY 06 144116.5s 36.99S 177.43E 178km M=4.3
0.5 0.03 0.02 3
Rsd 0.2s 20ph/18stn Dmin 102km Az.gap 211°
Corr. 0.494 21M/15stn Msd 0.2 1↑

97/7791
MAY 07 061011.4s 38.17S 178.20E 52km M=4.2
0.3 0.01 0.02 2
Rsd 0.2s 26ph/23stn Dmin 12km Az.gap 165°
Corr. -0.073 22M/16stn Msd 0.1 1↑ 1↓

97/7827
MAY 07 171541.5s 37.59S 177.19E 130km M=3.6
0.5 0.03 0.02 5
Rsd 0.4s 12ph/9stn Dmin 74km Az.gap 146°
Corr. 0.117 8M/7stn Msd 0.3 1↑ 1↓

97/7831
MAY 07 195845.9s 41.13S 173.63E 85km M=3.6
0.2 0.02 0.01 3
Rsd 0.1s 18ph/13stn Dmin 40km Az.gap 121°
Corr. -0.813 9M/7stn Msd 0.2 1↑

97/7842
MAY 08 021124.0s 41.14S 173.47E 91km M=3.5
0.2 0.04 0.01 4
Rsd 0.2s 21ph/15stn Dmin 46km Az.gap 125°
Corr. -0.791 11M/9stn Msd 0.2 1↑ 5↓

97/7846
MAY 08 032644.5s 39.15S 175.29E 12km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 18ph/14stn Dmin 15km Az.gap 124°
Corr. 0.468 12M/12stn Msd 0.3 1↓

97/7862
MAY 08 131859.7s 38.45S 175.96E 161km M=4.8
0.2 0.01 0.01 2
Rsd 0.1s 39ph/34stn Dmin 24km Az.gap 67°
Corr. 0.144 18M/14stn Msd 0.3 7↑ 5↓

97/7876
MAY 08 181611.4s 38.92S 175.08E 217km M=4.5
0.3 0.02 0.01 3
Rsd 0.2s 38ph/32stn Dmin 31km Az.gap 80°
Corr. -0.364 17M/14stn Msd 0.2 4↑ 5↓

97/7911
MAY 09 034124.3s 37.13S 177.76E 112km M=4.6
0.4 0.02 0.02 4
Rsd 0.1s 19ph/17stn Dmin 68km Az.gap 216°
Corr. 0.594 17M/13stn Msd 0.1 1↑ 2↓

97/7916
MAY 09 055555.0s 36.50S 177.57E 207km M=5.0
0.4 0.03 0.01 3
Rsd 0.1s 13ph/11stn Dmin 119km Az.gap 252°
Corr. 0.532 21M/16stn Msd 0.3 1↓

97/8013
MAY 10 053303.3s 38.44S 175.53E 223km M=3.6
0.1 0.00 0.04 1
Rsd 0.0s 6ph/5stn Dmin 63km Az.gap 354°
Corr. 0.282 1M/1stn Msd 0.0

97/8023
MAY 10 072629.2s 38.15S 176.21E 176km M=3.6
0.3 0.02 0.01 3
Rsd 0.1s 10ph/9stn Dmin 75km Az.gap 180°
Corr. -0.826 2M/2stn Msd 0.7 1↑

97/8037
MAY 10 104800.0s 37.92S 176.31E 191km M=3.9
0.5 0.03 0.02 5
Rsd 0.3s 18ph/16stn Dmin 64km Az.gap 161°
Corr. -0.109 7M/6stn Msd 0.3 1↑

97/8040
MAY 10 113809.2s 37.01S 176.83E 277km M=4.5
0.5 0.04 0.03 4
Rsd 0.2s 20ph/18stn Dmin 93km Az.gap 191°
Corr. 0.526 11M/7stn Msd 0.2 1↑

97/8052
MAY 10 134532.6s 39.37S 173.72E 18km M=3.7
0.4 0.02 0.03 1
Rsd 0.2s 21ph/18stn Dmin 16km Az.gap 193°
Corr. -0.106 11M/9stn Msd 0.6 1↑ 1↓

97/8071
MAY 10 212044.6s 39.45S 178.04E 60km M=4.3
0.2 0.01 0.02 2
Rsd 0.1s 23ph/18stn Dmin 32km Az.gap 216°
Corr. -0.684 8M/6stn Msd 0.3 1↑ 1↓

97/8075
MAY 10 221501.2s 38.96S 174.81E 232km M=3.6
0.6 0.02 0.07 7
Rsd 0.2s 10ph/8stn Dmin 63km Az.gap 256°
Corr. -0.255 1M/1stn Msd 0.0

97/8095
MAY 11 114705.5s 36.59S 178.81E 167km M=3.9
2.1 0.11 0.13 13
Rsd 0.6s 8ph/5stn Dmin 121km Az.gap 319°
Corr. 0.200 1M/1stn Msd 0.0

97/8137
MAY 12 024256.8s 37.59S 179.87W 12km M=3.6
0.5 0.05 0.04 R
Rsd 0.2s 6ph/3stn Dmin 162km Az.gap 342°
Corr. -0.481 4M/2stn Msd 0.3

97/8144
MAY 12 052805.8s 40.48S 173.50E 134km M=4.0
0.3 0.01 0.01 4
Rsd 0.1s 23ph/16stn Dmin 132km Az.gap 148°
Corr. -0.290 8M/5stn Msd 0.4 1↓

97/8147
MAY 12 101422.3s 38.80S 175.94E 5km M=4.0
0.1 0.01 0.01 R
Rsd 0.4s 32ph/29stn Dmin 15km Az.gap 45°
Corr. -0.447 10M/5stn Msd 0.4
Felt Waihora Rd (40) and Taupo (41), MM4.

97/8158
MAY 12 163011.5s 38.53S 176.00E 142km M=4.1
0.5 0.02 0.01 4
Rsd 0.2s 25ph/21stn Dmin 15km Az.gap 63°
Corr. -0.185 19M/15stn Msd 0.3 10↑ 1↓

97/8183
MAY 13 043927.3s 38.15S 176.12E 159km M=4.0
0.5 0.03 0.02 4
Rsd 0.2s 11ph/10stn Dmin 71km Az.gap 207°
Corr. -0.277 4M/2stn Msd 0.3 1↑

97/8191
MAY 13 084644.8s 41.45S 174.97E 27km M=3.6
0.1 0.01 0.00 1
Rsd 0.1s 18ph/14stn Dmin 9km Az.gap 133°
Corr. -0.267 18M/15stn Msd 0.3 4↑ 5↓
Felt Wellington (68).

97/8193
MAY 13 111845.4s 38.14S 177.33E 49km M=4.6
0.2 0.01 0.01 2
Rsd 0.2s 30ph/25stn Dmin 24km Az.gap 73°
Corr. 0.016 21M/15stn Msd 0.3 2↑ 3↓
Felt Ohope (35).

97/8194
MAY 13 112555.0s 40.36S 174.21E 102km M=3.6
0.4 0.01 0.02 6
Rsd 0.2s 13ph/11stn Dmin 105km Az.gap 149°
Corr. 0.256 12M/10stn Msd 0.3 1↓

97/8199
MAY 13 235419.1s 38.80S 175.97E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.3s 21ph/18stn Dmin 15km Az.gap 47°
Corr. -0.157 22M/15stn Msd 0.3
Felt Taupo (41) MM4.

97/8205
MAY 14 093015.9s 46.24S 166.19E 12km M=3.9
1.1 0.04 0.08 R
Rsd 0.6s 10ph/7stn Dmin 114km Az.gap 286°
Corr. -0.062 9M/5stn Msd 0.2 1↓

97/8211
MAY 14 151327.3s 39.99S 174.36E 106km M=3.5
0.3 0.01 0.02 4
Rsd 0.2s 32ph/24stn Dmin 81km Az.gap 106°
Corr. -0.357 12M/10stn Msd 0.2 1↑

97/8214
MAY 14 194510.1s 38.08S 176.75E 4km M=2.5
0.0 0.00 0.00 1
Rsd 0.1s 8ph/4stn Dmin 3km Az.gap 156°
Corr. 0.455 4M/4stn Msd 0.3 1↑
Felt Kawerau (34) MM4.

97/8219
MAY 15 013549.5s 39.23S 175.31E 223km M=3.7
1.4 0.08 0.15 13
Rsd 0.5s 7ph/4stn Dmin 21km Az.gap 223°
Corr. -0.848 3M/2stn Msd 0.2

97/8232
MAY 15 090204.0s 45.37S 167.04E 62km M=3.6
0.1 0.01 0.01 1
Rsd 0.1s 11ph/7stn Dmin 15km Az.gap 275°
Corr. -0.297 8M/4stn Msd 0.1 1↓

97/8245
MAY 15 182101.3s 36.23S 179.92E 12km M=4.2
0.4 0.03 0.03 R
Rsd 0.1s 14ph/12stn Dmin 209km Az.gap 324°
Corr. 0.109 23M/19stn Msd 0.4

97/8249
MAY 15 201016.4s 38.78S 176.28E 88km M=4.9
0.2 0.01 0.01 2
Rsd 0.2s 43ph/36stn Dmin 21km Az.gap 42°
Corr. 0.045 8M/4stn Msd 0.2 4↑ 6↓

97/8309
MAY 17 055702.3s 42.23S 171.31E 12km M=3.7
0.2 0.01 0.01 R
Rsd 0.2s 12ph/7stn Dmin 68km Az.gap 192°
Corr. -0.594 8M/5stn Msd 0.3 1↓
Felt Barrytown (85).

97/8341
MAY 17 173539.6s 45.09S 167.44E 112km M=3.8
0.4 0.03 0.02 3
Rsd 0.2s 12ph/7stn Dmin 47km Az.gap 197°
Corr. -0.314 8M/4stn Msd 0.1 1↓

97/8359
MAY 17 220740.8s 35.63S 178.79E 242km M=3.5
0.4 0.13 0.22 6
Rsd 0.1s 8ph/7stn Dmin 222km Az.gap 342°
Corr. -0.982 6M/6stn Msd 0.3
Poor station coverage.

97/8374
MAY 18 075337.3s 38.72S 176.12E 93km M=3.7
0.2 0.01 0.01 2
Rsd 0.2s 29ph/23stn Dmin 15km Az.gap 41°
Corr. -0.112 11M/8stn Msd 0.2 2↑ 2↓

97/8407
MAY 18 230652.1s 38.75S 175.86E 130km M=4.3
0.3 0.01 0.01 3
Rsd 0.3s 42ph/36stn Dmin 12km Az.gap 46°
Corr. -0.035 8M/4stn Msd 0.3 7↑ 7↓

97/8411
MAY 19 001455.3s 37.17S 176.84E 235km M=3.8
0.7 0.08 0.08 7
Rsd 0.3s 10ph/8stn Dmin 124km Az.gap 265°
Corr. -0.763 7M/7stn Msd 0.1

97/8460
MAY 19 161642.1s 37.48S 176.99E 186km M=3.6
0.3 0.02 0.01 3
Rsd 0.1s 10ph/6stn Dmin 88km Az.gap 206°
Corr. -0.218 4M/4stn Msd 0.1

97/8468
MAY 19 192928.9s 39.56S 174.03E 206km M=4.0
0.4 0.02 0.03 4
Rsd 0.1s 11ph/10stn Dmin 131km Az.gap 187°
Corr. 0.156 9M/6stn Msd 0.6

97/8477
MAY 20 010940.4s 45.05S 167.50E 78km M=3.6
0.2 0.02 0.01 2
Rsd 0.2s 12ph/7stn Dmin 54km Az.gap 208°
Corr. -0.278 14M/8stn Msd 0.3 1↑ 2↓

97/8524
MAY 21 015256.2s 39.16S 175.22E 139km M=3.8
0.4 0.02 0.01 4
Rsd 0.3s 24ph/19stn Dmin 19km Az.gap 69°
Corr. 0.138 13M/10stn Msd 0.2 1↑ 1↓

97/8531
MAY 21 045001.9s 38.70S 175.56E 184km M=3.8
0.3 0.02 0.03 3
Rsd 0.1s 8ph/5stn Dmin 53km Az.gap 306°
Corr. -0.228 4M/3stn Msd 0.1 1↑

97/8542
MAY 21 071448.1s 36.46S 177.82E 177km M=4.2
0.7 0.06 0.03 9
Rsd 0.3s 10ph/6stn Dmin 134km Az.gap 261°
Corr. 0.551 11M/5stn Msd 0.2

97/8578
MAY 22 093300.9s 39.60S 177.46E 29km M=3.6
0.3 0.02 0.02 2
Rsd 0.3s 22ph/16stn Dmin 51km Az.gap 182°
Corr. -0.604 17M/16stn Msd 0.3 1↑

97/8592
MAY 22 155638.5s 45.17S 167.33E 82km M=3.7
0.2 0.01 0.01 2
Rsd 0.1s 13ph/7stn Dmin 36km Az.gap 229°
Corr. -0.279 13M/7stn Msd 0.3 1↑ 4↓

97/8598
MAY 22 191230.0s 38.92S 175.78E 98km M=3.5
0.4 0.01 0.02 3
Rsd 0.3s 25ph/19stn Dmin 5km Az.gap 52°
Corr. -0.312 5M/5stn Msd 0.1 2↑ 1↓

97/8603
MAY 23 002449.6s 37.09S 177.15E 246km M=5.1
0.4 0.04 0.03 3
Rsd 0.2s 33ph/28stn Dmin 49km Az.gap 177°
Corr. 0.483 10M/5stn Msd 0.2 6↑ 1↓

97/8607
MAY 23 044900.7s 38.50S 175.77E 166km M=4.9
0.2 0.01 0.01 2
Rsd 0.2s 43ph/35stn Dmin 23km Az.gap 78°
Corr. -0.162 10M/5stn Msd 0.4 11↑ 9↓

97/8643
MAY 23 224116.8s 35.52S 178.65E 219km M=3.9
0.5 0.10 0.05 15
Rsd 0.1s 6ph/3stn Dmin 233km Az.gap 343°
Corr. -0.314 5M/4stn Msd 0.3

97/8649
MAY 24 021656.4s 36.48S 179.25W 12km M=3.7
0.2 0.04 0.03 R
Rsd 0.0s 5ph/3stn Dmin 251km Az.gap 352°
Corr. -0.851 3M/3stn Msd 0.3

97/8661
MAY 24 064432.7s 37.70S 176.52E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.2s 18ph/14stn Dmin 21km Az.gap 107°
Corr. 0.338 20M/13stn Msd 0.3 1↑

97/8681
MAY 24 183256.3s 38.09S 176.36E 150km M=3.6
0.3 0.02 0.01 3
Rsd 0.2s 17ph/14stn Dmin 69km Az.gap 141°
Corr. -0.292 12M/11stn Msd 0.3 2↑ 1↓

97/8694
MAY 25 000957.7s 39.39S 174.73E 24km M=3.6
0.1 0.01 0.00 2
Rsd 0.2s 33ph/26stn Dmin 54km Az.gap 76°
Corr. -0.370 30M/26stn Msd 0.2 3↑ 3↓

97/8699
MAY 25 033546.8s 38.47S 175.93E 194km M=3.5
0.3 0.02 0.04 3
Rsd 0.1s 16ph/13stn Dmin 88km Az.gap 284°
Corr. -0.339 10M/10stn Msd 0.3

97/8722
MAY 25 132212.1s 39.13S 174.93E 217km M=3.8
0.5 0.02 0.02 4
Rsd 0.2s 28ph/23stn Dmin 54km Az.gap 86°
Corr. 0.205 19M/17stn Msd 0.3 1↑ 1↓

97/8728
MAY 25 162729.0s 38.04S 176.31E 181km M=3.6
0.2 0.01 0.01 1
Rsd 0.1s 10ph/9stn Dmin 67km Az.gap 146°
Corr. -0.461 13M/12stn Msd 0.2 2↑ 1↓

97/8734
MAY 25 213550.1s 38.53S 178.50E 12km M=3.6
0.3 0.01 0.01 R
Rsd 0.1s 10ph/7stn Dmin 55km Az.gap 228°
Corr. -0.453 13M/8stn Msd 0.5 1↑

97/8737
MAY 25 232230.6s 32.31S 178.79W 339km M=7.9
0.8 0.11 0.07 30
Rsd 0.2s 25ph/22stn Dmin 645km Az.gap 318°
Corr. 0.358 10M/5stn Msd 0.5
Felt Auckland (16) to Dunedin (144), maximum intensity MM4.

97/8738
MAY 26 005753.0s 37.80S 176.69E 212km M=3.7
0.6 0.06 0.07 6
Rsd 0.4s 9ph/6stn Dmin 63km Az.gap 234°
Corr. -0.692 6M/5stn Msd 0.3 1↑
Poor station coverage.

97/8745
MAY 26 105015.0s 47.27S 165.96E 12km M=5.5
0.6 0.04 0.03 R
Rsd 0.3s 10ph/6stn Dmin 171km Az.gap 309°
Corr. 0.403 22M/12stn Msd 0.3 4↑ 1↓
Felt Invercargill (150).

97/8753
MAY 26 140839.4s 36.23S 177.77E 12km M=3.9
1.8 0.12 0.07 R
Rsd 0.7s 7ph/4stn Dmin 159km Az.gap 298°
Corr. 0.478 4M/4stn Msd 0.6

97/8754
MAY 26 140921.4s 36.27S 177.75E 12km M=4.1
1.9 0.13 0.08 R
Rsd 0.8s 7ph/4stn Dmin 155km Az.gap 296°
Corr. 0.487 5M/4stn Msd 0.5

97/8761
MAY 26 161031.3s 41.48S 173.57E 81km M=4.6
0.2 0.02 0.01 2
Rsd 0.2s 32ph/24stn Dmin 22km Az.gap 102°
Corr. -0.608 9M/5stn Msd 0.2 5↑ 1↓
Felt Wellington (68) and Blenheim (77).

97/8770
MAY 26 201501.4s 47.20S 165.75E 33km M=4.4
0.5 0.03 0.04 R
Rsd 0.3s 11ph/6stn Dmin 185km Az.gap 311°
Corr. 0.080 9M/5stn Msd 0.3

97/8774
MAY 26 222001.2s 38.40S 175.91E 150km M=3.8
0.4 0.02 0.01 3
Rsd 0.1s 15ph/14stn Dmin 38km Az.gap 178°
Corr. -0.654 7M/4stn Msd 0.3

97/8779
MAY 27 031401.7s 37.55S 176.53E 212km M=6.1
0.3 0.02 0.01 2
Rsd 0.2s 36ph/30stn Dmin 30km Az.gap 127°
Corr. 0.126 10M/5stn Msd 0.2 11↑ 1↓
Felt East Cape (29) to Wellington (68), maximum intensity MM4.

97/8783
MAY 27 054502.6s 38.00S 176.49E 5km M=3.3
0.1 0.01 0.01 R
Rsd 0.3s 19ph/14stn Dmin 10km Az.gap 76°
Corr. 0.203 11M/9stn Msd 0.3 1↑
Felt Rotoehu (34) MM5.

97/8792
MAY 27 135059.8s 41.55S 173.41E 71km M=3.5
0.3 0.01 0.01 4
Rsd 0.3s 21ph/18stn Dmin 37km Az.gap 110°
Corr. -0.408 12M/11stn Msd 0.3 1↑ 3↓

97/8793
MAY 27 152535.6s 37.86S 176.41E 209km M=4.3
0.5 0.03 0.02 4
Rsd 0.2s 24ph/19stn Dmin 18km Az.gap 117°
Corr. -0.337 18M/12stn Msd 0.2 1↑ 2↓

97/8811
MAY 28 093106.6s 44.18S 167.50E 12km M=4.5
0.4 0.02 0.03 R
Rsd 0.3s 12ph/8stn Dmin 146km Az.gap 216°
Corr. -0.599 12M/6stn Msd 0.3

97/8830
MAY 29 030733.5s 42.57S 173.67E 5km M=4.0
0.2 0.01 0.01 R
Rsd 0.3s 18ph/13stn Dmin 19km Az.gap 166°
Corr. -0.044 14M/7stn Msd 0.3 1↑ 2↓
Felt Kaikoura (90).

97/8835
MAY 29 032122.0s 42.56S 173.67E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.2s 13ph/10stn Dmin 19km Az.gap 168°
Corr. -0.024 23M/17stn Msd 0.4 1↓
Felt Kaikoura (90).

97/8836
MAY 29 032626.1s 42.53S 173.67E 5km M=4.0
0.2 0.00 0.01 R
Rsd 0.1s 6ph/3stn Dmin 17km Az.gap 253°
Corr. 0.213 4M/2stn Msd 1.3 1↓

97/8845
MAY 29 094649.1s 42.55S 173.68E 5km M=4.3
0.1 0.01 0.01 R
Rsd 0.2s 20ph/17stn Dmin 18km Az.gap 161°
Corr. -0.171 16M/8stn Msd 0.3 3↑ 1↓
Felt Kaikoura (90).

97/8850
MAY 29 101909.1s 42.55S 173.69E 5km M=3.5
0.2 0.01 0.01 R
Rsd 0.2s 18ph/15stn Dmin 19km Az.gap 164°
Corr. -0.151 25M/19stn Msd 0.4 1↑ 1↓

97/8853
MAY 29 111307.9s 37.26S 176.61E 244km M=4.2
0.6 0.05 0.02 5
Rsd 0.2s 15ph/13stn Dmin 98km Az.gap 158°
Corr. 0.195 13M/10stn Msd 0.2 1↑

97/8866
MAY 30 070329.9s 38.65S 175.95E 161km M=3.8
0.7 0.02 0.03 6
Rsd 0.2s 15ph/12stn Dmin 20km Az.gap 90°
Corr. -0.053 10M/7stn Msd 0.3 1↑

97/8875
MAY 30 184759.2s 37.03S 177.56E 5km M=3.8
0.5 0.04 0.04 R
Rsd 0.6s 6ph/4stn Dmin 64km Az.gap 196°
Corr. 0.691 5M/3stn Msd 0.4 1↓

97/8885
MAY 31 043526.2s 35.51S 178.89E 118km M=4.0
0.4 0.08 0.13 16
Rsd 0.1s 7ph/3stn Dmin 237km Az.gap 345°
Corr. -0.961 4M/3stn Msd 0.2

97/8895
MAY 31 161843.7s 39.90S 176.88E 12km M=3.6
1.0 0.03 0.07 R
Rsd 0.6s 12ph/10stn Dmin 50km Az.gap 241°
Corr. 0.071 6M/6stn Msd 0.7

97/8904
JUN 01 035948.2s 44.17S 168.80E 5km M=4.3
0.3 0.01 0.01 R
Rsd 0.1s 12ph/8stn Dmin 95km Az.gap 180°
Corr. -0.340 20M/11stn Msd 0.2 1↑ 1↓

97/8914
JUN 02 010942.8s 45.23S 167.08E 57km M=4.6
0.3 0.02 0.01 2
Rsd 0.1s 13ph/7stn Dmin 27km Az.gap 237°
Corr. -0.134 19M/10stn Msd 0.3 1↑ 3↓
Felt Mt Luxmore (130).

97/8915
JUN 02 012222.2s 38.37S 177.00E 51km M=3.8
0.1 0.01 0.01 2
Rsd 0.1s 10ph/8stn Dmin 37km Az.gap 131°
Corr. -0.268 5M/3stn Msd 0.6

97/8935
JUN 03 074505.5s 37.57S 176.71E 230km M=3.9
0.4 0.02 0.03 5
Rsd 0.1s 8ph/6stn Dmin 103km Az.gap 199°
Corr. -0.725 14M/10stn Msd 0.3

97/8937
JUN 03 094504.4s 39.26S 177.54E 12km M=4.1
0.4 0.03 0.02 R
Rsd 0.2s 16ph/10stn Dmin 113km Az.gap 192°
Corr. -0.751 17M/12stn Msd 0.5

97/8942
JUN 03 125656.9s 40.78S 176.34E 26km M=3.5
0.3 0.02 0.03 2
Rsd 0.3s 16ph/13stn Dmin 14km Az.gap 238°
Corr. -0.149 18M/15stn Msd 0.4 1↑ 2↓

97/8995
JUN 04 081038.2s 37.22S 177.04E 12km M=4.0
0.7 0.05 0.02 R
Rsd 0.3s 5ph/3stn Dmin 119km Az.gap 273°
Corr. -0.575 6M/3stn Msd 0.2

97/9017
JUN 04 154722.2s 38.92S 175.44E 122km M=3.7
0.3 0.01 0.01 2
Rsd 0.2s 27ph/23stn Dmin 12km Az.gap 81°
Corr. -0.179 15M/12stn Msd 0.2 5↑ 2↓

97/9018
JUN 04 160503.3s 37.68S 179.29E 20km M=4.0
0.5 0.02 0.03 2
Rsd 0.1s 14ph/12stn Dmin 87km Az.gap 281°
Corr. -0.090 15M/12stn Msd 0.3 1↓

97/9048
JUN 05 022513.4s 40.41S 176.78E 56km M=4.0
0.4 0.01 0.04 6
Rsd 0.2s 24ph/20stn Dmin 55km Az.gap 245°
Corr. -0.535 12M/9stn Msd 0.2 2↑ 1↓
Felt Napier (60).

97/9051
JUN 05 031112.2s 37.22S 177.22E 162km M=4.0
0.5 0.05 0.02 5
Rsd 0.1s 23ph/17stn Dmin 98km Az.gap 230°
Corr. 0.001 12M/10stn Msd 0.2

97/9052
JUN 05 032113.2s 39.14S 174.62E 197km M=3.9
0.5 0.01 0.03 4
Rsd 0.2s 23ph/17stn Dmin 72km Az.gap 150°
Corr. -0.077 12M/10stn Msd 0.3

97/9075
JUN 05 100739.5s 38.72S 174.61E 27km M=3.3
0.4 0.01 0.03 1
Rsd 0.3s 18ph/15stn Dmin 29km Az.gap 179°
Corr. 0.457 19M/17stn Msd 0.4 2↑ 1↓
Felt Uruti (47) MM4.

97/9096
JUN 05 161736.6s 41.26S 172.58E 224km M=4.1
0.3 0.02 0.02 2
Rsd 0.2s 25ph/17stn Dmin 48km Az.gap 125°
Corr. -0.223 12M/10stn Msd 0.2 6↑ 1↓

97/9178
JUN 06 160658.8s 43.52S 175.22E 33km M=4.6
0.5 0.03 0.02 R
Rsd 0.3s 26ph/22stn Dmin 184km Az.gap 210°
Corr. -0.804 23M/12stn Msd 0.3 8↑ 3↓

97/9212
JUN 07 021627.2s 38.07S 175.91E 230km M=3.6
0.8 0.05 0.13 9
Rsd 0.2s 11ph/9stn Dmin 126km Az.gap 325°
Corr. 0.257 6M/6stn Msd 0.3

97/9238
JUN 07 090800.6s 36.97S 176.95E 273km M=5.0
0.4 0.03 0.02 3
Rsd 0.1s 21ph/18stn Dmin 65km Az.gap 179°
Corr. 0.312 18M/12stn Msd 0.2 1↑

97/9259
JUN 07 141129.8s 38.29S 176.12E 163km M=3.8
0.4 0.02 0.01 3
Rsd 0.1s 11ph/10stn Dmin 58km Az.gap 213°
Corr. -0.817 6M/4stn Msd 0.2 1↑

97/9286
JUN 07 232046.7s 40.06S 176.32E 80km M=4.8
0.2 0.00 0.02 3
Rsd 0.2s 43ph/32stn Dmin 40km Az.gap 147°
Corr. -0.220 8M/4stn Msd 0.3 6↑ 2↓
Felt Patoka (52) to Waitarere Beach (65), MM4.

97/9290
JUN 08 014315.4s 38.44S 178.68E 26km M=3.5
0.9 0.04 0.04 5
Rsd 0.2s 12ph/11stn Dmin 55km Az.gap 239°
Corr. -0.799 13M/11stn Msd 0.3

97/9297
JUN 08 054740.6s 40.37S 176.31E 32km M=3.5
0.3 0.01 0.04 3
Rsd 0.3s 20ph/17stn Dmin 35km Az.gap 186°
Corr. -0.625 19M/16stn Msd 0.3 1↑

97/9308
JUN 08 100239.2s 37.44S 178.40E 44km M=3.6
0.2 0.01 0.02 1
Rsd 0.1s 7ph/4stn Dmin 20km Az.gap 319°
Corr. 0.392 4M/2stn Msd 0.1 1↑

97/9316
JUN 08 122108.1s 39.05S 175.07E 224km M=3.5
0.3 0.01 0.03 3
Rsd 0.1s 12ph/11stn Dmin 45km Az.gap 194°
Corr. -0.417 2M/2stn Msd 0.1

97/9331
JUN 08 201425.5s 38.67S 175.93E 164km M=3.6
0.6 0.03 0.10 5
Rsd 0.2s 13ph/10stn Dmin 26km Az.gap 303°
Corr. 0.452 9M/9stn Msd 0.3 1↑

97/9355
JUN 09 093449.9s 37.68S 177.50E 59km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 21ph/15stn Dmin 32km Az.gap 140°
Corr. 0.202 12M/10stn Msd 0.3 1↑

97/9359
JUN 09 134101.3s 37.08S 177.53E 92km M=3.9
0.5 0.03 0.02 6
Rsd 0.2s 12ph/11stn Dmin 89km Az.gap 247°
Corr. 0.373 13M/11stn Msd 0.2

97/9361
JUN 09 142431.3s 38.95S 176.10E 75km M=3.8
0.1 0.01 0.01 1
Rsd 0.2s 31ph/25stn Dmin 6km Az.gap 113°
Corr. -0.567 16M/13stn Msd 0.1 1↑

97/9362
JUN 09 143646.5s 36.27S 178.50E 33km M=3.7
0.8 0.05 0.07 R
Rsd 0.2s 5ph/3stn Dmin 148km Az.gap 325°
Corr. 0.304 5M/3stn Msd 0.4

97/9365
JUN 09 162537.0s 37.97S 177.85E 33km M=4.6
0.1 0.01 0.01 R
Rsd 0.2s 24ph/21stn Dmin 37km Az.gap 97°
Corr. 0.222 8M/4stn Msd 0.4 1↑

97/9367
JUN 09 185333.0s 38.14S 177.93E 60km M=4.0
0.2 0.01 0.01 1
Rsd 0.1s 7ph/3stn Dmin 30km Az.gap 203°
Corr. -0.444 4M/2stn Msd 0.3 1↑

97/9368
JUN 09 191923.4s 37.97S 176.64E 142km M=3.7
0.4 0.02 0.01 4
Rsd 0.1s 10ph/9stn Dmin 93km Az.gap 156°
Corr. -0.629 5M/4stn Msd 0.3

97/9372
JUN 10 001339.4s 39.26S 174.90E 206km M=3.6
0.5 0.02 0.03 5
Rsd 0.2s 13ph/12stn Dmin 61km Az.gap 214°
Corr. -0.083 7M/7stn Msd 0.2

97/9374
JUN 10 031902.6s 37.90S 176.14E 294km M=4.9
0.6 0.05 0.04 4
Rsd 0.2s 22ph/18stn Dmin 22km Az.gap 53°
Corr. -0.404 8M/4stn Msd 0.3 1↓

97/9382
JUN 10 085157.7s 39.49S 177.29E 33km M=3.5
0.9 0.04 0.07 R
Rsd 0.4s 10ph/7stn Dmin 123km Az.gap 280°
Corr. -0.077 6M/6stn Msd 0.5 .

97/9423
JUN 11 063816.2s 39.58S 174.06E 186km M=3.8
0.9 0.02 0.03 9
Rsd 0.2s 22ph/19stn Dmin 129km Az.gap 166°
Corr. -0.416 12M/11stn Msd 0.3 1↑ 3↓

97/9428
JUN 11 092018.0s 38.54S 175.86E 138km M=3.7
0.3 0.01 0.01 3
Rsd 0.1s 22ph/16stn Dmin 22km Az.gap 111°
Corr. -0.529 11M/11stn Msd 0.3 7↑ 1↓

97/9447
JUN 11 160224.3s 45.13S 167.33E 50km M=4.3
0.3 0.02 0.02 4
Rsd 0.1s 14ph/8stn Dmin 40km Az.gap 203°
Corr. -0.065 13M/7stn Msd 0.3 3↑ 3↓

97/9470
JUN 12 120207.6s 39.59S 177.25E 12km M=3.6
1.4 0.06 0.09 R
Rsd 0.7s 14ph/12stn Dmin 78km Az.gap 252°
Corr. -0.643 10M/10stn Msd 0.4

97/9513
JUN 13 140626.0s 37.32S 177.20E 151km M=4.4
0.4 0.02 0.01 4
Rsd 0.1s 25ph/22stn Dmin 23km Az.gap 163°
Corr. 0.140 17M/13stn Msd 0.3 1↑ 3↓

97/9542
JUN 13 214139.5s 39.04S 174.91E 213km M=4.5
0.4 0.02 0.02 3
Rsd 0.2s 41ph/32stn Dmin 42km Az.gap 93°
Corr. -0.311 15M/11stn Msd 0.2 3↑ 4↓

97/9550
JUN 13 235741.1s 37.78S 175.87E 274km M=3.7
0.2 0.01 0.02 2
Rsd 0.1s 13ph/10stn Dmin 216km Az.gap 228°
Corr. -0.903 7M/7stn Msd 0.2
Poor station coverage.

97/9566
JUN 14 042751.6s 38.43S 175.95E 184km M=3.5
0.5 0.01 0.02 4
Rsd 0.1s 17ph/15stn Dmin 51km Az.gap 162°
Corr. -0.397 11M/9stn Msd 0.3 1↑

97/9567
JUN 14 043736.2s 37.61S 176.68E 189km M=3.9
0.6 0.02 0.02 5
Rsd 0.2s 23ph/20stn Dmin 37km Az.gap 132°
Corr. -0.002 12M/12stn Msd 0.2 1↑

97/9569
JUN 14 055509.0s 38.45S 175.98E 149km M=3.6
0.4 0.05 0.03 3
Rsd 0.1s 14ph/12stn Dmin 36km Az.gap 208°
Corr. -0.802 10M/9stn Msd 0.3 1↑

97/9582
JUN 14 130548.9s 37.84S 176.34E 207km M=5.0
0.3 0.02 0.01 3
Rsd 0.1s 37ph/32stn Dmin 12km Az.gap 88°
Corr. -0.288 17M/12stn Msd 0.2 10↑ 2↓

97/9598
JUN 14 185723.8s 38.20S 176.28E 160km M=4.3
0.2 0.01 0.01 2
Rsd 0.1s 32ph/26stn Dmin 20km Az.gap 82°
Corr. -0.409 17M/13stn Msd 0.3 6↑ 2↓

97/9600
JUN 14 204002.8s 37.75S 177.31E 161km M=3.6
1.0 0.04 0.05 9
Rsd 0.4s 7ph/5stn Dmin 89km Az.gap 191°
Corr. -0.115 3M/3stn Msd 0.1

97/9615
JUN 15 103655.6s 37.56S 177.25E 152km M=3.8
0.6 0.07 0.02 5
Rsd 0.2s 6ph/3stn Dmin 93km Az.gap 195°
Corr. -0.042 3M/2stn Msd 0.2

97/9623
JUN 15 185446.4s 39.14S 175.17E 203km M=3.6
0.9 0.03 0.04 7
Rsd 0.2s 10ph/8stn Dmin 33km Az.gap 168°
Corr. 0.125 2M/2stn Msd 0.1

97/9632
JUN 16 054707.5s 35.93S 178.97E 267km M=4.1
0.4 0.05 0.11 3
Rsd 0.1s 9ph/9stn Dmin 195km Az.gap 343°
Corr. -0.836 2M/1stn Msd 0.3

97/9637
JUN 16 091134.7s 39.65S 176.75E 12km M=3.5
0.4 0.01 0.04 R
Rsd 0.3s 12ph/10stn Dmin 34km Az.gap 209°
Corr. 0.095 10M/9stn Msd 0.4

97/9639
JUN 16 093729.4s 36.85S 177.55E 150km M=4.8
0.5 0.02 0.02 5
Rsd 0.1s 14ph/12stn Dmin 82km Az.gap 229°
Corr. 0.336 18M/13stn Msd 0.2 2↑ 4↓

97/9640
JUN 16 094245.7s 37.21S 177.09E 12km M=3.5
0.2 0.03 0.02 R
Rsd 0.3s 6ph/5stn Dmin 37km Az.gap 180°
Corr. 0.674 6M/4stn Msd 0.3

97/9650
JUN 16 195337.2s 41.36S 172.90E 128km M=3.5
0.5 0.04 0.02 4
Rsd 0.4s 19ph/14stn Dmin 45km Az.gap 144°
Corr. -0.657 9M/9stn Msd 0.2 1↑

97/9652
JUN 16 223127.0s 37.24S 177.06E 5km M=3.7
0.2 0.02 0.02 R
Rsd 0.3s 8ph/5stn Dmin 34km Az.gap 177°
Corr. 0.635 8M/4stn Msd 0.3

97/9665
JUN 17 195324.0s 38.31S 176.98E 152km M=4.1
0.7 0.05 0.26 19
Rsd 0.2s 9ph/8stn Dmin 117km Az.gap 316°
Corr. -0.781 2M/1stn Msd 0.1 1↑
Poor station coverage.

97/9666
JUN 17 200442.9s 41.03S 172.89E 218km M=4.1
0.4 0.05 0.03 3
Rsd 0.2s 19ph/14stn Dmin 82km Az.gap 163°
Corr. -0.677 10M/8stn Msd 0.2

97/9669
JUN 18 000522.4s 37.25S 177.16E 223km M=4.2
0.5 0.03 0.04 6
Rsd 0.1s 11ph/9stn Dmin 133km Az.gap 277°
Corr. -0.722 8M/4stn Msd 0.3

97/9672
JUN 18 005332.4s 43.31S 171.55E 12km M=2.7
0.0 0.00 0.00 R
Rsd 0.1s 8ph/5stn Dmin 60km Az.gap 157°
Corr. -0.467 5M/5stn Msd 0.1 1↓
Felt Lake Coleridge (100) MM4.

97/9678
JUN 18 043331.6s 39.15S 175.43E 11km M=4.2
0.1 0.00 0.01 1
Rsd 0.2s 26ph/22stn Dmin 11km Az.gap 59°
Corr. 0.171 11M/6stn Msd 0.4 6↑ 1↓

97/9682
JUN 18 061700.0s 44.66S 168.46E 5km M=3.4
0.3 0.02 0.01 R
Rsd 0.4s 15ph/9stn Dmin 43km Az.gap 150°
Corr. -0.181 10M/6stn Msd 0.1 1↑
Felt Mt Aspiring (113) MM4.

97/9687
JUN 18 090942.9s 38.22S 178.24E 12km M=4.5
0.7 0.04 0.04 R
Rsd 0.2s 17ph/16stn Dmin 17km Az.gap 205°
Corr. -0.934 21M/16stn Msd 0.2 1↓
Felt Tologa Bay (37).

97/9697
JUN 18 173311.8s 38.19S 178.34E 12km M=3.8
1.1 0.04 0.07 R
Rsd 0.4s 8ph/6stn Dmin 15km Az.gap 271°
Corr. -0.691 8M/6stn Msd 0.2

97/9735
JUN 19 085507.6s 41.12S 174.51E 38km M=5.1
0.1 0.01 0.01 1
Rsd 0.1s 27ph/21stn Dmin 21km Az.gap 64°
Corr. -0.317 11M/6stn Msd 0.6 10↑ 10↓
Felt central North Island to Blenheim (77), maximum intensity MM5 at Pinehaven (69).

97/9738
JUN 19 100022.0s 41.11S 174.50E 35km M=3.1
0.1 0.02 0.01 1
Rsd 0.2s 12ph/10stn Dmin 22km Az.gap 168°
Corr. 0.477 10M/8stn Msd 0.2 2↑ 3↓
Felt Wellington (68).

97/9744
JUN 19 122451.3s 41.10S 174.50E 32km M=3.3
0.2 0.02 0.01 2
Rsd 0.3s 12ph/10stn Dmin 23km Az.gap 109°
Corr. 0.471 14M/13stn Msd 0.2 2↑ 3↓
Felt Wellington (68).

97/9768
JUN 20 131949.3s 41.06S 173.29E 125km M=3.8
0.3 0.01 0.01 3
Rsd 0.2s 23ph/17stn Dmin 61km Az.gap 169°
Corr. -0.348 13M/10stn Msd 0.3 2↑ 3↓

97/9771
JUN 20 153634.1s 41.15S 174.50E 34km M=5.4
0.1 0.01 0.01 1
Rsd 0.2s 32ph/27stn Dmin 19km Az.gap 67°
Corr. -0.393 10M/6stn Msd 0.8 5↑ 8↓
Felt Kakahi (39) to Blenheim (77), maximum intensity MM5 at Pinehaven.

97/9772
JUN 20 155134.7s 41.14S 174.52E 35km M=3.5
0.1 0.01 0.01 1
Rsd 0.2s 22ph/20stn Dmin 19km Az.gap 64°
Corr. -0.024 14M/11stn Msd 0.3 2↑ 3↓
Felt Tawa (68).

97/9780
JUN 20 170053.3s 41.12S 174.50E 35km M=2.7
0.1 0.01 0.01 1
Rsd 0.1s 10ph/8stn Dmin 21km Az.gap 168°
Corr. 0.491 9M/9stn Msd 0.2 1↑ 1↓
Felt Wellington (68).

97/9781
JUN 20 170620.3s 41.10S 174.50E 34km M=2.5
0.1 0.01 0.00 1
Rsd 0.1s 11ph/8stn Dmin 22km Az.gap 172°
Corr. 0.585 5M/5stn Msd 0.2 1↑ 2↓
Felt Wellington (68).

97/9787
JUN 20 192138.6s 36.70S 177.08E 304km M=4.4
1.1 0.08 0.04 10
Rsd 0.3s 16ph/15stn Dmin 93km Az.gap 267°
Corr. -0.223 12M/9stn Msd 0.2 1↑

97/9808
JUN 21 064420.8s 41.16S 174.52E 38km M=3.8
0.1 0.01 0.01 2
Rsd 0.2s 29ph/26stn Dmin 18km Az.gap 68°
Corr. -0.198 13M/10stn Msd 0.3 4↑ 5↓
Felt Tawa, Wellington (68) MM4.

97/9810
JUN 21 073611.0s 41.12S 174.48E 35km M=3.0
0.1 0.01 0.01 1
Rsd 0.2s 16ph/12stn Dmin 22km Az.gap 104°
Corr. 0.336 13M/10stn Msd 0.2 3↑ 4↓
Felt Wellington (68).

97/9817
JUN 21 092449.9s 41.12S 174.51E 37km M=3.6
0.1 0.01 0.00 1
Rsd 0.1s 19ph/16stn Dmin 21km Az.gap 105°
Corr. 0.041 15M/12stn Msd 0.2 4↑ 5↓
Felt Wellington (68).

97/9823
JUN 21 180858.5s 40.08S 174.90E 12km M=3.6
0.1 0.00 0.01 R
Rsd 0.2s 33ph/25stn Dmin 86km Az.gap 100°
Corr. -0.408 24M/19stn Msd 0.4 1↑

97/9824
JUN 21 181432.6s 41.30S 173.46E 101km M=3.6
0.3 0.03 0.02 3
Rsd 0.2s 23ph/18stn Dmin 68km Az.gap 149°
Corr. -0.654 14M/11stn Msd 0.4 1↑ 1↓

97/9833
JUN 21 215217.0s 38.55S 175.98E 126km M=3.7
0.4 0.01 0.01 4
Rsd 0.1s 17ph/15stn Dmin 28km Az.gap 106°
Corr. -0.503 9M/8stn Msd 0.3

97/9835
JUN 21 220922.1s 44.38S 168.13E 5km M=3.6
0.4 0.03 0.02 R
Rsd 0.3s 13ph/8stn Dmin 36km Az.gap 211°
Corr. -0.730 10M/5stn Msd 0.2

97/9844
JUN 22 034510.8s 45.74S 166.81E 74km M=4.1
0.3 0.02 0.02 2
Rsd 0.2s 11ph/7stn Dmin 40km Az.gap 255°
Corr. 0.284 12M/6stn Msd 0.2 4↑ 2↓

97/9857
JUN 22 081549.2s 38.65S 176.82E 60km M=3.8
0.1 0.01 0.01 3
Rsd 0.1s 27ph/22stn Dmin 54km Az.gap 129°
Corr. -0.791 14M/10stn Msd 0.2 1↑ 3↓

97/9883
JUN 22 215302.4s 38.13S 176.16E 187km M=4.2
0.3 0.02 0.01 3
Rsd 0.1s 22ph/18stn Dmin 30km Az.gap 87°
Corr. -0.451 12M/9stn Msd 0.2

97/9915
JUN 23 213328.3s 39.78S 176.95E 23km M=3.8
0.4 0.01 0.03 3
Rsd 0.2s 17ph/14stn Dmin 52km Az.gap 224°
Corr. -0.237 10M/9stn Msd 0.7 1↑

97/9925
JUN 24 015303.3s 41.16S 174.51E 35km M=4.3
0.1 0.01 0.01 1
Rsd 0.1s 28ph/25stn Dmin 18km Az.gap 67°
Corr. -0.407 13M/10stn Msd 0.4 5↑ 6↓
Felt Wellington MM4 and Lower Hutt (68).

97/9939
JUN 24 092055.2s 37.77S 179.63W 12km M=3.9
0.6 0.03 0.04 R
Rsd 0.3s 5ph/3stn Dmin 184km Az.gap 316°
Corr. -0.118 4M/3stn Msd 0.3 1↑

97/9947
JUN 24 131539.0s 40.31S 173.69E 191km M=3.5
0.3 0.04 0.02 2
Rsd 0.1s 13ph/9stn Dmin 58km Az.gap 261°
Corr. 0.147 8M/8stn Msd 0.3 1↓

97/9956
JUN 24 182823.1s 41.35S 174.78E 31km M=3.4
0.1 0.01 0.01 1
Rsd 0.2s 19ph/14stn Dmin 7km Az.gap 84°
Corr. -0.129 20M/17stn Msd 0.3 7↑ 4↓
Felt Wellington (68).

97/9995
JUN 25 233226.1s 36.99S 177.38E 150km M=3.7
0.6 0.04 0.02 6
Rsd 0.2s 10ph/9stn Dmin 106km Az.gap 251°
Corr. 0.210 8M/7stn Msd 0.2

97/10010
JUN 26 111500.5s 37.29S 176.80E 231km M=3.8
0.5 0.05 0.09 10
Rsd 0.1s 11ph/9stn Dmin 137km Az.gap 254°
Corr. -0.937 8M/7stn Msd 0.3

97/10016
JUN 26 181714.4s 35.02S 178.12E 209km M=3.9
0.8 0.10 0.40 27
Rsd 0.2s 12ph/10stn Dmin 287km Az.gap 333°
Corr. -0.890 6M/5stn Msd 0.4

97/10017
JUN 26 182853.7s 38.00S 179.15E 62km M=4.0
1.6 0.04 0.14 12
Rsd 0.6s 9ph/7stn Dmin 79km Az.gap 279°
Corr. 0.032 7M/4stn Msd 0.3 1↑ 1↓

97/10039
JUN 27 124435.2s 37.59S 178.84E 93km M=3.6
1.0 0.07 0.18 5
Rsd 0.3s 5ph/3stn Dmin 48km Az.gap 310°
Corr. -0.813 5M/3stn Msd 0.2

97/10050
JUN 27 214904.8s 35.47S 178.61E 33km M=4.3
1.3 0.07 0.08 R
Rsd 0.4s 8ph/6stn Dmin 238km Az.gap 274°
Corr. 0.731 7M/5stn Msd 0.4

97/10072
JUN 28 205612.5s 38.42S 175.94E 168km M=4.0
0.7 0.05 0.04 6
Rsd 0.2s 18ph/17stn Dmin 28km Az.gap 159°
Corr. -0.671 14M/11stn Msd 0.3 1↓

97/10073
JUN 28 221721.7s 38.57S 175.89E 198km M=3.6
0.3 0.01 0.09 2
Rsd 0.1s 13ph/11stn Dmin 35km Az.gap 332°
Corr. -0.256 6M/6stn Msd 0.3 1↑

97/10081
JUN 29 084926.7s 37.83S 176.47E 169km M=4.1
0.3 0.01 0.01 2
Rsd 0.1s 20ph/17stn Dmin 19km Az.gap 138°
Corr. -0.369 16M/12stn Msd 0.2

97/10082
JUN 29 091002.9s 36.91S 177.51E 129km M=3.8
0.6 0.03 0.02 8
Rsd 0.1s 16ph/13stn Dmin 104km Az.gap 222°
Corr. 0.136 9M/9stn Msd 0.1 1↑

97/10092
JUN 29 205114.4s 37.90S 176.54E 203km M=3.9
0.7 0.08 0.07 6
Rsd 0.1s 13ph/12stn Dmin 16km Az.gap 221°
Corr. -0.919 9M/9stn Msd 0.2

97/10094
JUN 29 221537.2s 45.00S 167.53E 96km M=4.1
0.3 0.01 0.01 2
Rsd 0.2s 14ph/9stn Dmin 48km Az.gap 191°
Corr. -0.203 13M/7stn Msd 0.3 4↑ 3↓

97/10107
JUN 30 112035.0s 44.47S 169.94E 10km M=4.0
0.2 0.01 0.01 1
Rsd 0.2s 18ph/12stn Dmin 8km Az.gap 122°
Corr. -0.242 15M/9stn Msd 0.2 1↑ 3↓
Felt Twizel (116).

97/10117
JUL 01 025825.0s 41.13S 174.52E 43km M=4.2
0.1 0.01 0.01 2
Rsd 0.2s 25ph/21stn Dmin 20km Az.gap 78°
Corr. -0.454 15M/10stn Msd 0.4 5↑ 6↓
Felt Paraparaumu (65) to Blenheim (77), MM4.

97/10130
JUL 01 182854.1s 37.39S 177.60E 176km M=3.7
2.6 0.10 0.12 20
Rsd 0.9s 6ph/5stn Dmin 95km Az.gap 249°
Corr. 0.367 3M/2stn Msd 0.3

97/10132
JUL 01 193628.6s 37.33S 177.13E 5km M=3.9
0.2 0.01 0.01 R
Rsd 0.2s 7ph/4stn Dmin 23km Az.gap 193°
Corr. 0.824 6M/3stn Msd 0.1

97/10138
JUL 02 015635.5s 38.63S 175.69E 184km M=3.9
0.6 0.02 0.03 5
Rsd 0.2s 19ph/15stn Dmin 61km Az.gap 216°
Corr. 0.244 11M/9stn Msd 0.3 1↓

97/10142
JUL 02 033952.6s 41.10S 174.49E 37km M=3.6
0.1 0.01 0.01 1
Rsd 0.1s 16ph/12stn Dmin 23km Az.gap 87°
Corr. 0.038 14M/9stn Msd 0.2 4↑ 3↓

97/10157
JUL 02 164506.1s 36.91S 177.45E 177km M=3.9
0.9 0.06 0.03 8
Rsd 0.3s 7ph/4stn Dmin 108km Az.gap 219°
Corr. 0.463 5M/3stn Msd 0.4

97/10166
JUL 02 202912.4s 45.93S 168.24E 12km M=4.0
0.3 0.01 0.01 2
Rsd 0.2s 14ph/9stn Dmin 23km Az.gap 95°
Corr. 0.286 14M/7stn Msd 0.3 1↑ 2↓
Felt strongly at Ohai (139).

97/10181
JUL 03 021331.9s 38.98S 175.60E 116km M=4.1
0.3 0.01 0.02 3
Rsd 0.3s 33ph/26stn Dmin 6km Az.gap 84°
Corr. -0.198 19M/13stn Msd 0.3 4↑ 1↓

97/10261
JUL 05 063934.2s 45.07S 167.51E 125km M=3.8
0.5 0.02 0.02 4
Rsd 0.3s 14ph/8stn Dmin 52km Az.gap 185°
Corr. -0.088 13M/8stn Msd 0.3 4↑ 1↓

97/10262
JUL 05 072350.6s 35.47S 178.18E 198km M=4.2
1.3 0.17 0.43 36
Rsd 0.4s 7ph/4stn Dmin 236km Az.gap 336°
Corr. -0.936 6M/4stn Msd 0.2

97/10285
JUL 05 232457.1s 41.75S 172.40E 12km M=3.7
0.3 0.03 0.03 R
Rsd 0.4s 16ph/12stn Dmin 115km Az.gap 168°
Corr. -0.805 15M/11stn Msd 0.3

97/10286
JUL 06 021830.0s 37.04S 177.15E 231km M=3.9
1.0 0.09 0.05 10
Rsd 0.3s 9ph/7stn Dmin 120km Az.gap 250°
Corr. -0.483 14M/13stn Msd 0.2 1↓

97/10314
JUL 06 203353.8s 38.83S 176.03E 5km M=4.1
0.2 0.01 0.02 R
Rsd 0.3s 16ph/15stn Dmin 8km Az.gap 111°
Corr. -0.304 10M/5stn Msd 0.2 2↑ 1↓

97/10335
JUL 07 072822.0s 38.36S 176.45E 156km M=3.5
0.9 0.03 0.10 10
Rsd 0.2s 12ph/10stn Dmin 73km Az.gap 306°
Corr. -0.029 7M/7stn Msd 0.3 1↑

97/10344
JUL 07 192327.6s 37.02S 176.82E 285km M=4.2
0.4 0.05 0.02 4
Rsd 0.1s 18ph/17stn Dmin 109km Az.gap 247°
Corr. -0.262 17M/13stn Msd 0.2

97/10348
JUL 08 003130.4s 37.88S 176.81E 152km M=4.3
0.6 0.03 0.02 5
Rsd 0.2s 26ph/22stn Dmin 17km Az.gap 110°
Corr. -0.307 18M/12stn Msd 0.2 1↑

97/10359
JUL 08 135105.3s 41.40S 174.65E 21km M=3.0
0.1 0.01 0.01 1
Rsd 0.2s 18ph/14stn Dmin 16km Az.gap 130°
Corr. 0.153 16M/13stn Msd 0.2 4↑ 4↓
Felt Waikanae (65).

97/10367
JUL 08 172314.3s 36.41S 178.44E 140km M=3.7
0.3 0.04 0.30 5
Rsd 0.0s 6ph/3stn Dmin 133km Az.gap 357°
Corr. -0.978 5M/3stn Msd 0.5

97/10375
JUL 09 072208.1s 38.15S 175.97E 113km M=3.7
0.7 0.09 0.13 36
Rsd 0.2s 9ph/4stn Dmin 188km Az.gap 245°
Corr. -0.972 6M/4stn Msd 0.2
Poor station coverage.

97/10380
JUL 09 211422.5s 36.99S 175.88E 33km M=3.3
0.6 0.03 0.05 R
Rsd 0.3s 6ph/3stn Dmin 85km Az.gap 271°
Corr. 0.830 2M/2stn Msd 0.2 1↑
Felt Tairua (21).

97/10385
JUL 10 100118.2s 44.14S 169.81E 12km M=3.6
0.3 0.02 0.03 R
Rsd 0.4s 9ph/7stn Dmin 109km Az.gap 177°
Corr. -0.667 13M/7stn Msd 0.2 1↑ 1↓

97/10392
JUL 11 015004.9s 35.77S 179.59W 12km M=3.7
0.4 0.04 0.06 R
Rsd 0.1s 4ph/3stn Dmin 276km Az.gap 351°
Corr. -0.681 4M/3stn Msd 0.5

97/10395
JUL 11 034324.9s 41.33S 172.69E 208km M=3.5
0.3 0.07 0.05 6
Rsd 0.1s 9ph/7stn Dmin 165km Az.gap 242°
Corr. -0.982 4M/4stn Msd 0.3 1↑

97/10406
JUL 11 150518.6s 39.14S 175.12E 224km M=3.7
0.5 0.05 0.10 4
Rsd 0.2s 16ph/13stn Dmin 37km Az.gap 215°
Corr. -0.793 8M/7stn Msd 0.4 1↑

97/10417
JUL 12 041929.2s 36.63S 177.49E 33km M=3.9
1.8 0.17 0.05 R
Rsd 0.7s 5ph/3stn Dmin 129km Az.gap 275°
Corr. -0.174 4M/4stn Msd 0.5

97/10419
JUL 12 062310.8s 44.97S 167.49E 66km M=4.2
0.2 0.01 0.01 2
Rsd 0.1s 15ph/9stn Dmin 48km Az.gap 182°
Corr. -0.190 15M/8stn Msd 0.4 1↑ 2↓

97/10425
JUL 12 140603.3s 35.94S 178.60E 196km M=4.2
0.8 0.06 0.04 6
Rsd 0.2s 10ph/8stn Dmin 186km Az.gap 317°
Corr. 0.198 12M/11stn Msd 0.3

97/10436
JUL 12 221802.4s 38.13S 176.09E 198km M=4.0
0.6 0.03 0.02 5
Rsd 0.2s 14ph/13stn Dmin 32km Az.gap 128°
Corr. -0.379 15M/13stn Msd 0.2 1↑

97/10438
JUL 13 033849.6s 41.25S 172.75E 178km M=4.2
0.5 0.04 0.04 4
Rsd 0.2s 21ph/16stn Dmin 110km Az.gap 182°
Corr. -0.786 19M/14stn Msd 0.2 8↑ 1↓

97/10440
JUL 13 044735.0s 38.23S 176.06E 163km M=3.8
0.4 0.02 0.02 4
Rsd 0.1s 11ph/9stn Dmin 60km Az.gap 115°
Corr. -0.402 12M/11stn Msd 0.4 1↑

97/10448
JUL 13 083945.0s 36.95S 177.18E 201km M=3.9
0.3 0.01 0.01 3
Rsd 0.1s 9ph/8stn Dmin 123km Az.gap 252°
Corr. 0.150 13M/13stn Msd 0.3

97/10450
JUL 13 090348.3s 37.85S 176.08E 310km M=4.0
0.3 0.01 0.02 2
Rsd 0.1s 17ph/14stn Dmin 116km Az.gap 268°
Corr. -0.364 14M/12stn Msd 0.2

97/10465
JUL 13 230000.7s 38.52S 175.89E 168km M=3.9
0.7 0.03 0.05 6
Rsd 0.3s 19ph/15stn Dmin 73km Az.gap 193°
Corr. 0.265 13M/11stn Msd 0.2 1↑ 1↓

97/10466
JUL 13 230142.2s 39.90S 178.33E 12km M=3.6
0.7 0.04 0.06 R
Rsd 0.3s 12ph/9stn Dmin 144km Az.gap 236°
Corr. -0.846 9M/9stn Msd 0.3

97/10469
JUL 14 015701.3s 37.30S 177.76E 26km M=4.3
0.3 0.03 0.02 3
Rsd 0.2s 10ph/8stn Dmin 58km Az.gap 185°
Corr. 0.672 22M/18stn Msd 0.4 1↑ 3↓

97/10473
JUL 14 030718.7s 35.26S 178.21E 288km M=4.4
0.3 0.04 0.07 3
Rsd 0.0s 13ph/11stn Dmin 373km Az.gap 332°
Corr. -0.910 10M/10stn Msd 0.1

97/10511
JUL 16 060817.0s 39.65S 176.45E 20km M=3.5
0.2 0.01 0.01 3
Rsd 0.2s 25ph/21stn Dmin 62km Az.gap 138°
Corr. -0.288 30M/24stn Msd 0.3

97/10520
JUL 16 163414.4s 45.71S 166.92E 75km M=4.0
0.3 0.01 0.02 2
Rsd 0.2s 12ph/7stn Dmin 33km Az.gap 249°
Corr. 0.077 10M/5stn Msd 0.2 1↑ 1↓

97/10523
JUL 16 174342.9s 39.28S 173.88E 12km M=3.5
0.2 0.01 0.01 1
Rsd 0.2s 15ph/10stn Dmin 1km Az.gap 131°
Corr. -0.222 23M/19stn Msd 0.2 4↑ 1↓
Felt New Plymouth (47).

97/10526
JUL 16 231553.7s 38.17S 175.72E 283km M=3.8
0.2 0.01 0.03 2
Rsd 0.0s 11ph/9stn Dmin 112km Az.gap 330°
Corr. -0.474 5M/5stn Msd 0.2

97/10535
JUL 17 090855.9s 38.38S 179.87W 12km M=3.5
1.5 0.10 0.09 R
Rsd 0.3s 5ph/3stn Dmin 167km Az.gap 315°
Corr. 0.720 5M/3stn Msd 0.4
Poor station coverage.

97/10538
JUL 17 175608.7s 37.08S 177.85E 62km M=5.0
0.4 0.03 0.01 5
Rsd 0.1s 19ph/16stn Dmin 70km Az.gap 260°
Corr. 0.621 9M/5stn Msd 0.3 1↑ 10↓
Felt Whakatane (26).

97/10543
JUL 17 214655.0s 45.20S 167.41E 112km M=3.5
0.3 0.02 0.02 3
Rsd 0.2s 12ph/7stn Dmin 36km Az.gap 181°
Corr. -0.101 12M/7stn Msd 0.2 1↑

97/10545
JUL 17 225509.4s 37.15S 177.83E 49km M=4.0
0.4 0.03 0.01 4
Rsd 0.2s 18ph/15stn Dmin 65km Az.gap 252°
Corr. 0.511 16M/13stn Msd 0.3

97/10546
JUL 18 000004.0s 39.75S 176.89E 98km M=4.4
0.4 0.01 0.02 6
Rsd 0.2s 30ph/28stn Dmin 117km Az.gap 175°
Corr. -0.209 8M/4stn Msd 0.1 1↓
Felt northern and central Hawkes Bay.

97/10557
JUL 18 132324.2s 39.10S 174.90E 210km M=4.0
0.8 0.02 0.06 7
Rsd 0.2s 17ph/15stn Dmin 57km Az.gap 162°
Corr. -0.124 18M/14stn Msd 0.3 2↑ 4↓

97/10565
JUL 18 182042.0s 39.19S 177.72E 12km M=3.7
0.1 0.01 0.01 R
Rsd 0.1s 6ph/5stn Dmin 69km Az.gap 203°
Corr. -0.863 2M/2stn Msd 0.4 1↑ 1↓

97/10599
JUL 19 205228.0s 38.33S 179.01W 12km M=4.1
1.1 0.05 0.07 R
Rsd 0.4s 7ph/4stn Dmin 241km Az.gap 316°
Corr. -0.144 6M/5stn Msd 0.2

97/10604
JUL 20 033658.4s 37.08S 177.69E 129km M=3.8
0.4 0.02 0.02 4
Rsd 0.1s 13ph/11stn Dmin 67km Az.gap 252°
Corr. 0.242 10M/8stn Msd 0.2

97/10623
JUL 20 170553.0s 39.23S 174.99E 158km M=5.0
0.3 0.01 0.01 3
Rsd 0.2s 43ph/36stn Dmin 40km Az.gap 77°
Corr. -0.071 8M/4stn Msd 0.2 7↑ 8↓
Felt Marton (61) MM3.

97/10631
JUL 20 204908.0s 40.91S 176.05E 31km M=3.8
0.2 0.01 0.02 2
Rsd 0.3s 17ph/14stn Dmin 30km Az.gap 174°
Corr. 0.100 30M/25stn Msd 0.2 5↑ 1↓

97/10644
JUL 21 044457.6s 39.59S 174.48E 122km M=4.0
0.3 0.01 0.01 3
Rsd 0.3s 37ph/30stn Dmin 44km Az.gap 78°
Corr. -0.150 20M/15stn Msd 0.2 4↑ 8↓

97/10655
JUL 21 133406.1s 41.16S 173.28E 106km M=4.2
0.3 0.02 0.01 3
Rsd 0.3s 33ph/24stn Dmin 67km Az.gap 132°
Corr. -0.470 8M/4stn Msd 0.1 4↑ 4↓

97/10657
JUL 21 133932.7s 40.26S 173.66E 174km M=3.6
0.4 0.01 0.02 3
Rsd 0.2s 24ph/21stn Dmin 64km Az.gap 146°
Corr. 0.437 15M/13stn Msd 0.2 2↑ 1↓

97/10697
JUL 22 145252.5s 38.80S 175.70E 131km M=3.5
0.7 0.02 0.03 6
Rsd 0.2s 17ph/15stn Dmin 10km Az.gap 83°
Corr. -0.467 17M/14stn Msd 0.2 1↑

97/10729
JUL 23 141905.9s 45.04S 167.49E 78km M=4.0
0.2 0.01 0.01 2
Rsd 0.1s 15ph/10stn Dmin 53km Az.gap 192°
Corr. -0.220 12M/6stn Msd 0.3 1↑ 3↓

97/10744
JUL 24 022540.5s 37.82S 176.90E 5km M=3.5
0.2 0.02 0.01 R
Rsd 0.4s 15ph/11stn Dmin 27km Az.gap 118°
Corr. -0.421 13M/11stn Msd 0.3
Felt Whakatane (26).

97/10756
JUL 24 072025.0s 38.04S 175.97E 228km M=3.8
0.3 0.01 0.01 3
Rsd 0.1s 12ph/11stn Dmin 40km Az.gap 167°
Corr. -0.115 12M/11stn Msd 0.1

97/10779
JUL 24 150801.9s 45.21S 167.33E 69km M=3.8
0.2 0.01 0.01 2
Rsd 0.1s 14ph/10stn Dmin 32km Az.gap 193°
Corr. -0.244 10M/5stn Msd 0.3 2↑ 1↓

97/10807
JUL 25 072016.2s 39.06S 177.25E 12km M=3.7
1.0 0.21 0.06 R
Rsd 0.3s 6ph/4stn Dmin 45km Az.gap 355°
Corr. -0.505 3M/3stn Msd 0.1

97/10821
JUL 25 121124.3s 38.89S 174.98E 229km M=4.4
0.3 0.02 0.01 3
Rsd 0.1s 23ph/20stn Dmin 45km Az.gap 92°
Corr. -0.484 17M/14stn Msd 0.2 3↑ 2↓

97/10823
JUL 25 133425.8s 38.81S 175.99E 110km M=3.5
0.3 0.01 0.02 2
Rsd 0.2s 21ph/16stn Dmin 12km Az.gap 53°
Corr. -0.307 12M/12stn Msd 0.3 1↑

97/10827
JUL 25 170350.9s 35.49S 179.29E 235km M=4.6
0.6 0.07 0.05 11
Rsd 0.1s 14ph/12stn Dmin 251km Az.gap 326°
Corr. -0.140 18M/15stn Msd 0.3

97/10828
JUL 25 175417.3s 36.22S 177.22E 33km M=3.8
2.4 0.19 0.06 R
Rsd 0.7s 6ph/4stn Dmin 181km Az.gap 290°
Corr. 0.217 4M/4stn Msd 0.3

97/10831
JUL 25 200700.7s 37.86S 177.38E 60km M=3.7
0.2 0.02 0.01 3
Rsd 0.2s 23ph/18stn Dmin 41km Az.gap 95°
Corr. -0.073 14M/12stn Msd 0.2 1↑

97/10864
JUL 26 192055.0s 38.35S 176.08E 163km M=3.9
0.6 0.03 0.02 5
Rsd 0.2s 16ph/14stn Dmin 16km Az.gap 139°
Corr. 0.110 10M/10stn Msd 0.5 1↑ 1↓

97/10867
JUL 26 202405.4s 37.16S 176.90E 251km M=4.1
0.7 0.10 0.06 8
Rsd 0.3s 12ph/10stn Dmin 133km Az.gap 253°
Corr. -0.826 12M/10stn Msd 0.2

97/10878
JUL 27 023226.0s 38.47S 176.00E 166km M=3.8
0.4 0.02 0.02 3
Rsd 0.2s 27ph/23stn Dmin 22km Az.gap 74°
Corr. -0.514 15M/12stn Msd 0.3 2↑ 1↓

97/10881
JUL 27 032909.8s 45.01S 167.47E 5km M=3.6
0.1 0.00 0.01 R
Rsd 0.1s 15ph/9stn Dmin 52km Az.gap 198°
Corr. -0.547 12M/6stn Msd 0.2 1↑ 2↓

97/10905
JUL 27 133029.2s 46.33S 166.84E 96km M=4.2
0.3 0.01 0.02 2
Rsd 0.2s 14ph/9stn Dmin 99km Az.gap 252°
Corr. 0.445 12M/6stn Msd 0.3 1↑ 3↓

97/10910
JUL 27 144430.4s 45.06S 167.53E 113km M=3.7
0.5 0.02 0.02 4
Rsd 0.3s 16ph/10stn Dmin 53km Az.gap 184°
Corr. -0.088 10M/6stn Msd 0.2 1↑

97/10912
JUL 27 161554.6s 38.58S 177.04E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.4s 26ph/23stn Dmin 59km Az.gap 110°
Corr. -0.151 32M/28stn Msd 0.3 1↓

97/10955
JUL 28 225811.7s 36.62S 176.48E 240km M=3.7
1.5 0.13 0.19 30
Rsd 0.3s 6ph/5stn Dmin 195km Az.gap 288°
Corr. -0.837 4M/4stn Msd 0.1
Poor station coverage.

97/10962
JUL 29 023740.7s 44.37S 168.67E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.2s 16ph/9stn Dmin 68km Az.gap 153°
Corr. -0.387 8M/4stn Msd 0.1
Felt Mt Aspiring Stn (113) MM4.

97/10982
JUL 29 150718.3s 41.34S 173.44E 89km M=4.0
0.2 0.03 0.01 3
Rsd 0.2s 26ph/20stn Dmin 35km Az.gap 118°
Corr. -0.774 12M/9stn Msd 0.2 1↓

97/11001
JUL 30 040744.4s 39.63S 174.20E 191km M=3.6
0.6 0.02 0.04 6
Rsd 0.3s 22ph/20stn Dmin 65km Az.gap 163°
Corr. -0.444 12M/12stn Msd 0.3 1↓

97/11016
JUL 30 132903.2s 45.11S 167.39E 63km M=3.5
0.4 0.01 0.02 4
Rsd 0.2s 12ph/8stn Dmin 44km Az.gap 196°
Corr. -0.268 16M/9stn Msd 0.2 1↓

97/11018
JUL 30 164214.7s 37.07S 177.37E 155km M=3.7
1.5 0.09 0.14 20
Rsd 0.5s 11ph/8stn Dmin 101km Az.gap 279°
Corr. -0.468 13M/13stn Msd 0.2 1↑

97/11020
JUL 30 191248.0s 39.95S 175.66E 61km M=4.7
0.1 0.00 0.01 3
Rsd 0.2s 55ph/48stn Dmin 64km Az.gap 56°
Corr. -0.001 8M/4stn Msd 0.2 5↑ 3↓
Felt central North Island to Levin, maximum intensity MM4.

97/11022
JUL 30 194803.1s 40.40S 175.89E 40km M=3.6
0.1 0.01 0.01 3
Rsd 0.2s 24ph/21stn Dmin 39km Az.gap 139°
Corr. -0.304 16M/12stn Msd 0.3 5↑ 3↓

97/11049
JUL 31 163928.1s 43.48S 170.23E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.2s 13ph/9stn Dmin 51km Az.gap 143°
Corr. -0.491 13M/10stn Msd 0.3 1↑

97/11051
JUL 31 182947.8s 36.71S 177.73E 154km M=3.9
0.4 0.04 0.01 4
Rsd 0.2s 7ph/5stn Dmin 111km Az.gap 277°
Corr. 0.189 13M/11stn Msd 0.2

97/11055
JUL 31 231752.2s 38.58S 176.39E 109km M=4.0
0.3 0.01 0.01 3
Rsd 0.2s 34ph/29stn Dmin 24km Az.gap 46°
Corr. -0.098 22M/17stn Msd 0.2 1↓

97/11056
AUG 01 010607.0s 36.75S 179.09W 283km M=4.0
1.6 0.12 0.16 11
Rsd 0.4s 8ph/7stn Dmin 250km Az.gap 331°
Corr. -0.549 9M/8stn Msd 0.3

97/11060
AUG 01 061540.8s 38.80S 178.02E 44km M=3.8
0.6 0.04 0.03 3
Rsd 0.3s 12ph/10stn Dmin 20km Az.gap 252°
Corr. -0.776 5M/3stn Msd 0.3 1↓

97/11066
AUG 01 123400.5s 35.67S 179.20E 247km M=4.0
0.8 0.06 0.09 6
Rsd 0.2s 12ph/9stn Dmin 229km Az.gap 325°
Corr. -0.325 16M/13stn Msd 0.3

97/11084
AUG 02 035758.8s 34.68S 177.21E 12km M=5.0
1.0 0.07 0.09 R
Rsd 0.3s 6ph/4stn Dmin 339km Az.gap 331°
Corr. 0.456 5M/4stn Msd 0.4

97/11087
AUG 02 113331.2s 36.99S 176.74E 257km M=4.0
1.2 0.11 0.15 18
Rsd 0.3s 11ph/8stn Dmin 154km Az.gap 273°
Corr. -0.842 15M/12stn Msd 0.2

97/11088
AUG 02 120428.4s 38.74S 175.22E 236km M=3.9
0.8 0.04 0.04 7
Rsd 0.2s 19ph/16stn Dmin 40km Az.gap 215°
Corr. 0.040 17M/16stn Msd 0.2

97/11112
AUG 03 050225.8s 37.38S 177.12E 5km M=3.8
0.4 0.03 0.02 R
Rsd 0.2s 6ph/5stn Dmin 18km Az.gap 215°
Corr. 0.151 4M/4stn Msd 0.3

97/11118
AUG 03 051341.8s 37.43S 177.15E 5km M=3.9
0.4 0.03 0.01 R
Rsd 0.3s 12ph/10stn Dmin 12km Az.gap 210°
Corr. -0.163 10M/10stn Msd 0.2 1↓

97/11121
AUG 03 102841.9s 37.45S 177.19E 5km M=3.6
0.3 0.02 0.01 R
Rsd 0.2s 6ph/5stn Dmin 9km Az.gap 208°
Corr. 0.110 4M/4stn Msd 0.2

97/11122
AUG 03 105328.4s 37.36S 177.44E 5km M=3.6
1.1 0.06 0.06 R
Rsd 0.4s 5ph/3stn Dmin 80km Az.gap 309°
Corr. -0.207 3M/3stn Msd 0.2

97/11126
AUG 03 181038.6s 40.60S 174.60E 83km M=3.7
0.2 0.01 0.01 2
Rsd 0.2s 27ph/21stn Dmin 39km Az.gap 89°
Corr. -0.181 13M/11stn Msd 0.1 1↓
Felt Marton (61) MM3.

97/11132
AUG 03 215104.6s 38.63S 175.51E 193km M=3.6
1.8 0.05 0.04 15
Rsd 0.1s 12ph/12stn Dmin 22km Az.gap 153°
Corr. 0.693 7M/6stn Msd 0.1 1↑

97/11136
AUG 03 234232.6s 37.45S 177.15E 5km M=4.6
0.5 0.05 0.02 R
Rsd 0.4s 15ph/13stn Dmin 73km Az.gap 177°
Corr. 0.275 28M/22stn Msd 0.4

97/11137
AUG 03 235435.6s 37.52S 176.30E 216km M=4.0
0.8 0.09 0.14 17
Rsd 0.3s 17ph/12stn Dmin 177km Az.gap 236°
Corr. -0.919 14M/12stn Msd 0.2 1↑

97/11140
AUG 04 040231.7s 38.34S 176.27E 112km M=4.3
0.2 0.01 0.01 2
Rsd 0.1s 34ph/30stn Dmin 5km Az.gap 57°
Corr. -0.131 19M/14stn Msd 0.2 1↓

97/11147
AUG 04 095520.8s 38.72S 175.85E 105km M=3.9
0.3 0.01 0.01 3
Rsd 0.2s 26ph/22stn Dmin 10km Az.gap 62°
Corr. -0.255 20M/15stn Msd 0.2 6↑ 4↓

97/11164
AUG 04 235020.2s 37.98S 176.16E 275km M=3.7
0.9 0.03 0.03 7
Rsd 0.1s 13ph/12stn Dmin 126km Az.gap 269°
Corr. -0.614 9M/9stn Msd 0.4 1↓

97/11167
AUG 05 023132.8s 40.43S 176.27E 30km M=4.0
0.2 0.01 0.02 2
Rsd 0.3s 29ph/24stn Dmin 28km Az.gap 151°
Corr. -0.427 10M/6stn Msd 0.2 5↑ 3↓
Felt Dannevirke and Weber (63).

97/11168
AUG 05 024258.6s 40.44S 176.31E 31km M=3.8
0.2 0.01 0.02 2
Rsd 0.3s 25ph/21stn Dmin 27km Az.gap 168°
Corr. -0.514 25M/21stn Msd 0.2 1↓
Felt Dannevirke and Weber (63).

97/11170
AUG 05 032905.7s 37.30S 178.63E 98km M=3.7
1.0 0.07 0.16 5
Rsd 0.2s 5ph/4stn Dmin 45km Az.gap 338°
Corr. -0.568 4M/4stn Msd 0.1

97/11176
AUG 05 072821.7s 38.31S 176.16E 5km M=2.7
0.2 0.01 0.01 R
Rsd 0.2s 7ph/5stn Dmin 12km Az.gap 179°
Corr. 0.502 5M/5stn Msd 0.2
Felt Rotorua (33) MM4.

97/11228
AUG 06 162500.1s 39.63S 174.09E 174km M=3.6
0.7 0.01 0.04 8
Rsd 0.2s 19ph/16stn Dmin 75km Az.gap 168°
Corr. -0.363 13M/12stn Msd 0.3 3↑ 3↓

97/11233
AUG 06 200903.6s 37.66S 179.69E 12km M=3.7
0.2 0.01 0.01 R
Rsd 0.1s 5ph/3stn Dmin 123km Az.gap 321°
Corr. 0.147 5M/3stn Msd 0.2

97/11245
AUG 07 032359.6s 39.69S 174.47E 209km M=3.6
0.2 0.01 0.01 2
Rsd 0.1s 17ph/13stn Dmin 41km Az.gap 222°
Corr. 0.123 12M/12stn Msd 0.3

97/11258
AUG 07 090712.8s 42.97S 171.45E 12km M=3.7
0.1 0.01 0.01 R
Rsd 0.2s 12ph/8stn Dmin 59km Az.gap 113°
Corr. -0.052 17M/12stn Msd 0.5 1↓

97/11279
AUG 07 204051.5s 45.13S 167.42E 116km M=3.8
0.4 0.03 0.02 3
Rsd 0.2s 15ph/9stn Dmin 43km Az.gap 195°
Corr. -0.251 15M/10stn Msd 0.4 1↑

97/11286
AUG 08 040100.9s 37.01S 177.67E 128km M=3.8
0.2 0.01 0.01 3
Rsd 0.1s 13ph/11stn Dmin 86km Az.gap 257°
Corr. -0.124 14M/12stn Msd 0.2

97/11298
AUG 08 094920.0s 38.82S 175.15E 225km M=4.2
0.6 0.04 0.03 4
Rsd 0.2s 22ph/20stn Dmin 33km Az.gap 72°
Corr. -0.095 19M/16stn Msd 0.3 1↑ 1↓

97/11301
AUG 08 110624.2s 37.52S 176.60E 209km M=4.9
0.5 0.02 0.02 4
Rsd 0.2s 32ph/28stn Dmin 37km Az.gap 153°
Corr. 0.031 8M/4stn Msd 0.1 1↓

97/11315
AUG 08 203608.8s 38.30S 175.87E 180km M=4.5
0.3 0.02 0.01 2
Rsd 0.1s 23ph/19stn Dmin 47km Az.gap 97°
Corr. -0.200 8M/4stn Msd 0.3 7↑ 1↓

97/11343
AUG 09 133048.7s 37.72S 179.13E 30km M=4.4
0.7 0.03 0.04 3
Rsd 0.1s 20ph/18stn Dmin 74km Az.gap 295°
Corr. -0.645 44M/38stn Msd 0.4 1↑ 1↓

97/11344
AUG 09 134351.1s 38.78S 176.40E 91km M=3.9
0.2 0.01 0.01 3
Rsd 0.2s 32ph/27stn Dmin 30km Az.gap 58°
Corr. -0.283 21M/18stn Msd 0.3 5↑ 3↓

97/11345
AUG 09 162743.8s 37.54S 176.72E 12km M=3.7
0.8 0.05 0.06 R
Rsd 0.2s 12ph/10stn Dmin 351km Az.gap 338°
Corr. 0.388 7M/7stn Msd 0.1 1↑
Very poor station coverage.

97/11358
AUG 09 235207.3s 38.58S 176.55E 76km M=3.7
0.2 0.01 0.01 3
Rsd 0.2s 28ph/25stn Dmin 33km Az.gap 42°
Corr. -0.163 14M/13stn Msd 0.2 1↑ 5↓

97/11362
AUG 10 004248.3s 41.29S 172.62E 208km M=4.0
0.5 0.03 0.02 4
Rsd 0.2s 24ph/17stn Dmin 58km Az.gap 172°
Corr. -0.383 15M/14stn Msd 0.2 1↑

97/11380
AUG 10 132705.7s 38.35S 175.99E 186km M=3.5
0.4 0.02 0.03 3
Rsd 0.1s 11ph/10stn Dmin 102km Az.gap 321°
Corr. -0.190 10M/10stn Msd 0.3

97/11392
AUG 11 030828.8s 37.27S 178.53E 91km M=3.7
0.9 0.08 0.13 8
Rsd 0.3s 8ph/7stn Dmin 41km Az.gap 340°
Corr. -0.672 8M/6stn Msd 0.3

97/11409
AUG 11 160902.2s 40.02S 174.65E 101km M=4.0
0.2 0.01 0.01 3
Rsd 0.3s 42ph/34stn Dmin 35km Az.gap 91°
Corr. 0.056 23M/17stn Msd 0.2 3↑ 5↓

97/11418
AUG 12 025930.0s 38.03S 176.54E 167km M=4.0
0.7 0.03 0.02 6
Rsd 0.3s 25ph/22stn Dmin 8km Az.gap 102°
Corr. -0.406 17M/15stn Msd 0.4 4↑ 1↓

97/11421
AUG 12 110625.8s 41.62S 172.92E 81km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 21ph/16stn Dmin 16km Az.gap 163°
Corr. -0.279 13M/12stn Msd 0.2 2↑ 5↓

97/11425
AUG 12 130412.9s 36.79S 176.56E 173km M=4.0
0.9 0.07 0.14 23
Rsd 0.2s 13ph/11stn Dmin 179km Az.gap 277°
Corr. -0.815 12M/12stn Msd 0.2

97/11432
AUG 12 205342.4s 37.45S 177.69E 102km M=4.1
0.2 0.01 0.01 2
Rsd 0.1s 17ph/16stn Dmin 57km Az.gap 211°
Corr. 0.225 10M/8stn Msd 0.2 1↓

97/11433
AUG 13 010143.4s 35.73S 179.09E 162km M=4.8
0.7 0.15 0.23 15
Rsd 0.2s 8ph/5stn Dmin 219km Az.gap 346°
Corr. -0.951 6M/4stn Msd 0.8

97/11436
AUG 13 063614.4s 38.00S 175.81E 248km M=4.0
0.8 0.12 0.13 15
Rsd 0.3s 11ph/8stn Dmin 145km Az.gap 235°
Corr. -0.944 9M/7stn Msd 0.2

97/11440
AUG 13 084849.6s 38.10S 176.01E 200km M=3.9
1.6 0.05 0.05 14
Rsd 0.3s 15ph/14stn Dmin 47km Az.gap 127°
Corr. -0.660 13M/12stn Msd 0.2

97/11443
AUG 13 152037.9s 39.64S 176.42E 34km M=3.6
0.1 0.01 0.01 3
Rsd 0.3s 31ph/28stn Dmin 9km Az.gap 114°
Corr. -0.039 18M/14stn Msd 0.2 1↓

97/11450
AUG 14 015140.7s 36.27S 177.22E 294km M=3.8
0.7 0.08 0.12 9
Rsd 0.2s 7ph/6stn Dmin 176km Az.gap 298°
Corr. -0.701 4M/4stn Msd 0.1

97/11463
AUG 14 134238.6s 37.02S 176.07E 172km M=3.8
0.9 0.11 0.15 37
Rsd 0.2s 7ph/3stn Dmin 226km Az.gap 307°
Corr. -0.954 4M/3stn Msd 0.2
Very poor station coverage.

97/11464
AUG 14 145513.9s 36.44S 176.27E 200km M=3.7
1.3 0.11 0.06 R
Rsd 0.4s 4ph/3stn Dmin 288km Az.gap 321°
Corr. -0.169 3M/3stn Msd 0.2
Very poor station coverage.

97/11465
AUG 14 153054.5s 42.46S 177.11E 12km M=3.6
0.7 0.03 0.05 R
Rsd 0.3s 16ph/12stn Dmin 197km Az.gap 237°
Corr. -0.571 13M/13stn Msd 0.5

97/11512
AUG 16 133926.9s 38.81S 178.07E 30km M=3.7
0.3 0.02 0.02 1
Rsd 0.1s 13ph/12stn Dmin 22km Az.gap 225°
Corr. -0.840 19M/17stn Msd 0.3 1↓

97/11514
AUG 16 141207.3s 36.87S 177.62E 147km M=4.9
0.2 0.02 0.01 2
Rsd 0.1s 17ph/15stn Dmin 83km Az.gap 266°
Corr. 0.581 10M/5stn Msd 0.1

97/11518
AUG 16 151254.1s 38.55S 175.70E 168km M=3.6
1.1 0.03 0.03 10
Rsd 0.3s 14ph/12stn Dmin 73km Az.gap 142°
Corr. -0.399 15M/13stn Msd 0.3

97/11539
AUG 17 161808.3s 38.13S 176.13E 147km M=3.6
0.7 0.02 0.02 8
Rsd 0.2s 11ph/9stn Dmin 58km Az.gap 129°
Corr. -0.180 13M/13stn Msd 0.1 1↑

97/11545
AUG 18 020056.2s 39.13S 177.54E 12km M=3.6
0.4 0.03 0.02 R
Rsd 0.3s 10ph/9stn Dmin 69km Az.gap 180°
Corr. -0.740 10M/10stn Msd 0.2 1↓

97/11547
AUG 18 035556.8s 38.32S 179.06W 33km M=4.1
1.6 0.15 0.10 R
Rsd 0.5s 5ph/3stn Dmin 237km Az.gap 334°
Corr. -0.289 5M/3stn Msd 0.1

97/11554
AUG 18 090927.7s 40.82S 175.12E 30km M=3.8
0.1 0.01 0.01 2
Rsd 0.3s 35ph/27stn Dmin 18km Az.gap 58°
Corr. -0.213 9M/5stn Msd 0.1 6↑ 2↓
Felt Wellington (68).

97/11563
AUG 18 155338.0s 37.15S 177.29E 157km M=4.2
0.3 0.02 0.01 3
Rsd 0.1s 15ph/13stn Dmin 43km Az.gap 236°
Corr. 0.481 22M/17stn Msd 0.2 1↑ 1↓

97/11588
AUG 19 150712.5s 42.31S 173.98E 13km M=3.7
0.3 0.01 0.01 3
Rsd 0.2s 28ph/20stn Dmin 38km Az.gap 160°
Corr. -0.652 8M/4stn Msd 0.2 3↑ 2↓

97/11591
AUG 19 163907.4s 44.99S 167.49E 71km M=3.8
0.2 0.01 0.01 2
Rsd 0.1s 13ph/9stn Dmin 49km Az.gap 199°
Corr. -0.304 9M/5stn Msd 0.3 1↑ 3↓

97/11595
AUG 19 212801.7s 38.27S 175.91E 207km M=3.6
0.5 0.03 0.04 4
Rsd 0.2s 18ph/15stn Dmin 88km Az.gap 208°
Corr. 0.558 13M/12stn Msd 0.2

97/11599
AUG 20 005137.4s 47.63S 165.43E 33km M=3.6
0.9 0.07 0.06 R
Rsd 0.4s 9ph/5stn Dmin 221km Az.gap 332°
Corr. -0.183 4M/4stn Msd 0.3

97/11607
AUG 20 110342.9s 37.00S 177.72E 148km M=4.0
0.4 0.03 0.02 4
Rsd 0.2s 15ph/12stn Dmin 84km Az.gap 259°
Corr. 0.158 20M/18stn Msd 0.3 1↑ 1↓

97/11608
AUG 20 124633.5s 42.32S 173.99E 12km M=4.4
0.3 0.01 0.01 2
Rsd 0.2s 25ph/20stn Dmin 39km Az.gap 162°
Corr. -0.753 19M/10stn Msd 0.1 4↑ 1↓

97/11630
AUG 20 161520.8s 43.13S 171.43E 5km M=3.8
0.1 0.01 0.01 R
Rsd 0.2s 10ph/6stn Dmin 63km Az.gap 193°
Corr. -0.758 16M/11stn Msd 0.1 1↑

97/11646
AUG 21 131343.9s 36.08S 179.22E 12km M=4.3
0.8 0.05 0.04 R
Rsd 0.3s 9ph/6stn Dmin 187km Az.gap 322°
Corr. 0.600 8M/6stn Msd 0.4

97/11674
AUG 22 052956.2s 39.61S 174.28E 182km M=4.2
0.5 0.01 0.03 5
Rsd 0.3s 27ph/23stn Dmin 115km Az.gap 159°
Corr. -0.415 20M/14stn Msd 0.3 2↑ 3↓

97/11676
AUG 22 063144.9s 37.59S 178.67E 12km M=3.8
0.3 0.01 0.02 R
Rsd 0.1s 5ph/3stn Dmin 33km Az.gap 298°
Corr. 0.467 5M/3stn Msd 0.2 1↓

97/11677
AUG 22 063526.9s 37.03S 177.39E 154km M=3.9
0.7 0.05 0.02 7
Rsd 0.3s 7ph/5stn Dmin 102km Az.gap 248°
Corr. 0.058 11M/9stn Msd 0.3

97/11683
AUG 22 132403.1s 41.47S 173.97E 41km M=4.7
0.1 0.01 0.01 3
Rsd 0.2s 25ph/20stn Dmin 12km Az.gap 79°
Corr. -0.489 8M/4stn Msd 0.1 2↑ 3↓
Felt Raumati (65) to Blenheim (77), MM4.

97/11689
AUG 22 172126.8s 37.67S 177.81E 12km M=4.0
0.1 0.00 0.00 R
Rsd 0.1s 6ph/4stn Dmin 44km Az.gap 154°
Corr. -0.345 8M/5stn Msd 0.2 1↑

97/11691
AUG 22 180442.4s 41.46S 173.94E 42km M=4.2
0.1 0.01 0.01 3
Rsd 0.2s 26ph/20stn Dmin 9km Az.gap 85°
Corr. -0.194 8M/4stn Msd 0.3 5↑ 9↓
Felt Blenheim (77) and Picton (78) MM4.

97/11693
AUG 22 195130.4s 39.77S 177.09E 33km M=3.7
0.3 0.01 0.02 R
Rsd 0.1s 17ph/15stn Dmin 131km Az.gap 236°
Corr. -0.517 19M/14stn Msd 0.6

97/11700
AUG 22 210656.8s 37.59S 178.35E 165km M=4.0
0.3 0.04 0.21 2
Rsd 0.1s 7ph/3stn Dmin 4km Az.gap 293°
Corr. -0.893 5M/3stn Msd 0.1 1↑

97/11704
AUG 22 220934.4s 44.82S 166.58E 5km M=4.2
0.4 0.01 0.03 R
Rsd 0.2s 10ph/7stn Dmin 85km Az.gap 260°
Corr. -0.113 8M/4stn Msd 0.3

97/11708
AUG 23 025613.2s 45.04S 167.56E 84km M=4.0
0.3 0.01 0.01 3
Rsd 0.2s 12ph/8stn Dmin 50km Az.gap 182°
Corr. -0.274 9M/5stn Msd 0.3 1↑ 4↓

97/11710
AUG 23 032156.0s 38.09S 176.51E 212km M=3.9
1.2 0.10 0.15 17
Rsd 0.4s 16ph/12stn Dmin 145km Az.gap 220°
Corr. -0.936 18M/13stn Msd 0.4
Poor station coverage.

97/11721
AUG 23 103320.4s 44.72S 166.42E 12km M=3.5
0.8 0.03 0.06 R
Rsd 0.3s 8ph/5stn Dmin 101km Az.gap 270°
Corr. -0.005 10M/7stn Msd 0.3

97/11722
AUG 23 110608.3s 47.19S 165.19E 12km M=4.2
0.8 0.05 0.05 R
Rsd 0.4s 11ph/7stn Dmin 227km Az.gap 317°
Corr. -0.072 8M/4stn Msd 0.2

97/11724
AUG 23 120632.4s 36.97S 179.64W 12km M=3.6
0.2 0.02 0.02 R
Rsd 0.0s 4ph/3stn Dmin 195km Az.gap 339°
Corr. -0.473 3M/2stn Msd 0.6

97/11745
AUG 24 134144.4s 37.94S 176.11E 204km M=3.9
0.8 0.04 0.03 9
Rsd 0.2s 12ph/10stn Dmin 108km Az.gap 220°
Corr. -0.490 17M/17stn Msd 0.4 1↑

97/11756
AUG 24 173820.5s 38.72S 175.25E 234km M=4.3
0.8 0.02 0.04 7
Rsd 0.2s 25ph/22stn Dmin 41km Az.gap 81°
Corr. -0.587 23M/17stn Msd 0.3 4↑ 2↓

97/11757
AUG 24 190534.4s 36.72S 177.33E 249km M=4.9
1.2 0.15 0.05 14
Rsd 0.2s 11ph/10stn Dmin 130km Az.gap 268°
Corr. 0.075 9M/5stn Msd 0.3 1↓

97/11760
AUG 24 202324.7s 39.79S 176.98E 36km M=4.1
0.2 0.01 0.02 6
Rsd 0.2s 36ph/32stn Dmin 31km Az.gap 176°
Corr. -0.204 24M/18stn Msd 0.2 3↑ 1↓
Felt Patoka (52), Hastings and Napier (60) MM4.

97/11764
AUG 24 222233.1s 42.33S 174.02E 12km M=4.0
0.1 0.01 0.01 R
Rsd 0.2s 23ph/17stn Dmin 40km Az.gap 172°
Corr. -0.729 14M/8stn Msd 0.2 5↑ 3↓

97/11765
AUG 24 224849.9s 40.93S 175.57E 10km M=3.5
0.1 0.01 0.01 2
Rsd 0.3s 26ph/21stn Dmin 26km Az.gap 95°
Corr. -0.154 9M/5stn Msd 0.5 2↑ 3↓
Felt Masterton (66),

97/11766
AUG 24 231129.1s 37.92S 179.17E 12km M=4.3
0.5 0.02 0.04 R
Rsd 0.3s 17ph/16stn Dmin 82km Az.gap 283°
Corr. 0.207 33M/28stn Msd 0.2 1↑ 2↓

97/11769
AUG 25 005423.1s 38.06S 175.93E 262km M=3.8
0.9 0.04 0.05 8
Rsd 0.2s 14ph/12stn Dmin 118km Az.gap 264°
Corr. -0.642 11M/11stn Msd 0.2 1↓

97/11776
AUG 25 060146.6s 36.18S 179.39E 12km M=3.8
0.9 0.05 0.06 R
Rsd 0.3s 5ph/3stn Dmin 233km Az.gap 323°
Corr. 0.495 3M/3stn Msd 0.5

97/11777
AUG 25 061932.5s 37.65S 175.68E 5km M=4.3
0.1 0.01 0.01 R
Rsd 0.2s 29ph/26stn Dmin 23km Az.gap 121°
Corr. 0.465 36M/30stn Msd 0.3 3↑ 3↓
Felt Waihi (21) and Te Aroha (25).

97/11788
AUG 25 102352.2s 37.65S 175.69E 5km M=3.9
0.1 0.01 0.01 R
Rsd 0.3s 27ph/23stn Dmin 23km Az.gap 136°
Corr. 0.287 25M/21stn Msd 0.4 1↑

97/11830
AUG 27 065130.4s 35.22S 179.99W 12km M=4.0
0.2 0.03 0.05 R
Rsd 0.0s 4ph/3stn Dmin 305km Az.gap 354°
Corr. -0.909 4M/3stn Msd 0.5

97/11832
AUG 27 085103.2s 39.51S 177.20E 28km M=3.5
0.4 0.02 0.02 2
Rsd 0.3s 17ph/13stn Dmin 33km Az.gap 176°
Corr. -0.621 12M/12stn Msd 0.5

97/11833
AUG 27 092725.4s 39.36S 175.51E 104km M=3.7
0.3 0.01 0.01 3
Rsd 0.3s 34ph/28stn Dmin 16km Az.gap 49°
Corr. 0.236 19M/16stn Msd 0.2 1↑ 3↓

97/11843
AUG 27 210557.1s 40.01S 175.69E 66km M=3.7
0.2 0.01 0.01 4
Rsd 0.2s 41ph/34stn Dmin 67km Az.gap 86°
Corr. 0.021 23M/18stn Msd 0.2 1↓

97/11849
AUG 28 034951.6s 46.75S 169.10E 12km M=3.5
0.3 0.02 0.01 R
Rsd 0.2s 10ph/5stn Dmin 75km Az.gap 226°
Corr. -0.667 8M/5stn Msd 0.2

97/11851
AUG 28 062059.6s 37.31S 177.55E 185km M=3.7
1.2 0.05 0.05 10
Rsd 0.4s 13ph/9stn Dmin 74km Az.gap 225°
Corr. 0.320 6M/6stn Msd 0.3 1↓

97/11856
AUG 28 093630.7s 36.49S 178.61E 12km M=3.7
0.2 0.03 0.14 R
Rsd 0.0s 4ph/3stn Dmin 126km Az.gap 357°
Corr. -0.873 4M/2stn Msd 0.4

97/11902
AUG 29 191610.8s 38.11S 176.58E 232km M=3.5
0.9 0.08 0.12 12
Rsd 0.2s 11ph/9stn Dmin 139km Az.gap 263°
Corr. -0.874 5M/5stn Msd 0.3
Poor station coverage.

97/11913
AUG 30 010009.4s 38.99S 177.50E 29km M=3.9
0.2 0.01 0.01 1
Rsd 0.2s 26ph/24stn Dmin 42km Az.gap 161°
Corr. -0.552 37M/31stn Msd 0.3 1↓

97/11923
AUG 30 084022.4s 41.45S 173.93E 41km M=4.0
0.1 0.01 0.01 2
Rsd 0.2s 24ph/18stn Dmin 8km Az.gap 98°
Corr. -0.483 8M/4stn Msd 0.2 3↑ 4↓
Felt Blenheim (77) and Picton (78), MM4.

97/11926
AUG 30 104028.7s 38.54S 175.31E 240km M=4.3
0.4 0.03 0.03 3
Rsd 0.2s 24ph/19stn Dmin 41km Az.gap 102°
Corr. 0.338 22M/18stn Msd 0.2 7↑ 2↓

97/11930
AUG 30 125028.7s 38.54S 175.78E 158km M=3.9
0.3 0.01 0.01 2
Rsd 0.1s 23ph/18stn Dmin 20km Az.gap 79°
Corr. 0.061 23M/19stn Msd 0.3 5↑ 1↓

97/11943
AUG 30 175523.4s 37.75S 176.36E 194km M=3.6
1.3 0.04 0.02 11
Rsd 0.2s 10ph/9stn Dmin 69km Az.gap 184°
Corr. -0.420 8M/8stn Msd 0.3 1↑

97/11948
AUG 30 201515.5s 37.82S 179.97W 12km M=3.6
1.9 0.07 0.13 R
Rsd 0.6s 6ph/5stn Dmin 154km Az.gap 307°
Corr. 0.227 6M/5stn Msd 0.2

97/11952
AUG 30 222654.6s 36.66S 177.60E 12km M=4.0
2.6 0.21 0.07 R
Rsd 0.7s 6ph/4stn Dmin 121km Az.gap 276°
Corr. 0.728 6M/4stn Msd 0.3

97/11961
AUG 31 074947.9s 42.29S 173.93E 16km M=4.1
0.2 0.01 0.01 3
Rsd 0.2s 21ph/19stn Dmin 35km Az.gap 158°
Corr. -0.617 14M/8stn Msd 0.2 4↑ 4↓

97/11962
AUG 31 080226.1s 42.29S 173.93E 16km M=3.9
0.2 0.01 0.01 3
Rsd 0.2s 21ph/19stn Dmin 35km Az.gap 158°
Corr. -0.611 11M/6stn Msd 0.3 2↑ 2↓

97/11976
AUG 31 150626.3s 37.30S 175.59E 231km M=3.6
0.5 0.05 0.08 13
Rsd 0.1s 13ph/10stn Dmin 242km Az.gap 261°
Corr. -0.956 9M/9stn Msd 0.1
Poor station coverage.

97/12002
SEP 01 090323.6s 38.99S 175.10E 211km M=3.8
0.2 0.01 0.02 2
Rsd 0.1s 21ph/17stn Dmin 45km Az.gap 213°
Corr. -0.042 18M/17stn Msd 0.4 1↑

97/12015
SEP 01 161819.4s 37.82S 179.20E 46km M=3.7
0.4 0.02 0.04 9
Rsd 0.2s 10ph/8stn Dmin 83km Az.gap 291°
Corr. -0.035 14M/12stn Msd 0.2 1↓

97/12025
SEP 01 222640.3s 37.44S 176.56E 230km M=4.1
0.4 0.04 0.03 5
Rsd 0.1s 12ph/10stn Dmin 155km Az.gap 248°
Corr. -0.730 12M/11stn Msd 0.2 1↓

97/12030
SEP 02 013807.6s 38.71S 175.98E 94km M=3.8
0.2 0.01 0.01 2
Rsd 0.2s 32ph/27stn Dmin 5km Az.gap 58°
Corr. -0.477 17M/15stn Msd 0.2 4↑ 6↓

97/12045
SEP 02 203920.4s 38.06S 176.50E 196km M=3.6
0.8 0.02 0.02 7
Rsd 0.2s 17ph/15stn Dmin 134km Az.gap 214°
Corr. -0.717 11M/11stn Msd 0.2 1↓

97/12072
SEP 03 095538.5s 36.68S 178.27E 23km M=3.7
0.6 0.05 0.03 4
Rsd 0.2s 7ph/5stn Dmin 102km Az.gap 298°
Corr. 0.809 7M/5stn Msd 0.2

97/12074
SEP 03 135315.3s 42.26S 172.62E 12km M=3.7
0.1 0.01 0.02 R
Rsd 0.1s 10ph/6stn Dmin 60km Az.gap 174°
Corr. -0.812 22M/19stn Msd 0.4 1↑ 1↓

97/12080
SEP 03 174129.4s 44.63S 168.19E 84km M=3.8
0.5 0.04 0.02 6
Rsd 0.3s 15ph/9stn Dmin 21km Az.gap 163°
Corr. -0.117 9M/5stn Msd 0.3

97/12082
SEP 03 180409.9s 41.48S 172.86E 226km M=3.7
0.3 0.04 0.03 3
Rsd 0.2s 21ph/14stn Dmin 32km Az.gap 204°
Corr. -0.892 11M/11stn Msd 0.3 1↑

97/12084
SEP 03 190943.7s 45.11S 167.48E 115km M=3.5
0.5 0.04 0.02 3
Rsd 0.3s 12ph/7stn Dmin 47km Az.gap 238°
Corr. -0.240 10M/6stn Msd 0.2 1↑

97/12087
SEP 03 224309.9s 40.22S 174.32E 105km M=3.9
0.2 0.01 0.01 3
Rsd 0.2s 39ph/33stn Dmin 70km Az.gap 110°
Corr. 0.072 21M/15stn Msd 0.3 5↑ 2↓

97/12089
SEP 04 015134.3s 38.36S 176.14E 142km M=3.6
0.6 0.02 0.02 5
Rsd 0.1s 10ph/9stn Dmin 31km Az.gap 244°
Corr. -0.531 11M/11stn Msd 0.2 1↓

97/12098
SEP 04 063702.0s 36.31S 178.03E 259km M=3.8
0.6 0.13 0.17 15
Rsd 0.1s 11ph/10stn Dmin 256km Az.gap 327°
Corr. -0.913 8M/8stn Msd 0.2

97/12100
SEP 04 072340.0s 36.95S 176.96E 203km M=4.1
0.7 0.05 0.05 9
Rsd 0.2s 9ph/8stn Dmin 139km Az.gap 272°
Corr. -0.582 16M/14stn Msd 0.3 1↓

97/12102
SEP 04 082402.2s 36.47S 177.18E 190km M=3.7
0.7 0.05 0.13 17
Rsd 0.1s 5ph/3stn Dmin 160km Az.gap 306°
Corr. -0.891 5M/3stn Msd 0.6
Very poor station coverage.

97/12111
SEP 04 114653.6s 35.40S 178.11E 280km M=3.6
0.6 0.06 0.09 6
Rsd 0.1s 10ph/9stn Dmin 358km Az.gap 333°
Corr. -0.523 8M/8stn Msd 0.1
Very poor station coverage.

97/12124
SEP 05 010435.3s 37.48S 175.99E 214km M=4.1
1.2 0.08 0.11 21
Rsd 0.2s 9ph/8stn Dmin 179km Az.gap 252°
Corr. -0.936 14M/11stn Msd 0.2
Poor station coverage.

97/12136
SEP 05 152425.9s 39.58S 174.50E 139km M=3.6
0.4 0.01 0.02 4
Rsd 0.2s 29ph/22stn Dmin 34km Az.gap 79°
Corr. 0.296 15M/13stn Msd 0.4 1↑ 3↓

97/12143
SEP 05 234043.2s 45.04S 167.59E 80km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 12ph/7stn Dmin 48km Az.gap 179°
Corr. -0.140 12M/7stn Msd 0.3 1↓

97/12172
SEP 06 175245.2s 44.94S 167.44E 5km M=3.7
0.2 0.01 0.01 R
Rsd 0.2s 12ph/7stn Dmin 49km Az.gap 205°
Corr. -0.515 10M/5stn Msd 0.1 1↓

97/12181
SEP 07 070549.5s 37.34S 179.44E 110km M=3.8
0.3 0.03 0.04 4
Rsd 0.1s 6ph/4stn Dmin 105km Az.gap 327°
Corr. -0.777 6M/4stn Msd 0.2

97/12187
SEP 07 104724.1s 40.90S 176.02E 30km M=3.6
0.1 0.01 0.02 2
Rsd 0.2s 20ph/16stn Dmin 31km Az.gap 169°
Corr. -0.391 23M/18stn Msd 0.2 5↑ 1↓

97/12196
SEP 08 094333.4s 41.82S 172.56E 87km M=3.7
0.6 0.05 0.06 3
Rsd 0.2s 17ph/14stn Dmin 29km Az.gap 166°
Corr. -0.940 12M/11stn Msd 0.2 1↑ 1↓

97/12198
SEP 08 131407.2s 39.69S 174.77E 137km M=3.5
0.4 0.01 0.02 4
Rsd 0.3s 27ph/20stn Dmin 18km Az.gap 98°
Corr. 0.352 11M/11stn Msd 0.3 1↑

97/12199
SEP 08 133149.2s 38.63S 175.82E 157km M=4.4
0.3 0.02 0.01 3
Rsd 0.2s 25ph/20stn Dmin 47km Az.gap 91°
Corr. -0.501 8M/4stn Msd 0.3 1↑

97/12200
SEP 08 155620.9s 35.90S 178.61E 241km M=4.3
1.1 0.14 0.08 15
Rsd 0.3s 9ph/7stn Dmin 191km Az.gap 317°
Corr. 0.371 11M/7stn Msd 0.3

97/12212
SEP 09 020449.6s 41.26S 175.35E 29km M=3.6
0.1 0.01 0.00 1
Rsd 0.2s 21ph/15stn Dmin 16km Az.gap 80°
Corr. -0.317 20M/16stn Msd 0.2 3↑ 2↓
Felt Eastbourne (68).

97/12217
SEP 09 033209.7s 46.84S 165.37E 12km M=3.8
0.6 0.03 0.04 R
Rsd 0.2s 12ph/7stn Dmin 206km Az.gap 311°
Corr. -0.064 11M/8stn Msd 0.2

97/12222
SEP 09 073920.6s 38.13S 177.18E 263km M=3.6
0.5 0.11 0.12 8
Rsd 0.1s 11ph/8stn Dmin 93km Az.gap 269°
Corr. -0.981 7M/7stn Msd 0.2
Poor station coverage.

97/12223
SEP 09 075833.1s 38.63S 175.76E 160km M=4.9
0.3 0.01 0.01 2
Rsd 0.1s 33ph/29stn Dmin 9km Az.gap 71°
Corr. -0.166 10M/5stn Msd 0.3 3↑ 1↓

97/12238
SEP 09 211035.4s 36.92S 178.30E 57km M=3.8
0.3 0.02 0.05 6
Rsd 0.1s 5ph/4stn Dmin 76km Az.gap 331°
Corr. -0.129 6M/4stn Msd 0.3

97/12240
SEP 09 213204.9s 38.20S 176.19E 161km M=4.2
0.5 0.02 0.02 4
Rsd 0.2s 23ph/19stn Dmin 2km Az.gap 57°
Corr. -0.423 20M/15stn Msd 0.2 3↑ 1↓

97/12242
SEP 09 231324.0s 36.81S 177.59E 187km M=4.0
1.8 0.30 0.54 47
Rsd 0.6s 12ph/9stn Dmin 152km Az.gap 306°
Corr. -0.927 13M/11stn Msd 0.3
Poor station coverage.

97/12254
SEP 10 103823.9s 45.04S 167.44E 105km M=3.6
0.4 0.02 0.02 4
Rsd 0.3s 13ph/8stn Dmin 53km Az.gap 199°
Corr. -0.101 8M/5stn Msd 0.1 1↑

97/12255
SEP 10 103903.3s 38.18S 176.70E 240km M=3.6
0.7 0.07 0.08 8
Rsd 0.2s 10ph/9stn Dmin 126km Az.gap 260°
Corr. -0.901 6M/6stn Msd 0.2
Poor station coverage.

97/12256
SEP 10 112547.6s 37.51S 179.38E 12km M=3.5
0.2 0.01 0.01 R
Rsd 0.1s 4ph/3stn Dmin 96km Az.gap 319°
Corr. 0.206 6M/4stn Msd 0.2 1↑

97/12262
SEP 10 152112.9s 36.49S 178.23E 284km M=3.8
1.9 0.32 1.96 32
Rsd 0.1s 5ph/3stn Dmin 123km Az.gap 353°
Corr. -0.988 4M/4stn Msd 0.2
Poor station coverage

97/12274
SEP 11 004029.9s 39.92S 177.27E 12km M=3.5
0.3 0.02 0.01 R
Rsd 0.2s 14ph/10stn Dmin 57km Az.gap 215°
Corr. -0.193 8M/8stn Msd 0.3 1↑

97/12286
SEP 11 100246.2s 45.66S 166.88E 80km M=3.6
0.2 0.01 0.01 2
Rsd 0.1s 12ph/7stn Dmin 31km Az.gap 260°
Corr. -0.080 8M/5stn Msd 0.1 1↓

97/12296
SEP 11 213416.4s 37.43S 179.24E 12km M=3.5
0.9 0.05 0.05 R
Rsd 0.4s 5ph/3stn Dmin 85km Az.gap 321°
Corr. -0.171 4M/2stn Msd 0.5 1↓

97/12318
SEP 12 160301.2s 40.91S 174.77E 20km M=3.3
0.1 0.01 0.01 2
Rsd 0.2s 21ph/19stn Dmin 13km Az.gap 113°
Corr. -0.434 16M/13stn Msd 0.2 2↑ 5↓
Felt Paraparaumu Beach (65) MM4.

97/12321
SEP 12 201457.3s 37.74S 176.11E 287km M=5.1
0.5 0.04 0.02 4
Rsd 0.2s 20ph/18stn Dmin 16km Az.gap 190°
Corr. 0.075 8M/4stn Msd 0.2 7↑ 3↓

97/12323
SEP 12 222434.5s 38.62S 176.70E 229km M=3.6
1.0 0.12 0.17 11
Rsd 0.3s 9ph/8stn Dmin 116km Az.gap 198°
Corr. -0.952 13M/11stn Msd 0.4

97/12342
SEP 13 125634.6s 37.73S 176.57E 148km M=3.7
0.5 0.02 0.01 5
Rsd 0.1s 10ph/10stn Dmin 88km Az.gap 183°
Corr. -0.576 13M/11stn Msd 0.1 1↑ 1↓

97/12350
SEP 13 161542.1s 36.56S 176.48E 100km M=3.6
0.3 0.03 0.01 R
Rsd 0.1s 11ph/9stn Dmin 231km Az.gap 301°
Corr. 0.073 9M/9stn Msd 0.2
Poor station coverage, depth unstable.

97/12359
SEP 13 194026.4s 40.23S 174.76E 21km M=3.7
0.2 0.01 0.01 3
Rsd 0.3s 32ph/29stn Dmin 51km Az.gap 89°
Corr. 0.271 31M/27stn Msd 0.3 2↑ 1↓

97/12364
SEP 13 212752.2s 35.21S 177.62E 249km M=4.2
0.6 0.09 0.34 22
Rsd 0.2s 12ph/10stn Dmin 273km Az.gap 323°
Corr. -0.921 10M/8stn Msd 0.3

97/12374
SEP 14 032136.5s 41.35S 173.75E 73km M=3.6
0.3 0.03 0.02 4
Rsd 0.3s 22ph/19stn Dmin 13km Az.gap 125°
Corr. -0.725 12M/10stn Msd 0.2 1↑ 4↓

97/12389
SEP 14 170032.7s 38.28S 175.91E 205km M=5.2
0.3 0.01 0.01 3
Rsd 0.1s 37ph/33stn Dmin 28km Az.gap 75°
Corr. -0.223 8M/4stn Msd 0.3 5↑ 2↓

97/12412
SEP 15 104615.9s 37.30S 177.27E 103km M=3.9
0.8 0.05 0.02 6
Rsd 0.2s 17ph/16stn Dmin 26km Az.gap 229°
Corr. 0.591 20M/18stn Msd 0.3 1↓

97/12431
SEP 16 002353.7s 38.91S 175.47E 122km M=3.6
0.4 0.02 0.01 3
Rsd 0.2s 27ph/22stn Dmin 11km Az.gap 60°
Corr. 0.242 15M/13stn Msd 0.2 1↑

97/12432
SEP 16 021148.1s 37.17S 177.37E 5km M=3.7
0.4 0.03 0.02 R
Rsd 0.3s 7ph/5stn Dmin 43km Az.gap 193°
Corr. 0.011 7M/4stn Msd 0.4

97/12434
SEP 16 033242.7s 40.43S 173.65E 121km M=3.7
0.2 0.00 0.01 3
Rsd 0.1s 28ph/24stn Dmin 115km Az.gap 142°
Corr. 0.145 11M/11stn Msd 0.2 1↓

97/12444
SEP 16 100817.5s 43.67S 170.29E 5km M=5.0
0.2 0.02 0.02 R
Rsd 0.1s 13ph/9stn Dmin 49km Az.gap 152°
Corr. -0.900 23M/12stn Msd 0.3 3↑ 2↓
Felt Greymouth (85) to Mt Cook (105), MM4.

97/12451
SEP 16 105732.5s 43.67S 170.29E 5km M=3.8
0.2 0.02 0.02 R
Rsd 0.2s 16ph/12stn Dmin 48km Az.gap 161°
Corr. -0.879 14M/10stn Msd 0.3 1↑ 2↓

97/12463
SEP 16 152405.4s 43.64S 170.26E 5km M=5.0
0.2 0.02 0.02 R
Rsd 0.1s 13ph/9stn Dmin 50km Az.gap 155°
Corr. -0.909 23M/12stn Msd 0.3 1↓
Felt Greymouth (85) to Mt Cook (105), MM4.

97/12472
SEP 16 202008.7s 39.15S 174.82E 211km M=3.7
0.8 0.03 0.06 7
Rsd 0.3s 18ph/15stn Dmin 63km Az.gap 161°
Corr. 0.473 15M/13stn Msd 0.2

97/12475
SEP 16 220911.3s 35.59S 179.50E 176km M=4.1
0.6 0.08 0.04 13
Rsd 0.1s 9ph/7stn Dmin 247km Az.gap 328°
Corr. 0.087 16M/13stn Msd 0.3

97/12477
SEP 16 234315.4s 35.83S 179.61E 178km M=4.4
1.3 0.51 0.68 29
Rsd 0.3s 7ph/5stn Dmin 229km Az.gap 352°
Corr. -0.980 7M/5stn Msd 0.2

97/12483
SEP 17 002339.5s 37.58S 178.47E 41km M=3.6
0.5 0.04 0.24 10
Rsd 0.2s 5ph/3stn Dmin 15km Az.gap 295°
Corr. -0.850 5M/3stn Msd 0.3 1↓

97/12486
SEP 17 033009.3s 38.20S 176.18E 219km M=3.6
1.0 0.09 0.12 15
Rsd 0.3s 7ph/4stn Dmin 167km Az.gap 276°
Corr. -0.928 4M/4stn Msd 0.4
Poor station coverage.

97/12488
SEP 17 082556.9s 37.52S 179.59E 12km M=3.7
1.3 0.09 0.07 R
Rsd 0.6s 6ph/5stn Dmin 114km Az.gap 313°
Corr. 0.203 7M/5stn Msd 0.2

97/12493
SEP 17 105302.5s 39.13S 175.43E 8km M=3.9
0.1 0.01 0.01 2
Rsd 0.3s 25ph/22stn Dmin 13km Az.gap 55°
Corr. -0.142 11M/6stn Msd 0.3 6↑ 3↓
Felt National Park (49).

97/12502
SEP 17 200538.6s 38.99S 175.11E 223km M=3.6
0.3 0.01 0.04 3
Rsd 0.1s 10ph/8stn Dmin 45km Az.gap 281°
Corr. -0.455 8M/7stn Msd 0.2

97/12503
SEP 17 221610.8s 37.19S 178.38E 12km M=4.2
0.4 0.02 0.02 R
Rsd 0.1s 9ph/5stn Dmin 46km Az.gap 265°
Corr. 0.873 14M/9stn Msd 0.4 1↑ 1↓

97/12509
SEP 18 013737.4s 41.23S 172.75E 132km M=4.1
0.4 0.04 0.02 4
Rsd 0.3s 21ph/15stn Dmin 60km Az.gap 157°
Corr. -0.646 17M/14stn Msd 0.3 4↑ 3↓

97/12510
SEP 18 013739.3s 41.19S 172.68E 221km M=3.8
1.1 0.40 0.08 14
Rsd 0.5s 13ph/7stn Dmin 67km Az.gap 219°
Corr. -0.751 3M/3stn Msd 0.1

97/12518
SEP 18 060249.5s 35.20S 177.43E 12km M=4.7
0.4 0.03 0.03 R
Rsd 0.1s 11ph/9stn Dmin 327km Az.gap 324°
Corr. 0.457 12M/10stn Msd 0.3

97/12531
SEP 18 160611.4s 38.85S 175.64E 116km M=3.5
0.6 0.01 0.02 7
Rsd 0.2s 12ph/10stn Dmin 39km Az.gap 97°
Corr. -0.412 4M/4stn Msd 0.6

97/12540
SEP 19 025427.6s 37.63S 177.10E 90km M=3.9
0.3 0.02 0.01 4
Rsd 0.2s 17ph/16stn Dmin 14km Az.gap 88°
Corr. 0.292 15M/12stn Msd 0.2 1↓

97/12554
SEP 19 140726.9s 38.74S 175.91E 94km M=3.8
0.3 0.01 0.01 3
Rsd 0.2s 25ph/21stn Dmin 9km Az.gap 59°
Corr. 0.025 21M/19stn Msd 0.2

97/12558
SEP 19 165933.7s 40.23S 174.28E 104km M=3.7
0.2 0.01 0.01 3
Rsd 0.2s 34ph/28stn Dmin 73km Az.gap 111°
Corr. 0.302 15M/11stn Msd 0.4 2↑ 2↓

97/12559
SEP 19 181724.3s 37.66S 177.28E 184km M=3.8
1.3 0.04 0.05 13
Rsd 0.4s 12ph/9stn Dmin 91km Az.gap 200°
Corr. -0.160 11M/11stn Msd 0.1

97/12561
SEP 19 190921.6s 36.81S 177.53E 221km M=3.7
1.9 0.08 0.06 16
Rsd 0.3s 14ph/11stn Dmin 111km Az.gap 266°
Corr. 0.070 13M/11stn Msd 0.3

97/12564
SEP 19 213722.8s 43.19S 171.57E 12km M=4.9
0.1 0.01 0.01 R
Rsd 0.2s 18ph/11stn Dmin 68km Az.gap 124°
Corr. -0.382 24M/12stn Msd 0.2 1↑
Felt Lake Coleridge (100), MM4 and Christchurch (110).

97/12567
SEP 20 004714.5s 41.47S 173.95E 41km M=3.8
0.1 0.01 0.01 2
Rsd 0.2s 26ph/21stn Dmin 10km Az.gap 80°
Corr. -0.585 17M/13stn Msd 0.2 4↑ 4↓
Felt Fighting Bay (78) MM4.

97/12573
SEP 20 033155.0s 38.81S 176.55E 51km M=4.1
0.1 0.01 0.01 3
Rsd 0.2s 37ph/34stn Dmin 41km Az.gap 67°
Corr. -0.406 25M/19stn Msd 0.2 2↑ 3↓

97/12574
SEP 20 053309.3s 37.18S 177.47E 142km M=3.9
1.2 0.07 0.05 11
Rsd 0.7s 10ph/7stn Dmin 87km Az.gap 195°
Corr. 0.567 7M/4stn Msd 0.3 1↑

97/12575
SEP 20 063153.6s 38.12S 176.49E 135km M=3.9
0.6 0.02 0.01 7
Rsd 0.2s 12ph/11stn Dmin 85km Az.gap 140°
Corr. -0.390 15M/13stn Msd 0.2 1↑

97/12584
SEP 20 111559.1s 37.30S 177.61E 93km M=5.1
0.3 0.02 0.01 3
Rsd 0.1s 26ph/24stn Dmin 45km Az.gap 188°
Corr. 0.541 10M/5stn Msd 0.2 6↑ 12↓

97/12604
SEP 20 224501.8s 39.35S 177.94E 67km M=3.6
0.5 0.03 0.04 7
Rsd 0.1s 13ph/10stn Dmin 82km Az.gap 209°
Corr. -0.919 17M/13stn Msd 0.3 1↓

97/12616
SEP 21 053128.5s 37.27S 176.87E 12km M=3.5
1.1 0.07 0.06 R
Rsd 0.4s 4ph/3stn Dmin 132km Az.gap 321°
Corr. -0.232 4M/3stn Msd 0.3

97/12638
SEP 21 173142.0s 38.30S 175.85E 189km M=4.1
1.0 0.04 0.03 8
Rsd 0.2s 16ph/14stn Dmin 64km Az.gap 176°
Corr. -0.328 19M/16stn Msd 0.2 1↑ 1↓

97/12653
SEP 22 064320.8s 38.01S 175.91E 246km M=3.9
0.7 0.05 0.07 7
Rsd 0.3s 17ph/13stn Dmin 109km Az.gap 231°
Corr. -0.825 20M/17stn Msd 0.3

97/12661
SEP 22 104310.0s 44.95S 167.49E 91km M=4.3
0.3 0.02 0.02 3
Rsd 0.2s 19ph/12stn Dmin 46km Az.gap 202°
Corr. -0.221 12M/6stn Msd 0.3 4↑ 5↓

97/12664
SEP 22 141104.1s 37.29S 177.75E 106km M=3.5
0.7 0.04 0.03 5
Rsd 0.3s 9ph/7stn Dmin 57km Az.gap 244°
Corr. -0.501 8M/6stn Msd 0.2

97/12667
SEP 22 154413.6s 43.17S 168.86E 12km M=3.7
0.5 0.03 0.03 R
Rsd 0.3s 14ph/11stn Dmin 69km Az.gap 225°
Corr. -0.227 15M/15stn Msd 0.2 1↓

97/12668
SEP 22 160109.9s 38.88S 175.47E 233km M=3.6
0.6 0.03 0.05 6
Rsd 0.2s 19ph/16stn Dmin 35km Az.gap 214°
Corr. -0.632 13M/13stn Msd 0.3 1↑

97/12674
SEP 22 223319.4s 37.27S 177.14E 5km M=3.5
0.3 0.03 0.02 R
Rsd 0.4s 8ph/6stn Dmin 29km Az.gap 176°
Corr. 0.602 7M/5stn Msd 0.6

97/12687
SEP 23 053652.9s 39.28S 173.92E 17km M=3.5
0.2 0.01 0.02 2
Rsd 0.2s 21ph/17stn Dmin 4km Az.gap 113°
Corr. -0.131 23M/19stn Msd 0.3 2↑ 1↓

97/12715
SEP 24 131235.7s 45.17S 167.42E 115km M=3.7
0.5 0.03 0.03 4
Rsd 0.3s 13ph/10stn Dmin 39km Az.gap 184°
Corr. -0.073 11M/7stn Msd 0.3 1↑ 1↓

97/12732
SEP 25 050744.8s 42.62S 173.40E 12km M=3.8
0.2 0.02 0.02 R
Rsd 0.4s 18ph/15stn Dmin 25km Az.gap 155°
Corr. -0.602 20M/16stn Msd 0.2 1↑ 1↓

97/12733
SEP 25 050801.8s 36.70S 179.57E 12km M=3.7
0.4 0.04 0.03 R
Rsd 0.1s 6ph/4stn Dmin 151km Az.gap 341°
Corr. -0.447 5M/3stn Msd 0.7

97/12734
SEP 25 050813.6s 42.62S 173.39E 12km M=4.2
0.3 0.02 0.02 R
Rsd 0.4s 13ph/9stn Dmin 25km Az.gap 164°
Corr. -0.615 12M/6stn Msd 0.3

97/12763
SEP 26 034600.6s 39.82S 177.04E 43km M=3.8
0.2 0.01 0.02 3
Rsd 0.2s 29ph/25stn Dmin 36km Az.gap 180°
Corr. -0.445 17M/15stn Msd 0.2 2↑ 1↓

97/12764
SEP 26 043236.3s 38.59S 175.71E 168km M=3.7
2.0 0.04 0.08 16
Rsd 0.2s 11ph/10stn Dmin 32km Az.gap 214°
Corr. -0.074 16M/12stn Msd 0.4

97/12776
SEP 26 103457.5s 40.48S 176.38E 12km M=3.5
0.5 0.02 0.03 R
Rsd 0.1s 6ph/5stn Dmin 86km Az.gap 335°
Corr. -0.579 4M/4stn Msd 0.1 1↑
Poor station coverage.

97/12778
SEP 26 115552.5s 40.42S 173.55E 191km M=3.9
0.4 0.02 0.02 4
Rsd 0.2s 23ph/18stn Dmin 53km Az.gap 193°
Corr. -0.361 18M/15stn Msd 0.3 2↑ 5↓

97/12783
SEP 26 130700.7s 39.60S 174.01E 193km M=3.7
0.8 0.02 0.06 7
Rsd 0.3s 20ph/15stn Dmin 82km Az.gap 188°
Corr. -0.298 14M/14stn Msd 0.3 3↑ 3↓

97/12800
SEP 27 061934.5s 37.52S 177.46E 60km M=4.3
0.2 0.01 0.01 2
Rsd 0.1s 25ph/22stn Dmin 24km Az.gap 158°
Corr. 0.295 22M/18stn Msd 0.2 1↑

97/12802
SEP 27 071006.9s 44.19S 168.39E 5km M=3.6
0.2 0.01 0.01 R
Rsd 0.2s 16ph/10stn Dmin 66km Az.gap 200°
Corr. -0.693 10M/5stn Msd 0.1 1↓

97/12806
SEP 27 112944.2s 37.52S 179.32E 12km M=3.6
0.4 0.02 0.02 R
Rsd 0.1s 5ph/3stn Dmin 91km Az.gap 318°
Corr. 0.217 5M/3stn Msd 0.3

97/12816
SEP 27 205223.2s 37.05S 176.72E 12km M=4.3
0.4 0.03 0.02 R
Rsd 0.2s 6ph/4stn Dmin 153km Az.gap 268°
Corr. -0.141 12M/10stn Msd 0.3

97/12830
SEP 28 115200.6s 43.24S 171.63E 5km M=3.2
0.1 0.02 0.01 R
Rsd 0.3s 13ph/9stn Dmin 70km Az.gap 131°
Corr. -0.527 6M/5stn Msd 0.1 1↑ 1↓
Felt Harper River (109). MM4.

97/12850
SEP 28 232914.5s 39.10S 175.44E 5km M=4.6
0.1 0.01 0.01 R
Rsd 0.3s 36ph/32stn Dmin 7km Az.gap 55°
Corr. 0.116 13M/7stn Msd 0.3 1↑
Felt Manunui (39) and Waihora Rd (40), MM4.

97/12861
SEP 29 025214.1s 45.67S 168.16E 30km M=4.0
0.1 0.01 0.01 1
Rsd 0.1s 13ph/9stn Dmin 30km Az.gap 108°
Corr. 0.121 13M/7stn Msd 0.3 1↓

97/12862
SEP 29 032634.7s 38.39S 176.07E 154km M=3.8
0.9 0.04 0.03 8
Rsd 0.2s 11ph/10stn Dmin 60km Az.gap 226°
Corr. -0.358 14M/14stn Msd 0.2 2↑ 1↓

97/12865
SEP 29 042451.2s 38.42S 175.75E 170km M=4.2
0.4 0.02 0.01 3
Rsd 0.1s 22ph/18stn Dmin 33km Az.gap 166°
Corr. 0.167 21M/17stn Msd 0.1 3↑ 1↓

97/12877
SEP 29 162944.4s 39.10S 175.06E 214km M=3.5
0.4 0.02 0.03 3
Rsd 0.1s 11ph/10stn Dmin 44km Az.gap 232°
Corr. -0.102 8M/8stn Msd 0.2

97/12885
SEP 29 192242.4s 44.79S 168.00E 106km M=2.9
0.6 0.04 0.03 7
Rsd 0.3s 8ph/5stn Dmin 63km Az.gap 258°
Corr. -0.533 4M/4stn Msd 0.1 1↑
Felt Mahitahi (104) MM3.

97/12888
SEP 29 202656.3s 39.64S 177.14E 26km M=3.5
0.4 0.02 0.02 1
Rsd 0.1s 8ph/5stn Dmin 29km Az.gap 332°
Corr. -0.256 5M/5stn Msd 0.3

97/12900
SEP 30 062758.6s 45.39S 166.78E 12km M=4.0
0.5 0.02 0.03 R
Rsd 0.3s 11ph/8stn Dmin 31km Az.gap 287°
Corr. 0.329 14M/7stn Msd 0.4 1↑ 3↓

97/12914
SEP 30 191807.5s 43.55S 168.16E 12km M=4.6
0.5 0.03 0.03 R
Rsd 0.2s 17ph/12stn Dmin 92km Az.gap 207°
Corr. -0.843 20M/11stn Msd 0.2 1↑ 1↓

97/12921
OCT 01 034817.0s 41.65S 174.18E 5km M=4.5
0.2 0.01 0.01 R
Rsd 0.3s 22ph/17stn Dmin 12km Az.gap 89°
Corr. -0.280 11M/6stn Msd 0.2
Felt Wellington (68) to Seddon (84), maximum intensity MM4 near Seddon.

97/12922
OCT 01 034838.3s 41.66S 174.21E 5km M=4.2
0.3 0.02 0.02 R
Rsd 0.4s 10ph/9stn Dmin 10km Az.gap 113°
Corr. -0.535 8M/4stn Msd 0.1

97/12925
OCT 01 035251.9s 41.73S 173.98E 5km M=2.5
0.5 0.03 0.02 R
Rsd 0.3s 10ph/7stn Dmin 20km Az.gap 241°
Corr. 0.799 4M/4stn Msd 0.3
Felt Seddon district (84).

97/12926
OCT 01 035442.9s 41.64S 174.19E 5km M=4.4
0.1 0.01 0.01 R
Rsd 0.3s 22ph/19stn Dmin 13km Az.gap 94°
Corr. -0.443 11M/6stn Msd 0.1 6↑ 1↓
Felt Wellington (68) to Seddon (84).

97/12929
OCT 01 040155.4s 41.66S 174.20E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.2s 22ph/16stn Dmin 11km Az.gap 97°
Corr. -0.579 21M/17stn Msd 0.4 2↑ 1↓
Felt Seddon district (84).

97/12933
OCT 01 040532.8s 41.67S 174.22E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.3s 23ph/17stn Dmin 10km Az.gap 110°
Corr. -0.415 9M/6stn Msd 0.3 2↑ 1↓
Felt Seddon district (84).

97/12950
OCT 01 075735.0s 38.25S 176.08E 177km M=4.1
0.4 0.01 0.01 3
Rsd 0.1s 23ph/21stn Dmin 21km Az.gap 61°
Corr. -0.321 20M/16stn Msd 0.2 2↑ 1↓

97/12952
OCT 01 093513.7s 41.32S 174.20E 39km M=3.3
0.1 0.01 0.01 2
Rsd 0.2s 23ph/19stn Dmin 34km Az.gap 82°
Corr. -0.278 15M/12stn Msd 0.3 1↑ 3↓
Felt Fighting Bay (78) MM4.

97/12953
OCT 01 093555.7s 45.90S 166.94E 90km M=3.7
0.3 0.02 0.02 2
Rsd 0.2s 11ph/7stn Dmin 51km Az.gap 286°
Corr. 0.211 9M/5stn Msd 0.3 1↑

97/12954
OCT 01 094237.1s 35.92S 179.41E 133km M=3.8
0.4 0.07 0.03 15
Rsd 0.1s 6ph/4stn Dmin 211km Az.gap 325°
Corr. 0.627 11M/10stn Msd 0.4

97/12958
OCT 01 114937.6s 47.34S 165.76E 33km M=3.7
1.3 0.08 0.09 R
Rsd 0.5s 9ph/7stn Dmin 232km Az.gap 324°
Corr. 0.205 8M/6stn Msd 0.4

97/12983
OCT 02 022457.4s 39.33S 176.17E 76km M=4.1
0.2 0.01 0.01 2
Rsd 0.2s 38ph/31stn Dmin 43km Az.gap 95°
Corr. -0.215 21M/18stn Msd 0.3 1↑

97/13001
OCT 02 084950.5s 36.53S 177.33E 5km M=3.7
2.7 0.29 0.10 R
Rsd 0.9s 5ph/3stn Dmin 146km Az.gap 244°
Corr. 0.882 7M/5stn Msd 0.6

97/13007
OCT 02 093416.6s 38.88S 175.13E 218km M=4.0
0.7 0.03 0.04 6
Rsd 0.2s 17ph/14stn Dmin 50km Az.gap 104°
Corr. 0.143 22M/19stn Msd 0.3

97/13013
OCT 02 173832.5s 43.59S 170.21E 6km M=4.1
0.1 0.01 0.01 1
Rsd 0.2s 17ph/12stn Dmin 18km Az.gap 85°
Corr. 0.172 18M/9stn Msd 0.2 4↑ 3↓
Felt Mahitahi (104) MM4.

97/13021
OCT 02 224444.7s 39.97S 174.40E 108km M=3.7
0.3 0.01 0.01 4
Rsd 0.2s 25ph/18stn Dmin 50km Az.gap 117°
Corr. -0.146 11M/10stn Msd 0.3 3↑ 1↓

97/13023
OCT 03 014143.3s 39.95S 174.00E 137km M=4.0
0.4 0.01 0.02 4
Rsd 0.2s 26ph/22stn Dmin 70km Az.gap 129°
Corr. -0.165 15M/13stn Msd 0.3 1↑ 2↓

97/13036
OCT 03 181001.8s 39.37S 176.95E 28km M=3.6
1.8 0.10 0.12 9
Rsd 0.4s 9ph/8stn Dmin 91km Az.gap 323°
Corr. -0.195 5M/5stn Msd 0.2
Poor station coverage.

97/13059
OCT 04 191507.3s 41.64S 174.20E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.3s 23ph/18stn Dmin 12km Az.gap 97°
Corr. -0.389 20M/15stn Msd 0.3 1↑

97/13060
OCT 04 200212.5s 38.21S 179.48W 12km M=4.4
0.6 0.03 0.04 R
Rsd 0.2s 10ph/7stn Dmin 199km Az.gap 296°
Corr. 0.220 15M/11stn Msd 0.6

97/13068
OCT 05 033302.8s 40.32S 175.82E 38km M=3.7
0.1 0.01 0.01 5
Rsd 0.2s 27ph/22stn Dmin 43km Az.gap 162°
Corr. -0.301 12M/10stn Msd 0.2 2↑ 2↓

97/13071
OCT 05 050450.8s 41.65S 174.19E 5km M=4.7
0.1 0.01 0.01 R
Rsd 0.2s 18ph/16stn Dmin 11km Az.gap 96°
Corr. -0.550 16M/9stn Msd 0.3 1↑ 2↓
Felt Wellington (68) to Seddon (84), MM4.

97/13077
OCT 05 051028.4s 41.63S 174.20E 5km M=3.8
0.1 0.01 0.01 R
Rsd 0.3s 22ph/17stn Dmin 13km Az.gap 98°
Corr. -0.282 9M/6stn Msd 0.3
Felt Blind River district (84). There were numerous small shakes felt during the previous hour and a half.

97/13079
OCT 05 052247.4s 41.63S 174.20E 5km M=2.9
0.1 0.01 0.01 R
Rsd 0.3s 16ph/12stn Dmin 13km Az.gap 99°
Corr. -0.453 9M/9stn Msd 0.2 1↑
Felt Blind River district (84).

97/13080
OCT 05 053525.5s 41.74S 174.21E 12km M=2.3
0.4 0.03 0.01 R
Rsd 0.4s 10ph/8stn Dmin 2km Az.gap 128°
Corr. -0.462 2M/2stn Msd 0.1
Felt Blind River district (84).

97/13092
OCT 05 065318.3s 41.66S 174.22E 5km M=4.4
0.1 0.01 0.01 R
Rsd 0.2s 19ph/16stn Dmin 10km Az.gap 108°
Corr. -0.586 13M/7stn Msd 0.1 1↓
Felt Seddon district (84).

97/13100
OCT 05 113140.0s 41.64S 174.20E 5km M=4.0
0.1 0.01 0.01 R
Rsd 0.3s 20ph/18stn Dmin 12km Az.gap 100°
Corr. -0.321 10M/5stn Msd 0.3 1↑ 2↓

97/13109
OCT 05 130054.6s 38.95S 175.66E 150km M=3.5
0.4 0.03 0.08 2
Rsd 0.1s 12ph/10stn Dmin 26km Az.gap 329°
Corr. 0.004 6M/6stn Msd 0.1

97/13132
OCT 06 061926.4s 39.24S 177.13E 28km M=3.5
0.2 0.02 0.01 2
Rsd 0.2s 21ph/20stn Dmin 42km Az.gap 157°
Corr. -0.660 19M/19stn Msd 0.4

97/13152
OCT 07 061611.3s 45.02S 167.53E 85km M=3.9
0.3 0.02 0.02 3
Rsd 0.2s 15ph/9stn Dmin 50km Az.gap 188°
Corr. -0.221 12M/7stn Msd 0.3 1↑

97/13164
OCT 07 144221.6s 37.98S 176.72E 144km M=3.7
0.4 0.02 0.01 3
Rsd 0.1s 21ph/19stn Dmin 4km Az.gap 154°
Corr. -0.078 17M/16stn Msd 0.3 1↑

97/13177
OCT 07 211429.0s 35.57S 176.96E 166km M=4.1
0.3 0.03 0.04 8
Rsd 0.1s 9ph/7stn Dmin 255km Az.gap 310°
Corr. -0.812 9M/8stn Msd 0.2

97/13188
OCT 08 061231.2s 38.57S 175.99E 190km M=3.9
1.1 0.10 0.12 13
Rsd 0.5s 19ph/15stn Dmin 75km Az.gap 208°
Corr. -0.922 21M/17stn Msd 0.2

97/13204
OCT 08 133625.9s 35.28S 177.54E 12km M=4.5
0.3 0.02 0.03 R
Rsd 0.1s 11ph/10stn Dmin 267km Az.gap 321°
Corr. 0.426 13M/13stn Msd 0.2

97/13273
OCT 09 105806.4s 38.50S 175.81E 178km M=4.0
0.6 0.02 0.02 6
Rsd 0.2s 17ph/14stn Dmin 24km Az.gap 137°
Corr. -0.330 18M/15stn Msd 0.2 1↑

97/13286
OCT 09 131248.5s 37.27S 176.34E 221km M=4.1
1.1 0.12 0.16 22
Rsd 0.4s 7ph/5stn Dmin 177km Az.gap 273°
Corr. -0.905 5M/4stn Msd 0.3
Poor station coverage.

97/13288
OCT 09 133134.8s 37.89S 176.57E 177km M=3.8
0.9 0.04 0.02 8
Rsd 0.3s 10ph/7stn Dmin 87km Az.gap 165°
Corr. -0.269 6M/6stn Msd 0.3 1↓

97/13294
OCT 09 142123.8s 39.59S 174.20E 190km M=4.1
0.6 0.02 0.03 6
Rsd 0.3s 28ph/25stn Dmin 67km Az.gap 180°
Corr. -0.369 19M/16stn Msd 0.3 1↑

97/13300
OCT 09 150923.4s 38.02S 176.12E 224km M=3.7
1.5 0.03 0.03 13
Rsd 0.1s 11ph/10stn Dmin 83km Az.gap 231°
Corr. -0.809 4M/4stn Msd 0.1

97/13322
OCT 10 001403.3s 45.21S 167.44E 119km M=4.1
0.6 0.03 0.03 5
Rsd 0.4s 14ph/9stn Dmin 37km Az.gap 176°
Corr. 0.013 12M/6stn Msd 0.2 4↑ 1↓

97/13324
OCT 10 022216.4s 39.28S 174.86E 211km M=3.7
0.3 0.03 0.03 4
Rsd 0.1s 10ph/9stn Dmin 137km Az.gap 262°
Corr. -0.813 5M/5stn Msd 0.3
Poor station coverage.

97/13325
OCT 10 024619.0s 38.54S 176.02E 180km M=4.0
0.8 0.08 0.09 11
Rsd 0.4s 15ph/11stn Dmin 80km Az.gap 208°
Corr. -0.938 16M/14stn Msd 0.2

97/13339
OCT 10 102941.3s 35.27S 177.47E 194km M=4.1
1.1 0.09 0.30 36
Rsd 0.2s 15ph/12stn Dmin 269km Az.gap 320°
Corr. -0.848 15M/14stn Msd 0.3

97/13343
OCT 10 152201.9s 40.47S 175.21E 5km M=3.5
0.1 0.01 0.01 R
Rsd 0.3s 29ph/24stn Dmin 38km Az.gap 100°
Corr. -0.094 28M/25stn Msd 0.4 6↑ 2↓

97/13344
OCT 10 161951.5s 37.15S 177.57E 150km M=3.9
0.5 0.02 0.02 5
Rsd 0.2s 9ph/7stn Dmin 82km Az.gap 209°
Corr. 0.465 15M/13stn Msd 0.2 1↑ 1↓

97/13350
OCT 10 202238.6s 38.35S 175.83E 161km M=4.2
0.4 0.02 0.01 3
Rsd 0.2s 25ph/23stn Dmin 37km Az.gap 80°
Corr. -0.045 23M/20stn Msd 0.2 1↑

97/13393
OCT 11 194154.5s 37.40S 177.23E 151km M=3.9
0.5 0.04 0.01 5
Rsd 0.2s 7ph/5stn Dmin 97km Az.gap 212°
Corr. 0.114 5M/3stn Msd 0.4

97/13446
OCT 12 154046.5s 37.16S 176.75E 216km M=4.6
0.4 0.03 0.02 4
Rsd 0.1s 15ph/14stn Dmin 146km Az.gap 186°
Corr. 0.602 20M/16stn Msd 0.2

97/13459
OCT 12 212157.9s 37.18S 177.13E 147km M=4.5
0.3 0.02 0.01 2
Rsd 0.1s 25ph/21stn Dmin 39km Az.gap 192°
Corr. 0.233 21M/19stn Msd 0.2

97/13473
OCT 13 053033.2s 37.78S 176.54E 242km M=3.8
0.5 0.03 0.03 4
Rsd 0.1s 12ph/9stn Dmin 160km Az.gap 277°
Corr. -0.637 9M/9stn Msd 0.1

97/13474
OCT 13 071801.1s 37.25S 177.58E 103km M=5.0
0.3 0.02 0.01 2
Rsd 0.1s 24ph/21stn Dmin 46km Az.gap 200°
Corr. 0.421 25M/19stn Msd 0.2 1↑ 6↓
Felt Opotiki district (35).

97/13488
OCT 13 201352.5s 36.71S 177.18E 249km M=4.8
1.1 0.16 0.05 14
Rsd 0.2s 13ph/11stn Dmin 138km Az.gap 267°
Corr. 0.112 22M/18stn Msd 0.2 1↑

97/13491
OCT 13 225320.4s 37.89S 176.07E 135km M=3.5
0.9 0.11 0.16 32
Rsd 0.3s 14ph/10stn Dmin 190km Az.gap 244°
Corr. -0.956 9M/9stn Msd 0.3
Poor station coverage.

97/13495
OCT 14 034841.7s 37.54S 178.41E 231km M=4.1
0.9 0.13 0.72 6
Rsd 0.3s 6ph/3stn Dmin 12km Az.gap 318°
Corr. -0.785 4M/3stn Msd 0.2

97/13499
OCT 14 070359.7s 41.25S 175.79E 23km M=3.5
0.2 0.01 0.01 1
Rsd 0.2s 21ph/16stn Dmin 7km Az.gap 181°
Corr. -0.540 18M/15stn Msd 0.2 3↑ 4↓

97/13502
OCT 14 125050.9s 38.31S 175.86E 153km M=3.6
1.4 0.22 0.25 36
Rsd 0.5s 12ph/9stn Dmin 193km Az.gap 247°
Corr. -0.970 10M/9stn Msd 0.2
Poor station coverage.

97/13504
OCT 14 181749.1s 39.62S 174.43E 148km M=4.0
0.5 0.01 0.02 5
Rsd 0.3s 25ph/21stn Dmin 37km Az.gap 86°
Corr. 0.173 18M/14stn Msd 0.3 2↑ 1↓

97/13511
OCT 15 013752.1s 42.25S 172.59E 5km M=4.0
0.2 0.01 0.02 R
Rsd 0.3s 17ph/13stn Dmin 60km Az.gap 141°
Corr. -0.014 11M/6stn Msd 0.3 1↓

97/13515
OCT 15 050844.6s 38.13S 176.24E 5km M=2.5
0.2 0.01 0.01 R
Rsd 0.3s 7ph/6stn Dmin 7km Az.gap 182°
Corr. -0.689 5M/5stn Msd 0.2
Felt Rotorua (33) MM4.

97/13525
OCT 15 123854.1s 36.71S 177.85E 12km M=3.7
1.6 0.11 0.05 R
Rsd 0.3s 6ph/5stn Dmin 156km Az.gap 312°
Corr. 0.720 7M/5stn Msd 0.2

97/13540
OCT 15 221917.2s 37.71S 178.82E 81km M=3.5
1.4 0.08 0.29 14
Rsd 0.5s 5ph/4stn Dmin 48km Az.gap 289°
Corr. -0.665 5M/3stn Msd 0.1 1↓

97/13548
OCT 16 061335.5s 40.31S 173.63E 162km M=3.6
0.5 0.04 0.02 5
Rsd 0.3s 19ph/14stn Dmin 61km Az.gap 226°
Corr. 0.328 12M/12stn Msd 0.2 1↑

97/13549
OCT 16 061405.6s 39.19S 175.13E 155km M=4.3
0.4 0.01 0.01 4
Rsd 0.3s 39ph/36stn Dmin 28km Az.gap 70°
Corr. -0.300 21M/18stn Msd 0.4 3↑ 1↓

97/13555
OCT 16 110355.9s 35.83S 179.89E 258km M=3.7
0.3 0.11 0.13 3
Rsd 0.0s 10ph/7stn Dmin 243km Az.gap 354°
Corr. -0.992 7M/7stn Msd 0.1

97/13560
OCT 16 121244.0s 37.26S 177.44E 135km M=3.6
0.1 0.00 0.00 1
Rsd 0.0s 6ph/5stn Dmin 85km Az.gap 229°
Corr. 0.306 5M/5stn Msd 0.3

97/13566
OCT 16 185135.8s 37.05S 177.80E 118km M=3.6
0.2 0.01 0.01 2
Rsd 0.0s 12ph/11stn Dmin 75km Az.gap 280°
Corr. -0.059 9M/9stn Msd 0.2

97/13568
OCT 16 215946.4s 43.29S 171.35E 12km M=4.6
0.2 0.02 0.01 R
Rsd 0.2s 17ph/10stn Dmin 47km Az.gap 109°
Corr. -0.377 25M/13stn Msd 0.2 1↑ 3↓
Felt Lake Coleridge (100 and Christchurch (110).

97/13571
OCT 16 232708.9s 43.29S 171.35E 12km M=4.1
0.2 0.02 0.01 R
Rsd 0.3s 17ph/11stn Dmin 47km Az.gap 109°
Corr. -0.436 14M/8stn Msd 0.2 1↑ 2↓
Felt Lake Coleridge (100) MM4.

97/13574
OCT 17 003954.9s 38.83S 175.28E 242km M=3.6
0.4 0.01 0.05 4
Rsd 0.1s 13ph/12stn Dmin 48km Az.gap 278°
Corr. -0.335 7M/7stn Msd 0.2

97/13581
OCT 17 075938.9s 38.08S 176.12E 182km M=4.3
0.3 0.01 0.02 3
Rsd 0.2s 27ph/22stn Dmin 13km Az.gap 82°
Corr. -0.170 20M/16stn Msd 0.2 2↑ 2↓

97/13582
OCT 17 095403.3s 40.20S 173.51E 168km M=3.5
0.7 0.07 0.03 7
Rsd 0.3s 10ph/8stn Dmin 75km Az.gap 252°
Corr. 0.376 2M/2stn Msd 0.5 1↑

97/13585
OCT 17 125238.5s 38.74S 176.69E 53km M=3.9
0.1 0.01 0.01 3
Rsd 0.2s 33ph/31stn Dmin 52km Az.gap 88°
Corr. -0.532 13M/11stn Msd 0.2 1↑ 1↓

97/13588
OCT 17 194558.2s 35.69S 179.42E 33km M=4.2
1.8 0.11 0.21 R
Rsd 0.5s 5ph/3stn Dmin 235km Az.gap 338°
Corr. -0.234 4M/2stn Msd 0.3

97/13595
OCT 18 033621.6s 38.68S 175.77E 171km M=3.7
0.3 0.02 0.03 4
Rsd 0.1s 12ph/9stn Dmin 54km Az.gap 289°
Corr. -0.581 5M/3stn Msd 0.2

97/13603
OCT 18 093634.1s 38.00S 176.75E 195km M=3.5
1.0 0.13 0.18 20
Rsd 0.2s 6ph/5stn Dmin 132km Az.gap 280°
Corr. -0.926 2M/2stn Msd 0.2
Poor station coverage.

97/13607
OCT 18 113248.9s 41.43S 174.17E 50km M=3.7
0.1 0.01 0.01 2
Rsd 0.2s 29ph/22stn Dmin 28km Az.gap 84°
Corr. -0.414 13M/10stn Msd 0.3 4↑ 3↓
Felt Fighting Bay (78) MM4.

97/13611
OCT 18 132153.0s 38.19S 176.27E 168km M=4.1
0.5 0.02 0.02 4
Rsd 0.2s 16ph/14stn Dmin 22km Az.gap 85°
Corr. -0.228 16M/14stn Msd 0.3 1↑

97/13613
OCT 18 154848.9s 40.76S 172.93E 208km M=4.5
0.4 0.02 0.02 3
Rsd 0.2s 32ph/25stn Dmin 35km Az.gap 129°
Corr. -0.168 20M/16stn Msd 0.3 4↑ 3↓

97/13637
OCT 19 152726.5s 38.54S 175.73E 184km M=3.6
0.9 0.08 0.09 16
Rsd 0.3s 12ph/11stn Dmin 227km Az.gap 227°
Corr. -0.851 8M/6stn Msd 0.3
Poor station coverage.

97/13643
OCT 20 004056.3s 38.79S 175.90E 226km M=3.6
0.9 0.14 0.16 13
Rsd 0.3s 13ph/11stn Dmin 101km Az.gap 214°
Corr. -0.964 8M/8stn Msd 0.1
Poor station coverage.

97/13645
OCT 20 015954.8s 39.49S 177.69E 33km M=3.6
0.8 0.07 0.05 R
Rsd 0.2s 10ph/7stn Dmin 75km Az.gap 202°
Corr. -0.865 10M/10stn Msd 0.3

97/13653
OCT 20 145601.1s 40.27S 173.38E 185km M=3.6
0.6 0.04 0.02 5
Rsd 0.2s 15ph/13stn Dmin 75km Az.gap 235°
Corr. 0.203 9M/9stn Msd 0.2 1↑ 2↓

97/13657
OCT 20 175356.7s 43.45S 170.56E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.2s 14ph/11stn Dmin 25km Az.gap 117°
Corr. -0.215 12M/11stn Msd 0.2 1↑ 2↓

97/13667
OCT 20 212655.8s 40.38S 177.29E 28km M=3.6
0.4 0.02 0.03 6
Rsd 0.2s 16ph/15stn Dmin 101km Az.gap 213°
Corr. -0.355 20M/19stn Msd 0.3

97/13672
OCT 21 010618.0s 39.24S 174.85E 147km M=3.5
0.2 0.01 0.01 3
Rsd 0.1s 16ph/14stn Dmin 66km Az.gap 216°
Corr. -0.582 10M/10stn Msd 0.3 2↑ 1↓

97/13681
OCT 21 034758.0s 37.62S 178.83E 78km M=3.7
1.4 0.07 0.31 17
Rsd 0.4s 5ph/4stn Dmin 46km Az.gap 300°
Corr. -0.594 5M/3stn Msd 0.3 1↑ 1↓

97/13690
OCT 21 134747.1s 38.34S 175.85E 195km M=3.7
0.8 0.06 0.07 14
Rsd 0.3s 16ph/14stn Dmin 193km Az.gap 219°
Corr. -0.925 10M/10stn Msd 0.3 1↑
Poor station coverage.

97/13696
OCT 21 183035.9s 41.07S 175.52E 13km M=3.5
0.1 0.01 0.01 2
Rsd 0.2s 21ph/17stn Dmin 10km Az.gap 117°
Corr. -0.084 20M/17stn Msd 0.3 4↑ 1↓
Felt southern Wairarapa (66,70).

97/13710
OCT 22 072709.2s 38.76S 175.31E 212km M=4.7
0.4 0.03 0.01 3
Rsd 0.2s 26ph/23stn Dmin 32km Az.gap 118°
Corr. -0.020 23M/18stn Msd 0.2 11↑ 5↓

97/13719
OCT 22 135646.4s 37.19S 178.99E 12km M=4.2
0.7 0.03 0.04 R
Rsd 0.3s 12ph/10stn Dmin 76km Az.gap 292°
Corr. 0.218 30M/26stn Msd 0.3

97/13722
OCT 22 154616.3s 39.46S 174.30E 222km M=4.1
0.6 0.02 0.05 5
Rsd 0.3s 26ph/22stn Dmin 66km Az.gap 159°
Corr. -0.424 16M/14stn Msd 0.2 3↑ 2↓

97/13743
OCT 23 074432.6s 37.21S 179.23E 12km M=4.1
0.4 0.03 0.03 R
Rsd 0.2s 8ph/7stn Dmin 93km Az.gap 332°
Corr. -0.244 13M/9stn Msd 0.3

97/13760
OCT 23 230628.2s 38.44S 175.70E 290km M=4.0
0.6 0.05 0.06 7
Rsd 0.2s 13ph/11stn Dmin 126km Az.gap 246°
Corr. -0.901 13M/13stn Msd 0.2
Poor station coverage.

97/13762
OCT 24 082711.6s 36.88S 176.51E 258km M=4.2
1.1 0.11 0.16 20
Rsd 0.3s 13ph/10stn Dmin 177km Az.gap 270°
Corr. -0.921 13M/12stn Msd 0.2

97/13767
OCT 24 115900.5s 37.02S 176.75E 12km M=3.9
1.1 0.08 0.04 R
Rsd 0.4s 8ph/6stn Dmin 152km Az.gap 279°
Corr. -0.091 7M/6stn Msd 0.2

97/13789
OCT 25 034017.8s 36.86S 176.50E 218km M=3.7
1.3 0.12 0.38 40
Rsd 0.4s 9ph/4stn Dmin 180km Az.gap 272°
Corr. -0.621 14M/12stn Msd 0.3

97/13798
OCT 25 085752.3s 41.07S 174.80E 30km M=3.7
0.1 0.01 0.01 1
Rsd 0.2s 20ph/17stn Dmin 20km Az.gap 73°
Corr. -0.214 24M/18stn Msd 0.3 6↑ 3↓
Felt Wellington (68) MM3.

97/13821
OCT 26 062851.6s 37.37S 178.48E 5km M=3.5
1.1 0.05 0.08 R
Rsd 0.5s 7ph/4stn Dmin 30km Az.gap 319°
Corr. 0.096 5M/3stn Msd 0.3 1↑

97/13826
OCT 26 085806.9s 38.11S 176.00E 175km M=3.9
0.3 0.05 0.07 8
Rsd 0.2s 20ph/16stn Dmin 124km Az.gap 225°
Corr. -0.951 17M/16stn Msd 0.2 1↓
Poor station coverage.

97/13827
OCT 26 093421.3s 37.28S 176.11E 12km M=3.8
1.0 0.07 0.05 R
Rsd 0.5s 11ph/9stn Dmin 198km Az.gap 259°
Corr. -0.665 4M/4stn Msd 0.7
Poor station coverage.

97/13835
OCT 26 125008.6s 37.08S 177.47E 148km M=4.0
1.9 0.09 0.07 20
Rsd 0.4s 9ph/8stn Dmin 94km Az.gap 253°
Corr. 0.121 15M/13stn Msd 0.2

97/13838
OCT 26 135837.0s 39.60S 174.88E 104km M=4.3
0.2 0.01 0.01 3
Rsd 0.2s 43ph/38stn Dmin 23km Az.gap 84°
Corr. 0.008 8M/4stn Msd 0.2 9↑ 9↓

97/13847
OCT 26 163318.5s 40.38S 175.29E 40km M=3.3
0.1 0.01 0.01 3
Rsd 0.3s 32ph/26stn Dmin 40km Az.gap 128°
Corr. 0.121 14M/12stn Msd 0.2 1↓
Felt Waitarere Beach (65) MM4.

97/13849
OCT 26 184045.7s 40.30S 175.98E 69km M=3.6
0.2 0.01 0.01 3
Rsd 0.2s 40ph/32stn Dmin 52km Az.gap 145°
Corr. -0.407 22M/19stn Msd 0.2 1↑ 8↓

97/13851
OCT 26 192125.4s 41.22S 173.40E 100km M=3.5
0.3 0.02 0.01 3
Rsd 0.3s 29ph/20stn Dmin 45km Az.gap 81°
Corr. -0.147 12M/11stn Msd 0.2 3↑ 3↓

97/13853
OCT 26 203813.9s 39.15S 174.91E 222km M=4.0
0.5 0.02 0.02 4
Rsd 0.2s 32ph/28stn Dmin 43km Az.gap 148°
Corr. -0.119 13M/13stn Msd 0.2 4↑ 2↓

97/13866
OCT 27 012405.4s 36.65S 177.97E 12km M=3.6
1.6 0.09 0.08 R
Rsd 0.4s 6ph/3stn Dmin 110km Az.gap 321°
Corr. 0.390 5M/3stn Msd 0.5
Poor station coverage.

97/13893
OCT 27 201442.3s 45.66S 167.10E 94km M=3.9
0.4 0.03 0.02 3
Rsd 0.2s 12ph/6stn Dmin 22km Az.gap 259°
Corr. -0.002 11M/6stn Msd 0.3 1↑ 4↓

97/13903
OCT 28 024434.1s 41.72S 172.26E 98km M=3.7
0.3 0.01 0.02 3
Rsd 0.2s 16ph/10stn Dmin 54km Az.gap 146°
Corr. -0.308 11M/11stn Msd 0.2 1↑ 1↓

97/13907
OCT 28 045417.9s 34.53S 177.22E 33km M=5.3
0.9 0.09 0.23 R
Rsd 0.2s 6ph/3stn Dmin 354km Az.gap 353°
Corr. 0.734 5M/3stn Msd 0.5

97/13919
OCT 28 110004.9s 37.81S 179.16E 12km M=4.1
0.6 0.02 0.04 R
Rsd 0.3s 11ph/9stn Dmin 79km Az.gap 289°
Corr. 0.264 23M/20stn Msd 0.2 1↓

97/13961
OCT 29 112359.5s 37.63S 177.15E 149km M=3.6
1.4 0.06 0.06 16
Rsd 0.5s 7ph/6stn Dmin 102km Az.gap 205°
Corr. -0.304 8M/8stn Msd 0.2 1↑ 1↓

97/13963
OCT 29 131350.5s 40.10S 173.73E 167km M=3.9
0.5 0.01 0.02 5
Rsd 0.3s 30ph/25stn Dmin 80km Az.gap 136°
Corr. -0.066 13M/13stn Msd 0.3 6↑ 3↓

97/13964
OCT 29 132500.2s 37.92S 176.41E 191km M=4.1
0.9 0.04 0.02 7
Rsd 0.2s 21ph/20stn Dmin 21km Az.gap 107°
Corr. -0.492 15M/13stn Msd 0.3 1↑

97/13966
OCT 29 145954.6s 38.26S 175.89E 226km M=4.9
0.4 0.03 0.02 3
Rsd 0.1s 27ph/24stn Dmin 28km Az.gap 137°
Corr. -0.574 8M/4stn Msd 0.2 12↑ 7↓

97/13977
OCT 30 064618.6s 37.46S 175.85E 12km M=4.1
0.8 0.06 0.04 R
Rsd 0.2s 11ph/10stn Dmin 217km Az.gap 254°
Corr. -0.915 3M/3stn Msd 0.3
Poor station coverage.

97/13980
OCT 30 102019.3s 37.97S 176.21E 169km M=4.2
0.3 0.01 0.01 3
Rsd 0.1s 29ph/26stn Dmin 27km Az.gap 71°
Corr. 0.268 18M/15stn Msd 0.3 2↑ 1↓

97/13993
OCT 31 034007.5s 37.56S 177.29E 140km M=4.0
0.5 0.02 0.02 5
Rsd 0.2s 10ph/7stn Dmin 90km Az.gap 169°
Corr. 0.279 14M/11stn Msd 0.3 1↑ 3↓

97/13997
OCT 31 071520.7s 38.73S 175.68E 128km M=5.1
0.2 0.01 0.01 1
Rsd 0.1s 40ph/35stn Dmin 5km Az.gap 47°
Corr. -0.320 8M/4stn Msd 0.4 12↑ 10↓
Felt Patoka (52) MM4 and Marton (61).

97/14013
OCT 31 225315.9s 38.00S 176.79E 139km M=5.6
0.3 0.02 0.01 3
Rsd 0.2s 35ph/32stn Dmin 10km Az.gap 86°
Corr. -0.129 8M/4stn Msd 0.2 14↑ 10↓

97/14018
NOV 01 033948.9s 38.71S 176.20E 85km M=3.9
0.2 0.01 0.01 2
Rsd 0.2s 40ph/32stn Dmin 11km Az.gap 47°
Corr. -0.383 21M/18stn Msd 0.2 1↑ 1↓

97/14023
NOV 01 073901.5s 38.92S 176.59E 52km M=3.5
0.2 0.01 0.01 2
Rsd 0.2s 31ph/27stn Dmin 41km Az.gap 82°
Corr. -0.470 14M/14stn Msd 0.2 1↑ 2↓

97/14030
NOV 01 115040.2s 36.42S 180.00E 12km M=4.1
0.5 0.03 0.04 R
Rsd 0.1s 11ph/10stn Dmin 200km Az.gap 328°
Corr. -0.042 9M/8stn Msd 0.2

97/14034
NOV 01 133633.0s 39.32S 174.68E 207km M=3.9
0.2 0.01 0.02 2
Rsd 0.1s 21ph/18stn Dmin 76km Az.gap 198°
Corr. -0.426 14M/14stn Msd 0.1 3↑ 1↓

97/14035
NOV 01 134711.5s 38.68S 175.49E 181km M=3.6
0.6 0.06 0.06 12
Rsd 0.2s 13ph/11stn Dmin 221km Az.gap 225°
Corr. -0.801 13M/12stn Msd 0.2
Poor station coverage.

97/14042
NOV 01 180157.3s 37.71S 178.92E 26km M=3.7
0.3 0.01 0.02 2
Rsd 0.1s 9ph/7stn Dmin 56km Az.gap 295°
Corr. -0.289 8M/6stn Msd 0.2 1↓

97/14044
NOV 01 200148.2s 36.93S 177.51E 153km M=4.0
0.7 0.05 0.02 6
Rsd 0.3s 10ph/8stn Dmin 103km Az.gap 258°
Corr. 0.187 11M/10stn Msd 0.2

97/14063
NOV 02 204941.2s 37.69S 177.35E 117km M=3.7
0.6 0.03 0.05 9
Rsd 0.2s 5ph/4stn Dmin 85km Az.gap 252°
Corr. -0.670 8M/7stn Msd 0.2 1↑

97/14075
NOV 03 080327.1s 41.65S 174.21E 5km M=4.1
0.1 0.01 0.01 R
Rsd 0.2s 22ph/19stn Dmin 11km Az.gap 103°
Corr. -0.422 13M/7stn Msd 0.2 2↑ 1↓
Felt aboard the Marlborough Express.

97/14092
NOV 03 225851.1s 36.83S 177.08E 12km M=3.8
1.1 0.11 0.02 R
Rsd 0.4s 5ph/3stn Dmin 139km Az.gap 260°
Corr. 0.020 4M/3stn Msd 0.3

97/14093
NOV 03 232238.7s 37.19S 177.13E 5km M=3.8
0.4 0.03 0.02 R
Rsd 0.3s 15ph/12stn Dmin 38km Az.gap 192°
Corr. 0.168 13M/11stn Msd 0.3

97/14095
NOV 04 012036.6s 38.75S 175.25E 270km M=3.7
0.3 0.02 0.04 3
Rsd 0.1s 10ph/9stn Dmin 57km Az.gap 290°
Corr. -0.276 5M/5stn Msd 0.1 1↓

97/14103
NOV 04 060024.6s 40.10S 176.73E 29km M=3.5
0.3 0.01 0.02 2
Rsd 0.2s 22ph/17stn Dmin 55km Az.gap 199°
Corr. -0.511 20M/18stn Msd 0.3 1↑

97/14107
NOV 04 090239.5s 42.99S 171.36E 12km M=3.7
0.2 0.02 0.01 R
Rsd 0.3s 10ph/8stn Dmin 78km Az.gap 138°
Corr. -0.390 16M/11stn Msd 0.2 1↑ 1↓

97/14120
NOV 04 135543.2s 43.00S 171.37E 5km M=5.1
0.1 0.01 0.01 R
Rsd 0.2s 16ph/13stn Dmin 77km Az.gap 131°
Corr. -0.439 27M/14stn Msd 0.3 2↑ 6↓
Felt widely from West Coast to Lake Coleridge, maximum intensity MM4.

97/14128
NOV 05 011453.2s 39.17S 174.85E 210km M=3.6
0.4 0.02 0.04 4
Rsd 0.1s 18ph/15stn Dmin 60km Az.gap 207°
Corr. -0.529 9M/9stn Msd 0.2

97/14146
NOV 05 133543.9s 36.67S 179.03E 12km M=3.9
2.5 0.10 0.19 R
Rsd 0.7s 11ph/8stn Dmin 122km Az.gap 318°
Corr. 0.428 9M/7stn Msd 0.3

97/14148
NOV 05 141913.1s 43.00S 171.38E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.2s 15ph/11stn Dmin 76km Az.gap 130°
Corr. -0.297 22M/17stn Msd 0.2 1↑

97/14155
NOV 05 204222.3s 45.92S 166.60E 5km M=4.0
0.9 0.04 0.06 R
Rsd 0.5s 10ph/7stn Dmin 66km Az.gap 309°
Corr. 0.224 11M/6stn Msd 0.3 1↓

97/14161
NOV 06 062302.7s 37.26S 177.40E 12km M=3.8
0.3 0.03 0.02 R
Rsd 0.2s 14ph/13stn Dmin 35km Az.gap 197°
Corr. 0.732 15M/13stn Msd 0.2

97/14186
NOV 06 184540.6s 41.00S 174.53E 61km M=3.6
0.1 0.01 0.01 1
Rsd 0.2s 26ph/20stn Dmin 30km Az.gap 72°
Corr. -0.054 15M/12stn Msd 0.2 8↑ 2↓

97/14196
NOV 07 022653.9s 38.55S 175.90E 152km M=4.3
0.4 0.01 0.01 4
Rsd 0.2s 22ph/19stn Dmin 23km Az.gap 109°
Corr. -0.226 18M/15stn Msd 0.3 2↑ 1↓

97/14207
NOV 07 114344.3s 41.84S 174.15E 12km M=3.8
0.2 0.02 0.01 R
Rsd 0.3s 19ph/16stn Dmin 11km Az.gap 146°
Corr. -0.534 10M/6stn Msd 0.2 3↑ 2↓

97/14214
NOV 07 223001.6s 40.43S 176.84E 16km M=5.4
0.2 0.01 0.02 2
Rsd 0.1s 34ph/33stn Dmin 91km Az.gap 194°
Corr. -0.583 25M/13stn Msd 0.4
Felt Hawkes Bay and Manawatu, maximum intensity MM5 in Napier and Waipawa (60).

97/14217
NOV 07 232636.0s 40.39S 176.79E 15km M=4.0
0.4 0.01 0.03 3
Rsd 0.2s 26ph/20stn Dmin 85km Az.gap 193°
Corr. -0.336 31M/27stn Msd 0.3

97/14220
NOV 08 015708.8s 40.43S 176.88E 12km M=3.6
0.3 0.01 0.03 R
Rsd 0.2s 14ph/11stn Dmin 93km Az.gap 242°
Corr. -0.632 17M/15stn Msd 0.4 1↓

97/14224
NOV 08 063610.3s 38.08S 179.98W 12km M=3.7
1.6 0.09 0.10 R
Rsd 0.5s 5ph/3stn Dmin 155km Az.gap 321°
Corr. 0.007 4M/3stn Msd 0.2 1↑

97/14226
NOV 08 075833.3s 38.78S 175.65E 201km M=3.8
0.3 0.02 0.04 3
Rsd 0.1s 10ph/8stn Dmin 44km Az.gap 336°
Corr. -0.453 4M/4stn Msd 0.1 1↑

97/14232
NOV 08 125810.4s 40.36S 176.68E 12km M=3.5
0.5 0.02 0.03 R
Rsd 0.3s 13ph/11stn Dmin 78km Az.gap 242°
Corr. -0.766 12M/10stn Msd 0.4 1↓

97/14237
NOV 08 213923.7s 35.93S 179.15E 109km M=4.5
0.5 0.05 0.04 13
Rsd 0.2s 8ph/6stn Dmin 201km Az.gap 323°
Corr. -0.009 21M/17stn Msd 0.2 1↓

97/14239
NOV 09 032344.2s 38.04S 176.45E 163km M=4.4
0.3 0.01 0.01 3
Rsd 0.1s 24ph/21stn Dmin 7km Az.gap 148°
Corr. -0.256 22M/18stn Msd 0.3 1↑

97/14245
NOV 09 082855.1s 37.58S 177.18E 139km M=5.0
0.4 0.02 0.01 3
Rsd 0.2s 31ph/29stn Dmin 6km Az.gap 80°
Corr. 0.270 23M/18stn Msd 0.3 2↑ 4↓
Felt Ruatuna Rd (35) MM4.

97/14253
NOV 09 140627.4s 36.92S 177.58E 157km M=4.3
0.4 0.03 0.02 4
Rsd 0.1s 10ph/8stn Dmin 76km Az.gap 261°
Corr. 0.231 21M/18stn Msd 0.3

97/14259
NOV 09 191851.4s 38.06S 176.50E 215km M=3.6
0.4 0.03 0.04 5
Rsd 0.1s 9ph/8stn Dmin 149km Az.gap 260°
Corr. -0.862 7M/7stn Msd 0.4
Poor station coverage.

97/14261
NOV 10 035254.1s 44.79S 166.60E 12km M=3.9
0.6 0.02 0.04 R
Rsd 0.3s 12ph/8stn Dmin 87km Az.gap 272°
Corr. -0.100 8M/4stn Msd 0.1

97/14276
NOV 10 170816.6s 36.29S 179.85W 12km M=4.4
0.3 0.02 0.03 R
Rsd 0.1s 12ph/11stn Dmin 220km Az.gap 329°
Corr. 0.135 19M/15stn Msd 0.2

97/14277
NOV 10 173148.7s 38.89S 175.24E 226km M=3.7
0.5 0.02 0.02 4
Rsd 0.1s 15ph/13stn Dmin 43km Az.gap 236°
Corr. -0.440 9M/8stn Msd 0.3

97/14280
NOV 10 193540.6s 38.12S 179.03E 12km M=3.9
0.2 0.01 0.01 R
Rsd 0.1s 5ph/3stn Dmin 68km Az.gap 285°
Corr. -0.104 13M/9stn Msd 0.4 1↑

97/14282
NOV 10 203930.6s 38.93S 175.17E 247km M=3.7
0.6 0.05 0.04 4
Rsd 0.1s 11ph/9stn Dmin 46km Az.gap 197°
Corr. -0.043 9M/8stn Msd 0.2 1↑

97/14299
NOV 11 162131.6s 37.91S 176.62E 147km M=4.1
0.3 0.02 0.01 3
Rsd 0.2s 26ph/22stn Dmin 10km Az.gap 101°
Corr. 0.310 18M/16stn Msd 0.3 1↓

97/14308
NOV 12 095939.3s 39.25S 176.08E 55km M=3.6
0.2 0.01 0.01 3
Rsd 0.2s 17ph/12stn Dmin 42km Az.gap 54°
Corr. -0.016 13M/12stn Msd 0.2 1↑

97/14334
NOV 13 222548.1s 38.61S 175.73E 162km M=4.2
0.4 0.01 0.02 3
Rsd 0.1s 17ph/14stn Dmin 52km Az.gap 124°
Corr. -0.350 16M/15stn Msd 0.4 1↑

97/14349
NOV 14 192738.3s 37.96S 176.50E 153km M=3.6
0.7 0.02 0.02 7
Rsd 0.1s 13ph/12stn Dmin 107km Az.gap 217°
Corr. -0.661 13M/13stn Msd 0.2

97/14357
NOV 15 093810.3s 44.86S 166.62E 5km M=4.1
0.7 0.02 0.05 R
Rsd 0.4s 10ph/7stn Dmin 79km Az.gap 261°
Corr. -0.092 12M/6stn Msd 0.2 1↑

97/14359
NOV 15 114439.1s 40.23S 173.53E 177km M=3.5
0.4 0.02 0.02 4
Rsd 0.2s 22ph/17stn Dmin 72km Az.gap 180°
Corr. -0.121 10M/10stn Msd 0.3

97/14363
NOV 15 135412.5s 40.44S 176.73E 12km M=3.8
0.2 0.01 0.02 R
Rsd 0.2s 20ph/19stn Dmin 88km Az.gap 193°
Corr. -0.692 26M/24stn Msd 0.3 1↑

97/14368
NOV 15 184610.6s 45.04S 167.47E 127km M=3.9
0.5 0.03 0.02 4
Rsd 0.3s 14ph/8stn Dmin 53km Az.gap 194°
Corr. -0.048 9M/7stn Msd 0.3 3↑ 3↓

97/14370
NOV 15 214012.6s 40.45S 176.92E 12km M=4.1
0.3 0.01 0.02 R
Rsd 0.2s 29ph/26stn Dmin 96km Az.gap 202°
Corr. -0.508 34M/31stn Msd 0.3 1↑ 1↓

97/14371
NOV 15 220605.5s 40.43S 176.84E 12km M=3.5
0.3 0.01 0.03 R
Rsd 0.2s 22ph/20stn Dmin 91km Az.gap 216°
Corr. -0.630 20M/20stn Msd 0.3 1↑

97/14372
NOV 15 222446.9s 40.43S 173.32E 164km M=3.5
0.5 0.04 0.02 4
Rsd 0.1s 14ph/12stn Dmin 66km Az.gap 179°
Corr. 0.225 8M/8stn Msd 0.1

97/14401
NOV 16 215734.3s 35.73S 179.62E 97km M=4.5
0.8 0.06 0.06 15
Rsd 0.2s 16ph/15stn Dmin 238km Az.gap 327°
Corr. -0.140 19M/17stn Msd 0.3

97/14404
NOV 17 011539.5s 37.79S 179.11E 12km M=3.7
0.2 0.01 0.01 R
Rsd 0.1s 5ph/3stn Dmin 74km Az.gap 299°
Corr. 0.089 5M/3stn Msd 0.3 1↓

97/14414
NOV 17 130416.6s 37.20S 177.71E 132km M=3.7
1.4 0.06 0.05 13
Rsd 0.3s 8ph/7stn Dmin 69km Az.gap 243°
Corr. 0.587 5M/4stn Msd 0.2

97/14415
NOV 17 131317.7s 39.74S 176.37E 38km M=3.5
0.2 0.01 0.01 2
Rsd 0.2s 24ph/21stn Dmin 5km Az.gap 136°
Corr. -0.094 8M/8stn Msd 0.2 1↓

97/14417
NOV 17 180738.7s 38.88S 175.18E 216km M=3.6
1.1 0.04 0.02 8
Rsd 0.1s 12ph/11stn Dmin 48km Az.gap 223°
Corr. -0.533 6M/6stn Msd 0.1

97/14429
NOV 18 084513.9s 37.62S 176.86E 234km M=3.8
1.2 0.16 0.23 22
Rsd 0.3s 6ph/4stn Dmin 128km Az.gap 258°
Corr. -0.958 5M/4stn Msd 0.4

97/14431
NOV 18 121337.7s 37.83S 176.31E 311km M=4.0
0.3 0.02 0.03 3
Rsd 0.1s 16ph/14stn Dmin 132km Az.gap 288°
Corr. -0.688 13M/12stn Msd 0.2

97/14435
NOV 18 153941.1s 37.17S 178.10E 12km M=4.0
0.5 0.03 0.02 R
Rsd 0.2s 9ph/6stn Dmin 50km Az.gap 269°
Corr. 0.846 7M/5stn Msd 0.3 1↑

97/14436
NOV 18 154215.5s 37.11S 178.29E 27km M=4.2
0.4 0.03 0.02 2
Rsd 0.1s 17ph/16stn Dmin 55km Az.gap 289°
Corr. 0.927 33M/31stn Msd 0.3 1↑

97/14444
NOV 18 202509.8s 38.49S 175.83E 187km M=4.5
0.4 0.02 0.02 3
Rsd 0.2s 23ph/17stn Dmin 26km Az.gap 82°
Corr. 0.151 20M/15stn Msd 0.2

97/14447
NOV 18 215049.8s 40.62S 173.32E 156km M=3.9
0.3 0.01 0.01 3
Rsd 0.2s 34ph/27stn Dmin 55km Az.gap 127°
Corr. -0.061 15M/12stn Msd 0.2 1↑ 2↓

97/14471
NOV 20 063635.7s 45.06S 167.48E 97km M=3.8
0.6 0.06 0.03 6
Rsd 0.4s 12ph/7stn Dmin 52km Az.gap 210°
Corr. -0.139 10M/5stn Msd 0.2 1↑

97/14476
NOV 20 142359.3s 39.29S 177.41E 28km M=4.0
0.2 0.01 0.01 2
Rsd 0.2s 25ph/22stn Dmin 57km Az.gap 176°
Corr. -0.496 39M/35stn Msd 0.3 1↑

97/14485
NOV 21 062148.8s 45.10S 167.45E 115km M=3.6
0.5 0.04 0.02 4
Rsd 0.3s 12ph/7stn Dmin 47km Az.gap 208°
Corr. -0.183 12M/8stn Msd 0.2

97/14492
NOV 21 152152.2s 41.84S 171.99E 5km M=3.7
0.1 0.00 0.00 R
Rsd 0.1s 13ph/9stn Dmin 18km Az.gap 93°
Corr. 0.190 22M/16stn Msd 0.3 2↑ 1↓

97/14506
NOV 22 083146.6s 42.48S 172.85E 5km M=4.2
0.1 0.01 0.01 R
Rsd 0.1s 19ph/16stn Dmin 58km Az.gap 126°
Corr. -0.596 13M/8stn Msd 0.2 2↑ 1↓

97/14526
NOV 23 055945.6s 36.63S 176.49E 265km M=3.7
0.9 0.08 0.12 15
Rsd 0.2s 10ph/7stn Dmin 194km Az.gap 282°
Corr. -0.849 9M/8stn Msd 0.2 1↓

97/14548
NOV 23 170631.2s 39.75S 176.42E 44km M=3.7
0.2 0.01 0.02 7
Rsd 0.3s 35ph/31stn Dmin 8km Az.gap 141°
Corr. -0.216 14M/12stn Msd 0.2 1↓

97/14550
NOV 23 203031.0s 40.95S 176.09E 31km M=3.5
0.3 0.02 0.02 3
Rsd 0.3s 18ph/16stn Dmin 49km Az.gap 206°
Corr. -0.312 20M/17stn Msd 0.4 3↑ 1↓

97/14556
NOV 24 022356.5s 40.49S 174.65E 74km M=5.2
0.2 0.01 0.01 4
Rsd 0.2s 39ph/34stn Dmin 47km Az.gap 75°
Corr. 0.145 12M/7stn Msd 0.2 1↑
Felt Lower North Island, maximum intensity MM5 near Foxton (61).

97/14559
NOV 24 042453.4s 41.16S 172.89E 169km M=3.7
0.6 0.04 0.02 5
Rsd 0.3s 15ph/13stn Dmin 48km Az.gap 136°
Corr. -0.021 10M/9stn Msd 0.2 1↑ 1↓

97/14567
NOV 24 174553.7s 40.48S 174.60E 60km M=3.7
0.2 0.01 0.01 5
Rsd 0.3s 28ph/27stn Dmin 50km Az.gap 77°
Corr. -0.007 15M/12stn Msd 0.2 2↑ 2↓

97/14574
NOV 24 211449.9s 39.19S 174.75E 225km M=3.8
0.8 0.03 0.04 7
Rsd 0.3s 15ph/14stn Dmin 70km Az.gap 225°
Corr. -0.134 12M/11stn Msd 0.1

97/14589
NOV 25 163528.3s 38.36S 176.35E 181km M=3.5
1.9 0.12 0.12 19
Rsd 0.4s 6ph/6stn Dmin 83km Az.gap 223°
Corr. -0.899 15M/14stn Msd 0.2

97/14605
NOV 26 063427.3s 38.07S 175.96E 196km M=4.6
0.6 0.03 0.02 5
Rsd 0.2s 13ph/10stn Dmin 41km Az.gap 130°
Corr. 0.013 21M/17stn Msd 0.3 1↑

97/14610
NOV 26 113413.9s 39.88S 177.01E 38km M=3.8
0.1 0.01 0.01 3
Rsd 0.1s 21ph/19stn Dmin 40km Az.gap 180°
Corr. -0.553 18M/16stn Msd 0.2 1↑
Felt Patoka 952) MM4.

97/14623
NOV 27 012558.0s 38.31S 176.27E 13km M=3.1
0.1 0.01 0.01 2
Rsd 0.2s 9ph/8stn Dmin 16km Az.gap 83°
Corr. -0.221 7M/7stn Msd 0.1 1↑
Felt Reporoa (33) MM4.

97/14633
NOV 27 100442.3s 37.00S 177.41E 146km M=3.6
0.5 0.03 0.02 4
Rsd 0.2s 10ph/9stn Dmin 103km Az.gap 251°
Corr. 0.281 10M/10stn Msd 0.2

97/14640
NOV 27 183649.6s 39.86S 177.03E 31km M=3.6
0.4 0.02 0.03 2
Rsd 0.3s 24ph/21stn Dmin 39km Az.gap 212°
Corr. -0.385 18M/18stn Msd 0.3 3↑ 4↓

97/14642
NOV 27 202041.5s 41.35S 174.37E 37km M=3.5
0.1 0.01 0.01 3
Rsd 0.3s 21ph/16stn Dmin 30km Az.gap 96°
Corr. -0.274 13M/10stn Msd 0.3 4↑ 4↓

97/14648
NOV 28 032051.7s 40.63S 173.74E 104km M=3.6
0.4 0.02 0.01 4
Rsd 0.3s 23ph/16stn Dmin 25km Az.gap 115°
Corr. -0.056 10M/10stn Msd 0.2 1↓

97/14649
NOV 28 034513.4s 40.60S 176.59E 33km M=3.6
0.3 0.02 0.03 R
Rsd 0.3s 18ph/15stn Dmin 86km Az.gap 210°
Corr. -0.726 23M/21stn Msd 0.2 1↓

97/14654
NOV 28 094013.7s 38.53S 178.09E 47km M=3.6
0.6 0.03 0.03 5
Rsd 0.2s 8ph/7stn Dmin 11km Az.gap 188°
Corr. -0.838 5M/3stn Msd 0.1

97/14655
NOV 28 100213.6s 38.10S 177.97E 51km M=4.0
0.3 0.01 0.02 4
Rsd 0.2s 13ph/12stn Dmin 26km Az.gap 90°
Corr. 0.254 10M/8stn Msd 0.2 1↑

97/14679
NOV 29 090048.6s 38.88S 175.39E 168km M=3.6
0.6 0.04 0.05 8
Rsd 0.2s 15ph/13stn Dmin 38km Az.gap 194°
Corr. -0.807 14M/12stn Msd 0.2 1↑

97/14692
NOV 29 210331.9s 41.05S 173.50E 101km M=5.7
0.3 0.02 0.01 3
Rsd 0.2s 19ph/18stn Dmin 45km Az.gap 82°
Corr. -0.292 12M/7stn Msd 0.2 10↑ 20↓
Felt Taranaki to Christchurch, maximum intensity MM5 in Marlborough.

97/14696
NOV 29 220850.8s 40.51S 176.11E 20km M=4.0
0.2 0.01 0.02 2
Rsd 0.3s 33ph/28stn Dmin 48km Az.gap 168°
Corr. -0.499 32M/28stn Msd 0.3 6↑ 2↓

97/14697
NOV 29 222206.0s 41.34S 174.36E 37km M=3.6
0.1 0.01 0.01 2
Rsd 0.3s 20ph/17stn Dmin 31km Az.gap 94°
Corr. -0.115 8M/5stn Msd 0.3 5↑ 2↓

97/14705
NOV 30 043815.5s 40.81S 174.77E 5km M=3.8
0.1 0.01 0.01 R
Rsd 0.4s 33ph/25stn Dmin 14km Az.gap 90°
Corr. -0.086 25M/20stn Msd 0.4 1↓

97/14707
NOV 30 063242.4s 39.89S 176.96E 28km M=3.9
0.3 0.01 0.02 2
Rsd 0.2s 29ph/23stn Dmin 41km Az.gap 183°
Corr. -0.322 25M/23stn Msd 0.3 1↑ 1↓
Felt Waipawa (60) MM3.

97/14711
NOV 30 112744.0s 45.14S 167.43E 96km M=3.8
0.4 0.02 0.02 3
Rsd 0.2s 14ph/8stn Dmin 43km Az.gap 187°
Corr. -0.024 10M/5stn Msd 0.1 1↑ 3↓

97/14713
NOV 30 162723.9s 37.75S 176.31E 202km M=4.8
0.5 0.02 0.02 4
Rsd 0.2s 29ph/26stn Dmin 3km Az.gap 135°
Corr. -0.102 23M/18stn Msd 0.3 8↑ 2↓

97/14717
NOV 30 185849.6s 45.19S 167.06E 12km M=3.9
0.4 0.01 0.02 R
Rsd 0.3s 11ph/7stn Dmin 32km Az.gap 240°
Corr. -0.529 12M/6stn Msd 0.2 1↓

97/14720
NOV 30 194855.0s 45.17S 167.35E 104km M=3.6
0.4 0.02 0.02 4
Rsd 0.3s 14ph/8stn Dmin 37km Az.gap 196°
Corr. 0.000 13M/7stn Msd 0.3 1↑ 3↓

97/14730
DEC 01 042549.7s 37.35S 177.47E 126km M=3.6
0.8 0.05 0.03 8
Rsd 0.2s 11ph/8stn Dmin 106km Az.gap 258°
Corr. 0.099 15M/12stn Msd 0.3

97/14731
DEC 01 053217.0s 39.11S 175.22E 145km M=3.7
0.5 0.02 0.04 4
Rsd 0.2s 20ph/16stn Dmin 16km Az.gap 102°
Corr. 0.247 13M/11stn Msd 0.1 1↑

97/14741
DEC 01 133931.3s 39.60S 174.39E 227km M=3.8
0.5 0.02 0.02 4
Rsd 0.2s 29ph/25stn Dmin 34km Az.gap 79°
Corr. -0.043 14M/13stn Msd 0.2

97/14750
DEC 01 212045.3s 38.68S 175.87E 160km M=3.6
1.9 0.05 0.05 16
Rsd 0.3s 13ph/12stn Dmin 59km Az.gap 224°
Corr. -0.576 9M/9stn Msd 0.2

97/14751
DEC 01 232729.2s 41.65S 174.18E 9km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 15ph/11stn Dmin 11km Az.gap 98°
Corr. -0.248 22M/19stn Msd 0.3 3↑ 1↓

97/14756
DEC 02 022202.9s 40.47S 174.63E 62km M=4.5
0.3 0.01 0.01 7
Rsd 0.3s 31ph/27stn Dmin 50km Az.gap 96°
Corr. -0.044 8M/5stn Msd 0.2 2↑ 2↓
Felt Wanganui (57) to Wellington (68), maximum intensity MM4.

97/14768
DEC 02 172819.5s 37.45S 177.07E 5km M=3.8
0.7 0.09 0.03 R
Rsd 0.6s 6ph/4stn Dmin 13km Az.gap 208°
Corr. 0.404 6M/4stn Msd 0.2

97/14771
DEC 02 220026.7s 39.57S 174.40E 212km M=4.8
0.5 0.01 0.02 5
Rsd 0.3s 38ph/34stn Dmin 31km Az.gap 84°
Corr. -0.115 20M/15stn Msd 0.2 4↑ 1↓

97/14778
DEC 03 054918.2s 41.34S 175.37E 10km M=2.4
0.1 0.01 0.01 1
Rsd 0.2s 13ph/10stn Dmin 9km Az.gap 118°
Corr. -0.106 8M/8stn Msd 0.2 1↑ 1↓
Felt Paraparaumu Beach (65) MM4.

97/14791
DEC 03 172221.2s 44.98S 166.11E 12km M=3.6
0.9 0.05 0.06 R
Rsd 0.5s 9ph/5stn Dmin 98km Az.gap 316°
Corr. 0.266 9M/6stn Msd 0.2 1↓

97/14848
DEC 05 201202.7s 40.49S 174.66E 63km M=4.3
0.2 0.01 0.01 5
Rsd 0.2s 35ph/32stn Dmin 46km Az.gap 75°
Corr. 0.074 16M/11stn Msd 0.2 6↑ 5↓

97/14849
DEC 05 205718.6s 40.16S 174.46E 5km M=3.8
0.1 0.01 0.01 R
Rsd 0.4s 33ph/27stn Dmin 57km Az.gap 87°
Corr. 0.116 8M/4stn Msd 0.1 1↓

97/14861
DEC 06 175214.2s 40.71S 173.91E 80km M=3.6
0.4 0.01 0.01 7
Rsd 0.3s 29ph/28stn Dmin 11km Az.gap 96°
Corr. 0.060 16M/13stn Msd 0.3 4↑ 5↓

97/14870
DEC 06 204542.9s 37.46S 177.20E 146km M=4.1
0.2 0.01 0.01 2
Rsd 0.1s 26ph/23stn Dmin 8km Az.gap 170°
Corr. 0.302 19M/15stn Msd 0.2 1↑

97/14871
DEC 06 210629.8s 38.39S 175.77E 163km M=4.1
0.5 0.02 0.02 4
Rsd 0.1s 16ph/13stn Dmin 71km Az.gap 168°
Corr. 0.314 21M/17stn Msd 0.2 1↓

97/14878
DEC 07 063528.9s 40.02S 176.80E 28km M=3.6
0.3 0.01 0.02 2
Rsd 0.2s 28ph/24stn Dmin 52km Az.gap 201°
Corr. -0.522 27M/25stn Msd 0.4 1↑

97/14895
DEC 07 181342.1s 40.23S 173.66E 150km M=3.8
0.3 0.01 0.01 3
Rsd 0.2s 35ph/28stn Dmin 68km Az.gap 135°
Corr. -0.030 13M/13stn Msd 0.4 1↑ 1↓

97/14898
DEC 07 233425.1s 38.51S 175.94E 5km M=2.9
0.2 0.02 0.01 R
Rsd 0.3s 6ph/5stn Dmin 31km Az.gap 207°
Corr. -0.154 6M/5stn Msd 0.3 1↑ 1↓
Felt Waihora Rd (40) MM4.

97/14908
DEC 08 184132.6s 37.28S 176.57E 232km M=3.7
1.1 0.10 0.14 18
Rsd 0.3s 6ph/5stn Dmin 157km Az.gap 258°
Corr. -0.875 12M/11stn Msd 0.3 1↑

97/14912
DEC 09 002523.2s 38.54S 175.69E 189km M=4.0
0.9 0.04 0.02 8
Rsd 0.3s 14ph/13stn Dmin 71km Az.gap 154°
Corr. 0.235 16M/15stn Msd 0.3 2↑ 1↓

97/14918
DEC 09 043131.3s 38.12S 176.52E 166km M=3.6
0.5 0.02 0.01 5
Rsd 0.2s 14ph/12stn Dmin 94km Az.gap 176°
Corr. -0.420 11M/11stn Msd 0.2 1↑

97/14920
DEC 09 085924.2s 36.13S 179.71E 12km M=3.8
0.4 0.05 0.08 R
Rsd 0.1s 10ph/7stn Dmin 206km Az.gap 342°
Corr. -0.795 9M/8stn Msd 0.3

97/14922

DEC 09 100445.3s 38.10S 176.29E 176km M=4.3
0.5 0.02 0.01 5
Rsd 0.2s 16ph/13stn Dmin 31km Az.gap 134°
Corr. -0.296 17M/17stn Msd 0.3 1↑

97/14923

DEC 09 101038.6s 35.96S 177.56E 12km M=3.9
1.5 0.11 0.06 R
Rsd 0.4s 8ph/7stn Dmin 193km Az.gap 318°
Corr. 0.344 5M/5stn Msd 0.3

97/14935

DEC 09 211720.8s 44.90S 168.01E 5km M=4.0
0.2 0.01 0.02 R
Rsd 0.4s 14ph/8stn Dmin 26km Az.gap 164°
Corr. 0.411 10M/5stn Msd 0.3 1↑

97/14941

DEC 10 040421.4s 38.34S 175.94E 183km M=3.6
1.2 0.03 0.03 11
Rsd 0.3s 9ph/8stn Dmin 101km Az.gap 222°
Corr. -0.079 9M/9stn Msd 0.2

97/14944

DEC 10 042529.7s 38.70S 175.67E 145km M=3.8
0.7 0.02 0.02 6
Rsd 0.3s 12ph/11stn Dmin 53km Az.gap 73°
Corr. 0.032 12M/12stn Msd 0.2 4↑ 1↓

97/14977

DEC 11 092400.0s 38.39S 176.17E 160km M=3.7
0.6 0.03 0.02 5
Rsd 0.1s 13ph/12stn Dmin 87km Az.gap 265°
Corr. 0.117 10M/10stn Msd 0.3

97/14990

DEC 11 175400.9s 41.24S 172.57E 206km M=3.5
0.5 0.03 0.03 4
Rsd 0.2s 17ph/13stn Dmin 46km Az.gap 167°
Corr. -0.272 7M/7stn Msd 0.3

97/15012

DEC 12 114940.0s 41.47S 173.80E 56km M=3.7
0.2 0.01 0.01 3
Rsd 0.2s 26ph/19stn Dmin 3km Az.gap 58°
Corr. -0.106 12M/11stn Msd 0.2 1↓
Felt Rarangi (77) MM4.

97/15013

DEC 12 140708.6s 38.29S 175.73E 191km M=3.5
0.8 0.03 0.04 6
Rsd 0.3s 11ph/9stn Dmin 51km Az.gap 137°
Corr. 0.180 13M/13stn Msd 0.3

97/15035

DEC 13 025408.0s 39.83S 174.69E 19km M=4.3
0.1 0.01 0.01 2
Rsd 0.3s 32ph/26stn Dmin 21km Az.gap 72°
Corr. 0.065 10M/6stn Msd 0.3 1↑
Felt Wanganui (57) and Marton (61) MM4.

97/15044

DEC 13 101405.9s 40.13S 176.76E 25km M=4.4
0.2 0.01 0.01 2
Rsd 0.2s 41ph/36stn Dmin 59km Az.gap 178°
Corr. -0.206 10M/6stn Msd 0.2 3↑ 3↓
Felt Waipawa (60) MM4.

97/15082

DEC 14 121928.0s 38.41S 176.09E 200km M=3.5
0.3 0.02 0.10 R
Rsd 0.2s 10ph/10stn Dmin 77km Az.gap 224°
Corr. -0.225 3M/3stn Msd 0.1
P only solution.

97/15085

DEC 14 130246.4s 38.52S 177.66E 56km M=4.1
0.3 0.01 0.01 4
Rsd 0.2s 23ph/21stn Dmin 34km Az.gap 99°
Corr. -0.073 17M/15stn Msd 0.2 1↑ 2↓

97/15090

DEC 14 193415.8s 45.66S 165.38E 33km M=3.9
0.6 0.03 0.04 R
Rsd 0.3s 10ph/7stn Dmin 201km Az.gap 299°
Corr. -0.207 8M/7stn Msd 0.2

97/15113

DEC 15 234305.8s 38.30S 176.18E 188km M=3.6
0.7 0.07 0.12 10
Rsd 0.1s 12ph/10stn Dmin 98km Az.gap 281°
Corr. -0.910 10M/10stn Msd 0.2
Poor station coverage.

97/15114

DEC 16 010635.9s 38.72S 175.56E 185km M=3.6
0.2 0.01 0.01 2
Rsd 0.0s 12ph/11stn Dmin 50km Az.gap 285°
Corr. -0.273 11M/10stn Msd 0.1

97/15116

DEC 16 032949.0s 37.90S 179.29E 25km M=4.2
0.5 0.02 0.03 3
Rsd 0.2s 11ph/8stn Dmin 92km Az.gap 289°
Corr. -0.128 21M/17stn Msd 0.2 1↓

97/15120

DEC 16 102109.9s 36.71S 177.23E 276km M=4.2
0.9 0.17 0.20 19
Rsd 0.2s 11ph/9stn Dmin 176km Az.gap 289°
Corr. -0.937 17M/15stn Msd 0.2

97/15147

DEC 17 160814.5s 41.05S 173.15E 142km M=4.7
0.5 0.02 0.02 4
Rsd 0.2s 21ph/18stn Dmin 58km Az.gap 92°
Corr. -0.266 22M/16stn Msd 0.2 8↑ 9↓
Felt Wellington (68) to Blenheim (77) MM4.

97/15152

DEC 17 191621.0s 39.13S 178.01E 33km M=3.7
0.3 0.02 0.02 R
Rsd 0.2s 14ph/12stn Dmin 56km Az.gap 209°
Corr. -0.736 18M/16stn Msd 0.3

97/15161
DEC 17 235307.5s 38.24S 176.28E 5km M=3.5
0.1 0.01 0.01 R
Rsd 0.3s 17ph/14stn Dmin 11km Az.gap 95°
Corr. -0.084 15M/12stn Msd 0.3 1↑
Felt Rotorua (33) MM4.

97/15174
DEC 18 003758.0s 38.24S 176.27E 5km M=4.0
0.1 0.01 0.01 R
Rsd 0.3s 16ph/13stn Dmin 10km Az.gap 93°
Corr. -0.168 15M/11stn Msd 0.3 3↑ 1↓
Felt Rotorua (33) MM4.

97/15203
DEC 18 013026.7s 38.27S 176.29E 5km M=3.1
0.1 0.01 0.01 R
Rsd 0.2s 9ph/7stn Dmin 13km Az.gap 116°
Corr. -0.101 5M/5stn Msd 0.3 1↑
Felt Reporoa (33) MM5.

97/15327
DEC 18 070052.7s 38.24S 176.29E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.3s 19ph/15stn Dmin 11km Az.gap 99°
Corr. -0.192 14M/12stn Msd 0.3 1↑ 1↓

97/15348
DEC 18 091945.3s 38.27S 176.30E 5km M=3.1
0.1 0.00 0.01 R
Rsd 0.1s 6ph/4stn Dmin 13km Az.gap 121°
Corr. -0.368 1M/1stn Msd N.D. 1↑
Felt Reporoa (33) MM4.

97/15400
DEC 18 140057.4s 37.62S 179.42E 33km M=3.8
0.5 0.04 0.03 R
Rsd 0.2s 11ph/7stn Dmin 114km Az.gap 318°
Corr. -0.095 11M/7stn Msd 0.3

97/15406
DEC 18 154734.3s 39.70S 174.28E 195km M=3.6
0.3 0.01 0.02 3
Rsd 0.1s 13ph/12stn Dmin 122km Az.gap 227°
Corr. -0.549 14M/12stn Msd 0.4

97/15420
DEC 18 222119.7s 39.57S 177.42E 20km M=3.9
0.2 0.01 0.01 1
Rsd 0.2s 28ph/23stn Dmin 51km Az.gap 189°
Corr. -0.669 27M/25stn Msd 0.4 2↑ 1↓

97/15431
DEC 19 015347.5s 38.30S 176.29E 12km M=3.1
0.0 0.00 0.00 R
Rsd 0.0s 6ph/4stn Dmin 10km Az.gap 131°
Corr. -0.333 4M/4stn Msd 0.1
Felt Rotorua (33) MM4.

97/15433
DEC 19 021202.0s 45.49S 167.20E 103km M=3.7
0.3 0.01 0.02 2
Rsd 0.2s 11ph/6stn Dmin 73km Az.gap 237°
Corr. -0.021 8M/4stn Msd 0.2 1↑

97/15450
DEC 19 055608.0s 38.23S 176.26E 235km M=3.7
0.6 0.03 0.04 6
Rsd 0.1s 13ph/11stn Dmin 98km Az.gap 257°
Corr. -0.809 9M/9stn Msd 0.2

97/15451
DEC 19 055912.7s 37.14S 177.53E 68km M=4.0
0.9 0.07 0.04 8
Rsd 0.2s 11ph/10stn Dmin 122km Az.gap 264°
Corr. 0.825 15M/11stn Msd 0.2

97/15459
DEC 19 133335.6s 38.11S 175.68E 176km M=3.6
0.9 0.14 0.24 28
Rsd 0.3s 12ph/9stn Dmin 146km Az.gap 285°
Corr. -0.942 10M/9stn Msd 0.4
Poor station coverage.

97/15467
DEC 19 172115.4s 38.56S 175.80E 162km M=5.2
0.5 0.02 0.02 4
Rsd 0.1s 31ph/27stn Dmin 18km Az.gap 74°
Corr. -0.589 20M/15stn Msd 0.4 13↑ 4↓
Felt Waitarere Beach (65) MM4.

97/15484
DEC 20 054424.4s 39.82S 177.09E 41km M=3.8
0.2 0.01 0.02 3
Rsd 0.2s 31ph/26stn Dmin 39km Az.gap 186°
Corr. -0.441 17M/14stn Msd 0.2 1↓

97/15494
DEC 20 154709.8s 37.15S 176.48E 245km M=3.7
1.5 0.39 0.41 48
Rsd 0.3s 11ph/9stn Dmin 188km Az.gap 276°
Corr. -0.952 12M/12stn Msd 0.3

97/15497
DEC 20 201448.8s 41.15S 174.98E 34km M=3.4
0.1 0.01 0.01 1
Rsd 0.2s 22ph/17stn Dmin 9km Az.gap 56°
Corr. -0.162 14M/11stn Msd 0.3 6↑ 3↓
Felt Whitby (68).

97/15499
DEC 20 211347.9s 37.39S 177.52E 152km M=3.6
2.1 0.11 0.09 14
Rsd 0.6s 9ph/7stn Dmin 100km Az.gap 246°
Corr. 0.618 6M/5stn Msd 0.1

97/15501
DEC 20 232541.0s 41.78S 172.60E 90km M=3.7
0.1 0.01 0.01 1
Rsd 0.1s 20ph/15stn Dmin 26km Az.gap 141°
Corr. -0.068 11M/11stn Msd 0.3 1↓

97/15523
DEC 21 153058.4s 35.16S 177.32E 150km M=4.1
0.7 0.05 0.05 R
Rsd 0.2s 5ph/3stn Dmin 334km Az.gap 332°
Corr. 0.403 4M/3stn Msd 0.3
Very poor station coverage. No depth control.

97/15527
DEC 21 171137.4s 42.24S 172.97E 12km M=4.0
0.1 0.01 0.01 R
Rsd 0.3s 24ph/19stn Dmin 51km Az.gap 117°
Corr. -0.185 14M/7stn Msd 0.3 1↑ 2↓

97/15532
DEC 21 182305.4s 39.08S 174.85E 201km M=4.5
0.5 0.02 0.03 4
Rsd 0.2s 26ph/22stn Dmin 61km Az.gap 132°
Corr. 0.083 21M/18stn Msd 0.3 6↑ 3↓

97/15543
DEC 22 024245.1s 43.96S 169.57E 5km M=3.8
0.3 0.02 0.02 R
Rsd 0.2s 13ph/9stn Dmin 115km Az.gap 158°
Corr. -0.676 8M/5stn Msd 0.2 1↓

97/15556
DEC 22 142022.9s 38.91S 175.35E 122km M=3.6
0.4 0.01 0.02 4
Rsd 0.2s 23ph/19stn Dmin 19km Az.gap 85°
Corr. 0.140 21M/18stn Msd 0.3 1↓

97/15563
DEC 22 175619.5s 45.17S 167.57E 122km M=3.6
0.5 0.03 0.03 3
Rsd 0.3s 11ph/6stn Dmin 51km Az.gap 281°
Corr. -0.441 8M/5stn Msd 0.3 1↑ 1↓

97/15566
DEC 22 222340.6s 38.50S 175.83E 165km M=4.8
0.4 0.01 0.02 3
Rsd 0.2s 32ph/26stn Dmin 22km Az.gap 75°
Corr. -0.303 8M/4stn Msd 0.3 8↑ 5↓

97/15567
DEC 22 230755.6s 44.58S 168.39E 5km M=3.7
0.3 0.02 0.01 R
Rsd 0.3s 13ph/7stn Dmin 38km Az.gap 213°
Corr. 0.215 8M/5stn Msd 0.1 1↑

97/15571
DEC 23 022318.8s 37.92S 177.73E 33km M=3.7
0.3 0.02 0.02 R
Rsd 0.4s 10ph/7stn Dmin 50km Az.gap 183°
Corr. -0.391 13M/11stn Msd 0.2 1↑

97/15597
DEC 24 011433.2s 36.94S 176.91E 242km M=5.0
0.5 0.05 0.03 5
Rsd 0.2s 17ph/15stn Dmin 118km Az.gap 222°
Corr. 0.632 10M/5stn Msd 0.3 1↓

97/15602
DEC 24 124249.8s 37.97S 179.26E 12km M=4.3
0.3 0.01 0.02 R
Rsd 0.1s 19ph/18stn Dmin 89km Az.gap 283°
Corr. 0.166 38M/32stn Msd 0.2 1↑ 1↓

97/15605
DEC 24 133500.2s 38.56S 175.63E 194km M=3.7
0.7 0.03 0.03 7
Rsd 0.3s 15ph/12stn Dmin 72km Az.gap 177°
Corr. 0.059 12M/12stn Msd 0.2

97/15620
DEC 25 185311.4s 38.10S 176.62E 211km M=3.6
0.3 0.01 0.03 3
Rsd 0.1s 13ph/11stn Dmin 149km Az.gap 331°
Corr. -0.309 9M/9stn Msd 0.2

97/15663
DEC 27 013905.2s 41.28S 174.13E 42km M=3.5
0.1 0.01 0.01 2
Rsd 0.2s 26ph/24stn Dmin 14km Az.gap 69°
Corr. -0.342 15M/12stn Msd 0.3 2↑ 3↓

97/15666
DEC 27 032503.0s 35.10S 178.12E 201km M=3.9
1.4 0.10 0.32 26
Rsd 0.3s 7ph/6stn Dmin 278km Az.gap 332°
Corr. -0.623 5M/5stn Msd 0.3

97/15676
DEC 27 094322.2s 37.92S 176.83E 267km M=3.5
1.6 0.15 0.16 16
Rsd 0.2s 10ph/9stn Dmin 131km Az.gap 275°
Corr. -0.748 8M/8stn Msd 0.2

97/15694
DEC 28 025506.0s 39.03S 175.13E 225km M=3.6
0.6 0.04 0.05 5
Rsd 0.3s 20ph/14stn Dmin 40km Az.gap 225°
Corr. 0.007 10M/9stn Msd 0.2

97/15702
DEC 28 163933.2s 40.40S 174.71E 79km M=4.2
0.2 0.01 0.01 4
Rsd 0.2s 36ph/33stn Dmin 54km Az.gap 75°
Corr. 0.049 15M/9stn Msd 0.2 4↑ 3↓

97/15708
DEC 28 200748.9s 38.27S 176.11E 170km M=4.0
1.3 0.03 0.03 13
Rsd 0.2s 10ph/10stn Dmin 58km Az.gap 172°
Corr. 0.189 12M/12stn Msd 0.4 3↑ 1↓

97/15709
DEC 28 210017.5s 39.12S 178.00E 53km M=3.6
0.3 0.02 0.02 7
Rsd 0.1s 17ph/15stn Dmin 56km Az.gap 209°
Corr. -0.734 13M/8stn Msd 0.2

97/15715

DEC 28 231342.6s 40.11S 174.93E 33km M=3.5
0.2 0.01 0.02 R
Rsd 0.4s 21ph/18stn Dmin 34km Az.gap 128°
Corr. -0.305 17M/15stn Msd 0.3 1↑ 1↓

97/15717

DEC 29 014745.6s 37.25S 178.88E 80km M=3.8
0.7 0.04 0.11 4
Rsd 0.2s 6ph/5stn Dmin 65km Az.gap 333°
Corr. -0.499 6M/4stn Msd 0.3

97/15749

DEC 29 222955.8s 40.10S 174.86E 12km M=3.5
0.1 0.01 0.01 R
Rsd 0.3s 31ph/24stn Dmin 34km Az.gap 112°
Corr. -0.366 30M/26stn Msd 0.4 2↑ 1↓

97/15775

DEC 30 131959.4s 36.70S 176.26E 142km M=3.7
0.8 0.10 0.16 40
Rsd 0.3s 6ph/4stn Dmin 207km Az.gap 292°
Corr. -0.820 5M/4stn Msd 0.3

97/15792

DEC 31 003749.6s 45.10S 167.45E 84km M=4.2
0.3 0.02 0.02 2
Rsd 0.1s 12ph/7stn Dmin 60km Az.gap 234°
Corr. 0.468 10M/6stn Msd 0.4 2↑ 2↓

97/15798

DEC 31 074449.0s 38.77S 175.75E 110km M=3.9
0.3 0.01 0.01 2
Rsd 0.2s 30ph/25stn Dmin 11km Az.gap 63°
Corr. -0.169 17M/13stn Msd 0.2 9↑ 4↓

97/15811

DEC 31 192115.0s 42.05S 173.91E 21km M=4.0
0.1 0.01 0.01 2
Rsd 0.2s 21ph/17stn Dmin 42km Az.gap 149°
Corr. -0.352 13M/7stn Msd 0.2 6↑ 2↓

97/15813

DEC 31 201625.1s 39.42S 177.86E 33km M=3.5
0.8 0.03 0.06 R
Rsd 0.2s 14ph/11stn Dmin 90km Az.gap 256°
Corr. -0.816 28M/26stn Msd 0.3

LISTS OF ORIGINS AND MAGNITUDE DETERMINATIONS

HIGHER MAGNITUDE EARTHQUAKES

A chronological list of 1996 New Zealand earthquakes of $M_L \geq 5.0$ follows. A reference number at the beginning of each entry identifies the origin with the instrumental data summary, and also with the listing of non-instrumental data (if there is any) that appears in a later section.

The letter "R" following a depth indicates that the depth was restricted to some likely value because the data did not provide sufficient constraint for the depth to be determined by calculation. Choice of the depth of restriction is usually made on the basis of the crustal phases observed or the predominant depth of shallow earthquakes in the epicentral area.

(For sub-crustal earthquakes, depth restriction is seldom necessary.) The letter "G" after a depth shows that the depth was restricted on the basis of information that could not be used by the location program, such as macroseismic information, overseas PKP observations etc.

The letter "F" following a magnitude indicates that at least one report of the earthquake being felt has been received by the Observatory.

In the following table, Rsd is as defined on page 31 and NP phases from NS recording stations have been used to determine the origins.

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
725	JAN 14	2131 1.8	37.12S	177.08E	253	5.2	0.2	31	25
901	JAN 19	1456 11.5	37.80S	179.20E	22	5.4	0.1	25	22
1142	JAN 24	0855 0.9	36.81S	177.14E	280	5.0	0.2	21	19
3882	FEB 28	2029 26.5	36.00S	177.91E	12R	5.0	0.8	10	6
3940	MAR 01	0759 8.3	36.22S	177.73E	12R	5.0	0.3	11	5
4004	MAR 01	2158 15.0	36.34S	177.83E	12R	5.0	0.6	10	7
4102	MAR 02	1433 53.9	36.37S	178.44E	12R	5.3	0.2	13	10
4120	MAR 02	1623 7.1	36.46S	177.69E	12R	5.3	0.1	19	13
4138	MAR 02	1901 53.7	36.41S	178.04E	12R	5.2	0.4	13	9
4165	MAR 03	0044 14.0	36.41S	177.79E	12R	5.1	0.1	12	11
4194	MAR 03	1413 22.1	35.86S	178.43E	12R	5.4	0.1	9	9
4246	MAR 04	0741 1.4	36.45S	177.74E	12R	5.1	0.2	11	8
4338	MAR 06	0601 22.0	36.25S	177.94E	12R	5.0	0.6	10	8
4389	MAR 07	0827 37.3	37.75S	179.31E	12R	5.1	0.4	13	11
4515	MAR 10	1407 2.8	36.37S	177.76E	12R	5.3	0.3	10	7
4575	MAR 12	1530 29.0	36.10S	179.50E	12R	5.7F	0.2	17	14
5200	MAR 25	0218 4.7	37.03S	177.62E	111	5.9F	0.2	22	17
6226	APR 11	1946 39.0	38.42S	175.64E	287	5.2	0.2	33	24
6816	APR 22	1430 50.3	36.74S	177.59E	171	5.5	0.1	22	18
7564	MAY 03	1646 1.8	32.55S	177.98W	135	7.1F	0.2	20	18

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
7916	MAY 09	0555 55.0	36.50S	177.57E	207	5.0	0.1	13	11
8603	MAY 23	0024 49.6	37.09S	177.15E	246	5.1	0.2	33	28
8737	MAY 25	2322 30.6	32.31S	178.79W	339	7.9F	0.2	25	22
8745	MAY 26	1050 15.0	47.27S	165.96E	12R	5.5F	0.3	10	6
8779	MAY 27	0314 1.7	37.55S	176.53E	212	6.1F	0.2	36	30
9238	JUN 07	0908 0.6	36.97S	176.95E	273	5.0	0.1	21	18
9582	JUN 14	1305 48.9	37.84S	176.34E	207	5.0	0.1	37	32
9735	JUN 19	0855 7.6	41.12S	174.51E	38	5.1F	0.1	27	21
9771	JUN 20	1536 34.1	41.15S	174.50E	34	5.4F	0.2	32	27
10538	JUL 17	1756 8.7	37.08S	177.85E	62	5.0F	0.1	19	16
10623	JUL 20	1705 53.0	39.23S	174.99E	158	5.0F	0.2	43	36
11084	AUG 02	0357 58.8	34.68S	177.21E	12R	5.0	0.3	6	4
12321	SEP 12	2014 57.3	37.74S	176.11E	287	5.1	0.2	20	18
12389	SEP 14	1700 32.7	38.28S	175.91E	205	5.2	0.1	37	33
12444	SEP 16	1008 17.5	43.67S	170.29E	5R	5.0F	0.1	13	9
12463	SEP 16	1524 5.4	43.64S	170.26E	5R	5.0F	0.1	13	9
12584	SEP 20	1115 59.1	37.30S	177.61E	93	5.1	0.1	26	24
13474	OCT 13	0718 1.1	37.25S	177.58E	103	5.0F	0.1	24	21
13907	OCT 28	0454 17.9	34.53S	177.22E	33R	5.3	0.2	6	3
13997	OCT 31	0715 20.7	38.73S	175.68E	128	5.1F	0.1	40	35
14013	OCT 31	2253 15.9	38.00S	176.79E	139	5.6	0.2	35	32
14120	NOV 04	1355 43.2	43.00S	171.37E	5R	5.1F	0.2	16	13
14214	NOV 07	2230 1.6	40.43S	176.84E	16	5.4F	0.1	34	33
14245	NOV 09	0828 55.1	37.58S	177.18E	139	5.0F	0.2	31	29
14556	NOV 24	0223 56.5	40.49S	174.65E	74	5.2F	0.2	39	34
14692	NOV 29	2103 31.9	41.05S	173.50E	101	5.7F	0.2	19	18
15467	DEC 19	1721 15.4	38.56S	175.80E	162	5.2F	0.1	31	27
15597	DEC 24	0114 33.2	36.94S	176.91E	242	5.0	0.2	17	15

WELLINGTON AREA SEISMICITY

Because of its close station spacing and the relative ease with which stations can be reached when repairs or adjustments are necessary, the Wellington Network can be relied on to furnish enough data for determination of earthquake origins in its neighbourhood from smaller events than those needed to achieve the same accuracy in other parts of the country. The following list includes all earthquakes of magnitude (M_L) 2.0 or more in the area surrounding Wellington, and includes the earthquakes of magnitude 3.5 or more within the area, which were listed on earlier pages.

The location of earthquakes in the neighbourhood of Wellington is no longer performed separately from the location of regional earthquakes as was done in the past. The old practice sometimes resulted in earthquakes having two listed origins, one arrived at from use of National Network data and a regional velocity model, and the other from Wellington Network data and a local model. In current practice the local model is merged into the regional model. A map of these epicentres and a cross-section showing their distribution in depth appears in the final section of this Report.

In the following table, Rsd is as defined on page 31 and NP phases from NS recording stations have been used to determine the origins.

The regional velocity model and its boundaries are listed in the table on page 26.

NUM	DATE		TIME		LAT	LONG	DEP	MAG	Rsd	NP	NS
007	JAN	01	0305	23.5	41.35S	173.85E	56	2.2	0.2	9	7
023	JAN	01	0850	32.1	41.00S	174.75E	31	2.5	0.1	10	8
025	JAN	01	0911	42.7	41.83S	174.99E	28	2.8	0.3	12	10
050	JAN	01	1725	46.4	41.77S	173.82E	13	2.2	0.2	12	9
052	JAN	01	1756	9.6	41.99S	173.91E	16	2.3	0.2	17	12
145	JAN	03	0758	1.7	40.96S	173.71E	67	2.3	0.2	10	7
150	JAN	03	1059	51.9	40.64S	174.06E	80	2.0	0.2	8	5
156	JAN	03	1218	41.0	41.65S	174.20E	12 R	2.2	0.5	12	9
157	JAN	03	1227	1.8	41.76S	174.60E	28	2.2	0.2	15	10
158	JAN	03	1241	42.2	40.82S	175.41E	28	2.4	0.2	10	7
162	JAN	03	1511	21.8	40.68S	174.66E	73	2.4	0.2	7	6
164	JAN	03	1547	47.1	41.00S	174.22E	49	2.5	0.1	11	9
176	JAN	03	1859	34.0	41.35S	174.99E	26	2.5	0.1	13	9
280	JAN	04	0904	20.3	40.96S	174.86E	59	2.6	0.1	9	7
291	JAN	04	1604	46.2	41.00S	175.47E	22	3.1	0.2	13	8
308	JAN	05	1224	11.6	40.57S	174.64E	12 R	2.1	0.2	9	6
321	JAN	06	0451	58.5	41.62S	174.52E	24	2.4	0.2	13	9
322	JAN	06	0512	30.4	40.69S	174.56E	46	2.8	0.1	12	9
323	JAN	06	0620	34.8	40.99S	174.35E	74	3.2	0.1	20	14
336	JAN	06	1136	23.5	41.64S	173.55E	71	2.1	0.1	8	5
348	JAN	06	1427	19.6	41.10S	174.61E	56	2.0	0.1	9	6
374	JAN	06	2356	0.5	40.69S	175.39E	27	2.3	0.2	9	6
383	JAN	07	0330	50.2	40.51S	174.19E	59	2.5	0.3	13	7
473	JAN	08	0703	34.2	40.58S	174.84E	32	2.9	0.3	16	13
478	JAN	08	0854	27.6	40.94S	175.45E	24	2.2	0.2	12	9
480	JAN	08	1014	31.3	40.98S	174.91E	54	2.5	0.1	10	8
484	JAN	08	1151	48.5	40.53S	173.61E	160	2.5	0.2	9	7
493	JAN	08	1450	22.8	40.63S	173.83E	109	3.1	0.2	14	11
531	JAN	09	0623	55.4	40.73S	173.85E	81	3.0	0.3	11	8
571	JAN	09	2355	47.0	40.71S	173.81E	112	2.7	0.1	11	7

NUM	DATE		TIME		LAT	LONG	DEP	MAG	Rsd	NP	NS
585	JAN	10	1011	26.5	41.18S	175.57E	16	2.0	0.0	8	7
596	JAN	11	0330	19.0	40.66S	174.03E	78	2.5	0.2	13	9
616	JAN	12	0535	31.0	40.56S	175.56E	33 R	3.1	0.1	5	4
708	JAN	14	1342	7.2	41.27S	175.25E	26	2.0	0.1	10	6
726	JAN	14	2216	18.4	40.50S	175.08E	5R	2.2	0.2	8	6
738	JAN	15	0320	23.4	40.54S	174.64E	12 R	2.1	0.1	8	5
739	JAN	15	0352	38.1	40.51S	175.49E	23	2.6	0.2	11	8
740	JAN	15	0418	2.5	41.67S	173.75E	22	2.4	0.1	8	3
779	JAN	16	0133	50.0	40.67S	174.31E	57	2.2	0.2	10	6
790	JAN	16	0822	44.4	41.73S	173.78E	5 R	2.5	0.3	18	15
791	JAN	16	0822	46.6	41.72S	173.80E	15	3.8	0.2	23	17
801	JAN	16	1107	5.0	40.67S	175.47E	29	3.3	0.3	21	17
810	JAN	16	1423	51.2	41.72S	173.81E	11	2.9	0.3	18	14
815	JAN	16	1518	29.6	40.67S	174.76E	48	3.5	0.3	32	26
857	JAN	17	1941	31.7	40.73S	175.56E	50	3.2	0.3	20	13
859	JAN	17	2102	36.6	41.04S	175.51E	27	2.3	0.3	12	9
894	JAN	19	0843	29.7	41.40S	174.60E	21	2.3	0.2	12	8
904	JAN	19	1641	0.2	41.76S	174.45E	25	2.4	0.1	14	10
922	JAN	20	0158	39.6	41.27S	175.28E	25	2.3	0.2	11	7
937	JAN	20	0504	14.4	40.56S	174.20E	78	2.9	0.2	16	11
964	JAN	20	1328	35.9	41.74S	174.22E	13	2.2	0.3	14	10
995	JAN	21	1020	51.3	40.54S	173.88E	82	2.7	0.2	9	6
1007	JAN	21	1742	16.9	41.08S	175.68E	15	2.1	0.2	8	4
1008	JAN	21	1742	41.6	41.66S	173.90E	11	2.2	0.3	13	9
1081	JAN	23	0525	23.4	41.87S	174.27E	49	3.8	0.2	26	19
1100	JAN	23	1234	15.0	41.06S	175.08E	17	2.2	0.2	13	10
1133	JAN	24	0557	18.6	40.95S	175.35E	18	2.2	0.2	11	8
1149	JAN	24	1052	32.8	41.43S	174.45E	56	2.5	0.1	10	7
1166	JAN	24	1600	34.5	41.64S	175.16E	27	3.1	0.2	19	14
1182	JAN	24	2234	44.8	40.77S	174.32E	78	2.2	0.2	8	6
1206	JAN	25	0955	40.7	41.14S	175.78E	29	2.8	0.1	13	10
1238	JAN	25	2255	31.4	41.75S	174.32E	31	2.7	0.2	17	12
1256	JAN	26	0653	11.6	40.82S	174.47E	12 R	2.0	0.2	8	6
1260	JAN	26	0818	48.8	41.73S	174.34E	32	3.1	0.2	20	14
1282	JAN	26	1854	10.8	41.43S	174.12E	41	2.4	0.2	11	9
1287	JAN	26	2006	35.1	40.98S	174.41E	47	2.5	0.2	7	5
1290	JAN	26	2055	45.7	41.46S	174.51E	18	2.1	0.2	12	9
1299	JAN	27	0100	10.7	41.58S	174.34E	10	2.5	0.2	13	10
1301	JAN	27	0110	37.7	40.80S	174.47E	30	2.2	0.2	9	6
1304	JAN	27	0242	44.6	41.64S	173.91E	10	2.5	0.2	13	9
1310	JAN	27	0338	16.1	40.82S	175.33E	26	3.4	0.3	21	16
1314	JAN	27	0532	58.8	40.76S	174.15E	58	2.2	0.1	8	5
1339	JAN	27	1205	6.0	41.85S	174.10E	19	2.6	0.3	15	12
1376	JAN	28	0054	18.1	41.08S	175.28E	27	2.3	0.1	9	7
1385	JAN	28	0241	47.1	41.15S	173.70E	83	2.5	0.2	9	7

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1395	JAN	28	0737	27.4	40.50S	174.22E	78	2.4	0.2	7	6
1400	JAN	28	0852	25.9	41.82S	174.24E	12 R	2.5	0.4	15	13
1408	JAN	28	1145	9.2	41.03S	174.86E	30	2.1	0.1	7	6
1417	JAN	28	1534	12.5	40.77S	175.01E	34	2.1	0.1	9	7
1477	JAN	29	1255	11.9	40.84S	175.07E	5 R	2.2	0.3	6	3
1490	JAN	29	1700	32.2	40.77S	174.44E	48	2.0	0.1	8	6
1497	JAN	29	1751	57.7	40.67S	173.93E	63	2.1	0.2	8	6
1530	JAN	30	0548	39.4	41.71S	174.49E	32	3.0	0.2	13	10
1531	JAN	30	0620	53.3	40.87S	174.70E	12 R	2.1	0.1	10	7
1562	JAN	30	1559	39.6	41.47S	174.92E	47	3.1	0.2	23	17
1594	JAN	31	0158	2.2	41.22S	173.78E	63	2.6	0.2	8	5
1601	JAN	31	0334	38.8	40.51S	173.90E	119	2.8	0.2	11	8
1605	JAN	31	0430	52.2	40.63S	175.48E	29	2.4	0.2	11	8
1608	JAN	31	0554	57.7	40.89S	175.46E	25	2.2	0.1	10	7
1625	JAN	31	1041	59.4	41.26S	174.51E	35	2.1	0.1	10	8
1629	JAN	31	1123	4.8	41.24S	174.58E	53	2.4	0.2	12	9
1666	FEB	01	0233	50.6	41.28S	174.52E	34	2.7	0.2	15	11
1709	FEB	01	1309	22.7	41.07S	175.44E	18	2.3	0.2	11	8
1731	FEB	01	1836	54.5	40.79S	174.60E	14	2.7	0.3	14	11
1761	FEB	02	0757	25.7	41.79S	175.51E	32	2.2	0.1	8	6
1762	FEB	02	0809	35.6	41.80S	175.49E	28	2.1	0.2	8	6
1764	FEB	02	0909	48.8	41.12S	174.64E	54	2.1	0.1	10	9
1790	FEB	02	1757	52.6	41.01S	175.33E	24	3.1	0.2	15	11
1791	FEB	02	1758	32.8	41.01S	175.33E	27	2.0	0.0	6	4
1792	FEB	02	1800	41.1	41.01S	175.33E	25	3.2	0.2	20	13
1795	FEB	02	1824	4.7	41.01S	175.33E	23	2.1	0.1	9	5
1797	FEB	02	1833	7.5	41.06S	175.31E	21	2.1	0.1	6	5
1805	FEB	02	2030	2.9	41.00S	175.32E	22	2.3	0.2	11	9
1818	FEB	03	0021	9.3	41.59S	173.96E	12	3.4	0.2	20	16
1826	FEB	03	0329	42.7	41.51S	173.54E	48	2.6	0.1	7	5
1834	FEB	03	0612	24.2	41.74S	174.31E	32	2.8	0.2	18	13
1840	FEB	03	0722	18.0	41.01S	175.33E	20	2.4	0.2	8	7
1841	FEB	03	0722	30.5	41.02S	175.34E	23	3.5	0.3	17	16
1845	FEB	03	0753	48.8	41.01S	175.35E	24	3.0	0.3	11	10
1846	FEB	03	0755	28.5	41.01S	175.33E	20	2.3	0.3	8	7
1856	FEB	03	1226	39.5	41.62S	175.53E	26	2.6	0.3	14	9
1868	FEB	03	1654	52.7	41.02S	175.37E	22	2.4	0.2	11	9
1872	FEB	03	1857	24.8	40.52S	174.47E	70	2.5	0.2	8	6
1880	FEB	03	2233	42.6	40.90S	175.80E	27	2.7	0.2	13	8
1883	FEB	04	0047	14.0	41.69S	174.30E	5 R	2.0	0.4	9	8
1915	FEB	05	0025	17.2	40.63S	174.55E	43	2.2	0.2	9	6
1920	FEB	05	0840	12.0	40.59S	174.55E	79	3.6	0.1	30	22
1945	FEB	05	2320	11.1	41.03S	174.55E	59	2.6	0.0	7	6
1951	FEB	06	0206	58.6	40.97S	175.50E	25	2.5	0.2	13	9
1957	FEB	06	0506	23.4	41.34S	174.50E	34	2.3	0.2	15	11

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2032	FEB	06	2145	58.7	40.74S	174.51E	30	2.0	0.2	11	7
2043	FEB	07	0257	52.1	41.82S	174.53E	28	2.3	0.2	10	9
2072	FEB	07	1036	41.1	41.07S	175.20E	25	2.0	0.2	9	6
2201	FEB	09	1438	58.6	41.27S	175.23E	26	2.0	0.2	8	6
2236	FEB	09	2246	9.7	41.69S	173.99E	21	2.1	0.5	10	8
2242	FEB	10	0018	0.4	41.43S	174.27E	21	2.4	0.3	16	12
2307	FEB	11	1429	32.1	40.56S	174.19E	62	2.5	0.3	10	7
2309	FEB	11	1604	28.3	40.70S	175.21E	38	2.0	0.1	7	5
2319	FEB	11	1904	7.2	41.44S	174.54E	29	2.2	0.2	12	9
2381	FEB	12	1017	11.4	41.22S	174.97E	39	2.5	0.1	13	10
2393	FEB	12	1220	36.5	41.76S	174.28E	18	2.6	0.1	11	9
2428	FEB	13	0117	29.1	41.32S	174.75E	42	2.6	0.2	14	10
2432	FEB	13	0206	39.7	41.33S	174.79E	29	2.6	0.1	14	10
2468	FEB	13	1436	40.2	42.00S	173.93E	12 R	2.5	0.2	10	8
2494	FEB	13	2110	35.5	41.57S	175.31E	22	2.1	0.2	14	8
2542	FEB	14	1030	24.0	41.50S	175.32E	20	2.0	0.3	13	10
2560	FEB	14	1306	15.9	41.59S	175.32E	22	2.7	0.3	19	14
2588	FEB	14	1847	37.1	41.54S	175.31E	21	2.0	0.3	14	9
2621	FEB	15	0351	16.9	41.57S	175.31E	20	2.0	0.3	14	9
2629	FEB	15	0451	12.7	40.87S	174.00E	62	2.9	0.3	14	10
2648	FEB	15	0931	58.6	40.79S	174.51E	64	2.2	0.1	9	6
2700	FEB	15	1954	13.4	40.90S	174.93E	45	3.0	0.2	17	13
2833	FEB	17	0529	15.9	40.67S	175.76E	23	2.6	0.3	14	10
2852	FEB	17	0934	54.5	40.72S	174.20E	66	2.4	0.1	10	7
2853	FEB	17	0945	36.0	40.69S	175.77E	23	2.5	0.3	15	11
2857	FEB	17	1024	59.2	41.59S	175.31E	27	2.6	0.2	16	11
2874	FEB	17	1349	0.3	41.20S	173.74E	74	3.1	0.2	17	12
2942	FEB	18	0749	2.4	40.57S	175.14E	32	2.9	0.2	24	19
2972	FEB	18	1907	2.2	40.75S	174.51E	27	2.1	0.3	11	9
2983	FEB	18	2141	20.5	40.60S	174.48E	23	2.5	0.3	13	9
3013	FEB	19	0653	24.2	41.14S	174.65E	32	2.5	0.2	15	12
3029	FEB	19	1033	31.4	40.76S	175.69E	33	2.6	0.3	11	9
3149	FEB	20	1211	47.8	41.72S	174.52E	31	4.0F	0.2	19	16
3167	FEB	20	1610	19.6	40.86S	175.00E	28	3.3	0.2	20	19
3171	FEB	20	1648	26.5	40.88S	175.03E	31	4.3F	0.2	31	28
3209	FEB	21	0251	39.9	40.76S	173.97E	75	2.7	0.2	9	6
3223	FEB	21	0708	34.7	41.76S	174.54E	28	2.4	0.2	14	10
3255	FEB	21	1328	51.9	41.00S	175.33E	26	2.5	0.2	14	9
3264	FEB	21	1505	17.0	41.16S	174.60E	32	2.4	0.1	15	11
3292	FEB	21	2108	55.3	40.87S	174.79E	11	2.4	0.3	13	10
3315	FEB	22	0041	27.3	41.46S	173.86E	53	2.9	0.2	16	14
3329	FEB	22	0346	47.1	40.97S	175.62E	32	2.4	0.3	14	10
3368	FEB	22	1447	36.6	40.82S	174.96E	43	2.8	0.2	19	16
3425	FEB	23	0412	8.8	41.61S	174.32E	28	2.1	0.1	10	8
3452	FEB	23	1155	11.1	40.75S	175.11E	30	2.0	0.2	11	8

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3467	FEB	23	1418	17.8	41.43S	174.11E	5 R	2.0	0.2	9	7
3469	FEB	23	1513	23.2	41.43S	174.10E	9	2.1	0.1	11	7
3480	FEB	23	1833	56.9	41.77S	174.26E	33	2.6	0.2	16	13
3545	FEB	24	0852	43.2	41.50S	174.60E	52	3.1	0.1	19	15
3561	FEB	24	1252	1.9	41.17S	173.82E	70	3.1	0.2	17	13
3573	FEB	24	1623	10.4	40.75S	174.52E	29	2.0	0.2	11	8
3574	FEB	24	1626	23.6	40.78S	174.55E	71	3.3	0.1	21	17
3601	FEB	25	1018	24.0	41.78S	174.33E	31	2.4	0.2	14	10
3617	FEB	25	1849	54.5	41.35S	174.98E	25	2.0	0.1	7	6
3618	FEB	25	1849	56.8	41.35S	174.98E	27	2.5	0.1	16	12
3620	FEB	25	1930	52.6	41.36S	174.98E	26	2.5	0.2	15	11
3634	FEB	26	0116	9.1	40.85S	175.62E	21	2.2	0.1	8	6
3637	FEB	26	0150	24.3	41.19S	173.55E	41	2.0	0.2	8	6
3650	FEB	26	0956	28.0	41.06S	175.46E	31	2.1	0.1	10	6
3716	FEB	27	1353	26.2	40.76S	174.32E	56	3.2	0.3	20	16
3753	FEB	28	0134	29.5	41.72S	174.51E	28	2.0	0.1	10	8
3784	FEB	28	0654	14.2	41.94S	173.71E	46	3.3	0.2	21	16
3794	FEB	28	0854	14.9	41.22S	175.27E	28	2.2	0.1	10	8
3928	MAR	01	0421	24.6	41.31S	174.78E	28	2.7	0.2	16	11
3999	MAR	01	2102	41.7	42.00S	173.83E	12 R	2.5	0.1	7	5
4017	MAR	02	0058	34.4	41.32S	173.66E	89	2.7	0.3	12	8
4024	MAR	02	0307	1.9	40.90S	175.66E	28	2.0	0.2	10	6
4040	MAR	02	0715	38.5	41.27S	175.25E	27	2.0	0.1	12	8
4041	MAR	02	0716	20.4	41.27S	175.23E	28	2.1	0.2	11	8
4059	MAR	02	1027	25.4	41.41S	175.07E	29	2.7	0.1	15	12
4066	MAR	02	1122	29.4	40.60S	173.80E	96	2.4	0.2	13	9
4068	MAR	02	1123	27.0	40.70S	174.43E	67	2.5	0.2	11	9
4125	MAR	02	1707	59.1	41.59S	174.23E	5 R	2.2	0.3	13	10
4168	MAR	03	0146	58.9	41.85S	174.23E	13	2.5	0.2	11	9
4171	MAR	03	0250	39.6	41.30S	174.97E	28	2.6	0.2	18	13
4182	MAR	03	0833	48.5	41.05S	175.38E	24	2.0	0.1	11	8
4203	MAR	03	1734	22.2	41.29S	175.00E	24	2.0	0.1	13	9
4234	MAR	04	0127	55.6	41.30S	175.28E	28	2.5	0.2	12	9
4236	MAR	04	0305	49.5	41.25S	175.23E	27	2.1	0.2	7	5
4243	MAR	04	0701	30.3	41.42S	173.52E	98	2.6	0.2	10	9
4258	MAR	04	1249	22.6	41.32S	173.58E	89	2.4	0.2	11	9
4270	MAR	04	1556	47.6	40.88S	175.93E	31	2.6	0.2	15	11
4273	MAR	04	1746	51.0	41.44S	174.51E	54	2.3	0.2	10	8
4274	MAR	04	1917	28.0	40.87S	174.74E	16	2.1	0.1	11	8
4302	MAR	05	1422	4.1	41.73S	174.49E	45	2.4	0.1	14	11
4331	MAR	06	0418	26.9	41.58S	175.32E	26	3.2	0.2	18	12
4398	MAR	08	0131	7.8	40.79S	175.13E	29	2.1	0.2	11	9
4403	MAR	08	0336	16.0	41.00S	175.95E	32	2.2	0.2	8	6
4424	MAR	08	1527	14.6	41.62S	174.80E	26	2.2	0.2	13	9
4460	MAR	09	0726	21.5	40.71S	175.21E	30	2.2	0.1	12	9

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4488	MAR 10	0240 12.9	40.57S	175.83E	28	2.4	0.3	11	8
4501	MAR 10	0843 43.7	40.98S	175.34E	24	2.0	0.2	10	7
4517	MAR 10	1438 25.6	41.92S	174.27E	12 R	2.1	0.3	11	8
4524	MAR 10	1649 53.0	41.88S	174.27E	12 R	2.1	0.3	8	7
4525	MAR 10	1709 4.7	40.52S	174.42E	45	2.2	0.2	11	7
4530	MAR 10	1757 7.9	40.92S	175.33E	27	2.2	0.1	13	8
4541	MAR 11	0155 55.3	41.10S	174.33E	58	2.5	0.1	6	5
4557	MAR 11	2248 6.5	41.28S	174.00E	55	3.0	0.3	18	13
4564	MAR 12	0709 45.1	41.06S	175.52E	26	2.1	0.2	12	8
4566	MAR 12	0923 59.8	41.10S	175.71E	32	2.1	0.2	9	6
4618	MAR 13	0452 6.9	41.21S	175.77E	19	2.2	0.1	9	6
4642	MAR 13	0825 32.6	41.63S	174.63E	34	2.9	0.2	15	12
4706	MAR 13	2239 0.3	41.31S	175.61E	19	2.1	0.1	8	6
4750	MAR 14	0825 2.7	40.65S	174.41E	55	2.4	0.1	10	8
4765	MAR 14	1107 27.7	40.93S	175.70E	30	2.2	0.3	9	7
4780	MAR 14	1417 5.8	40.98S	174.38E	48	2.3	0.1	13	10
4782	MAR 14	1429 2.5	41.22S	173.79E	59	2.5	0.3	15	10
4784	MAR 14	1554 59.1	41.18S	174.27E	32	2.2	0.2	14	10
4789	MAR 14	1828 12.0	41.01S	175.55E	24	2.3	0.1	14	9
4791	MAR 14	2107 41.4	41.68S	174.49E	27	2.3	0.1	15	11
4824	MAR 17	0107 8.9	41.15S	174.15E	49	2.4	0.1	10	8
4829	MAR 17	0203 43.2	40.95S	175.95E	32	2.4	0.2	8	6
4854	MAR 17	1455 8.9	40.92S	175.46E	24	2.0	0.2	9	7
4855	MAR 17	1524 13.3	40.95S	175.47E	25	2.8	0.2	15	12
4859	MAR 17	1856 20.4	40.90S	175.83E	43	3.3	0.3	20	17
4898	MAR 18	1540 24.2	41.63S	174.42E	8	2.3	0.1	11	10
4913	MAR 18	2109 24.4	41.76S	174.50E	27	2.4	0.1	10	7
4950	MAR 19	0849 7.5	41.29S	175.25E	22	2.1	0.1	10	8
4954	MAR 19	1047 20.1	40.55S	174.32E	12 R	2.8	0.3	9	7
4973	MAR 19	1841 18.7	40.66S	175.28E	31	2.9	0.2	16	13
4979	MAR 19	2100 47.1	41.84S	174.77E	12 R	2.1	0.1	5	3
4988	MAR 20	0011 55.2	41.38S	174.60E	28	2.3	0.2	9	7
4996	MAR 20	0432 32.4	40.88S	174.30E	27	2.2	0.3	10	6
5000	MAR 20	0509 43.6	40.50S	174.28E	51	2.8	0.3	14	11
5056	MAR 21	0155 36.5	40.78S	175.72E	29	2.1	0.3	9	6
5060	MAR 21	0258 9.3	40.86S	175.11E	31	2.1	0.2	7	6
5066	MAR 21	0753 4.4	41.15S	174.61E	40	3.0	0.1	18	13
5079	MAR 21	1357 53.6	40.72S	173.99E	91	2.6	0.2	10	7
5082	MAR 21	1551 12.3	41.47S	174.95E	28	2.7	0.2	18	12
5127	MAR 22	1044 16.9	41.47S	174.41E	31	2.1	0.1	13	8
5144	MAR 22	2200 57.3	41.37S	175.11E	28	2.1	0.1	13	8
5164	MAR 23	1148 54.8	40.69S	174.49E	84	3.2	0.1	24	16
5179	MAR 23	2053 15.3	40.94S	175.38E	27	3.4	0.2	19	13
5180	MAR 23	2204 3.8	40.93S	175.38E	30	2.8	0.2	16	10
5184	MAR 24	0048 30.0	40.86S	175.70E	16	3.5	0.2	15	11

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
5191	MAR 24	1031 0.4	40.98S	175.36E	27	2.2	0.1	9	7
5194	MAR 24	1259 5.2	41.46S	174.96E	28	2.9	0.2	16	12
5195	MAR 24	1519 52.9	40.84S	174.54E	29	2.0	0.2	9	7
5205	MAR 25	0426 34.0	41.01S	175.25E	24	2.2	0.2	14	9
5225	MAR 25	1049 58.8	41.74S	174.52E	28	2.7	0.2	18	13
5251	MAR 26	0140 0.1	41.18S	174.64E	34	2.2	0.1	14	10
5267	MAR 26	1056 8.1	40.88S	173.76E	73	2.3	0.2	8	5
5286	MAR 26	1726 38.6	40.55S	176.00E	29	3.1	0.2	19	16
5295	MAR 27	0103 8.3	41.02S	175.35E	33	2.1	0.2	9	6
5303	MAR 27	0713 25.0	40.83S	174.64E	68	3.0	0.1	18	14
5333	MAR 27	2300 12.7	40.94S	175.91E	30	2.3	0.2	11	8
5348	MAR 28	0827 21.2	41.00S	175.58E	27	2.6	0.2	17	13
5368	MAR 28	1928 54.7	41.53S	174.51E	13	2.6	0.2	15	13
5369	MAR 28	2052 31.0	41.19S	175.18E	25	2.1	0.2	11	7
5383	MAR 29	0527 13.3	41.37S	175.13E	29	2.7	0.2	15	12
5384	MAR 29	0624 5.4	40.71S	175.33E	29	2.3	0.2	15	12
5391	MAR 29	0718 4.4	40.63S	174.20E	65	2.6	0.3	11	9
5402	MAR 29	0942 51.4	41.55S	173.69E	61	3.0	0.1	20	15
5419	MAR 29	1617 23.7	41.28S	175.28E	28	2.2	0.1	14	9
5424	MAR 29	1810 41.8	40.96S	173.94E	65	2.4	0.2	11	7
5436	MAR 30	0101 5.6	41.00S	174.70E	33 R	3.0	0.2	20	15
5450	MAR 30	0815 9.0	40.64S	175.73E	28	2.2	0.3	12	8
5457	MAR 30	1129 55.5	41.01S	175.00E	30	2.3	0.2	14	10
5507	MAR 30	2347 38.2	40.76S	175.51E	28	2.4	0.3	13	10
5528	MAR 31	0913 54.3	41.59S	173.96E	12	3.0	0.3	19	16
5529	MAR 31	1032 55.2	41.20S	173.95E	30	2.3	0.1	8	7
5545	MAR 31	1811 19.4	41.10S	175.50E	9	2.1	0.2	13	9
5584	APR 01	1650 28.1	41.25S	174.23E	41	2.9	0.2	16	13
5599	APR 01	2305 50.1	40.78S	175.33E	29	2.1	0.1	10	6
5603	APR 02	0031 24.4	40.91S	173.95E	72	2.9	0.3	12	8
5606	APR 02	0118 13.8	41.05S	174.58E	62	4.0	0.2	34	28
5634	APR 02	0802 22.4	41.46S	174.98E	24	2.3	0.2	16	11
5637	APR 02	0833 29.8	41.04S	175.37E	22	2.2	0.1	13	9
5669	APR 02	1450 34.4	41.66S	173.98E	10	3.6	0.2	21	17
5705	APR 03	0050 40.7	41.75S	174.14E	36	2.5	0.2	10	7
5728	APR 03	0515 31.8	40.72S	175.70E	22	2.6	0.3	15	12
5742	APR 03	0818 2.4	41.08S	173.83E	60	2.5	0.4	10	7
5773	APR 03	1604 0.6	40.99S	174.50E	63	2.9	0.1	15	12
5817	APR 04	0133 12.3	40.54S	174.82E	25	2.8	0.2	14	11
5834	APR 04	0655 57.5	41.29S	174.52E	55	2.7	0.1	12	10
5853	APR 04	1158 52.0	41.44S	174.98E	24	2.4	0.2	15	10
5868	APR 04	1601 24.0	41.42S	175.62E	30	2.1	0.2	12	8
5908	APR 05	0113 50.5	40.99S	175.97E	38	2.3	0.2	11	8
5945	APR 06	0225 1.3	40.52S	174.32E	57	2.5	0.3	11	7
5962	APR 06	1624 18.3	41.27S	175.46E	30	2.5	0.1	13	9

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5967	APR	06	2153	0.3	40.67S	175.08E	12 R	2.0	0.3	9	7
6007	APR	07	2010	59.5	41.71S	175.04E	28	2.2	0.0	10	7
6010	APR	07	2219	41.0	40.83S	175.19E	32	2.3	0.2	13	8
6015	APR	08	0208	15.0	40.61S	174.88E	34	2.1	0.2	11	8
6051	APR	09	1256	7.7	40.84S	174.69E	44	2.5	0.2	17	11
6054	APR	09	1343	52.1	40.91S	175.74E	33	2.2	0.2	11	9
6132	APR	10	1634	0.5	41.38S	175.37E	20	2.4	0.2	16	12
6202	APR	11	1525	7.7	40.89S	175.80E	30	2.1	0.2	13	9
6230	APR	11	2025	21.4	40.99S	174.77E	32	2.3	0.0	13	9
6254	APR	12	0431	18.9	41.16S	174.99E	29	2.2	0.1	11	8
6301	APR	12	1625	11.5	41.61S	174.19E	15	2.5	0.2	15	11
6319	APR	12	2329	29.1	40.50S	174.26E	62	2.7	0.3	12	9
6337	APR	13	0342	50.1	41.69S	174.29E	5 R	2.4	0.3	14	11
6360	APR	13	1134	55.8	41.23S	174.58E	55	2.5	0.1	10	8
6384	APR	13	1646	51.2	40.70S	175.72E	18	2.1	0.2	13	8
6414	APR	14	0543	51.0	40.54S	175.92E	34	3.3	0.2	24	21
6428	APR	14	0923	36.4	41.72S	174.53E	28	2.1	0.2	15	11
6442	APR	14	1521	16.4	40.83S	174.62E	46	2.1	0.1	8	6
6503	APR	15	0806	33.1	41.05S	174.35E	64	3.2	0.1	24	20
6515	APR	15	1358	32.2	41.61S	174.73E	24	2.2	0.2	14	10
6520	APR	15	1803	3.9	40.61S	173.59E	149	2.9	0.2	14	10
6522	APR	15	1915	26.7	41.27S	174.98E	27	2.1	0.2	13	8
6524	APR	15	2036	9.5	40.53S	174.69E	26	2.2	0.2	11	8
6543	APR	16	0727	55.8	40.81S	174.47E	42	3.0	0.2	11	9
6553	APR	16	1744	16.0	40.57S	174.30E	49	2.1	0.4	10	7
6568	APR	17	0342	4.7	41.65S	174.82E	29	3.7F	0.2	21	17
6575	APR	17	0641	39.0	40.74S	175.83E	23	3.0	0.4	14	11
6613	APR	18	0106	32.1	41.22S	173.85E	61	2.7	0.2	12	9
6632	APR	18	1831	20.0	40.73S	173.83E	74	2.9	0.2	17	12
6650	APR	19	1349	58.6	40.90S	174.94E	32	2.2	0.1	8	6
6653	APR	19	1506	17.9	40.99S	175.60E	26	2.3	0.1	11	8
6657	APR	19	1718	19.8	40.72S	174.00E	72	2.7	0.2	9	7
6671	APR	19	2348	5.6	40.84S	174.82E	5 R	3.1	0.2	17	13
6685	APR	20	0852	8.6	41.26S	175.66E	27	2.4	0.1	13	8
6694	APR	20	1036	51.1	40.98S	175.58E	24	3.4	0.2	22	17
6721	APR	20	2004	58.2	40.84S	174.70E	14	2.7	0.3	13	8
6744	APR	21	0515	18.7	41.33S	174.62E	31	2.3	0.2	13	10
6776	APR	21	1941	6.4	40.57S	175.15E	32	2.7	0.3	12	10
6794	APR	22	0134	10.0	40.66S	175.48E	29	2.7	0.2	13	8
6843	APR	23	0029	9.3	41.51S	175.32E	26	2.5	0.2	11	7
6845	APR	23	0048	19.4	41.55S	174.36E	29	2.4	0.2	10	9
6854	APR	23	0427	19.1	41.52S	175.33E	28	2.4	0.3	10	7
6857	APR	23	0451	44.7	41.09S	174.78E	35	2.1	0.2	7	6
6868	APR	23	0831	23.6	41.55S	173.76E	64	3.0	0.2	15	11
6887	APR	23	1235	34.6	40.88S	174.59E	5 R	2.0	0.2	9	6

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6972	APR	24	0749	12.1	40.99S	174.69E	33	2.5	0.1	13	9
6985	APR	24	1023	6.3	40.80S	174.79E	5 R	2.2	0.3	11	7
7032	APR	24	1943	27.0	41.72S	174.53E	32	3.0	0.2	18	13
7040	APR	24	2142	41.5	40.81S	174.77E	5 R	3.9	0.2	24	19
7045	APR	25	0007	7.3	41.54S	173.64E	69	4.2	0.2	23	19
7053	APR	25	0733	20.5	40.90S	175.64E	29	2.5	0.2	9	7
7057	APR	25	0906	43.3	41.77S	173.66E	78	4.3F	0.1	20	15
7131	APR	26	0154	1.0	41.28S	173.57E	71	2.8	0.2	13	9
7132	APR	26	0222	50.7	41.13S	173.95E	62	2.6	0.2	11	7
7200	APR	27	0125	4.6	41.11S	174.72E	28	2.5	0.1	13	9
7203	APR	27	0210	4.7	41.08S	174.76E	31	2.3	0.0	11	9
7209	APR	27	0615	32.9	41.11S	174.71E	29	2.4	0.2	12	10
7254	APR	28	0044	12.4	40.96S	174.96E	59	3.0	0.1	19	15
7328	APR	29	0842	25.6	40.54S	173.92E	82	2.2	0.2	8	6
7341	APR	29	1225	2.0	41.15S	173.56E	103	2.9	0.3	16	12
7350	APR	29	1438	38.8	40.53S	173.52E	156	3.0	0.1	8	7
7360	APR	29	1603	12.6	40.84S	174.81E	36	2.0	0.1	14	11
7379	APR	29	1926	42.6	41.03S	175.45E	24	2.3	0.2	13	10
7403	APR	30	0356	54.8	40.60S	175.47E	30	2.5	0.3	12	8
7422	APR	30	0836	32.1	41.51S	173.72E	54	2.9	0.2	17	13
7445	APR	30	1437	25.0	40.96S	173.66E	91	2.9	0.2	14	11
7459	APR	30	1959	42.4	40.95S	175.99E	33	2.2	0.2	9	6
7464	APR	30	2046	39.3	41.16S	175.52E	16	2.2	0.1	11	7
7471	APR	30	2348	41.8	40.85S	175.70E	29	2.0	0.1	8	6
7500	MAY	01	0912	3.9	40.60S	174.69E	78	3.3	0.1	32	27
7555	MAY	03	0416	41.3	41.01S	175.90E	33	2.5	0.1	11	9
7560	MAY	03	1024	55.4	41.30S	173.80E	54	2.3	0.3	9	6
7562	MAY	03	1242	39.5	40.58S	173.71E	137	2.7	0.2	9	7
7563	MAY	03	1318	59.5	40.73S	174.62E	12 R	2.2	0.3	12	9
7588	MAY	04	1731	31.0	41.89S	174.02E	12 R	2.5	0.2	10	10
7590	MAY	04	1918	43.3	41.12S	175.37E	29	2.1	0.1	14	10
7599	MAY	04	2240	35.1	40.91S	175.28E	32	2.4	0.1	12	8
7622	MAY	05	0410	1.9	40.80S	175.91E	36	2.0	0.2	9	7
7645	MAY	05	1107	51.8	41.55S	174.58E	52	2.2	0.1	16	14
7691	MAY	06	0138	25.6	41.56S	174.19E	19	2.3	0.2	11	8
7730	MAY	06	1204	29.6	40.74S	175.88E	29	2.6	0.3	16	12
7776	MAY	07	0136	43.4	40.54S	174.92E	24	3.3	0.3	27	21
7781	MAY	07	0419	20.1	41.00S	173.87E	89	3.4	0.2	26	21
7831	MAY	07	1958	45.9	41.13S	173.63E	85	3.6	0.1	18	13
7843	MAY	08	0304	51.1	41.14S	174.50E	38	2.4	0.1	7	6
7855	MAY	08	1004	6.3	41.60S	173.65E	52	2.6	0.1	10	8
7861	MAY	08	1224	10.2	41.84S	174.50E	39	2.2	0.2	9	7
7863	MAY	08	1322	44.6	41.17S	173.63E	84	2.5	0.2	9	6
7870	MAY	08	1432	3.3	40.85S	175.73E	31	3.4	0.1	16	12
7873	MAY	08	1654	5.2	40.74S	174.01E	33 R	2.1	0.3	9	5

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7891	MAY 08	2311 53.0	41.23S	174.62E	35	2.4	0.2	7	4
7943	MAY 09	1041 16.6	41.58S	174.33E	25	2.0	0.1	10	7
7981	MAY 09	2027 11.2	41.18S	174.60E	33	2.3	0.1	12	9
8161	MAY 12	1719 35.9	41.90S	173.56E	44	3.1	0.2	18	13
8167	MAY 12	2015 17.3	41.65S	175.16E	12 R	2.0	0.2	7	4
8180	MAY 13	0255 1.9	41.94S	173.54E	22	2.8	0.1	6	3
8191	MAY 13	0846 44.8	41.45S	174.97E	27	3.6F	0.1	18	14
8198	MAY 13	1955 25.9	41.00S	174.79E	32	2.5	0.1	13	10
8208	MAY 14	1152 38.6	40.65S	174.72E	30	2.9	0.2	14	11
8217	MAY 14	2337 37.7	40.51S	175.91E	54	2.8	0.1	8	5
8220	MAY 15	0210 48.3	41.92S	173.59E	58	2.1	0.3	8	4
8247	MAY 15	1917 1.7	41.35S	175.04E	30	2.3	0.1	10	8
8267	MAY 16	0705 26.3	40.85S	175.60E	29	2.6	0.2	10	7
8347	MAY 17	1845 23.4	40.85S	175.64E	23	2.0	0.1	7	6
8521	MAY 21	0116 51.6	40.50S	175.44E	5 R	2.1	0.2	7	5
8567	MAY 22	0012 15.2	41.00S	174.93E	66	3.2	0.2	19	13
8577	MAY 22	0912 51.4	40.50S	174.34E	85	2.7	0.2	11	8
8610	MAY 23	0711 24.7	40.84S	173.67E	82	2.5	0.2	8	6
8653	MAY 24	0359 33.2	40.99S	174.88E	31	2.4	0.1	14	11
8658	MAY 24	0604 35.1	40.97S	174.71E	60	2.8	0.2	17	14
8707	MAY 25	0541 22.8	41.07S	174.49E	34	2.3	0.2	14	11
8743	MAY 26	1012 52.0	41.05S	174.38E	65	2.0	0.2	13	9
8744	MAY 26	1023 34.0	40.80S	174.80E	47	2.8	0.3	17	12
8761	MAY 26	1610 31.3	41.48S	173.57E	81	4.6F	0.2	32	24
8823	MAY 28	2134 33.1	40.98S	174.49E	56	2.4	0.2	11	8
8842	MAY 29	0546 44.7	41.33S	175.34E	35	2.2	0.1	11	8
8843	MAY 29	0642 57.9	41.45S	173.89E	48	3.0	0.2	17	13
8855	MAY 29	1247 53.6	40.67S	175.07E	5	2.0	0.1	10	6
8873	MAY 30	1140 26.8	41.27S	175.30E	28	2.4	0.1	12	9
8879	MAY 30	2237 39.6	41.03S	174.85E	52	3.0	0.1	13	11
8886	MAY 31	0626 28.3	41.17S	175.07E	23	2.5	0.2	15	11
8887	MAY 31	0721 9.0	41.12S	174.35E	50	3.3	0.2	23	19
8906	JUN 01	0506 19.7	41.75S	173.94E	12 R	2.5	0.3	10	9
8918	JUN 02	0411 48.1	41.24S	175.60E	24	2.4	0.1	13	9
8930	JUN 03	0204 33.7	40.81S	173.59E	159	3.2	0.5	8	7
8933	JUN 03	0423 26.9	40.92S	174.09E	58	2.8	0.2	11	7
8954	JUN 03	1738 13.0	40.97S	175.88E	31	2.1	0.2	15	10
8959	JUN 03	2106 48.6	41.31S	174.54E	31	2.4	0.2	12	7
8990	JUN 04	0652 38.7	41.16S	174.46E	31	2.0	0.1	8	6
9056	JUN 05	0411 18.3	40.76S	175.80E	27	2.3	0.3	11	7
9058	JUN 05	0449 24.6	40.96S	175.56E	28	2.0	0.2	12	7
9152	JUN 06	0832 7.8	40.91S	175.03E	32	2.0	0.3	9	6
9162	JUN 06	1052 36.0	41.65S	173.94E	21	2.3	0.2	11	8
9221	JUN 07	0352 46.6	40.53S	174.34E	57	2.5	0.3	11	7
9236	JUN 07	0842 52.8	41.58S	174.86E	30	2.2	0.2	12	9

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9257	JUN	07	1400	53.6	41.46S	174.25E	30	2.4	0.4	14	10
9265	JUN	07	1631	13.6	40.78S	173.85E	77	3.1	0.2	21	18
9298	JUN	08	0643	17.0	41.25S	175.24E	27	2.0	0.1	11	7
9312	JUN	08	1110	27.6	41.43S	175.00E	24	2.2	0.1	15	9
9336	JUN	08	2140	46.0	40.79S	174.73E	43	2.2	0.1	7	5
9340	JUN	09	0058	48.2	40.76S	174.95E	35	2.2	0.2	9	7
9353	JUN	09	0911	53.3	40.97S	175.57E	25	2.0	0.1	12	9
9371	JUN	10	0002	11.8	40.70S	175.84E	31	2.7	0.2	10	8
9392	JUN	10	1446	56.4	40.98S	175.61E	28	2.0	0.1	12	9
9398	JUN	10	1922	35.9	41.07S	175.28E	11	2.9	0.2	18	13
9412	JUN	11	0301	34.4	41.69S	174.64E	29	2.1	0.2	8	6
9432	JUN	11	1120	34.4	41.16S	174.54E	57	2.4	0.1	9	7
9442	JUN	11	1326	34.1	40.95S	174.67E	51	2.3	0.0	8	5
9505	JUN	13	1147	30.8	41.60S	174.41E	12 R	2.3	0.3	12	10
9515	JUN	13	1420	40.2	41.02S	174.46E	64	2.4	0.2	11	9
9521	JUN	13	1654	23.8	41.14S	173.83E	75	2.7	0.3	17	11
9541	JUN	13	2138	24.3	40.90S	174.83E	8	2.1	0.3	12	8
9545	JUN	13	2310	50.9	40.66S	174.94E	12	2.0	0.2	11	7
9546	JUN	13	2313	38.7	40.85S	175.50E	29	2.4	0.2	14	10
9558	JUN	14	0213	37.1	40.52S	175.97E	61	2.6	0.2	8	6
9565	JUN	14	0322	36.5	40.75S	174.52E	25	2.3	0.2	11	8
9592	JUN	14	1710	26.2	40.52S	175.86E	54	2.5	0.3	17	12
9593	JUN	14	1711	57.9	40.95S	173.78E	77	2.7	0.2	10	9
9597	JUN	14	1852	8.9	41.62S	174.38E	12 R	2.1	0.2	11	10
9616	JUN	15	1116	20.1	41.80S	174.36E	28	3.5	0.2	23	17
9618	JUN	15	1506	9.1	40.92S	174.36E	47	2.0	0.1	10	7
9619	JUN	15	1545	27.9	40.54S	174.03E	111	2.6	0.1	10	7
9624	JUN	15	1953	43.6	41.01S	174.49E	12 R	2.3	0.3	9	8
9653	JUN	17	0031	2.9	40.52S	174.35E	81	2.6	0.2	10	6
9663	JUN	17	1839	12.3	41.25S	173.64E	93	3.3	0.2	16	12
9681	JUN	18	0539	26.2	41.93S	174.15E	33	3.2	0.1	14	12
9719	JUN	19	0231	44.1	41.33S	174.28E	32	2.2	0.2	8	6
9735	JUN	19	0855	7.6	41.12S	174.51E	38	5.1F	0.1	27	21
9738	JUN	19	1000	22.0	41.11S	174.50E	35	3.1F	0.2	12	10
9744	JUN	19	1224	51.3	41.10S	174.50E	32	3.3F	0.3	12	10
9749	JUN	19	1435	1.9	41.14S	174.49E	34	2.0	0.2	11	9
9754	JUN	19	1811	2.4	41.11S	174.50E	35	2.3	0.1	11	8
9761	JUN	19	2156	58.6	41.12S	174.51E	35	3.5	0.2	19	16
9764	JUN	20	0531	7.5	41.12S	174.49E	35	2.8	0.2	13	11
9771	JUN	20	1536	34.1	41.15S	174.50E	34	5.4F	0.2	32	27
9772	JUN	20	1551	34.7	41.14S	174.52E	35	3.5F	0.2	22	20
9773	JUN	20	1606	45.9	41.12S	174.50E	33	2.4	0.1	9	7
9774	JUN	20	1617	37.4	41.12S	174.49E	32	2.2	0.1	7	6
9775	JUN	20	1623	17.5	41.11S	174.49E	34	2.5	0.1	9	7
9776	JUN	20	1629	34.2	41.11S	174.49E	33	2.2	0.2	7	6

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9778	JUN	20	1649	40.5	41.10S	174.51E	35	2.5	0.1	10	8
9780	JUN	20	1700	53.3	41.12S	174.50E	35	2.7F	0.1	10	8
9781	JUN	20	1706	20.3	41.10S	174.50E	34	2.5F	0.1	11	8
9782	JUN	20	1854	27.8	41.12S	174.50E	33	2.0	0.1	7	6
9784	JUN	20	1909	48.0	41.12S	174.49E	34	2.5	0.1	11	7
9790	JUN	20	2119	17.0	41.12S	174.50E	34	2.2	0.1	9	7
9792	JUN	20	2138	10.2	41.10S	174.50E	34	2.3	0.1	7	6
9798	JUN	21	0157	51.2	41.76S	174.38E	30	2.8	0.2	13	9
9808	JUN	21	0644	20.8	41.16S	174.52E	38	3.8F	0.2	29	26
9809	JUN	21	0723	2.7	41.12S	174.50E	33	2.3	0.1	10	7
9810	JUN	21	0736	11.0	41.12S	174.48E	35	3.0F	0.2	16	12
9811	JUN	21	0751	9.1	41.15S	174.47E	33 R	2.1	0.1	6	4
9817	JUN	21	0924	49.9	41.12S	174.51E	37	3.6F	0.1	19	16
9821	JUN	21	1237	26.6	40.56S	174.88E	29	3.0	0.2	16	12
9828	JUN	21	2015	40.2	41.13S	174.48E	35	2.3	0.3	9	6
9837	JUN	21	2258	32.8	41.09S	174.49E	33	2.2	0.2	9	6
9853	JUN	22	0639	20.9	41.09S	174.50E	32	2.0	0.1	8	6
9859	JUN	22	0845	41.0	41.48S	174.87E	27	2.8	0.2	17	12
9872	JUN	22	1503	6.1	41.24S	174.48E	35	2.3	0.1	10	7
9876	JUN	22	1637	33.4	41.14S	174.49E	35	3.0	0.2	17	14
9877	JUN	22	1640	36.7	41.55S	173.61E	65	2.5	0.2	12	8
9888	JUN	23	0419	35.7	41.12S	174.50E	35	3.0	0.1	16	14
9890	JUN	23	0534	36.4	41.09S	174.51E	33	2.0	0.1	7	6
9895	JUN	23	0837	33.5	40.62S	175.97E	33	2.5	0.1	9	7
9897	JUN	23	1025	8.2	41.11S	174.50E	34	2.1	0.1	11	8
9907	JUN	23	1728	43.7	40.54S	175.61E	29	2.2	0.3	13	7
9912	JUN	23	2119	14.4	41.10S	174.50E	32	2.6	0.3	13	10
9920	JUN	24	0019	38.1	40.56S	174.49E	42	2.3	0.3	13	10
9925	JUN	24	0153	3.3	41.16S	174.51E	35	4.3F	0.1	28	25
9928	JUN	24	0439	41.7	41.12S	174.49E	33	2.8	0.3	14	11
9956	JUN	24	1828	23.1	41.35S	174.78E	31	3.4F	0.2	19	14
9974	JUN	25	0841	50.9	40.69S	174.50E	69	2.4	0.2	9	7
9977	JUN	25	1210	17.3	41.32S	174.79E	29	2.2	0.1	9	7
9978	JUN	25	1210	21.1	40.83S	174.72E	17	2.0	0.1	7	4
9980	JUN	25	1339	46.5	41.78S	174.35E	26	2.6	0.3	14	11
9981	JUN	25	1423	23.7	40.83S	175.66E	30	2.9	0.3	15	12
9994	JUN	25	2309	30.6	40.91S	175.79E	23	2.1	0.3	10	7
9999	JUN	26	0250	25.9	41.12S	174.49E	33	2.3	0.2	11	9
10000	JUN	26	0302	36.0	41.10S	174.50E	34	2.0	0.1	8	6
10049	JUN	27	2008	19.3	41.13S	174.49E	34	2.1	0.1	8	6
10063	JUN	28	1333	49.5	40.64S	175.03E	20	2.0	0.3	9	7
10068	JUN	28	1837	10.4	41.69S	173.83E	17	2.1	0.1	11	9
10076	JUN	29	0127	51.0	40.97S	175.58E	30	2.0	0.2	9	8
10084	JUN	29	0950	58.7	41.13S	174.49E	34	2.1	0.2	11	8
10089	JUN	29	1654	23.8	41.50S	175.34E	20	2.2	0.2	16	11

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10095	JUN	29	2248	54.8	40.93S	175.26E	25	2.1	0.3	11	7
10097	JUN	30	0016	45.6	41.57S	173.95E	22	2.5	0.2	11	9
10105	JUN	30	0644	33.3	40.94S	174.45E	52	2.7	0.1	13	10
10112	JUN	30	2005	24.3	41.53S	174.59E	52	2.9	0.2	14	11
10116	JUL	01	0234	40.7	41.10S	175.79E	31	2.2	0.1	10	7
10117	JUL	01	0258	25.0	41.13S	174.52E	43	4.2F	0.2	25	21
10118	JUL	01	0324	35.9	41.10S	174.51E	33	2.3	0.2	8	7
10119	JUL	01	0415	12.0	41.33S	174.79E	28	2.1	0.2	12	8
10122	JUL	01	0816	1.8	40.86S	175.09E	30	2.8	0.3	18	13
10133	JUL	01	2106	1.7	40.83S	175.80E	29	2.2	0.2	11	8
10134	JUL	01	2106	36.5	40.84S	175.79E	26	2.3	0.2	11	8
10142	JUL	02	0339	52.6	41.10S	174.49E	37	3.6	0.1	16	12
10143	JUL	02	0447	59.7	41.31S	174.16E	18	2.3	0.2	9	7
10161	JUL	02	1910	56.1	40.55S	175.02E	5 R	2.5	0.2	14	10
10184	JUL	03	0259	55.5	41.12S	174.49E	35	2.3	0.2	10	9
10191	JUL	03	0600	31.1	41.10S	174.51E	36	3.1	0.2	16	11
10200	JUL	03	0947	31.7	41.10S	174.50E	35	2.7	0.2	14	12
10210	JUL	03	1402	8.5	41.77S	174.55E	29	3.1	0.2	15	12
10211	JUL	03	1434	22.9	41.10S	174.51E	35	2.4	0.1	12	9
10216	JUL	03	1930	11.1	40.51S	174.92E	41	2.1	0.1	7	6
10223	JUL	04	0139	6.3	40.78S	174.48E	61	3.0	0.1	12	10
10230	JUL	04	1242	52.4	40.94S	174.12E	60	2.3	0.1	9	7
10242	JUL	04	2033	51.0	40.87S	174.70E	38	3.2	0.2	26	21
10257	JUL	05	0411	24.5	41.29S	175.73E	20	3.0	0.1	16	12
10268	JUL	05	0856	24.5	40.95S	174.08E	63	2.4	0.2	12	9
10269	JUL	05	0859	48.3	40.54S	174.35E	84	2.2	0.1	8	6
10281	JUL	05	1743	43.1	40.97S	175.12E	35	2.1	0.1	8	6
10289	JUL	06	0446	14.7	40.85S	174.82E	60	2.7	0.1	15	11
10302	JUL	06	1343	23.3	40.64S	174.53E	5 R	2.0	0.2	9	6
10306	JUL	06	1634	36.9	41.70S	174.52E	29	2.0	0.2	9	7
10307	JUL	06	1634	42.3	41.71S	174.53E	28	2.2	0.2	11	8
10309	JUL	06	1737	12.9	41.36S	174.26E	36	2.7	0.2	14	12
10329	JUL	07	0420	40.3	41.74S	174.68E	23	2.2	0.1	10	8
10341	JUL	07	1435	57.1	41.11S	174.50E	34	2.0	0.1	10	9
10343	JUL	07	1912	18.5	41.76S	174.09E	14	2.5	0.2	10	8
10349	JUL	08	0114	38.8	41.12S	174.47E	37	3.3	0.2	20	15
10350	JUL	08	0121	48.6	41.10S	174.49E	35	2.0	0.1	9	7
10354	JUL	08	0757	54.4	40.68S	175.84E	28	2.3	0.3	12	9
10359	JUL	08	1351	5.3	41.40S	174.65E	21	3.0F	0.2	18	14
10366	JUL	08	1705	13.3	41.69S	174.10E	21	2.7	0.2	14	11
10381	JUL	10	0309	46.3	41.21S	173.68E	76	2.0	0.0	5	3
10391	JUL	11	0123	44.9	41.78S	174.48E	32	2.6	0.1	9	6
10397	JUL	11	0651	29.0	41.33S	175.01E	21	2.2	0.3	6	4
10398	JUL	11	0831	13.5	40.81S	174.86E	57	3.0	0.0	7	5
10408	JUL	11	1639	58.8	41.27S	174.84E	26	2.1	0.1	7	5

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10411	JUL	11	2007	41.3	41.12S	175.16E	20	2.3	0.2	10	7
10429	JUL	12	1512	3.4	41.12S	174.51E	36	2.2	0.1	9	8
10430	JUL	12	1520	45.2	40.90S	174.15E	58	2.8	0.3	13	10
10431	JUL	12	1551	35.7	40.84S	173.86E	84	3.0	0.1	14	10
10434	JUL	12	2101	17.4	40.90S	173.60E	96	2.5	0.1	7	5
10447	JUL	13	0831	16.9	41.26S	175.23E	25	2.1	0.1	15	11
10464	JUL	13	2207	30.6	41.11S	174.47E	33	2.0	0.0	7	5
10467	JUL	14	0021	46.8	41.56S	174.72E	24	2.2	0.1	7	5
10470	JUL	14	0203	17.6	41.57S	174.66E	31	2.3	0.0	7	5
10471	JUL	14	0208	46.6	40.99S	174.77E	32	2.4	0.0	11	8
10481	JUL	14	1618	4.1	41.78S	175.10E	38	3.0	0.2	17	12
10482	JUL	14	1653	57.3	41.43S	173.65E	102	2.8	0.0	9	7
10483	JUL	14	2010	19.4	41.13S	175.84E	31	2.5	0.2	11	9
10488	JUL	15	0441	2.7	41.12S	175.84E	31	2.5	0.1	10	8
10494	JUL	15	1806	20.3	41.17S	174.52E	34	2.0	0.2	10	7
10500	JUL	15	2048	12.6	40.92S	175.74E	31	2.2	0.2	12	9
10502	JUL	15	2242	34.3	40.97S	174.66E	40	2.7	0.2	13	10
10503	JUL	15	2336	46.7	41.23S	174.56E	57	2.2	0.0	7	6
10504	JUL	16	0112	12.3	40.68S	175.51E	29	2.7	0.2	13	9
10512	JUL	16	0628	54.5	40.92S	175.72E	28	2.0	0.2	10	7
10518	JUL	16	1509	52.9	40.98S	175.17E	34	2.5	0.1	13	10
10519	JUL	16	1522	26.3	41.26S	174.89E	19	2.5	0.1	17	14
10529	JUL	17	0215	29.5	40.91S	175.39E	16	2.2	0.3	10	7
10530	JUL	17	0235	35.5	41.20S	175.78E	21	2.3	0.2	11	7
10537	JUL	17	1626	12.3	40.55S	174.38E	54	2.9	0.3	15	12
10542	JUL	17	2003	58.4	40.76S	175.88E	5 R	2.1	0.3	11	8
10571	JUL	19	0205	11.2	40.69S	174.11E	78	3.2	0.2	25	20
10586	JUL	19	1221	48.1	41.11S	174.52E	42	2.7	0.1	11	9
10587	JUL	19	1317	28.7	41.12S	174.51E	39	2.5	0.1	11	9
10597	JUL	19	1943	43.1	41.13S	174.50E	34	2.4	0.1	13	10
10603	JUL	20	0112	9.0	40.76S	174.64E	44	2.0	0.2	8	6
10611	JUL	20	0547	58.5	41.42S	173.61E	88	3.1	0.2	26	18
10621	JUL	20	1345	56.1	40.62S	175.77E	53	3.4	0.2	30	26
10630	JUL	20	2019	58.3	41.11S	175.32E	28	2.1	0.2	10	7
10633	JUL	20	2159	17.4	41.41S	174.04E	42	2.4	0.3	16	13
10651	JUL	21	1104	34.4	41.04S	174.79E	56	2.1	0.0	8	6
10656	JUL	21	1337	54.7	41.01S	174.33E	39	2.0	0.1	6	5
10658	JUL	21	1350	9.5	41.19S	173.91E	72	2.1	0.1	6	4
10670	JUL	21	2326	43.5	40.89S	174.24E	59	3.0	0.2	16	13
10673	JUL	22	0128	14.6	41.32S	174.79E	29	2.3	0.2	13	10
10682	JUL	22	0832	1.3	40.53S	174.36E	12 R	2.4	0.2	11	9
10683	JUL	22	0855	6.8	41.25S	174.39E	24	2.5	0.2	14	12
10700	JUL	22	1707	46.3	41.79S	174.17E	12 R	2.2	0.1	11	9
10704	JUL	22	1744	31.2	41.18S	174.57E	32	2.0	0.1	9	8
10713	JUL	22	2316	38.4	41.13S	174.49E	34	2.6	0.1	13	10

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10717	JUL	23	0139	34.3	41.12S	175.02E	20	2.0	0.1	7	5
10725	JUL	23	1028	10.5	41.12S	174.50E	35	2.2	0.1	10	8
10732	JUL	23	1642	31.1	40.82S	174.27E	45	2.3	0.2	14	9
10736	JUL	23	1902	52.2	40.64S	175.47E	29	2.1	0.2	11	8
10743	JUL	24	0056	9.1	40.84S	174.85E	37	2.2	0.1	10	7
10752	JUL	24	0546	56.5	41.16S	174.72E	29	2.5	0.1	11	9
10764	JUL	24	1100	18.2	41.64S	174.30E	22	2.6	0.2	15	11
10772	JUL	24	1346	26.0	40.63S	174.22E	88	2.6	0.1	11	8
10775	JUL	24	1427	53.8	40.91S	175.07E	25	2.4	0.2	14	10
10794	JUL	25	0035	49.2	40.79S	174.93E	25	2.1	0.3	11	7
10829	JUL	25	1955	37.4	41.22S	175.37E	23	3.1	0.2	16	12
10835	JUL	25	2346	13.5	41.85S	174.58E	27	2.7	0.2	16	11
10847	JUL	26	0959	5.2	41.10S	173.52E	87	2.5	0.2	11	7
10860	JUL	26	1709	49.5	41.27S	174.90E	28	2.4	0.1	15	11
10870	JUL	26	2212	48.3	41.61S	174.70E	24	2.0	0.2	9	7
10872	JUL	26	2234	31.0	40.91S	175.68E	15	2.8	0.3	14	12
10873	JUL	26	2244	42.5	41.09S	174.46E	34	2.5	0.2	15	12
10894	JUL	27	0855	41.6	40.60S	174.31E	73	2.2	0.1	7	5
10918	JUL	27	2046	56.5	41.73S	174.66E	32	2.6	0.2	15	12
10920	JUL	27	2133	24.2	41.66S	174.58E	25	2.0	0.1	7	6
10923	JUL	28	0045	33.2	41.02S	174.92E	52	2.1	0.2	12	6
10925	JUL	28	0218	50.0	40.84S	174.06E	66	2.3	0.2	8	5
10933	JUL	28	0824	1.5	41.00S	174.50E	62	2.9	0.1	14	11
10950	JUL	28	2136	28.0	41.70S	174.65E	28	2.3	0.3	8	6
10953	JUL	28	2220	19.3	41.11S	174.54E	34	2.2	0.2	7	6
10957	JUL	28	2315	47.7	41.61S	174.22E	58	2.5	0.2	10	9
10958	JUL	28	2324	32.5	41.03S	174.79E	58	2.5	0.1	7	5
10993	JUL	29	2222	47.6	40.62S	175.31E	33	2.0	0.1	7	6
11030	JUL	31	0146	50.9	41.10S	174.42E	43	3.3	0.2	20	16
11033	JUL	31	0349	39.5	40.82S	175.80E	25	3.3	0.5	22	17
11041	JUL	31	0951	29.1	41.78S	174.54E	32	3.2	0.2	21	16
11047	JUL	31	1556	36.1	40.85S	176.00E	32	2.8	0.1	13	10
11053	JUL	31	2125	58.1	40.87S	174.73E	17	2.1	0.1	6	4
11057	AUG	01	0221	45.6	41.14S	174.47E	35	2.7	0.2	11	9
11063	AUG	01	0929	23.5	41.19S	174.02E	54	2.2	0.1	10	8
11065	AUG	01	1153	54.4	40.56S	174.31E	45	2.0	0.2	9	6
11083	AUG	02	0325	46.8	40.88S	174.94E	52	2.0	0.1	5	5
11086	AUG	02	1015	40.6	40.63S	174.23E	88	2.4	0.1	7	6
11101	AUG	02	1905	37.4	40.53S	174.90E	26	2.5	0.2	11	8
11102	AUG	02	1935	29.5	41.65S	174.17E	17	3.0	0.2	11	9
11105	AUG	03	0004	22.0	41.40S	175.05E	26	2.5	0.1	16	11
11126	AUG	03	1810	38.6	40.60S	174.60E	83	3.7F	0.2	27	21
11130	AUG	03	2103	33.9	41.14S	175.11E	25	2.6	0.2	9	7
11141	AUG	04	0602	0.0	40.69S	174.29E	76	2.7	0.3	10	7
11142	AUG	04	0628	1.4	40.70S	174.63E	25	2.0	0.2	5	3

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11146	AUG 04	0950 59.2	41.47S	174.50E	56	2.6	0.1	8	6
11148	AUG 04	1009 0.7	41.00S	174.53E	61	2.3	0.0	6	5
11149	AUG 04	1153 33.7	41.62S	174.59E	31	2.0	0.2	6	4
11153	AUG 04	1648 44.0	40.58S	175.11E	34	2.6	0.2	14	10
11154	AUG 04	1716 27.8	40.98S	175.36E	25	2.0	0.1	9	6
11171	AUG 05	0450 17.2	41.28S	174.85E	27	2.2	0.1	15	11
11195	AUG 05	1155 31.9	40.86S	174.75E	16	2.2	0.2	11	9
11208	AUG 05	1843 22.1	41.67S	174.27E	13	2.5	0.1	16	12
11211	AUG 06	0115 7.1	41.93S	174.04E	30	2.5	0.2	10	9
11212	AUG 06	0220 43.4	40.79S	175.48E	25	2.9	0.2	16	14
11213	AUG 06	0224 5.3	40.75S	175.47E	28	2.3	0.1	11	8
11215	AUG 06	0412 2.5	41.02S	174.84E	48	2.0	0.3	7	6
11236	AUG 06	2038 48.3	40.50S	173.91E	81	2.3	0.3	8	6
11237	AUG 06	2136 58.2	40.84S	174.74E	16	2.3	0.1	8	6
11240	AUG 06	2243 47.1	40.95S	175.57E	27	2.1	0.2	13	8
11252	AUG 07	0530 28.6	40.99S	174.86E	54	2.0	0.1	9	6
11266	AUG 07	1457 48.7	41.12S	174.49E	36	2.6	0.2	14	12
11277	AUG 07	2014 38.6	41.29S	175.20E	25	2.7	0.2	18	13
11294	AUG 08	0817 47.4	41.63S	174.58E	32	2.3	0.1	16	11
11297	AUG 08	0949 17.8	40.85S	175.54E	29	2.3	0.1	12	9
11316	AUG 08	2141 56.0	40.76S	174.46E	56	2.3	0.1	10	9
11317	AUG 08	2245 29.7	40.65S	175.48E	29	2.6	0.2	14	11
11319	AUG 08	2358 2.9	40.84S	174.77E	18	2.9	0.2	15	11
11320	AUG 08	2359 59.1	40.84S	174.73E	15	2.1	0.1	7	5
11326	AUG 09	0615 28.6	40.75S	174.59E	36	2.2	0.1	9	7
11328	AUG 09	0653 7.4	41.68S	174.19E	12 R	3.2	0.2	22	17
11330	AUG 09	0742 56.2	41.60S	174.47E	16	3.3	0.2	22	17
11340	AUG 09	1114 51.3	40.50S	175.58E	34	2.1	0.2	10	8
11349	AUG 09	1832 28.8	41.01S	175.30E	22	2.0	0.2	6	5
11350	AUG 09	1840 59.3	41.71S	173.67E	44	3.0	0.3	18	14
11351	AUG 09	1842 13.3	41.38S	173.84E	59	2.8	0.2	13	10
11352	AUG 09	2056 53.1	40.51S	173.87E	12 R	2.0	0.1	6	4
11354	AUG 09	2200 46.6	40.83S	175.68E	25	2.0	0.1	7	6
11355	AUG 09	2201 1.5	41.28S	174.98E	24	2.2	0.1	9	6
11375	AUG 10	0929 10.4	41.18S	173.67E	91	2.9	0.2	15	10
11383	AUG 10	1936 18.6	41.22S	174.65E	36	2.3	0.2	13	11
11389	AUG 11	0133 46.1	40.89S	174.89E	35	2.0	0.1	9	6
11398	AUG 11	0914 25.2	40.56S	175.79E	32	2.0	0.3	10	7
11399	AUG 11	1155 18.3	40.91S	174.40E	57	2.2	0.2	11	8
11412	AUG 11	1808 58.6	40.62S	174.31E	67	3.0	0.2	24	18
11431	AUG 12	1939 19.1	41.54S	174.14E	20	2.3	0.2	6	4
11438	AUG 13	0736 55.7	40.78S	174.48E	64	2.8	0.2	11	9
11439	AUG 13	0827 29.5	40.96S	175.05E	45	2.4	0.1	7	5
11447	AUG 13	1715 55.8	41.08S	174.65E	33	2.9	0.2	19	16
11459	AUG 14	1127 26.5	41.85S	174.09E	31	3.2	0.3	27	20

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11461	AUG	14	1212	17.8	41.84S	174.07E	31	2.7	0.3	19	14
11510	AUG	16	1136	8.3	40.86S	174.82E	62	2.3	0.1	9	7
11513	AUG	16	1401	11.2	41.49S	174.55E	17	2.1	0.3	13	10
11526	AUG	16	2029	10.5	40.80S	175.06E	34	2.4	0.2	9	6
11527	AUG	16	2115	12.1	40.87S	174.83E	5	2.1	0.1	7	5
11528	AUG	16	2131	42.9	40.90S	175.96E	30	2.1	0.2	10	7
11544	AUG	18	0102	58.8	40.82S	175.06E	32	2.5	0.1	11	6
11548	AUG	18	0444	51.2	41.15S	174.80E	31	2.2	0.0	6	5
11554	AUG	18	0909	27.7	40.82S	175.12E	30	3.8F	0.3	35	27
11558	AUG	18	1312	19.7	41.76S	174.22E	14	2.0	0.3	10	9
11560	AUG	18	1328	42.1	40.84S	174.64E	35	2.3	0.2	13	11
11562	AUG	18	1423	53.2	41.52S	174.47E	21	2.6	0.2	19	15
11564	AUG	18	1608	54.6	40.78S	175.09E	30	2.1	0.2	9	6
11565	AUG	18	1618	54.9	41.41S	174.61E	23	2.1	0.1	8	6
11566	AUG	18	1909	0.2	41.07S	176.00E	34	2.1	0.2	9	8
11569	AUG	18	2155	54.7	41.34S	175.13E	26	2.1	0.1	9	7
11571	AUG	19	0222	42.8	40.77S	175.09E	31	2.0	0.2	8	6
11574	AUG	19	0410	1.6	41.33S	175.13E	24	2.5	0.1	9	7
11579	AUG	19	1010	28.5	41.65S	174.58E	26	2.1	0.2	7	6
11584	AUG	19	1354	19.1	40.58S	175.48E	27	2.1	0.2	10	7
11589	AUG	19	1533	24.6	40.51S	174.75E	23	2.0	0.2	11	8
11596	AUG	19	2204	37.0	40.74S	175.05E	37	2.1	0.1	8	5
11598	AUG	20	0020	10.0	41.64S	174.58E	31	2.6	0.1	7	5
11600	AUG	20	0124	59.7	41.76S	174.52E	32	2.3	0.1	6	4
11606	AUG	20	1055	5.6	40.74S	174.89E	60	2.7	0.1	14	10
11631	AUG	20	1615	30.5	41.34S	174.06E	75	3.0	0.2	21	14
11636	AUG	20	1741	56.6	40.78S	175.08E	31	2.0	0.2	8	6
11637	AUG	20	2013	22.7	41.15S	174.81E	30	2.2	0.1	13	9
11639	AUG	20	2209	41.9	41.14S	174.49E	38	2.6	0.1	14	12
11641	AUG	21	0110	6.7	41.30S	175.62E	28	3.2	0.1	15	12
11642	AUG	21	0623	22.8	41.30S	175.62E	28	2.0	0.1	12	9
11644	AUG	21	0836	47.0	40.98S	174.69E	61	2.7	0.1	10	8
11649	AUG	21	1351	31.8	40.82S	175.07E	40	2.3	0.1	11	7
11651	AUG	21	1436	47.0	41.89S	174.97E	31	2.5	0.2	7	5
11655	AUG	21	1716	35.0	40.92S	175.74E	29	2.1	0.1	11	7
11662	AUG	22	0218	55.0	41.28S	175.18E	25	2.1	0.2	12	9
11664	AUG	22	0248	13.5	40.66S	175.89E	28	2.6	0.3	9	6
11665	AUG	22	0250	28.6	41.47S	174.18E	32	2.2	0.2	11	8
11667	AUG	22	0306	3.8	41.28S	175.20E	22	2.0	0.1	7	5
11668	AUG	22	0306	56.2	41.77S	174.83E	30	2.5	0.1	14	10
11679	AUG	22	1053	45.9	40.57S	174.25E	76	2.7	0.1	10	6
11680	AUG	22	1131	22.2	40.94S	174.82E	69	2.5	0.1	9	6
11683	AUG	22	1324	3.1	41.47S	173.97E	41	4.7F	0.2	25	20
11685	AUG	22	1526	17.7	41.48S	174.01E	33	2.5	0.1	7	5
11691	AUG	22	1804	42.4	41.46S	173.94E	42	4.2F	0.2	26	20

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11692	AUG	22	1939	18.4	41.48S	174.02E	33	2.6	0.1	6	4
11703	AUG	22	2151	56.4	41.46S	173.95E	37	3.2	0.2	22	17
11706	AUG	23	0015	55.6	41.08S	174.06E	56	2.5	0.1	10	7
11709	AUG	23	0257	39.5	41.49S	173.97E	37	2.7	0.2	10	8
11712	AUG	23	0355	1.9	41.55S	173.78E	52	2.8	0.1	7	5
11714	AUG	23	0500	37.9	40.99S	174.77E	32	2.6	0.0	8	6
11728	AUG	23	1641	52.3	41.55S	173.91E	44	2.5	0.2	10	8
11736	AUG	24	0224	32.8	41.29S	175.27E	27	2.2	0.1	9	7
11741	AUG	24	0600	14.0	41.48S	173.96E	38	2.0	0.2	11	8
11749	AUG	24	1423	13.2	41.49S	173.89E	45	2.2	0.3	12	10
11752	AUG	24	1608	31.3	42.00S	173.97E	14	2.2	0.3	10	7
11753	AUG	24	1613	38.2	40.92S	175.43E	15	2.0	0.2	12	9
11765	AUG	24	2248	49.9	40.93S	175.57E	10	3.5F	0.3	26	21
11768	AUG	25	0041	12.8	41.16S	174.48E	37	2.0	0.2	10	9
11770	AUG	25	0154	1.0	40.81S	174.86E	104	2.3	0.2	6	5
11771	AUG	25	0208	13.2	41.70S	174.34E	5 R	2.5	0.3	16	12
11778	AUG	25	0629	2.7	41.47S	173.94E	39	2.3	0.2	9	8
11793	AUG	25	1754	55.2	40.61S	174.35E	49	2.5	0.4	11	8
11794	AUG	25	1805	38.9	41.46S	173.96E	38	2.5	0.2	11	9
11797	AUG	25	2105	8.0	41.64S	174.24E	12 R	2.1	0.2	8	5
11808	AUG	26	0333	46.2	41.11S	174.47E	34	2.7	0.2	15	11
11822	AUG	26	2230	29.6	40.93S	175.53E	25	2.2	0.2	9	7
11826	AUG	27	0135	13.5	41.61S	174.14E	13	2.4	0.2	10	7
11836	AUG	27	1346	59.6	41.01S	174.18E	57	2.7	0.2	15	10
11838	AUG	27	1428	39.7	41.65S	174.34E	5 R	2.6	0.3	15	12
11845	AUG	27	2221	5.8	40.53S	174.55E	24	3.3	0.3	21	15
11846	AUG	28	0215	13.6	41.69S	174.60E	32	2.8	0.2	14	10
11847	AUG	28	0308	11.2	41.72S	174.29E	31	2.1	0.2	6	5
11848	AUG	28	0331	37.0	41.48S	173.98E	36	2.7	0.1	11	9
11850	AUG	28	0510	56.0	41.51S	175.05E	39	2.7	0.2	14	12
11855	AUG	28	0931	1.6	40.53S	174.37E	87	2.7	0.1	10	7
11857	AUG	28	1016	9.5	40.73S	173.74E	118	3.5	0.2	30	23
11858	AUG	28	1049	33.8	41.84S	173.61E	51	2.7	0.2	13	11
11860	AUG	28	1118	44.3	40.61S	175.86E	31	2.1	0.1	6	4
11862	AUG	28	1316	43.5	40.92S	175.02E	35	2.4	0.2	13	9
11884	AUG	29	0821	44.6	40.93S	174.06E	97	2.7	0.2	9	6
11899	AUG	29	1710	13.5	41.48S	173.89E	43	2.0	0.2	9	7
11912	AUG	30	0018	12.3	40.89S	175.79E	29	2.6	0.2	12	9
11923	AUG	30	0840	22.4	41.45S	173.93E	41	4.0F	0.2	24	18
11959	AUG	31	0709	13.1	40.58S	175.78E	29	2.5	0.2	14	12
11960	AUG	31	0728	21.8	41.50S	173.96E	39	2.2	0.2	13	11
11983	AUG	31	1905	5.7	41.58S	174.33E	27	2.7	0.2	18	13
11985	AUG	31	1944	43.8	40.57S	175.16E	32	2.1	0.2	10	7
11990	AUG	31	2226	18.8	41.39S	174.96E	28	2.5	0.2	18	13
12024	SEP	01	2211	31.0	40.76S	175.11E	34	2.1	0.1	8	6

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12029	SEP	02	0051	56.4	40.53S	174.00E	81	2.5	0.3	11	7
12031	SEP	02	0211	6.5	41.14S	174.64E	32	2.0	0.1	8	6
12033	SEP	02	0632	30.8	40.52S	175.94E	15	2.1	0.2	11	7
12034	SEP	02	0710	1.5	41.63S	174.94E	30	2.0	0.2	9	7
12044	SEP	02	2020	26.9	41.63S	174.19E	5 R	2.5	0.3	11	7
12050	SEP	02	2228	10.0	41.14S	174.66E	33	2.0	0.1	6	5
12056	SEP	03	0252	14.1	41.87S	175.40E	34	2.0	0.0	4	3
12064	SEP	03	0754	8.9	41.00S	175.97E	31	2.8	0.2	15	10
12067	SEP	03	0922	46.1	40.96S	175.58E	31	2.3	0.1	15	11
12068	SEP	03	0931	53.1	41.64S	174.19E	5 R	2.1	0.2	12	9
12070	SEP	03	0943	20.1	40.53S	174.27E	90	2.2	0.1	8	5
12083	SEP	03	1834	14.5	40.94S	175.16E	29	2.0	0.2	9	5
12085	SEP	03	2141	9.6	41.25S	175.34E	27	2.7	0.1	17	10
12093	SEP	04	0441	17.4	41.06S	174.80E	41	2.0	0.2	8	5
12104	SEP	04	0932	36.4	41.95S	174.14E	12 R	2.6	0.4	15	14
12108	SEP	04	1015	58.1	40.73S	174.61E	12 R	2.0	0.3	13	8
12110	SEP	04	1054	51.2	41.39S	175.53E	14	2.2	0.2	15	11
12113	SEP	04	1234	49.5	41.25S	174.89E	31	3.2	0.1	17	13
12123	SEP	04	2048	46.2	40.82S	174.64E	38	2.3	0.1	9	6
12126	SEP	05	0149	33.8	40.84S	175.17E	35	2.3	0.1	10	7
12127	SEP	05	0207	46.2	41.69S	174.26E	22	2.4	0.2	9	7
12132	SEP	05	0543	6.6	41.86S	174.23E	12 R	2.4	0.2	11	9
12133	SEP	05	0804	8.7	41.28S	174.96E	28	2.1	0.1	8	5
12146	SEP	06	0114	26.1	40.97S	174.72E	64	2.3	0.1	10	7
12148	SEP	06	0354	27.9	41.62S	173.54E	82	2.7	0.0	7	6
12165	SEP	06	1517	0.2	40.76S	175.59E	12 R	2.0	0.2	10	8
12176	SEP	07	0051	18.7	40.74S	174.72E	42	2.0	0.1	7	5
12182	SEP	07	0731	7.7	41.11S	173.97E	66	2.6	0.2	7	5
12197	SEP	08	1040	44.2	40.64S	174.53E	40	2.1	0.2	8	5
12207	SEP	08	2311	10.9	40.99S	174.77E	35	2.2	0.1	7	4
12212	SEP	09	0204	49.6	41.26S	175.35E	29	3.6F	0.2	21	15
12213	SEP	09	0206	5.1	41.24S	175.32E	22	2.0	0.2	16	8
12214	SEP	09	0210	10.9	40.85S	175.49E	19	2.7	0.2	17	12
12215	SEP	09	0226	55.1	41.25S	175.34E	27	2.8	0.2	16	11
12216	SEP	09	0229	23.0	41.35S	173.81E	76	2.7	0.1	7	5
12218	SEP	09	0337	49.8	40.72S	175.86E	33	2.1	0.1	7	4
12219	SEP	09	0511	34.8	40.86S	174.74E	65	2.0	0.1	5	3
12225	SEP	09	0854	47.4	41.95S	175.04E	41	2.2	0.1	11	9
12231	SEP	09	1550	16.0	40.53S	174.40E	77	2.3	0.2	7	6
12241	SEP	09	2300	34.3	41.82S	174.13E	12 R	2.6	0.2	14	10
12244	SEP	10	0119	33.0	41.25S	175.34E	27	2.4	0.1	12	8
12257	SEP	10	1150	19.7	40.84S	175.51E	30	3.3	0.1	19	13
12263	SEP	10	1533	22.9	40.73S	174.09E	86	2.6	0.1	8	6
12294	SEP	11	1558	19.6	41.17S	174.74E	31	2.7	0.1	13	9
12298	SEP	11	2249	1.8	41.28S	175.27E	27	2.1	0.1	7	5

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12302	SEP	12	0118	31.1	41.17S	175.66E	17	2.2	0.1	7	5
12311	SEP	12	1201	25.1	41.41S	173.70E	61	3.0	0.2	18	13
12312	SEP	12	1226	27.0	40.75S	174.61E	12 R	2.6	0.2	16	12
12316	SEP	12	1530	10.5	40.87S	174.45E	38	2.4	0.3	12	10
12317	SEP	12	1541	48.2	40.50S	174.59E	17	2.5	0.3	11	8
12318	SEP	12	1603	1.2	40.91S	174.77E	20	3.3F	0.2	21	19
12322	SEP	12	2050	44.1	40.99S	175.35E	25	2.2	0.3	9	8
12327	SEP	13	0235	8.6	41.16S	173.89E	66	2.0	0.2	6	4
12329	SEP	13	0248	47.4	41.16S	174.50E	58	2.2	0.1	9	5
12335	SEP	13	0703	26.8	41.76S	174.24E	12 R	2.2	0.2	10	8
12356	SEP	13	1845	45.7	40.76S	174.04E	75	2.2	0.2	6	4
12365	SEP	13	2201	57.3	41.06S	174.58E	59	2.6	0.1	13	11
12369	SEP	13	2234	52.9	40.90S	175.10E	26	2.3	0.1	10	9
12374	SEP	14	0321	36.5	41.35S	173.75E	73	3.6	0.3	22	19
12379	SEP	14	0638	0.0	40.74S	174.60E	12 R	2.0	0.1	8	5
12382	SEP	14	1042	45.5	41.29S	175.01E	28	2.1	0.1	11	8
12410	SEP	15	1029	49.4	41.46S	173.94E	41	2.8	0.2	17	14
12414	SEP	15	1051	53.3	40.88S	175.69E	30	2.2	0.2	10	7
12419	SEP	15	1448	40.3	40.71S	173.92E	90	3.2	0.2	21	18
12425	SEP	15	1923	56.2	41.00S	174.88E	30	2.5	0.1	9	7
12429	SEP	15	2224	55.9	41.11S	174.45E	36	2.3	0.1	8	7
12430	SEP	15	2245	47.5	41.73S	173.66E	58	2.5	0.2	8	6
12440	SEP	16	0825	41.9	41.34S	174.65E	32	2.0	0.2	9	7
12447	SEP	16	1045	59.0	41.33S	174.65E	31	2.3	0.1	9	7
12457	SEP	16	1236	31.4	41.28S	175.29E	25	2.2	0.1	12	8
12458	SEP	16	1303	47.0	40.65S	174.18E	80	2.7	0.2	8	6
12476	SEP	16	2325	17.9	40.73S	175.83E	30	2.6	0.2	12	9
12490	SEP	17	0844	11.0	41.09S	174.07E	55	2.3	0.2	11	8
12492	SEP	17	1002	6.6	41.25S	175.34E	28	2.2	0.2	12	8
12495	SEP	17	1309	21.5	41.12S	174.29E	66	2.3	0.1	9	7
12514	SEP	18	0421	3.3	41.30S	175.24E	28	2.1	0.1	9	7
12516	SEP	18	0522	41.4	41.30S	175.31E	30	3.2	0.2	18	13
12517	SEP	18	0524	35.1	41.30S	175.32E	30	3.4	0.1	19	14
12523	SEP	18	1034	29.9	40.97S	174.86E	31	2.4	0.1	14	10
12524	SEP	18	1038	30.5	41.30S	175.30E	28	2.9	0.1	15	11
12528	SEP	18	1307	27.8	41.28S	174.82E	23	2.7	0.1	13	9
12530	SEP	18	1434	54.7	40.81S	175.08E	31	2.7	0.1	12	10
12532	SEP	18	1827	42.6	41.35S	173.93E	43	2.4	0.2	10	7
12533	SEP	18	1831	52.3	40.97S	174.71E	34	2.4	0.1	10	6
12538	SEP	18	2342	47.2	41.05S	174.76E	57	2.0	0.1	7	4
12542	SEP	19	0343	49.8	40.98S	175.55E	27	2.0	0.1	10	7
12549	SEP	19	1144	36.6	40.78S	175.11E	29	3.1	0.2	19	15
12550	SEP	19	1215	39.8	40.82S	174.72E	15	2.9	0.2	16	12
12551	SEP	19	1216	9.9	40.75S	174.67E	12 R	2.3	0.9	4	3
12560	SEP	19	1838	47.0	40.96S	174.31E	42	2.8	0.1	13	11

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12567	SEP	20	0047	14.5	41.47S	173.95E	41	3.8F	0.2	26	21
12569	SEP	20	0248	27.0	41.71S	174.51E	30	2.1	0.2	8	7
12571	SEP	20	0326	25.3	41.28S	175.24E	27	2.2	0.1	10	7
12581	SEP	20	0859	28.3	41.13S	174.47E	37	2.6	0.1	14	12
12586	SEP	20	1238	23.6	41.26S	175.35E	30	3.3	0.2	18	14
12587	SEP	20	1239	28.2	41.25S	175.34E	27	2.0	0.1	12	9
12589	SEP	20	1259	53.9	41.26S	175.34E	29	2.7	0.2	17	13
12599	SEP	20	1654	29.1	41.83S	174.52E	37	2.6	0.2	17	13
12601	SEP	20	1741	26.6	40.54S	174.38E	29	2.8	0.2	12	9
12602	SEP	20	1750	47.8	41.13S	174.47E	35	3.0	0.1	14	12
12607	SEP	21	0107	12.0	40.54S	174.75E	30	2.4	0.2	9	6
12613	SEP	21	0223	20.6	40.90S	175.93E	32	2.2	0.3	9	7
12617	SEP	21	0637	43.3	40.82S	175.64E	21	2.0	0.2	8	7
12618	SEP	21	0748	50.9	40.57S	175.94E	22	2.6	0.2	12	8
12619	SEP	21	0802	12.5	40.77S	175.10E	31	2.4	0.2	12	9
12622	SEP	21	0941	18.6	41.19S	175.78E	18	2.1	0.3	9	7
12623	SEP	21	0958	1.5	40.51S	175.94E	22	2.4	0.2	10	7
12627	SEP	21	1325	53.5	41.87S	173.61E	44	2.4	0.1	10	8
12641	SEP	21	1955	10.0	40.78S	174.06E	87	2.8	0.2	11	8
12642	SEP	21	2211	12.9	41.12S	174.46E	34	2.7	0.1	11	9
12647	SEP	22	0128	3.8	40.53S	175.33E	30	2.7	0.2	12	9
12649	SEP	22	0421	31.7	40.54S	175.37E	32	2.3	0.2	8	6
12665	SEP	22	1444	39.9	40.72S	175.87E	29	3.4	0.4	22	18
12677	SEP	23	0024	51.3	40.71S	175.34E	29	2.4	0.2	13	9
12678	SEP	23	0051	55.8	41.28S	174.76E	29	2.1	0.1	7	5
12679	SEP	23	0110	25.4	40.51S	175.98E	41	2.8	0.2	17	14
12684	SEP	23	0213	37.9	40.96S	175.58E	27	2.1	0.1	9	7
12685	SEP	23	0315	40.0	40.75S	173.82E	80	2.5	0.2	8	6
12691	SEP	23	0838	56.9	40.75S	174.51E	26	2.3	0.2	13	8
12696	SEP	23	1536	46.6	40.56S	174.18E	95	2.8	0.1	9	8
12705	SEP	23	2144	41.9	40.82S	174.81E	5 R	2.0	0.2	9	7
12706	SEP	23	2148	4.0	40.60S	174.34E	29	2.6	0.2	9	7
12714	SEP	24	1241	42.4	40.58S	173.80E	12 R	2.5	0.3	11	8
12718	SEP	24	1836	12.0	41.46S	173.95E	40	2.5	0.2	15	12
12724	SEP	24	2221	31.6	40.60S	175.94E	32	2.7	0.2	9	6
12731	SEP	25	0351	18.3	40.83S	175.49E	25	2.0	0.1	8	6
12738	SEP	25	0747	17.8	40.83S	174.83E	62	2.1	0.0	6	4
12744	SEP	25	1145	57.4	40.87S	175.15E	25	3.2	0.2	23	18
12749	SEP	25	1610	23.2	40.59S	173.51E	177	2.9	0.1	11	8
12751	SEP	25	1725	6.5	40.96S	175.58E	30	2.6	0.1	13	10
12779	SEP	26	1203	58.3	40.98S	175.57E	14	2.1	0.1	10	7
12780	SEP	26	1215	52.8	40.71S	175.48E	29	2.7	0.2	14	12
12784	SEP	26	1308	38.2	41.29S	173.85E	61	3.0	0.2	15	11
12797	SEP	27	0357	48.9	40.63S	175.48E	29	2.3	0.1	11	8
12803	SEP	27	0946	20.2	40.55S	176.00E	51	3.0	0.3	21	17

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12807	SEP	27	1130	0.9	40.78S	174.50E	23	2.0	0.2	8	6
12818	SEP	27	2227	29.7	41.46S	173.73E	93	2.3	0.0	5	3
12821	SEP	28	0257	28.7	40.62S	174.11E	60	2.6	0.2	10	6
12822	SEP	28	0318	35.6	40.98S	175.95E	31	3.2	0.2	13	11
12823	SEP	28	0349	52.9	40.99S	173.91E	66	2.4	0.2	9	6
12825	SEP	28	0522	35.4	41.29S	174.83E	28	2.2	0.1	8	7
12836	SEP	28	1443	45.7	41.30S	175.20E	26	2.6	0.2	19	14
12837	SEP	28	1532	10.7	41.10S	174.19E	52	2.9	0.3	17	13
12859	SEP	29	0121	56.4	41.49S	173.99E	37	2.6	0.2	13	11
12866	SEP	29	0431	16.7	41.14S	173.72E	60	2.3	0.3	9	6
12874	SEP	29	1223	15.0	41.01S	175.44E	33 R	2.5	0.2	6	5
12881	SEP	29	1811	48.3	41.68S	174.38E	5 R	2.3	0.2	9	7
12882	SEP	29	1852	38.0	41.70S	174.39E	10	2.0	0.1	11	9
12892	SEP	30	0019	18.0	40.88S	175.78E	28	2.2	0.2	11	8
12893	SEP	30	0027	58.2	41.10S	174.69E	32	2.2	0.1	8	7
12901	SEP	30	1032	39.8	41.00S	175.26E	25	2.2	0.1	9	7
12904	SEP	30	1427	17.3	41.64S	174.19E	5 R	2.9	0.2	20	16
12905	SEP	30	1444	34.0	41.66S	174.22E	5 R	2.2	0.2	10	8
12906	SEP	30	1510	12.7	41.69S	174.20E	12 R	2.4	0.2	11	8
12911	SEP	30	1913	40.9	41.64S	174.20E	5 R	2.7	0.3	17	14
12912	SEP	30	1916	7.6	41.66S	174.22E	5 R	2.2	0.2	10	8
12915	SEP	30	1923	40.8	41.64S	174.20E	5 R	2.7	0.2	17	15
12918	OCT	01	0031	41.3	41.66S	174.56E	23	2.1	0.2	7	6
12920	OCT	01	0255	27.9	41.11S	175.70E	14	2.8	0.1	12	10
12921	OCT	01	0348	17.0	41.65S	174.18E	5 R	4.5F	0.3	22	17
12922	OCT	01	0348	38.3	41.66S	174.21E	5 R	4.2	0.4	10	9
12923	OCT	01	0349	32.6	41.67S	174.24E	5 R	3.2	0.3	15	12
12924	OCT	01	0351	25.8	41.66S	174.23E	5 R	2.1	0.2	6	5
12925	OCT	01	0352	51.9	41.73S	173.98E	5 R	2.5F	0.3	10	7
12926	OCT	01	0354	42.9	41.64S	174.19E	5 R	4.4F	0.3	22	19
12927	OCT	01	0357	30.2	41.65S	174.25E	5 R	2.4	0.3	14	12
12928	OCT	01	0401	13.6	41.65S	174.22E	5 R	2.5	0.3	15	12
12929	OCT	01	0401	55.4	41.66S	174.20E	5 R	3.6F	0.2	22	16
12930	OCT	01	0403	6.6	41.66S	174.25E	5 R	2.3	0.3	11	9
12931	OCT	01	0404	4.7	41.65S	174.23E	5 R	2.7	0.4	17	14
12932	OCT	01	0405	23.7	41.65S	174.22E	5 R	2.9	0.3	18	16
12933	OCT	01	0405	32.8	41.67S	174.22E	5 R	3.7F	0.3	23	17
12934	OCT	01	0407	7.7	41.65S	174.23E	5 R	2.3	0.2	10	8
12935	OCT	01	0409	6.2	41.65S	174.23E	5 R	2.4	0.3	13	10
12936	OCT	01	0418	20.2	41.65S	174.21E	5 R	2.3	0.3	13	11
12937	OCT	01	0420	23.7	41.65S	174.22E	5 R	2.2	0.3	13	10
12938	OCT	01	0430	59.5	41.65S	174.22E	5 R	2.5	0.3	11	9
12939	OCT	01	0432	35.0	41.67S	174.22E	8	2.4	0.2	13	11
12940	OCT	01	0449	25.5	41.64S	174.18E	5 R	3.1	0.3	19	16
12941	OCT	01	0452	13.9	41.64S	174.21E	5 R	2.4	0.3	16	12

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12944	OCT	01	0507	26.8	41.66S	174.21E	5 R	3.5	0.3	20	17
12945	OCT	01	0513	8.7	41.63S	174.20E	5 R	2.9	0.3	15	12
12947	OCT	01	0539	43.1	41.65S	174.22E	5 R	2.5	0.3	15	13
12948	OCT	01	0616	9.0	41.66S	174.22E	5 R	2.0	0.2	11	8
12949	OCT	01	0627	46.2	41.64S	174.20E	5 R	2.8	0.3	16	14
12951	OCT	01	0924	41.5	41.65S	174.24E	5 R	2.2	0.5	14	11
12952	OCT	01	0935	13.7	41.32S	174.20E	39	3.3F	0.2	23	19
12959	OCT	01	1329	47.1	40.50S	173.80E	100	2.7	0.2	11	8
12962	OCT	01	1520	38.2	41.65S	174.22E	5 R	2.7	0.3	13	10
12963	OCT	01	1700	25.8	41.65S	174.23E	5 R	2.4	0.2	16	12
12965	OCT	01	1736	59.9	41.67S	174.23E	5 R	2.3	0.3	13	10
12966	OCT	01	1822	21.3	40.63S	174.71E	12 R	2.3	0.1	8	6
12967	OCT	01	1826	53.9	41.62S	174.62E	32	2.4	0.2	13	10
12968	OCT	01	1842	29.1	41.69S	174.22E	12 R	2.6	0.2	12	9
12970	OCT	01	1907	47.2	41.66S	174.22E	5 R	2.5	0.4	12	9
12971	OCT	01	1942	47.3	41.02S	174.51E	49	2.4	0.2	10	9
12972	OCT	01	2010	53.2	40.81S	175.09E	31	2.9	0.2	16	14
12982	OCT	02	0208	40.4	41.64S	174.24E	5 R	2.1	0.4	11	9
12986	OCT	02	0303	46.2	41.64S	174.20E	5 R	3.0	0.2	20	17
12987	OCT	02	0318	47.6	41.64S	174.21E	5 R	3.3	0.2	20	17
12992	OCT	02	0457	50.6	41.39S	174.61E	49	2.2	0.1	5	4
13019	OCT	02	2141	10.6	41.15S	175.64E	20	2.1	0.2	7	5
13022	OCT	03	0139	22.6	41.23S	175.44E	34	2.3	0.1	6	4
13027	OCT	03	0703	9.6	41.65S	174.21E	5 R	2.5	0.3	13	11
13028	OCT	03	0923	25.6	41.63S	174.22E	5 R	2.2	0.3	6	6
13030	OCT	03	1207	27.9	41.64S	174.21E	5 R	2.5	0.3	12	11
13032	OCT	03	1325	53.1	41.65S	174.21E	5 R	3.0	0.3	20	18
13033	OCT	03	1358	28.4	41.65S	174.21E	5 R	2.6	0.3	13	12
13034	OCT	03	1518	21.6	41.11S	175.72E	20	3.4	0.2	17	15
13035	OCT	03	1535	20.9	41.11S	175.70E	17	2.5	0.1	12	10
13037	OCT	03	1829	9.9	40.89S	175.29E	27	2.4	0.1	10	8
13038	OCT	03	1913	4.7	40.63S	173.99E	112	2.6	0.1	9	7
13039	OCT	03	2042	58.9	41.66S	174.19E	5 R	2.5	0.3	13	11
13041	OCT	04	0308	26.2	41.12S	174.00E	61	3.0	0.2	10	8
13050	OCT	04	1033	19.3	41.12S	174.53E	61	3.4	0.1	18	14
13053	OCT	04	1109	18.6	41.23S	174.59E	35	2.1	0.2	9	8
13054	OCT	04	1248	45.6	40.72S	174.36E	59	2.7	0.2	9	7
13056	OCT	04	1504	45.1	40.55S	175.33E	33	2.3	0.1	9	6
13058	OCT	04	1728	12.5	41.64S	174.21E	5 R	2.8	0.3	17	15
13059	OCT	04	1915	7.3	41.64S	174.20E	5 R	3.6	0.3	23	18
13062	OCT	04	2259	44.9	41.63S	174.21E	5 R	2.7	0.5	15	12
13069	OCT	05	0342	40.6	41.65S	174.21E	5 R	2.4	0.2	9	8
13071	OCT	05	0504	50.8	41.65S	174.19E	5 R	4.7F	0.2	18	16
13072	OCT	05	0505	48.1	41.63S	174.23E	5 R	3.0	0.2	4	3
13073	OCT	05	0506	28.8	41.64S	174.24E	5 R	2.6	0.4	7	5

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13074	OCT	05	0507	11.8	41.66S	174.21E	5 R	2.9	0.2	15	13
13075	OCT	05	0507	36.1	41.64S	174.20E	5 R	3.0	0.2	9	7
13076	OCT	05	0509	12.6	41.64S	174.22E	5 R	3.1	0.2	17	15
13077	OCT	05	0510	28.4	41.63S	174.20E	5 R	3.8F	0.3	22	17
13078	OCT	05	0520	13.5	41.65S	174.23E	5 R	2.5	0.3	13	11
13079	OCT	05	0522	47.4	41.63S	174.20E	5 R	2.9F	0.3	16	12
13080	OCT	05	0535	25.5	41.74S	174.21E	12 R	2.3F	0.4	10	8
13082	OCT	05	0551	47.3	41.68S	174.20E	12 R	2.4	0.2	11	8
13085	OCT	05	0612	12.1	41.65S	174.23E	5 R	2.8	0.3	14	12
13086	OCT	05	0613	59.2	41.67S	174.23E	5 R	2.6	0.2	13	11
13087	OCT	05	0615	55.8	41.65S	174.20E	5 R	2.9	0.3	13	11
13088	OCT	05	0627	13.3	41.64S	174.21E	5 R	3.0	0.2	18	16
13089	OCT	05	0637	16.0	41.64S	174.22E	5 R	2.9	0.3	15	12
13091	OCT	05	0647	35.2	41.64S	174.23E	5 R	2.5	0.3	10	8
13092	OCT	05	0653	18.3	41.66S	174.22E	5 R	4.4F	0.2	19	16
13094	OCT	05	0719	20.7	41.63S	174.23E	5 R	2.9	0.3	16	14
13095	OCT	05	0738	3.0	41.66S	174.25E	5 R	2.1	0.4	8	7
13096	OCT	05	0903	53.8	41.41S	174.61E	21	2.6	0.2	15	11
13097	OCT	05	1028	58.8	41.64S	174.22E	5 R	2.6	0.3	15	14
13098	OCT	05	1043	16.2	40.83S	175.25E	26	2.6	0.2	12	9
13099	OCT	05	1122	17.5	41.21S	174.51E	35	3.0	0.2	17	13
13100	OCT	05	1131	40.0	41.64S	174.20E	5 R	4.0	0.3	20	18
13101	OCT	05	1132	36.7	41.68S	174.18E	5 R	2.9	0.1	6	4
13102	OCT	05	1134	29.8	41.66S	174.24E	5 R	2.8	0.3	15	14
13103	OCT	05	1137	25.1	41.64S	174.22E	5 R	3.0	0.4	21	16
13104	OCT	05	1152	41.0	41.67S	174.22E	5 R	2.1	0.4	9	7
13105	OCT	05	1232	13.3	41.66S	174.21E	5 R	3.2	0.3	20	17
13107	OCT	05	1233	24.9	41.65S	174.23E	5 R	2.9	0.3	15	13
13108	OCT	05	1243	28.5	41.66S	174.24E	5 R	2.6	0.3	10	9
13110	OCT	05	1308	46.4	41.67S	174.21E	5 R	2.4	0.2	9	8
13111	OCT	05	1308	55.7	41.66S	174.19E	5 R	2.4	0.2	10	8
13112	OCT	05	1328	30.4	41.63S	174.23E	5 R	2.3	0.3	11	9
13114	OCT	05	1440	44.3	41.71S	174.21E	12	2.6	0.4	13	10
13115	OCT	05	1458	49.1	40.87S	175.02E	55	2.1	0.0	8	5
13116	OCT	05	1536	55.5	41.64S	174.24E	5 R	2.4	0.2	15	13
13117	OCT	05	1620	17.5	41.65S	174.22E	5 R	3.0	0.3	20	17
13120	OCT	05	1951	31.6	41.02S	174.64E	33	2.2	0.1	10	8
13125	OCT	05	2303	10.9	41.23S	174.22E	35	2.3	0.1	9	6
13129	OCT	06	0430	8.8	41.64S	174.22E	5 R	2.6	0.2	14	12
13135	OCT	06	0941	11.6	41.63S	174.21E	5 R	3.4	0.3	19	17
13136	OCT	06	0941	46.7	41.67S	174.21E	5 R	2.7	0.3	8	6
13141	OCT	06	1646	44.9	41.10S	175.48E	28	3.3	0.2	18	14
13144	OCT	06	1851	48.3	40.90S	174.20E	50	2.5	0.2	12	11
13160	OCT	07	1415	56.3	41.68S	174.24E	5 R	2.1	0.3	12	11
13162	OCT	07	1429	9.2	41.65S	174.23E	5 R	2.6	0.4	16	13

NUM	DATE		TIME		LAT	LONG	DEP	MAG	Rsd	NP	NS
13165	OCT	07	1501	0.7	41.66S	174.24E	5 R	2.4	0.3	14	12
13175	OCT	07	2001	3.0	40.94S	174.47E	53	2.5	0.1	10	7
13178	OCT	07	2127	37.4	41.67S	174.25E	5 R	2.6	0.4	12	9
13184	OCT	08	0440	17.2	40.69S	173.61E	142	2.9	0.1	9	7
13199	OCT	08	1126	0.7	40.51S	174.39E	86	3.1	0.2	24	20
13207	OCT	08	1457	11.8	41.65S	174.23E	5 R	2.7	0.4	13	10
13210	OCT	08	1545	17.4	40.74S	175.05E	36	2.5	0.1	9	7
13220	OCT	08	2028	29.6	41.67S	174.25E	5 R	2.7	0.2	9	7
13313	OCT	09	1838	50.8	41.94S	174.23E	12 R	2.5	0.2	13	10
13321	OCT	09	2317	0.2	40.96S	175.59E	33	2.1	0.2	11	9
13327	OCT	10	0250	44.0	41.68S	174.20E	10	3.3	0.3	20	15
13330	OCT	10	0442	25.2	41.56S	174.04E	69	3.0	0.1	15	12
13331	OCT	10	0457	51.7	41.65S	174.24E	5 R	2.7	0.4	14	12
13349	OCT	10	1928	25.7	40.51S	174.73E	25	2.2	0.2	13	8
13362	OCT	11	0238	56.3	41.64S	174.21E	5 R	2.1	0.3	13	10
13378	OCT	11	0840	43.0	41.83S	174.39E	5 R	2.7	0.4	14	11
13381	OCT	11	1232	21.9	41.64S	174.23E	5 R	2.6	0.3	16	13
13382	OCT	11	1249	59.0	41.19S	173.57E	90	3.0	0.2	14	10
13392	OCT	11	1919	33.3	40.57S	174.67E	37	3.0	0.2	17	14
13399	OCT	11	2109	2.5	41.63S	174.19E	5 R	2.2	0.3	10	7
13403	OCT	11	2316	19.8	41.79S	174.35E	12 R	2.6	0.2	13	11
13404	OCT	11	2335	39.3	41.83S	174.40E	5 R	2.4	0.3	10	9
13420	OCT	12	0516	21.7	41.51S	173.69E	55	2.7	0.2	13	10
13421	OCT	12	0538	24.4	41.15S	175.55E	25	2.1	0.2	11	7
13426	OCT	12	0827	18.6	41.21S	173.60E	93	3.1	0.3	11	9
13465	OCT	12	2336	35.7	40.79S	175.58E	31	2.1	0.2	8	5
13467	OCT	12	2345	12.0	41.06S	174.25E	55	2.8	0.2	11	9
13470	OCT	13	0404	41.3	40.88S	174.74E	51	3.0	0.2	13	10
13477	OCT	13	1153	36.4	41.58S	174.54E	14	2.4	0.3	16	12
13478	OCT	13	1229	37.2	41.66S	174.39E	5 R	2.4	0.3	14	11
13492	OCT	13	2317	28.9	41.06S	174.30E	66	2.5	0.2	11	9
13496	OCT	14	0531	51.6	40.83S	175.22E	53	2.3	0.1	8	5
13498	OCT	14	0631	43.2	40.59S	174.71E	29	2.0	0.1	8	6
13499	OCT	14	0703	59.7	41.25S	175.79E	23	3.5	0.2	21	16
13505	OCT	14	1904	15.3	40.94S	175.15E	28	2.0	0.1	7	5
13508	OCT	14	2222	55.0	40.74S	174.62E	12 R	2.5	0.3	12	9
13509	OCT	14	2342	38.2	41.47S	174.21E	38	2.7	0.2	8	14
13512	OCT	15	0150	8.1	40.97S	175.43E	27	2.0	0.1	9	7
13527	OCT	15	1535	39.0	40.99S	175.61E	27	2.1	0.1	10	7
13530	OCT	15	1606	44.3	40.70S	175.56E	31	2.2	0.2	9	7
13533	OCT	15	1747	29.8	40.68S	175.84E	36	3.0	0.2	14	13
13538	OCT	15	2054	26.1	40.77S	174.83E	36	2.5	0.2	11	8
13539	OCT	15	2202	47.9	41.75S	173.79E	47	2.7	0.4	15	10
13543	OCT	16	0200	54.2	40.75S	174.99E	35	2.3	0.1	12	8
13551	OCT	16	0631	27.7	41.66S	174.38E	5 R	2.8	0.3	17	15

NUM	DATE		TIME		LAT	LONG	DEP	MAG	Rsd	NP	NS
13561	OCT	16	1226	50.6	41.62S	175.35E	24	2.0	0.1	8	6
13562	OCT	16	1324	33.7	41.67S	174.38E	5 R	2.2	0.3	13	10
13563	OCT	16	1405	24.1	40.53S	174.72E	27	2.3	0.3	13	10
13578	OCT	17	0414	36.6	40.55S	175.96E	20	2.6	0.4	12	10
13583	OCT	17	1100	44.5	41.14S	174.46E	34	2.1	0.2	10	9
13607	OCT	18	1132	48.9	41.43S	174.17E	50	3.7F	0.2	29	22
13612	OCT	18	1326	17.0	41.58S	174.66E	31	2.0	0.0	6	5
13614	OCT	18	1713	52.9	41.07S	174.58E	35	2.5	0.1	14	12
13615	OCT	18	1714	35.9	41.06S	174.57E	34	2.1	0.1	8	7
13616	OCT	18	1722	35.5	40.86S	175.63E	21	2.2	0.2	11	8
13625	OCT	19	0224	51.6	41.26S	175.32E	28	2.7	0.1	15	10
13627	OCT	19	0438	29.6	41.65S	174.22E	5 R	2.8	0.3	16	13
13628	OCT	19	0456	0.9	41.57S	174.16E	5 R	2.9	0.3	21	18
13639	OCT	19	2016	32.4	40.84S	174.87E	50	2.0	0.1	7	5
13642	OCT	19	2242	13.2	40.89S	175.01E	34	2.0	0.1	8	6
13650	OCT	20	1323	40.5	41.51S	175.50E	22	2.3	0.2	11	9
13651	OCT	20	1331	11.7	41.31S	174.21E	32	2.4	0.3	12	8
13661	OCT	20	1909	43.7	41.04S	175.51E	21	2.2	0.2	15	10
13662	OCT	20	1936	1.1	41.65S	173.58E	63	3.1	0.2	16	13
13668	OCT	20	2138	11.3	41.13S	173.95E	60	3.0	0.3	19	15
13678	OCT	21	0221	20.1	40.53S	175.42E	30	2.2	0.3	10	8
13696	OCT	21	1830	35.9	41.07S	175.52E	13	3.5F	0.2	21	17
13697	OCT	21	1840	22.0	41.05S	175.50E	12	2.0	0.3	11	9
13699	OCT	21	2123	24.3	40.90S	175.72E	31	2.2	0.1	8	6
13701	OCT	21	2234	48.9	40.92S	175.67E	30	2.8	0.2	16	11
13703	OCT	21	2340	4.7	41.13S	174.40E	59	2.0	0.1	7	6
13705	OCT	22	0321	26.2	41.84S	173.76E	52	2.1	0.2	10	8
13708	OCT	22	0657	48.1	40.89S	175.06E	28	3.0	0.2	18	16
13709	OCT	22	0713	7.2	41.02S	174.78E	32	2.0	0.2	11	10
13732	OCT	22	2054	28.3	40.51S	174.75E	25	3.0	0.2	21	18
13750	OCT	23	1247	55.0	40.74S	174.65E	17	2.3	0.3	12	9
13752	OCT	23	1458	37.7	40.67S	174.01E	97	2.9	0.2	16	12
13754	OCT	23	1841	57.1	41.15S	174.65E	31	2.2	0.1	8	7
13764	OCT	24	0915	12.8	41.07S	175.12E	29	3.0	0.2	18	14
13769	OCT	24	1339	44.7	40.52S	174.74E	25	2.9	0.1	20	16
13772	OCT	24	1501	50.0	41.47S	174.27E	35	2.6	0.2	16	12
13775	OCT	24	1951	1.1	41.54S	175.91E	24	2.1	0.3	8	6
13776	OCT	24	2013	51.4	40.58S	174.22E	31	2.4	0.2	8	6
13781	OCT	24	2215	52.1	41.64S	174.22E	5 R	3.2	0.3	24	19
13783	OCT	24	2244	4.5	40.69S	175.33E	31	2.1	0.2	10	7
13797	OCT	25	0828	15.8	41.60S	174.49E	5 R	2.0	0.2	9	8
13798	OCT	25	0857	52.3	41.07S	174.80E	30	3.7F	0.2	20	17
13799	OCT	25	0859	52.5	41.05S	174.77E	31	2.7	0.1	13	9
13800	OCT	25	0924	49.5	41.05S	174.78E	30	2.1	0.1	8	7
13804	OCT	25	1402	31.9	40.57S	174.36E	85	3.1	0.3	17	13

NUM	DATE		TIME		LAT	LONG	DEP	MAG	Rsd	NP	NS
13805	OCT	25	1507	37.6	40.60S	174.53E	74	3.4	0.2	20	14
13806	OCT	25	1730	44.0	41.06S	174.79E	30	3.0	0.2	18	14
13813	OCT	26	0036	6.4	41.29S	175.25E	28	2.0	0.1	10	6
13814	OCT	26	0040	40.5	41.29S	175.25E	28	2.0	0.1	11	7
13815	OCT	26	0122	32.1	41.08S	174.49E	48	2.4	0.0	9	7
13817	OCT	26	0147	6.2	40.67S	173.89E	79	2.7	0.2	11	7
13819	OCT	26	0516	40.7	41.08S	175.19E	26	2.2	0.1	9	7
13825	OCT	26	0812	26.6	40.50S	174.11E	64	2.2	0.3	10	7
13833	OCT	26	1142	9.1	41.30S	175.00E	25	2.2	0.0	13	9
13836	OCT	26	1300	16.4	41.99S	173.89E	14	2.6	0.3	15	12
13840	OCT	26	1519	34.6	40.81S	174.86E	60	2.3	0.1	11	9
13860	OCT	26	2214	2.5	40.70S	174.49E	5 R	2.1	0.1	8	5
13862	OCT	26	2245	9.5	41.15S	174.08E	53	2.1	0.3	9	7
13865	OCT	27	0018	52.4	41.15S	173.66E	64	2.4	0.3	12	8
13878	OCT	27	1130	51.1	41.87S	174.02E	19	2.9	0.3	19	14
13879	OCT	27	1131	59.6	41.30S	173.76E	52	2.3	0.1	7	5
13881	OCT	27	1239	33.2	40.79S	175.05E	33	2.3	0.1	6	5
13888	OCT	27	1714	0.1	41.28S	173.58E	68	3.0	0.2	10	8
13902	OCT	28	0239	31.3	41.15S	174.64E	30	2.0	0.1	8	7
13905	OCT	28	0356	10.9	41.46S	173.62E	79	2.6	0.2	10	7
13915	OCT	28	0918	5.8	41.71S	174.52E	12 R	2.2	0.4	10	8
13929	OCT	28	1938	11.2	40.93S	174.40E	45	2.0	0.1	7	4
13930	OCT	28	1946	44.6	40.97S	174.64E	37	2.2	0.1	8	6
13949	OCT	29	0615	37.8	40.76S	174.21E	51	2.1	0.3	8	6
13955	OCT	29	0834	17.7	41.61S	174.33E	5 R	2.3	0.2	12	10
13956	OCT	29	0839	11.5	41.70S	174.24E	11	2.3	0.3	17	12
13960	OCT	29	1117	32.5	40.90S	175.96E	32	2.6	0.2	11	8
13965	OCT	29	1415	39.0	41.35S	174.73E	10	2.0	0.2	13	10
13968	OCT	29	1710	23.5	40.97S	174.54E	61	2.5	0.1	12	10
13974	OCT	29	2236	55.5	40.55S	174.49E	25	2.6	0.3	9	7
13975	OCT	30	0010	10.1	40.77S	173.54E	82	2.5	0.2	7	5
13979	OCT	30	0838	11.7	41.11S	175.44E	12 R	2.6	0.2	8	5
13987	OCT	30	1725	55.8	41.17S	174.49E	35	2.1	0.1	9	7
13988	OCT	30	1823	55.5	41.11S	174.47E	39	2.4	0.1	12	10
13994	OCT	31	0533	35.9	41.17S	174.53E	36	3.2	0.2	22	18
13995	OCT	31	0603	14.7	41.74S	174.29E	12 R	2.2	0.2	10	8
13996	OCT	31	0616	18.2	40.89S	175.50E	31	2.2	0.2	9	6
13999	OCT	31	1020	52.7	40.55S	174.10E	66	2.5	0.2	12	9
14000	OCT	31	1148	56.9	41.48S	174.59E	18	2.2	0.2	12	9
14003	OCT	31	1422	32.9	40.51S	174.17E	97	2.3	0.2	10	8
14004	OCT	31	1443	25.0	41.02S	174.51E	67	2.7	0.1	13	11
14009	OCT	31	1942	7.8	41.21S	175.06E	6	2.2	0.1	10	7
14014	OCT	31	2353	35.6	40.58S	174.23E	58	2.1	0.2	8	6
14016	NOV	01	0204	41.3	40.89S	174.76E	54	2.1	0.2	8	7
14027	NOV	01	1033	51.0	41.62S	174.22E	5 R	2.4	0.3	16	12

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14029	NOV 01	1133 43.9	40.87S	174.52E	52	2.1	0.1	10	7
14046	NOV 01	2111 29.0	41.23S	173.68E	88	2.2	0.1	8	6
14047	NOV 01	2156 36.0	41.55S	174.50E	52	2.0	0.1	9	8
14048	NOV 01	2244 23.1	41.46S	174.44E	12 R	2.0	0.2	12	11
14049	NOV 01	2310 12.4	41.06S	174.20E	54	3.1	0.3	16	14
14050	NOV 01	2332 30.2	41.20S	175.20E	18	2.9	0.3	16	12
14051	NOV 02	0001 11.4	41.27S	175.24E	27	2.1	0.1	8	6
14053	NOV 02	0146 46.7	41.09S	174.18E	52	2.0	0.2	8	6
14058	NOV 02	1139 36.6	40.69S	174.89E	12 R	2.0	0.2	8	5
14059	NOV 02	1234 2.4	41.47S	174.00E	35	2.4	0.3	17	13
14061	NOV 02	1553 15.0	41.10S	175.47E	25	2.4	0.1	12	9
14062	NOV 02	1628 22.4	40.88S	175.47E	25	2.0	0.1	8	5
14075	NOV 03	0803 27.1	41.65S	174.21E	5 R	4.1F	0.2	22	19
14076	NOV 03	0814 42.0	41.64S	174.22E	5 R	2.6	0.3	17	15
14077	NOV 03	0855 54.0	41.64S	174.22E	5 R	2.4	0.3	18	16
14078	NOV 03	0931 45.5	41.64S	174.19E	5 R	2.2	0.3	13	12
14080	NOV 03	0959 40.4	41.63S	174.22E	5 R	2.5	0.3	17	16
14082	NOV 03	1032 24.9	41.67S	174.23E	5 R	2.0	0.2	11	9
14086	NOV 03	1458 29.3	40.52S	174.00E	85	2.9	0.2	13	9
14097	NOV 04	0307 29.6	40.66S	175.64E	29	2.6	0.2	13	10
14115	NOV 04	1143 15.9	40.64S	175.35E	30	2.3	0.2	10	8
14123	NOV 04	1552 22.3	41.36S	173.92E	46	2.4	0.3	13	11
14125	NOV 04	2002 20.6	40.64S	175.30E	29	2.8	0.2	15	13
14132	NOV 05	0616 49.6	41.05S	174.83E	58	2.6	0.1	16	11
14151	NOV 05	1708 1.1	41.66S	174.19E	5 R	2.6	0.2	10	8
14169	NOV 06	1057 44.2	40.54S	174.37E	83	3.0	0.2	19	14
14185	NOV 06	1829 10.9	41.26S	174.32E	39	2.6	0.1	11	9
14186	NOV 06	1845 40.6	41.00S	174.53E	61	3.6	0.2	26	20
14194	NOV 06	2358 58.0	41.66S	174.21E	5 R	2.8	0.2	12	11
14200	NOV 07	0743 34.1	40.78S	175.73E	28	2.8	0.1	11	9
14207	NOV 07	1143 44.3	41.84S	174.15E	12 R	3.8	0.3	19	16
14208	NOV 07	1524 32.1	41.91S	174.12E	12 R	2.7	0.2	9	7
14212	NOV 07	1955 40.5	41.01S	175.60E	26	2.9	0.1	15	11
14213	NOV 07	2143 51.3	41.56S	174.49E	27	2.2	0.1	9	8
14215	NOV 07	2237 39.6	41.48S	174.93E	24	2.2	0.2	11	8
14221	NOV 08	0214 14.3	41.02S	174.25E	39	2.2	0.2	7	5
14225	NOV 08	0749 44.4	41.66S	174.50E	30	2.3	0.1	8	6
14227	NOV 08	0820 14.8	41.82S	174.16E	12 R	2.8	0.2	13	11
14236	NOV 08	1803 35.0	40.56S	175.51E	26	2.5	0.2	7	6
14242	NOV 09	0434 31.8	41.37S	175.60E	19	2.0	0.2	11	6
14255	NOV 09	1427 57.7	41.02S	174.33E	42	3.0	0.2	17	14
14257	NOV 09	1652 35.7	41.17S	175.82E	30	2.7	0.2	13	9
14260	NOV 09	1953 57.0	40.79S	175.95E	30	2.3	0.3	6	5
14266	NOV 10	0857 18.2	41.68S	174.60E	26	2.8	0.1	14	11
14268	NOV 10	1008 3.9	41.54S	175.35E	25	3.5	0.3	16	13

NUM	DATE		TIME		LAT	LONG	DEP	MAG	Rsd	NP	NS
14269	NOV	10	1009	13.8	41.51S	175.36E	20	2.3	0.3	14	10
14279	NOV	10	1845	19.6	40.92S	175.66E	24	2.1	0.1	10	7
14283	NOV	10	2224	2.9	40.57S	175.94E	31	2.7	0.2	11	7
14291	NOV	11	0607	30.7	40.85S	175.73E	31	2.2	0.2	9	6
14293	NOV	11	0913	0.4	41.11S	175.04E	30	2.9	0.1	12	8
14294	NOV	11	1219	42.3	41.27S	175.31E	28	2.6	0.1	10	8
14302	NOV	11	2302	46.7	41.12S	175.68E	16	2.2	0.1	9	6
14316	NOV	12	1500	18.6	40.77S	174.87E	37	2.6	0.1	9	7
14317	NOV	12	1804	5.1	40.61S	174.39E	126	2.7	0.4	8	6
14318	NOV	13	0015	12.2	41.30S	175.27E	26	2.0	0.1	9	7
14322	NOV	13	0245	2.3	40.50S	174.79E	27	2.2	0.2	7	6
14323	NOV	13	0359	44.7	41.72S	174.11E	11	2.2	0.2	13	10
14329	NOV	13	1654	20.0	41.48S	174.03E	40	2.4	0.2	9	7
14331	NOV	13	1854	31.4	40.84S	175.20E	30	2.2	0.2	9	7
14348	NOV	14	1732	10.3	41.02S	175.54E	22	2.4	0.1	10	9
14351	NOV	15	0025	19.6	41.27S	175.23E	25	2.1	0.1	10	7
14352	NOV	15	0046	18.6	41.46S	174.93E	26	2.2	0.1	9	7
14358	NOV	15	1143	12.1	41.12S	175.34E	23	2.4	0.2	13	10
14366	NOV	15	1736	6.3	40.61S	174.59E	21	2.0	0.2	8	6
14406	NOV	17	0328	19.2	40.85S	175.45E	24	2.0	0.1	9	6
14407	NOV	17	0639	45.1	40.86S	174.97E	32	2.6	0.1	11	8
14410	NOV	17	1027	6.0	41.39S	174.98E	25	2.1	0.0	8	6
14411	NOV	17	1118	21.6	40.67S	174.41E	53	2.4	0.2	9	7
14413	NOV	17	1249	27.1	41.26S	175.31E	27	2.9	0.1	12	9
14421	NOV	17	2354	56.8	40.98S	174.62E	49	2.3	0.1	7	4
14426	NOV	18	0648	9.9	41.66S	174.20E	5 R	2.4	0.3	9	8
14430	NOV	18	0928	21.7	40.66S	173.70E	95	2.6	0.1	10	6
14442	NOV	18	1912	28.6	40.88S	174.77E	15	2.0	0.1	7	5
14451	NOV	19	0414	27.2	40.87S	174.72E	19	2.6	0.2	12	9
14460	NOV	19	1715	8.1	40.65S	174.65E	12 R	2.4	0.2	8	6
14467	NOV	20	0131	1.8	40.74S	174.72E	5 R	2.8	0.2	9	6
14468	NOV	20	0303	55.0	40.91S	173.70E	71	3.1	0.3	13	8
14481	NOV	21	0307	46.1	41.07S	174.54E	41	2.8	0.2	15	11
14482	NOV	21	0342	51.0	41.99S	174.22E	5 R	3.1	0.3	20	15
14487	NOV	21	0816	18.9	41.02S	175.38E	30	2.3	0.2	11	8
14491	NOV	21	1401	52.2	41.50S	174.50E	29	2.3	0.2	16	12
14495	NOV	21	1905	25.8	41.17S	174.62E	32	2.1	0.1	10	8
14497	NOV	21	1959	49.5	41.36S	174.55E	52	2.6	0.2	8	5
14504	NOV	22	0611	45.5	41.24S	174.39E	59	2.5	0.1	9	7
14515	NOV	22	1531	4.5	40.79S	175.09E	28	2.3	0.1	13	10
14530	NOV	23	0752	35.9	41.28S	175.19E	22	2.6	0.3	14	11
14534	NOV	23	0853	32.0	41.61S	173.58E	78	3.1	0.2	16	12
14547	NOV	23	1539	14.9	41.01S	175.41E	28	2.7	0.1	10	8
14562	NOV	24	1256	15.4	40.87S	174.73E	12 R	2.1	0.1	11	10
14575	NOV	24	2139	52.5	41.42S	173.75E	53	2.7	0.1	9	6

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
14581	NOV 25	0918 40.0	41.13S	174.46E	33	2.3	0.3	10	9
14582	NOV 25	1239 27.1	40.81S	175.48E	28	2.2	0.2	11	9
14593	NOV 25	1820 48.2	41.30S	175.26E	29	2.1	0.3	13	10
14596	NOV 25	2301 27.8	41.66S	173.91E	12 R	2.1	0.2	7	6
14598	NOV 25	2311 35.6	40.92S	175.25E	19	2.3	0.3	12	10
14609	NOV 26	1056 52.7	40.86S	175.13E	31	2.3	0.2	13	10
14612	NOV 26	1245 10.4	41.91S	174.56E	31	2.6	0.2	16	12
14615	NOV 26	1704 25.7	41.63S	174.81E	25	2.1	0.2	9	7
14634	NOV 27	1007 8.3	41.47S	174.39E	31	2.1	0.2	11	10
14635	NOV 27	1020 10.3	41.18S	175.78E	19	2.0	0.2	7	6
14638	NOV 27	1506 29.7	40.73S	174.56E	5 R	2.5	0.3	12	10
14639	NOV 27	1645 22.0	40.89S	175.30E	29	2.2	0.3	11	7
14642	NOV 27	2020 41.5	41.35S	174.37E	37	3.5	0.3	21	16
14647	NOV 28	0239 33.7	41.18S	173.99E	50	2.6	0.2	11	8
14648	NOV 28	0320 51.7	40.63S	173.74E	104	3.6	0.3	23	16
14656	NOV 28	1139 11.7	40.92S	175.24E	29	3.1	0.3	18	14
14663	NOV 28	1748 11.7	41.52S	175.70E	30	3.1	0.1	18	14
14669	NOV 28	1937 58.9	41.54S	175.71E	28	2.4	0.2	10	8
14673	NOV 29	0218 14.2	41.85S	174.49E	26	2.6	0.2	12	10
14675	NOV 29	0600 39.5	40.56S	175.88E	33	2.0	0.2	8	7
14676	NOV 29	0801 38.0	41.53S	175.71E	29	2.5	0.1	11	9
14681	NOV 29	1237 4.5	41.05S	174.85E	30	2.8	0.1	16	14
14689	NOV 29	1623 59.9	41.51S	175.69E	29	2.8	0.2	13	11
14692	NOV 29	2103 31.9	41.05S	173.50E	101	5.7F	0.2	19	18
14694	NOV 29	2124 24.7	41.11S	173.50E	96	3.4	0.3	25	18
14695	NOV 29	2147 58.3	41.18S	175.08E	25	3.3	0.2	20	16
14697	NOV 29	2222 6.0	41.34S	174.36E	37	3.6	0.3	20	17
14700	NOV 30	0025 15.4	40.52S	174.18E	67	2.9	0.4	12	9
14702	NOV 30	0132 59.5	40.56S	174.08E	78	2.6	0.3	10	6
14703	NOV 30	0435 29.1	40.79S	174.75E	5 R	2.6	0.3	13	11
14704	NOV 30	0435 34.8	40.86S	174.80E	5 R	3.4	0.3	14	11
14705	NOV 30	0438 15.5	40.81S	174.77E	5 R	3.8	0.4	33	25
14722	NOV 30	2013 41.5	40.90S	174.47E	57	2.5	0.1	8	6
14724	DEC 01	0002 5.3	41.66S	174.64E	31	2.0	0.1	8	6
14743	DEC 01	1618 30.9	40.94S	175.52E	25	2.2	0.2	10	8
14745	DEC 01	1807 12.2	40.86S	174.89E	34	2.6	0.1	11	8
14751	DEC 01	2327 29.2	41.65S	174.18E	9	3.6	0.2	15	11
14752	DEC 01	2328 22.4	41.66S	174.22E	5 R	2.5	0.3	7	5
14753	DEC 01	2329 15.3	41.65S	174.24E	5 R	2.5	0.3	9	7
14754	DEC 01	2337 9.5	41.66S	174.20E	10	2.8	0.3	13	11
14755	DEC 01	2352 51.6	40.91S	174.49E	58	2.0	0.1	5	3
14762	DEC 02	0847 33.8	41.27S	175.14E	17	2.4	0.3	8	6
14765	DEC 02	1321 8.3	41.02S	174.04E	61	2.7	0.1	8	6
14770	DEC 02	2054 10.8	41.36S	174.00E	37	3.1	0.3	14	12
14778	DEC 03	0549 18.2	41.34S	175.37E	10	2.4F	0.2	13	10

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14779	DEC	03	0550	2.1	41.34S	175.38E	11	2.6	0.2	14	10
14792	DEC	03	1821	0.2	40.61S	175.49E	30	2.6	0.2	9	7
14798	DEC	04	0055	59.5	41.41S	174.64E	21	2.1	0.2	6	5
14800	DEC	04	0225	25.3	41.00S	174.95E	54	2.1	0.1	7	5
14801	DEC	04	0308	43.9	41.52S	175.70E	28	2.4	0.1	9	7
14806	DEC	04	0924	16.3	41.10S	173.50E	94	3.0	0.3	14	11
14808	DEC	04	1034	16.5	41.12S	173.83E	57	2.5	0.3	12	9
14809	DEC	04	1038	41.7	40.68S	173.55E	115	2.3	0.1	7	6
14820	DEC	04	1716	55.8	41.52S	175.48E	14	2.1	0.2	11	9
14823	DEC	04	1849	38.4	41.68S	174.21E	12 R	2.3	0.3	11	9
14824	DEC	04	2114	7.4	40.67S	173.72E	92	3.3	0.2	19	12
14831	DEC	05	0614	40.9	41.37S	175.39E	13	2.8	0.2	15	11
14834	DEC	05	0948	2.0	40.72S	175.55E	29	2.6	0.1	11	9
14857	DEC	06	1025	50.6	40.60S	175.89E	29	2.3	0.3	12	10
14858	DEC	06	1029	29.9	41.36S	175.79E	18	2.0	0.3	12	9
14860	DEC	06	1717	13.2	41.81S	173.65E	43	2.6	0.3	16	12
14861	DEC	06	1752	14.2	40.71S	173.91E	80	3.6	0.3	29	28
14863	DEC	06	1845	20.0	40.73S	173.85E	83	2.6	0.2	8	6
14874	DEC	07	0136	30.4	41.28S	173.75E	81	2.3	0.2	8	6
14875	DEC	07	0144	3.6	41.63S	174.25E	14	2.1	0.2	10	7
14876	DEC	07	0413	53.0	41.39S	175.87E	17	2.0	0.1	9	6
14883	DEC	07	1019	55.9	40.95S	175.98E	33	2.2	0.1	11	8
14887	DEC	07	1345	22.0	41.14S	174.64E	31	2.5	0.1	15	12
14893	DEC	07	1718	36.5	40.90S	175.84E	32	2.4	0.2	10	8
14896	DEC	07	2020	47.9	41.53S	175.70E	28	2.0	0.2	10	7
14901	DEC	08	0135	1.5	41.51S	175.70E	27	2.2	0.2	9	7
14906	DEC	08	1606	37.6	40.72S	175.53E	28	2.3	0.1	10	9
14909	DEC	08	2055	54.4	40.71S	175.55E	29	2.8	0.1	12	10
14917	DEC	09	0248	10.4	40.80S	175.50E	30	3.3	0.2	19	15
14927	DEC	09	1147	46.7	41.47S	174.07E	35	2.5	0.3	15	13
14928	DEC	09	1415	36.0	41.03S	175.36E	21	2.1	0.2	8	7
14931	DEC	09	1843	51.1	40.55S	173.50E	133	3.0	0.2	14	10
14936	DEC	09	2306	6.7	40.97S	175.51E	25	3.0	0.3	13	11
14937	DEC	09	2330	9.1	40.96S	175.50E	15	2.5	0.2	12	9
14940	DEC	10	0307	35.4	41.13S	174.47E	35	2.5	0.2	11	8
14946	DEC	10	0531	30.9	41.01S	174.05E	62	2.4	0.2	9	6
14962	DEC	10	1707	14.6	41.76S	174.68E	29	2.4	0.2	12	9
14969	DEC	11	0152	47.2	40.70S	174.86E	20	2.1	0.3	9	7
14970	DEC	11	0430	6.4	40.57S	174.29E	90	3.0	0.2	13	9
14982	DEC	11	1447	43.8	40.81S	175.11E	31	2.4	0.1	11	8
14983	DEC	11	1454	26.1	41.60S	174.62E	28	2.0	0.2	10	9
14997	DEC	11	2105	54.9	40.95S	175.75E	32	2.3	0.2	11	8
14998	DEC	11	2154	26.6	41.73S	174.57E	40	2.5	0.2	11	9
15000	DEC	11	2209	10.4	41.74S	174.71E	29	2.0	0.1	8	7
15002	DEC	12	0115	19.7	41.02S	175.29E	17	2.2	0.2	8	7

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15012	DEC	12	1149	40.0	41.47S	173.80E	56	3.7F	0.2	26	19
15016	DEC	12	1453	54.2	40.92S	174.28E	76	2.5	0.2	11	8
15018	DEC	12	1541	39.3	41.17S	174.19E	42	2.3	0.2	10	8
15022	DEC	12	1640	5.3	41.03S	174.22E	47	2.5	0.1	8	7
15023	DEC	12	1703	2.4	41.02S	174.18E	68	3.2	0.1	15	11
15025	DEC	12	1920	28.0	41.03S	175.17E	39	2.5	0.1	9	7
15061	DEC	13	2002	33.2	40.74S	175.52E	29	2.1	0.1	10	7
15062	DEC	13	2015	43.3	40.56S	175.10E	24	2.0	0.1	7	5
15076	DEC	14	0650	1.1	40.96S	174.90E	31	2.2	0.0	9	7
15078	DEC	14	0729	39.5	40.82S	174.80E	35	3.3	0.2	23	19
15081	DEC	14	1035	2.1	40.99S	173.91E	72	2.3	0.1	7	6
15084	DEC	14	1249	58.3	40.57S	173.81E	118	2.5	0.2	10	7
15086	DEC	14	1418	13.1	41.00S	173.87E	65	3.4	0.2	20	16
15088	DEC	14	1750	53.5	41.13S	174.71E	30	2.3	0.1	10	8
15092	DEC	14	1958	42.5	40.68S	175.43E	24	2.5	0.2	11	9
15097	DEC	14	2353	30.1	40.50S	174.04E	70	2.4	0.2	7	5
15098	DEC	15	0028	6.1	41.29S	175.31E	28	2.3	0.1	10	7
15099	DEC	15	0310	48.1	41.95S	174.04E	18	2.3	0.2	9	8
15100	DEC	15	0422	20.0	41.63S	174.60E	34	2.5	0.3	11	10
15103	DEC	15	1009	46.6	40.76S	174.43E	48	2.9	0.2	11	10
15105	DEC	15	1123	39.5	40.93S	174.45E	61	2.5	0.2	8	7
15107	DEC	15	1734	32.1	41.14S	175.85E	29	2.2	0.1	9	5
15123	DEC	16	1204	4.1	40.62S	174.89E	12 R	2.5	0.3	12	9
15136	DEC	17	0103	16.2	40.97S	175.26E	26	2.3	0.2	9	7
15138	DEC	17	0639	35.4	40.68S	173.59E	97	3.4	0.3	26	18
15139	DEC	17	0708	17.6	41.04S	174.37E	62	2.7	0.1	11	8
15148	DEC	17	1628	57.0	41.01S	175.60E	26	2.2	0.2	11	8
15151	DEC	17	1815	48.2	40.68S	174.44E	5 R	2.3	0.2	8	6
15153	DEC	17	1958	24.9	41.64S	174.62E	29	2.5	0.2	11	9
15156	DEC	17	2221	15.7	41.25S	175.16E	23	2.0	0.1	7	5
15159	DEC	17	2302	33.8	41.38S	175.45E	16	2.3	0.1	10	8
15277	DEC	18	0442	14.9	41.71S	174.33E	10	2.4	0.2	12	9
15339	DEC	18	0831	40.1	41.02S	174.87E	51	2.5	0.1	6	4
15452	DEC	19	0646	20.7	41.01S	175.42E	21	2.7	0.2	14	10
15453	DEC	19	0927	4.2	41.53S	173.78E	54	2.8	0.2	15	11
15457	DEC	19	1150	50.1	41.41S	174.19E	35	2.1	0.2	12	9
15481	DEC	19	2354	18.1	41.72S	174.57E	32	2.4	0.2	12	9
15491	DEC	20	0933	30.2	41.29S	175.12E	27	2.1	0.1	11	7
15495	DEC	20	1642	48.6	41.31S	174.88E	37	2.4	0.1	14	10
15497	DEC	20	2014	48.8	41.15S	174.98E	34	3.4F	0.2	22	17
15510	DEC	21	1026	45.1	41.29S	175.20E	22	2.6	0.1	18	13
15547	DEC	22	0454	0.7	41.64S	174.65E	30	2.5	0.2	14	11
15562	DEC	22	1749	18.6	40.61S	174.57E	48	2.1	0.2	9	7
15583	DEC	23	1514	28.3	41.05S	174.99E	41	2.8	0.3	16	13
15584	DEC	23	1536	51.5	40.75S	175.05E	39	2.6	0.2	10	7

NUM	DATE		TIME		LAT	LONG	DEP	MAG	Rsd	NP	NS
15585	DEC	23	1541	55.4	40.50S	174.05E	88	2.5	0.4	8	5
15593	DEC	23	2315	25.3	40.85S	174.70E	54	2.8	0.1	10	8
15595	DEC	24	0001	38.6	41.42S	174.98E	40	2.5	0.2	11	8
15599	DEC	24	0622	58.2	41.31S	174.09E	68	2.4	0.2	9	7
15607	DEC	24	2042	11.1	41.65S	174.34E	20	2.5	0.3	17	12
15611	DEC	25	0531	17.6	41.79S	173.94E	29	2.6	0.1	10	8
15627	DEC	26	0456	40.4	40.56S	174.30E	12 R	2.9	0.4	15	13
15628	DEC	26	0509	34.8	40.89S	175.79E	29	2.4	0.2	11	9
15631	DEC	26	0528	32.0	40.79S	174.77E	5 R	2.5	0.3	15	10
15633	DEC	26	0617	49.8	40.81S	174.75E	5 R	2.1	0.3	10	9
15636	DEC	26	0858	6.2	40.95S	174.73E	32	2.9	0.2	19	15
15637	DEC	26	0921	2.5	40.77S	174.80E	5 R	2.3	0.3	12	9
15638	DEC	26	1002	32.2	40.79S	174.76E	5 R	2.9	0.3	13	10
15639	DEC	26	1037	1.9	40.91S	175.49E	24	2.2	0.1	10	7
15642	DEC	26	1258	49.2	40.95S	174.72E	34	2.5	0.1	10	7
15645	DEC	26	1343	2.3	40.67S	175.10E	5 R	2.1	0.3	10	6
15646	DEC	26	1432	16.8	41.09S	174.24E	51	2.5	0.2	16	11
15658	DEC	26	2051	1.4	40.78S	175.05E	37	2.4	0.1	9	6
15663	DEC	27	0139	5.2	41.28S	174.13E	42	3.5	0.2	26	24
15665	DEC	27	0159	0.7	41.64S	174.36E	12	2.6	0.3	14	12
15667	DEC	27	0331	25.6	40.73S	174.72E	5 R	2.0	0.3	8	7
15672	DEC	27	0558	44.9	40.90S	175.49E	25	2.0	0.2	9	7
15677	DEC	27	1011	59.2	41.50S	174.05E	41	2.4	0.1	9	7
15682	DEC	27	1527	16.2	41.45S	175.93E	21	2.3	0.3	6	4
15683	DEC	27	1537	5.5	40.77S	173.97E	95	2.8	0.4	14	10
15697	DEC	28	0859	2.9	40.53S	174.65E	12 R	2.5	0.3	9	8
15699	DEC	28	1122	38.2	40.81S	175.56E	44	2.6	0.2	9	7
15700	DEC	28	1229	5.4	40.76S	174.81E	19	2.5	0.3	16	12
15703	DEC	28	1732	12.5	41.84S	174.64E	38	2.9	0.2	19	15
15710	DEC	28	2129	38.1	41.11S	174.70E	46	2.2	0.1	8	7
15714	DEC	28	2244	42.8	40.86S	174.40E	51	2.7	0.1	10	9
15719	DEC	29	0217	34.9	41.11S	174.50E	35	2.3	0.1	9	7
15748	DEC	29	2148	44.7	41.06S	175.33E	24	2.7	0.1	10	8
15751	DEC	29	2315	15.6	41.48S	174.33E	12 R	2.3	0.3	10	7
15784	DEC	30	2137	45.8	40.77S	174.73E	5 R	2.3	0.2	9	8
15791	DEC	31	0036	31.4	41.48S	174.43E	14	2.2	0.3	12	9
15793	DEC	31	0122	15.5	41.13S	174.50E	36	2.9	0.3	14	12
15814	DEC	31	2044	51.9	41.01S	174.58E	31	2.7	0.3	15	12

NON-INSTRUMENTAL DATA

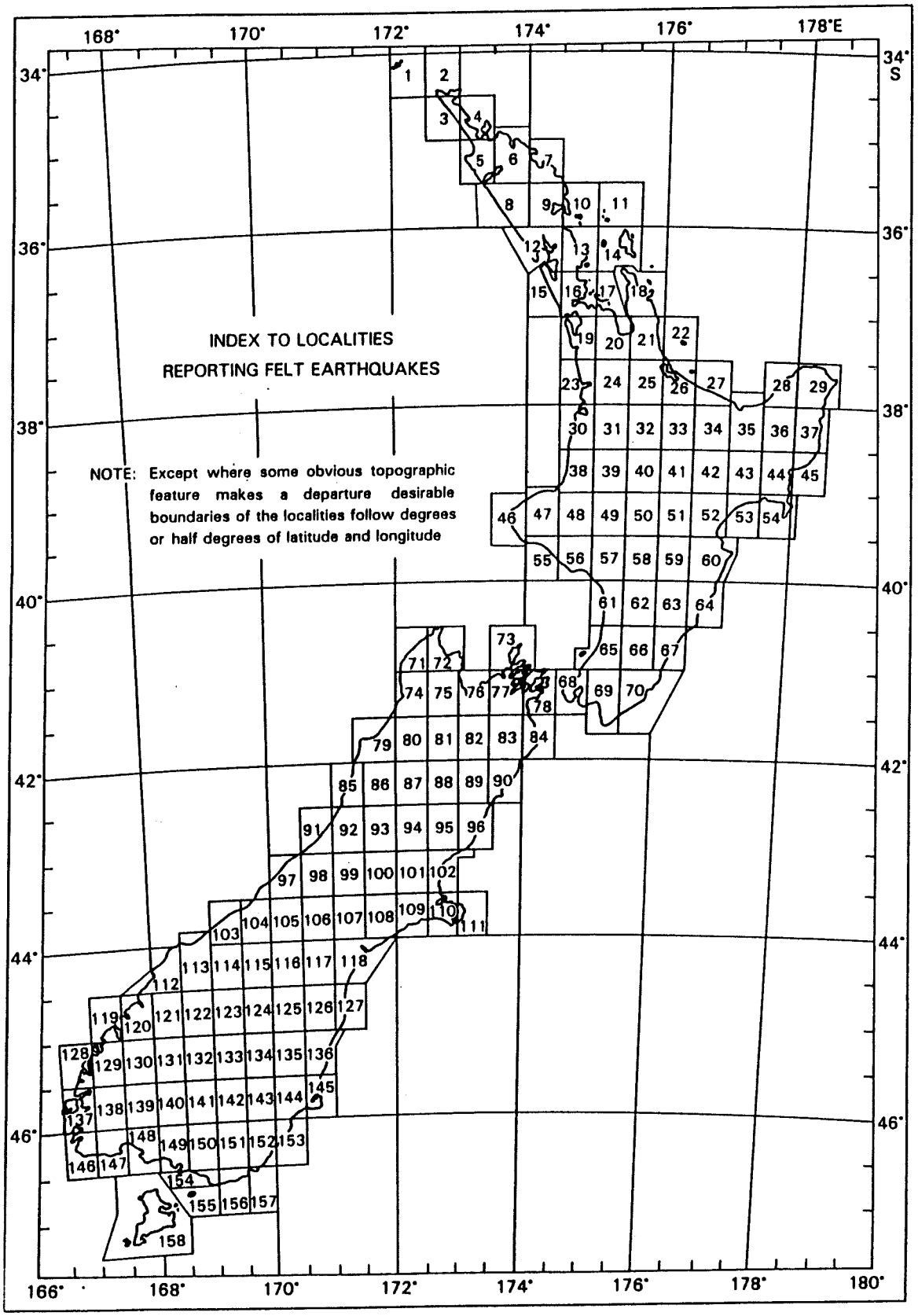
THE FELT REPORTING SYSTEM

The Observatory has recruited a network of about 600 volunteer observers spread throughout the country, who use a standard form to describe the effects of any earthquake they feel. The Observatory also collects casual reports from newspapers, meteorological observers, postmasters and members of the local public. For large earthquakes, or ones with features of special interest, questionnaires are issued and assessed.

Several difficulties arise in assessing the distribution of felt intensity. The population of the country is very unevenly spread, and the observers' personal circumstances may prevent them from feeling a shock that has been noticed by others. These problems also affect lists of earthquakes felt in particular localities. It may reasonably be assumed that a strong earthquake reported from one township was felt in another nearby, even though the Observatory has received no report. However, an index of this kind must summarise data and not deductions, so the following scheme is used.

The land area of New Zealand has been divided into 'localities', mostly bounded by half-degree lines of latitude and longitude, but varied as necessary to avoid splitting obvious geographic or structural units (see map opposite). Each locality has a number and a name, usually that of the principal population centre within it. The names are listed overleaf. In most localities there are at least two well-separated reporters, but there are still some sparsely populated parts of the country without observers, notably in Southland. Felt information is summarised in information lines following the instrumental data in the main list of earthquakes. Modified Mercalli intensities quoted there have been assessed by the Observatory from replies to standard questionnaires. Assessments based on less formal descriptions of intensity are included in the following list, in which the localities which have reported shocks during the year are presented in alphabetical order, each followed by the reference numbers of the shocks felt and their respective maximum reported intensities within that locality. By comparing the reports from neighbouring localities, it is possible to form a truer estimate of the incidence of the felt effects than would be possible from a simple list of places reporting each shock.

A further list records reports received from places in the south-west Pacific.



Standard Reporting Localities.

STANDARD REPORTING LOCALITIES

1	Three Kings	41	Taupo	81	Glenhope	121	Glenorchy
2	Te Reinga	42	Te Whaiti	82	Wairau	122	Arrowtown
3	Ninety Mile Beach	43	Tuai	83	Awatere	123	Wanaka
4	Doubtless Bay	44	Whakapunaki	84	Cape Campbell	124	St Bathans
5	Kaitaia	45	Gisborne	85	Greymouth	125	Kurow
6	Kaikohe	46	Cape Egmont	86	Reefton	126	Duntroon
7	Bay of Islands	47	New Plymouth	87	Maruia	127	Waimate
8	Dargaville	48	Whangamomona	88	Hanmer	128	Secretary Is.
9	Whangarei	49	Ohakune	89	Clarence	129	Doubtful Sound
10	Bream Head	50	Chateau	90	Kaikoura	130	Te Anau
11	Moko Hinau	51	Kaweka	91	Hokitika	131	Livingstone Mts
12	Kaipara	52	Napier	92	Kumara	132	Kingston
13	Warkworth	53	Wairoa	93	Arthur's Pass	133	Alexandra
14	Barrier Islands	54	Mahia	94	Lake Sumner	134	Poolburn
15	Helensville	55	Hawera	95	Culverden	135	Ranfurly
16	Auckland	56	Waverley	96	Cheviot	136	Oamaru
17	Waiheke	57	Wanganui	97	Franz Josef	137	Resolution Island
18	Coromandel	58	Taihape	98	Hari Hari	138	Pillans Pass
19	Pukekohe	59	Ruahine	99	Whitcombe Pass	139	Monowai
20	Mercer	60	Hastings	100	Lake Coleridge	140	Mossburn
21	Thames	61	Bulls	101	Oxford	141	Waikaia
22	Mayor Is.	62	Palmerston North	102	Rangiora	142	Roxburgh
23	Raglan	63	Dannevirke	103	Haast	143	Lawrence
24	Hamilton	64	Porangahau	104	Bruce Bay	144	Outram
25	Matamata	65	Otaki	105	Mount Cook	145	Dunedin
26	Tauranga	66	Masterton	106	Tekapo	146	Puysegur Point
27	Whakatane	67	Castlepoint	107	Mount Somers	147	Poteretere
28	Te Kaha	68	Wellington	108	Ashburton	148	Tuatapere
29	East Cape	69	Featherston	109	Rakaia	149	Invercargill
30	Kawhia	70	Martinborough	110	Christchurch	150	Gore
31	Te Kuiti	71	Mount Stevens	111	Akaroa	151	Clinton
32	Tokoroa	72	Takaka	112	Big Bay	152	Balclutha
33	Rotorua	73	D'Urville Island	113	Jackson's Bay	153	Waihola
34	Murupara	74	Karamea	114	Makarora	154	Bluff
35	Opotiki	75	Motueka	115	Lake Ohau	155	Ruapuke
36	Motu	76	Nelson	116	Pukaki	156	Tahakopa
37	Tolaga Bay	77	Blenheim	117	Fairlie	157	Owaka
38	Mokau	78	Picton	118	Timaru	158	Stewart Is.
39	Taumarunui	79	Westport	119	George Sound	159	Chatham Islands
40	Tokaanu	80	Murchison	120	Milford		

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. Each set of numbers, separated by commas, following the name of the locality consists of an earthquake reference number 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 location of the earthquake, the instrumental magnitude and the actual places at which it was reported felt may be found from the table Summary of Origins and Magnitudes.

16 Auckland 8737 (4*).

21 Thames 10380 (4*), 11777 (6).

24 Hamilton 5994 (4*).

25 Matamata 5994 (4*), 11777 (4*).

26 Tauranga 10538 (4*).

27 Whakatane 4575 (4*), 5200 (4*), 10744 (4*).

29 East Cape 5200 (4), 7564 (4), 8737 (4), 8779 (3).

33 Rotorua 184 (4*), 187 (4*), 188 (3*), 189 (3*), 191 (4*), 192 (4*),
193 (3*), 201 (3*), 202 (3*), 203 (3*), 206 (5), 215 (3*),
1712 (4), 11176 (4), 13515 (4), 14623 (4), 15161 (4), 15174 (4),
15203 (5), 15348 (4), 15431 (4).

34 Murupara 8214 (4), 8783 (5).

35 Opotiki 8193 (4*), 13474 (3), 14245 (4).

37 Tolaga Bay 9687 (4*).

39 Taumarunui 9771 (4), 12850 (4), 14214 (3).

40 Tokaanu 5343 (4), 7552 (3), 7589 (3), 8147 (4), 12850 (4), 14898 (4).

41 Taupo 2606 (4*), 7546 (4), 7552 (4), 7589 (4), 8147 (4), 8199 (4).

44 Whakapunaki 5200 (3), 8737 (4).

45 Gisborne 5200 (4*), 8779 (4).

46 Cape Egmont 6966 (6).

47 New Plymouth 9075 (4), 9735 (4), 9771 (4), 10523 (4*), 14556 (4), 14692 (4).

49 Ohakune 7546 (4), 8737 (3), 9735 (4), 11020 (4), 12493 (4*), 14214 (3),
14556 (4).

52 Napier 8737 (4), 8779 (4), 9286 (4), 10546 (2), 11760 (4), 13997 (4),
14214 (4), 14610 (4), 14692 (4).

53 Wairoa 8737 (4*), 8779 (4*).

57 Wanganui 4186 (4), 4202 (4*), 5627 (3), 9735 (4), 14556 (4), 14692 (4*),
14756 (3), 15035 (4).

58 Taihape 4202 (3), 9771 (4), 14214 (3), 14556 (3).

60	Hastings	969	(4),	1889	(4*),	7546	(4),	8737	(4),	8779	(4*),	9048	(4*),
		10546	(4*),	11760	(4*),	14214	(5),	14707	(3),	15044	(4).		
61	Bulls	98	(4),	4202	(4),	4505	(3),	8737	(4),	9735	(4),	9771	(4),
		10623	(3),	11020	(4),	11126	(3),	13997	(3),	14214	(3),	14556	(5),
		14692	(3),	15035	(4).								
62	Palmerston North	98	(4*),	8737	(4),	9286	(4),	9735	(4),	9771	(4),	11020	(4),
		14214	(4*),	14556	(3).								
63	Dannevirke	969	(4*),	9286	(4*),	11020	(4),	11167	(3),	11168	(4*).		
64	Porangahau	2278	(4),	14214	(4).								
65	Otaki	98	(4),	3171	(4),	5577	(4*),	8779	(4),	9286	(4),	9735	(4),
		9771	(4),	10117	(4),	10359	(4*),	11020	(4),	11683	(4),	12318	(4),
		13847	(4),	14214	(3),	14556	(4),	14692	(4),	14756	(4),	14778	(4),
		15467	(4).										
66	Masterton	11765	(4*),	13696	(4*).								
68	Wellington	3149	(4),	3171	(4),	5577	(4*),	7057	(4*),	7564	(4*),	8191	(4*),
		8737	(4),	8761	(4*),	8779	(4*),	9735	(4),	9738	(4*),	9744	(4*),
		9771	(4),	9772	(4*),	9780	(4*),	9781	(4*),	9808	(4),	9810	(4*),
		9817	(4*),	9925	(4),	9956	(4),	10117	(4),	11554	(4*),	11683	(4*),
		12212	(4*),	12921	(4*),	12926	(4*),	13071	(4),	13798	(3),	14556	(4),
		14692	(4),	14756	(4),	15147	(4),	15497	(4*).				
69	Featherston	3171	(4*),	8737	(4),	9735	(5),	9771	(5),	10117	(4*),	14692	(4).
70	Martinborough	13696	(3),	14692	(3).								
75	Motueka	14692	(4).										
76	Nelson	6568	(4*),	8737	(4),	14692	(4).						
77	Blenheim	7057	(4*),	8737	(4),	8761	(4*),	9735	(3),	9771	(4*),	10117	(4),
		11683	(4),	11691	(4*),	11923	(4),	12921	(4*),	12926	(4*),	13071	(4),
		14692	(5),	15012	(4),	15147	(4).						
78	Picton	7057	(4),	9735	(3),	9771	(4),	11683	(4),	11691	(4),	11923	(4),
		12567	(4),	12952	(4),	13071	(4),	13607	(4),	14692	(4).		
79	Westport	14120	(4),	14692	(4).								
84	Cape Campbell	12921	(5),	12925	(4*),	12926	(4*),	12929	(4*),	12933	(4*),	13071	(4*),
		13077	(4*),	13079	(4*),	13080	(4*),	13092	(4*).				
85	Greymouth	8309	(4*),	12444	(4*),	12463	(4*),	14120	(4*).				
87	Maruia	14692	(3).										
88	Hanmer	2894	(4).										
90	Kaikoura	8737	(4*),	8830	(4*),	8835	(4*),	8845	(4*).				
92	Kumara	14120	(4).										
93	Arthur's Pass	14120	(4).										
95	Culverden	8737	(4*).										

97	Franz Josef	12444	(4),	12463	(4),	14120	(4).							
99	Whitcombe Pass	14120	(4).											
100	Lake Coleridge	4878 14120	(4), (4).	5799	(4),	9672	(4),	12564	(4),	13568	(4),	13571	(4),	
102	Rangiora	14692	(3).											
104	Bruce Bay	12444	(4),	12463	(4),	12885	(3),	13013	(4),	14120	(4).			
105	Mount Cook	12444	(4),	12463	(4).									
109	Rakaia	12830	(4).											
110	Christchurch	8737	(4*),	12564	(4*),	13568	(3),	14692	(3).					
113	Jackson's Bay	1937	(4),	9682	(4),	10962	(4).							
116	Pukaki	10107	(4*).											
122	Arrowtown	1264	(4),	7652	(4).									
130	Te Anau	8914	(4*).											
132	Kingston	7652	(4*).											
139	Monowai	10166	(5*).											
144	Outram	8737	(4*).											
150	Gore	8745	(4*).											
159	Chatham Islands	7564	(4).											

FELT REPORTS FROM OUTSIDE NEW ZEALAND

The Observatory sometimes receives reports of earthquakes felt on islands of the south-west Pacific and other places beyond the limits of its systematic reporting network. Where Modified Mercalli scale intensities in the list below are shown in quotes, they have been estimated by the reporters, not the Observatory.

DATE	TIME	INTENSITY	PLACE
Jan 13	23h 37mm	MM 4	Raoul Island
Feb 04	04h 00m	MM 4	Raoul Island
Mar 21	12h 08m	'MM 4'	Raoul Island
Apr 12	09h 22m	'MM 4'	Raoul Island
May 03	16h 46m	'MM 4'	Raoul Island
May 25	23h 23m	MM 4	Raoul Island
Jun 18	16h 26m	'MM 3'	Raoul Island
Jun 19	00h 24m	'MM 3'	Raoul Island
Aug 14	05h 34m	MM 3	Raoul Island
Aug 31	11h 00m	MM 4	Raoul Island
Sep 18	00h 11m	MM 4	Raoul Island
Sep 20	16h 12m	MM 6	Raoul Island
Sep 20	16h 25m	MM 4	Raoul Island
Sep 20	16h 35m	MM 4	Raoul Island
Sep 20	16h 43m	MM 4	Raoul Island
Sep 20	17h 26m	MM 4	Raoul Island
Sep 20	17h 32m	MM 4	Raoul Island
Sep 20	18h 11m	MM 4	Raoul Island
Sep 20	18h 29m	'MM 2'	Raoul Island
Sep 21	0h 26m	'MM 2'	Raoul Island
Sep 21	22h 08m	'MM 2'	Raoul Island
Sep 21	22h 10m	'MM 1'	Raoul Island
Sep 28	05h 04m	MM 4	Raoul Island
Sep 29	16h 46m	MM 4	Raoul Island
Sep 30	04h 26m	MM 4	Raoul Island
Sep 30	06h 06m	MM 4	Raoul Island
Oct 14	09h 09m	MM 4	Raoul Island
Oct 20	14h 14m	MM 4	Raoul Island
Oct 27	09h 09m	MM 4	Raoul Island
Nov 03	09h 09m	MM 4	Raoul Island
Nov 18	15h 41m	MM 4	Raoul Island
Nov 25	15h 40m	MM 4	Raoul Island
Nov 28	12h 10m	MM 4	Raoul Island

PUBLICATIONS BY STAFF MEMBERS

The following papers by members of the Seismology Section staff were published in 1997.

Abercrombie, R.E.; Sherburn, S.; Bryan, C.; Hurst, A.W. Low frequency earthquakes and volcanic tremor during the 1995-1996 eruptive period at Ruapehu, New Zealand. *New Zealand Geophysical Society Inc Geophysical Symposium on the theme "Natural hazards in New Zealand", 28-29 August 1997 Victoria University of Wellington.* 35.

Abercrombie, R.E.; Sherburn, S.; Bryan, C.; Hurst, A.W. Low frequency earthquakes and volcanic tremor during the 1995-1996 eruptive period at Ruapehu, New Zealand. *Seismological research letters. 68(2):*326-327.

Abercrombie, R.E.; Benites, R.A.; Webb, T.H.; Cousins, W.J. Strong motion modelling of two recent New Zealand earthquakes : Tikokino 1993, and Edgecumbe 1987. *New Zealand Geophysical Society Inc Geophysical Symposium on the theme "Natural hazards in New Zealand", 28-29 August 1997 Victoria University of Wellington.* 26.

Abercrombie, R.E.; Robinson, R.; Webb, T.H.; McGinty, P.J.; Beavan, J. The 1994 M_W6.7 Arthur's Pass earthquake. *Geological Society of New Zealand Inc 1997 Annual Conference : 25-27 November Wellington : programme and abstracts.* 1.

Abercrombie, R.E. The NZ Geophysical Society meeting : a seismologist's point of view. *Newsletter / New Zealand Geophysical Society. 48:*53-54.

Report on the New Zealand Geophysical Society's Symposium on Natural Hazards, including comments on some papers and some impressions.

Armstrong, P.A.; Chapman, D.S.; Webb, T.H. Evidence of recent and shallow crustal intrusion under Taranaki Peninsula, New Zealand. *Eos. 78(46:supplement):* F639.

Audoine, E.; Savage, M.; Gledhill, K.R. Mantle deformation and seismic anisotropy of the South Island, NZ. *Geological Society of New Zealand Inc 1997 Annual Conference : 25-27 November. Wellington : programme and abstracts.* 10.

Beavan, J.; Haines, A.J. Contemporary velocity and strain fields of New Zealand. *Newsletter / New Zealand Geophysical Society. 47:*30-34.

The authors have summarised the results of a report that is being submitted to Land Information New Zealand, to assist in the development of a modern geodetic datum. While the general form of the contemporary crustal velocity field of New Zealand has been known since Dick Walcott's classic 1984 paper, the authors have now generated a new and more detailed contemporary velocity field based entirely on GPS data.

Beavan, J.; Haines, J. Imaging the present-day deformation of New Zealand with GPS. *Geological Society of New Zealand Inc 1997 Annual Conference : 25-27 November Wellington : programme and abstracts.* 15.

Beavan, R.J.; Haines, J. Geodetic coupling of the Hikurangi Subduction Margin, New Zealand, imaged from GPS data. *Eos. 78(46:supplement):*F166.

Benites, R.; Roberts, P.M.; Yomogida, K.; Fehler, M. Scattering of elastic waves in 2-D composite media. I, Theory and test. *Physics of the earth and planetary interiors. 104(1-3):*161-173.

Localised regions in the earth's crust exhibiting complex variations of density and seismic wave velocities can be represented by random distribution of cavities, in a manner described by Matsunami (1983) for two-dimensional (2-D) media. In order to study the multiple scattering of seismic waves propagating in such media, we develop an indirect boundary integral scheme with discretisation based on wave source distribution around the cavities. Numerical experiments using seven generic 2-D models and incident P, SV and SH plane waves, as well as explosive line sources, are carried out. These experiments are intended to both assess the accuracy of the method, and to examine the character of attenuation of the direct wave, coda waveforms, and travel time features that emerge from pure scattering (no intrinsic attenuation), computed in all cases for wavelengths comparable to the size of the heterogeneities. The wavefield computed for one cavity shows a remarkable diffracted wave that creeps around it, for all the incident waves, regardless of the shape of its cross-section. This wave contributes significantly to the multiple scattering caused by the direct and all reflected/converted waves in the presence of many cavities. For complex regions defined by random distribution of cavities, an explosive line source located below the region produces slight amplification of the horizontal component of the wavefield, apparently due to constructive interference, at observation points above the region, while the vertical component is strongly attenuated. The durations of the seismograms are about the same for

observation points located towards both ends of the region. These results appear to be reversed when the source is above the region. In this case, the horizontal component is strongly attenuated, and the duration of the seismograms is significantly larger at observation points on the side of the incidence than on the opposite side, suggesting the dominant effect of backscattering. The amplitudes of the multiple scattered phases, the attenuation of the direct wave and the duration of the seismograms, appear to be larger when the line source is very near or within the heterogeneous region, than when it is outside. For the same geometry of the scattering region, the seismograms appear to be more complex and amplitudes of multiple scattered phases larger for a plane SH wave in a half-space.

Benites, R.A. Effect of three-dimensional topographies on the near-field ground motion. *Eos. 78(46:supplement):*F434.

Doser, D.; Webb, T.H. A study of the North Island, New Zealand earthquakes (1921-1961) : the seismic cycle in an oblique subduction zone. *Eos. 78(46:supplement):*F627.

Downes, G. Pahiatua's earthquake - were you there?. *Bush telegraph (Pahiatua). Jan 28:*18-19.

The author provides a brief historical account of an earthquake in 1934 that is named after the town of Pahiatua. The earthquake ranks among the top 10 large shallow earthquakes that New Zealand has experienced since organised European settlement. The article describes damage to property experienced in the Manawatu, Wairarapa and Wanganui. However, whether Pahiatua deserves to have the shock named after it is now being questioned. The author asks for descriptive accounts from members of the public who experienced these two shocks in March 1934, to help determine the epicentre of this earthquake and its aftershocks.

Downes, G.L. Conferences reviewed : San Francisco in December : American Geophysical Union Fall Meeting. *Newsletter / New Zealand Geophysical Society. 49:*41-42.

Highlights of this AGU Meeting seismological programme included special sessions on hazard mitigation; the seismotectonics of shallow subduction zones; observations and data we should be providing for our grandchildren; geophysical retrospectives: the Hutton-Lyell bicentennial, and on neotectonics, coastal archeology and sea level variations.

Downes, G.L.; Grapes, R. Lyell's Fault?. *Eos. 78(46:supplement):*F57.

Downes, G.L.; Dowrick, D.J.; Smith, E. The 1934 March 05 Pahiatua earthquake sequence. *New Zealand Geophysical Society Inc Geophysical Symposium on the theme "Natural hazards in New Zealand", 28-29 August 1997 Victoria University of Wellington.* 41.

Eberhart-Phillips, D.; Reyners, M.E. Continental subduction and three-dimensional crustal structure : the northern South Island, New Zealand. *Journal of geophysical research. 102(B6):*11843-11861.

The three-dimensional Vp and Vp/Vs structure of a region where subduction transitions to oblique transform faulting has been determined using arrival times from 579 local earthquakes recorded during a temporary deployment, and 3146 earthquakes have been relocated. Between 40 km and 100 km depth, the subducted plate is imaged as a relatively low-velocity feature in the uppermost mantle, reflecting the continental nature of the subducted crust in this region. An increase in amplitude of this low-velocity feature from northeast to southwest can be related to an increase in the thickness of the crust of the subducted plate in this direction. Velocity variations within the subducted and overlying plates show some spatial correlation. This suggests an interaction between the plates which extends well beyond the plate interface and is consistent with other geophysical and geological evidence that the plate interface beneath Marlborough is currently not accommodating much active subduction. In the overlying plate, the Awatere Fault is a major structural feature, associated with a low-velocity zone extending to 23 km depth. There is a marked change in structure near this fault, with seismic velocities being lower to the southeast. A relatively high level of seismicity occurs in this region of lower seismic velocities, suggesting a relationship between the two. A possible explanation for this is elevated pore pressures caused by fluids derived from dehydration of the continental subducted crust. The low-velocity region in the overlying plate coincides with the region of most intense active deformation, suggesting it is relatively weak.

Grapes, R.; Downes, G. The 1855 earthquake : ground damage, seiching and tsunami effects in Wellington and the Hutt Valley. *Geological Society of New Zealand Inc 1997 Annual Conference : 25-27 November Wellington : programme and abstracts.* 69.

Grapes, R.; Downes, G.L. A great earthquake in a zone of oblique convergence : the 1855 M8+ Wairarapa, New Zealand, earthquake. *Eos. 78(46:supplement):*F455.

Grapes, R.H.; Downes, G. The 1855 Wairarapa, New Zealand, earthquake : analysis of historical data. *Bulletin of the New Zealand National Society for Earthquake Engineering. 30(4):*271-368.

Nearly 200 historical accounts have been examined and analysed in order to determine the effects of the magnitude 8+ 1855 Wairarapa, New Zealand, earthquake. The

documents examined include contemporary diaries, letters and journals, newspaper reports and articles, archives, memoranda and reports of the Wellington Provincial Government as well as later reminiscences, extracts from published scientific papers, books and other articles. Other than the published accounts of Sir Charles Lyell, who, in 1856, first recognised the importance of the earthquake as causing the greatest deformation and surface fault rupture then known, there has been no comprehensive account of the effects of the earthquake in the scientific literature until now. Much of the data is presented with extensive quotations from the source material, especially where conflicting accounts on important aspects have been found. All material is analysed with an understanding of the geographical, social and political conditions at the time. The reliability of the material is taken account of so that first-hand accounts, that have been recorded no more than several years after the earthquake, and in which there are no obvious inconsistencies or confusion with other earthquakes, are valued most highly. Using the historical accounts as the primary source of data, but also taking into account the results of more recent geological, geomorphological and seismological investigations of the deformation, many aspects of the earthquake are discussed in detail. These are mainshock magnitude and epicentre; felt intensity distribution; descriptive account of the effects of the mainshock on people (including casualties) and man-made structures by location throughout New Zealand (including a resume of contemporary building techniques); effects on the environment from strong shaking such as fissuring, liquefaction, spreading, subsidence and landslides, and from tectonically produced uplift, subsidence and faulting; biological effects; tsunami and seiche; aftershock occurrence and social response and recovery.

Haines, A.J.; Yu, J. Observation and synthesis of spatially-incoherent weak-motion wavefields at Alfredton basin, New Zealand. *Bulletin of the New Zealand National Society for Earthquake Engineering. 30(1):*14-31.

To observe and model the detailed pattern of ground motion amplification in a small soft-soil basin an experiment was conducted at Alfredton, New Zealand. 19 seismometers were deployed for 5 weeks at closely spaced sites in and around a 400-500 m diameter, sediment-filled depression in soft, sandstone basement. During this period 112 earthquakes, with "weak" ground motion, were detected by at least some of the instruments, and 15 well-recorded events were selected for detailed analysis. Geotechnical data obtained to provide the parameters for the 3-dimensional modelling included measurements of the shear-wave velocity. Across the basin this is 60 m/s at the surface, increasing steadily to 300+ m/s at the bottom of the basin, and the shear-wave velocity in the basement is 850 m/s. Thus, there are no boundaries where the contrast in shear-wave impedance is especially large. In contrast to situations where there are large contrasts in shear-wave impedance to trap seismic energy in soft-soil layers, the amplifications observed in the basin at Alfredton were small. The small amplifications are confirmed by the 3-dimensional modelling. Another feature of the observed wavefields is that in all cases the incident motions, recorded at the basement sites around the basin, were spatially incoherent. In other words, the wavefields arriving at the basin were of a complex, seemingly random nature. This is the first occasion that the spatial coherency of wavefields has been measured in a fine-scale experiment in New Zealand. Apart from the small amplifications and the observed lack of coherency between the basement sites, the most striking result, which was obtained from both the observations and the modelling of similarly incoherent wavefields, is that for short-duration events in which the main motions last for no more than a second, the amplifications in the basin are larger than for events in which the motions are of longer duration; that is, the extent to which differently propagating incoherent wave packets interfere destructively inside the basin increases with the duration of the wavefields.

Hurst, A.W.; McGinty, P. A suspicious earthquake swarm near Mt Ruapehu preceding the 1995 eruption. *New Zealand Geophysical Society Inc Geophysical Symposium on the theme "Natural hazards in New Zealand", 28-29 August 1997 Victoria University of Wellington.* 20.

Marson-Pidgeon, K.; Savage, M.; Gledhill, K.R.; Stuart, G. Shear-wave splitting measurements made in the lower North Island, New Zealand. *Eos. 78(46:supplement):*F457.

Maunder, D.E. (ed.). New Zealand seismological report 1995. *Institute of Geological and Nuclear Sciences science report;97/12.* 279 p.

This report contains summaries of origin times, epicentres, focal depths, and magnitudes of earthquakes in the New Zealand region during 1995. It also contains a brief account of the principal earthquakes during 1995, details of the instruments used to record earthquakes, descriptions of Observatory practices, and abstracts of papers by Observatory staff.

McGinty, P.; Robinson, R.; Taber, J.; Reyners, M.E. The 1990 Lake Tennyson earthquake sequence, Marlborough, New Zealand. *New Zealand journal of geology and geophysics. 40(4):*521-535.

Aftershocks from the 1990 Lake Tennyson earthquake (M_L5.8) recorded at nine temporary portable seismographs have been used to invert travel-time data simultaneously for both hypocentre and velocity parameters, resulting in a 1-D velocity model and station terms for the Lake Tennyson region. The distribution of the best relocated aftershocks outlines a main fault lineation in a ENE direction, and several off-fault clusters. The main fault lineation is 8 km long, with a strike of about 60 degrees

and a dip that is nearly vertical. It is located between and subparallel to the Awatere and Fowler Faults, on a previously unknown fault. The mainshock has been relocated in the middle of this lineation zone, which suggests that the fault ruptured bilaterally. The distribution of aftershocks matches that expected from the Coulomb failure criterion, which identifies areas of increased and decreased stress levels due to the occurrence of the mainshock. Focal mechanisms for the mainshock and aftershocks that make up the main fault lineation are consistent with right-lateral strike-slip movement on this fault. Clusters that extend from each end of the main fault lineation have various thrust mechanisms with no consistent orientation. Most focal mechanisms from this sequence had their P axes closely aligned with the regional axis of compression, and the main fault lineation is consistent with the relative plate motion direction in the Lake Tennyson region.

Reyners, M.E.; Eberhart-Phillips, D.; Stuart, G. A three-dimensional image of shallow subduction : crustal structure of the Raukumara Peninsula. *New Zealand Geophysical Society Inc Geophysical Symposium on the theme "Natural hazards in New Zealand", 28-29 August 1997 Victoria University of Wellington.* 28.

Reyners, M.E. Conferences reviewed : Seismogenic Zone Experiment (SEIZE) Workshop, Hawaii, 1997 June 3-6. *Newsletter / New Zealand Geophysical Society. 47:*45-47.

The impetus for this workshop sponsored by the US and Japan was recent technological advances in ship-borne riser drilling, which opens up the possibility of drilling into the shallow part of a subduction thrust. A new ocean-drilling programme with a budget of some US$100 million/year is proposed, and holes penetrating up to 6 km below the seafloor will be feasible.

Reyners, M.E.; Robinson, R.; McGinty, P. Plate coupling in the northern South Island and southernmost North Island, New Zealand, as illuminated by earthquake focal mechanisms. *Journal of geophysical research. 102(B7):*15197-15210.

Subduction of the Pacific Plate in the northern South Island and southernmost North Island of New Zealand is transitional, insofar as the crustal thickness of the Pacific Plate increases significantly along strike in the northern South Island. Focal mechanisms of 145 events shallower than 100 km in this region have been determined using both first motion polarity data and amplitudes of seismogram envelopes. The stress regime in the subducted plate appears to be dominated by slab pull. T axes in both the upper and lower planes of the dipping seismic zone are generally parallel to the local dip of the zone, and the average azimuth of these T axes is rotated some 25 degrees clockwise out of the direction of dip of the subducted plate. This can be related to the asymmetrical shape of the subducted slab. In contrast, the stress regime in the overlying plate appears to be dominated by subhorizontal compression. Low-angle thrust events near the plate interface in Cook Strait and the southernmost North Island are concentrated in two areas which may mark the updip and downdip edges of a locked region identified from Global Positioning System (GPS) observations. An absence of low-angle thrust events near the plate interface in the northern South Island and the tendency of P axes of events in the subducted plate to become more horizontal suggest that plate coupling there is stronger than in the southernmost North Island. Differential coupling at the plate interface provides a viable mechanism for producing the large tectonic rotations seen in the northern South Island.

Reyners, M.E.; McGinty, P. Plate interaction in the Raukumara Peninsula, as illuminated by earthquake focal mechanisms. *New Zealand Geophysical Society Inc Geophysical Symposium on the theme "Natural hazards in New Zealand", 28-29 August 1997 Victoria University of Wellington.* 29.

Reyners, M.E.; McGinty, P. Shallow subduction tectonics in the Raukumara Peninsula, New Zealand, from earthquake focal mechanisms. *Eos. 78(46:supplement),*F627.

Reyners, M.E.; Eberhart-Phillips, D.; McGinty, P.; Robinson, R.; Gledhill, K.R. The seismogenic zone of the subduction thrust in New Zealand : insights from the Hikurangi Margin Seismic Experiment and recent earthquakes. *New Zealand Geophysical Society Inc Geophysical Symposium on the theme "Natural hazards in New Zealand", 28-29 August 1997 Victoria University of Wellington.* 39.

Reyners, M.E.; McGinty, P.; Ansell, J.; Ferris, B.G. The Tikokino earthquake of 11 April 1993 : movement at the plate interface in Southern Hawkes Bay. *Bulletin of the New Zealand National Society for Earthquake Engineering. 30(3):*242-251.

The nature of faulting that took place during the M_L5.9 Tikokino earthquake of 11 April 1993 has been determined using data from six temporary seismographs installed immediately after the event. The rupture initiated at 25 km depth, within the thrust zone between the subducted Pacific and overlying Australian plates. The earthquake had surprisingly few aftershocks, but those that did occur define a rupture zone which parallels the plate interface. When combined with the focal mechanism of the mainshock, this rupture zone indicates that the earthquake involved thrusting at the plate interface. The earthquake ruptured unilaterally to the south, and this explains the strong directivity seen in both strong motion accelerograph

and seismograph records. Movement of the plate interface during the mainshock did not lead to significant triggering of other earthquakes in the subducted or overlying plates. A plausible explanation for the very few aftershocks is that the rupture was initiated at an asperity at the plate interface and then propagated into subducted sediment lying in the conditionally stable frictional field. The nearby M_L6.1 Ashley Clinton earthquake of 1958, which also had a conspicuous absence of aftershocks, may have involved a similar process.

Reyners, M.E.; Eberhart-Phillips, D.; McGinty, P.; Robinson, R.; Stuart, G. Three-dimensional crustal structure and plate coupling in central New Zealand : insights from the Hikurangi Margin Seismic Experiment. *Geological Society of New Zealand Inc 1997 Annual Conference : 25-27 November Wellington : programme and abstracts.* 142.

Robinson, R.; Benites, R.A. Effects of fault heterogeneity on seismic waveforms. *Eos .78(46: supplement):* F473.

Robinson, R.; Benites, R.; Van Dissen, R.J. Evidence for temporal clustering of large earthquakes in the Wellington Region from computer models of seismicity. *New Zealand National Society for Earthquake Engineering Technical Conference and AGM : Wairakei Resort, Taupo, 14-16 March 1997.* 111-118.

Temporal clustering of large earthquakes in the Wellington region, New Zealand, has been investigated with a computer model that generates long synthetic seismicity catalogues. The model includes the elastic interactions between faults. Faults included in the model, besides the subduction thrust between the Australian and Pacific plates, are segments of the four major strike-slip faults that overlie the plate interface (Wairarapa, Wellington, Ohariu, and Wairau faults). Parameters of the model are adjusted to reproduce the geologically observed slip rates of the strike-slip faults. The seismic slip rate of the subduction thrust, which is unknown, is taken as 25% of the maximum as predicted by the plate tectonic convergence rate, and its position fixed according to recent geodetic results. For comparison, the model was rerun with the elastic interactions suppressed, corresponding to the usual approach in the calculation of seismic hazard where each fault is considered in isolation. Considering earthquakes of magnitude 7.2 or more ("characteristic" events in the sense that they rupture most of a fault plane), the number of short (0-3 years) inter-event times is much higher than for the corresponding case with no interactions (46% vs. 2% of all inter-event times). This reduces to 9% vs. 2% if the subduction thrust is removed from the models. Paleoseismic studies of the past seismic behaviour of the subduction thrust are clearly needed if the degree of clustering is to be tightly constrained. In any case, we think that the possibility of short-term clustering of large events, normally neglected in hazard studies, has important implications for the engineering, insurance and emergency response communities.

Robinson, R. Recent New Zealand seismicity and models of accelerating precursory activity. *Institute of Geological and Nuclear Sciences science report; 97/27.* 76 p.

Recently proposed models of accelerating seismic moment release before and around large earthquakes have been tested on three recent New Zealand earthquakes, and an attempt to identify any such regions currently "active" has been made. A non-linear fitting procedure, based on the Levenberg-Marquardt method, was developed in order to fit the proposed models to the observed seismicity data. The event catalogue, January 1964 - August 1996, had aftershocks removed and was limited to shallow earthquakes (depth $\leq$40 km) of magnitude 5.0 or more. The past earthquakes used for testing the models were the magnitude 7.0 East Cape event of February 5, 1995, the magnitude 6.7 Arthur's Pass event of June 18, 1994, and the magnitude 6.7 Secretary Island earthquake of August 10, 1993. For the former two events, when the date was fixed, the theory did fit the data reasonably well for precursory regions of the appropriate radius, either centered on the mainshock or displaced by 40 to 50 km. For the Secretary Island event the results were not so good, and complicated by the nearby 1976 Milford Sound earthquake. For the East Cape event the test indicated that swarm events in the Taupo Volcanic Zone (TVZ) significantly degraded the results: in later tests the TVZ was excluded. When the data were limited to periods prior to the mainshocks, but the locations known, predicted mainshock dates and magnitudes were too late/too big for the East Cape event. For the Arthur's Pass event the results were mixed, but the real time/magnitude was usually within the estimated, rather large, errors. For the Secretary Island event the results were poor. To see if the precursory areas around these three test events could have been recognized beforehand, a grid search procedure was developed to systematically search for regions showing an accelerating moment release. Surprisingly, precursory regions near all three mainshocks were successfully identified using data through 1992. But forward predictions based on these results were generally not very good. No currently active precursory regions were defined, but a region off the SE coast of the North Island is perhaps "suspicious". Because of limitations to this first grid search procedure, a further search was done for larger precursory regions, for which events such as the East Cape, Arthur's Pass, and Secretary Island earthquakes are merely sub-processes. If the accelerating seismicity model is correct, then two regions would be identified as potentially precursory for very large events (M~7.5): (1) East Cape and nearby offshore areas; and (2) southwest South Island. The results for the smaller test earthquakes means that the predicted mainshock times should not be given a lot of weight, but that the identified regions may indicate the location of future large events. This study should be

updated as new data become available, and in light of results elsewhere. Also, there are several clear lines of research that could potentially improve the results.

Savage, M.; Marson-Pidgeon, K.; Matcham, I.; Audoine, E.; Gledhill, K.R. Frequency-dependent anisotropic velocity structure beneath the Hikurangi Margin subduction zone. *Eos. 78(46:supplement):*F457.

Webb, T.H. Conferences reviewed : AGU Fall Meeting, San Francisco. *Newsletter / New Zealand Geophysical Society. 46:*23-25.

The author, of IGNS, highlights areas of the seismology and tectonics sessions of the AGU meeting. His discussion includes subduction zone modelling, earthquake prediction algorithms, coda wave tomographic imaging, earthquake nucleation, rotational motions of earthquakes, 3D finite-difference modelling and estimating prehistoric earthquake magnitudes.

Webb, T.H. Principal earthquakes in New Zealand in 1996. *Bulletin of the New Zealand National Society for Earthquake Engineering. 30(1):1.*

It was a quiet year for earthquakes throughout New Zealand in 1996. In each of the previous three years a large earthquake with thousands of aftershocks has occurred. In comparison, 1996 was a return to quiet times, with no shallow earthquake larger than magnitude six being recorded.

Webb, T.H. The IGNS seismogram archive. *Newsletter / New Zealand Geophysical Society. 47:*37-38.

In 1995 we were fortunate enough to receive funding from the newly-instituted Planet Earth Fund, set up after George Eiby's death, to purchase a "disk farm" to store on-line the Institute's digital seismogram archive.

Yomogida, K.; Benites, R.; Roberts, P.M.; Fehler, M. Scattering of elastic waves in 2-D composite media. II, Waveforms and spectra. *Physics of the earth and planetary interiors. 104(1-3):*175-192.

The boundary integral representation of the complete seismic wavefield in two-dimensional composite media characterised by the distribution of many cavities is used to study the waveforms and spectra of the scattered wavefield for three models of media heterogeneity, upon the incidence of P and S plane waves and line sources. First, the case of one circular cavity and S primary waves shows that the scattered wavefield is composed mainly of S waves, and that S-P scattering can be ignored in any frequency range for all forward scattering angles (scattering angle θ measured clockwise with respect to the direction of propagation of the primary wave). The spectra of forward scattering computed for θ=0° resemble the spectrum predicted by the Born approximation for acoustic or scalar waves for θ=0°: of small amplitudes values of non-dimensional frequency *kd* (*k* is the wavenumber and *d* is the cavity diameter), increasing with *kd*, up to *kd* ≃2, and becoming constant for larger values of kd. The spectra for backward scattering (θ≃180°) behave similarly, showing amplitudes as large as those computed for the forward cases. The non-isotropic pattern of scattering predicted by analytical solutions is also confirmed. In the case of P primary waves, P-S scattering appears to be significantly stronger than P-P scattering for most scattering angles, except for θ=0° and θ≃180°. The computation of synthetic seismograms for models with many cavities show scattered waves of low frequency corresponding to wavelengths much larger than the size of the cavities, as well as those of high frequency due to multiple reflections and conversions at the boundaries of the cavities. A cluster of 20 cavities randomly distributed within a small region produces well-defined low frequency waves that appear to be associated with the presence of one low-velocity heterogeneous body, or soft inclusion, represented by the whole cluster. The case of 50 cavities randomly distributed within a horizontally extended region (of narrow thickness) shows coda-like wave arrivals, particularly strong in the horizontal component. Also in this case, nearly horizontally incident plane waves produce low frequency scattered waves of large amplitudes. It appears that while in the long-wavelength limit this model synthesises a coherent wave corresponding to reflection upon a horizontal interface, towards the short-wavelength limit the scattered waves show a rather complex, incoherent pattern immediately after the arrival of the incident wave, as if the region were a transitional zone of effective thickness. The analysis presented in this paper suggests that if the wavelengths are much larger than the size of the cavities, our representation of random media can be used to represent regional heterogeneity in the earth's crust, associated with observed seismic scattering phenomena.

Yomogida, K.; Aki, K.; Benites, R.A. Coda *Q* in two-layer random media. *Geophysical journal international. 128:*425-433.

Using the indirect boundary integral scheme for multiple scattering of seismic waves developed by Benites, Aki & Yomogida (1992), we compute *SH*-wave seismograms and measure frequency-dependent characters of coda *Q* in 2-D random media with a flat layer over a half-space. Many circular cavities are randomly distributed in both the upper layer and the half-space, down to a certain depth (called the lower layer), simulating the upper and lower crusts. The scattering strength and the intrinsic attenuation, Q_i, are varied for each layer, and the *S*-wave velocity is prescribed to be constant throughout the medium so that the computation of Green's functions for the boundary integral is simple. Considering two basic parameters of our random media, scattering strength and intrinsic attenuation Q_i , we represent the shallow-earth structure by an upper crust with large intrinsic attenuation and a lower crust with effective scatterers. Computations of coda *Q* for several values of

those parameters show that when the scattering is relatively strong, coda Q^{-1} is roughly independent of frequency. This result differs from the case of a uniformly random model where coda Q^{-1} peaks around kd=2, where k is the wavenumber and d is the cavity diameter. If the scattering strength in the lower layer is large enough for multiple scattering to dominate over single scattering, coda Q^{-1} strongly depends on the intrinsic attenuation in the lower layer, Q_{i2}^{-1}, and these two values (coda Q^{-1} and Q_{i2}^{-1}) become similar. We explain this feature as follows. Waves scattered in the upper layer attenuate quickly due to high intrinsic attenuation and contribute little to the coda envelope in a time window starting at twice the traveltime of the direct wave. Multiple scattered waves in the lower layer eventually arrive at the surface, dominating the coda envelope, which decays at a rate determined by the intrinsic attenuation in the lower layer, Q_{i2}^{-1}. The hypothesis that the temporal decay of coda is controlled not by the scattering but by the energy leakage into a "transparent" underlying mantle is ruled out in general by our numerical simulations, except at low frequencies. Although our model may be too simple to simulate the details of observed coda Q, Coda Q is likely to reflect the intrinsic attenuation in the Earth's lower crust.

OBSERVATORY SERVICES

PUBLICATIONS

The New Zealand seismological reports are a continuing series of E-bulletins published in the science report series from the Institute of Geological and Nuclear Sciences. They contain summaries of the data used for each origin determination, lists of origins, felt intensity data, and brief accounts of the principal earthquakes of the year. They also provide details of the instruments used to record earthquakes and descriptions of Observatory practices.

Copies of this material may be purchased from:

Publications Sales
Institute of Geological and Nuclear Sciences
PO Box 30-368
Lower Hutt
New Zealand.

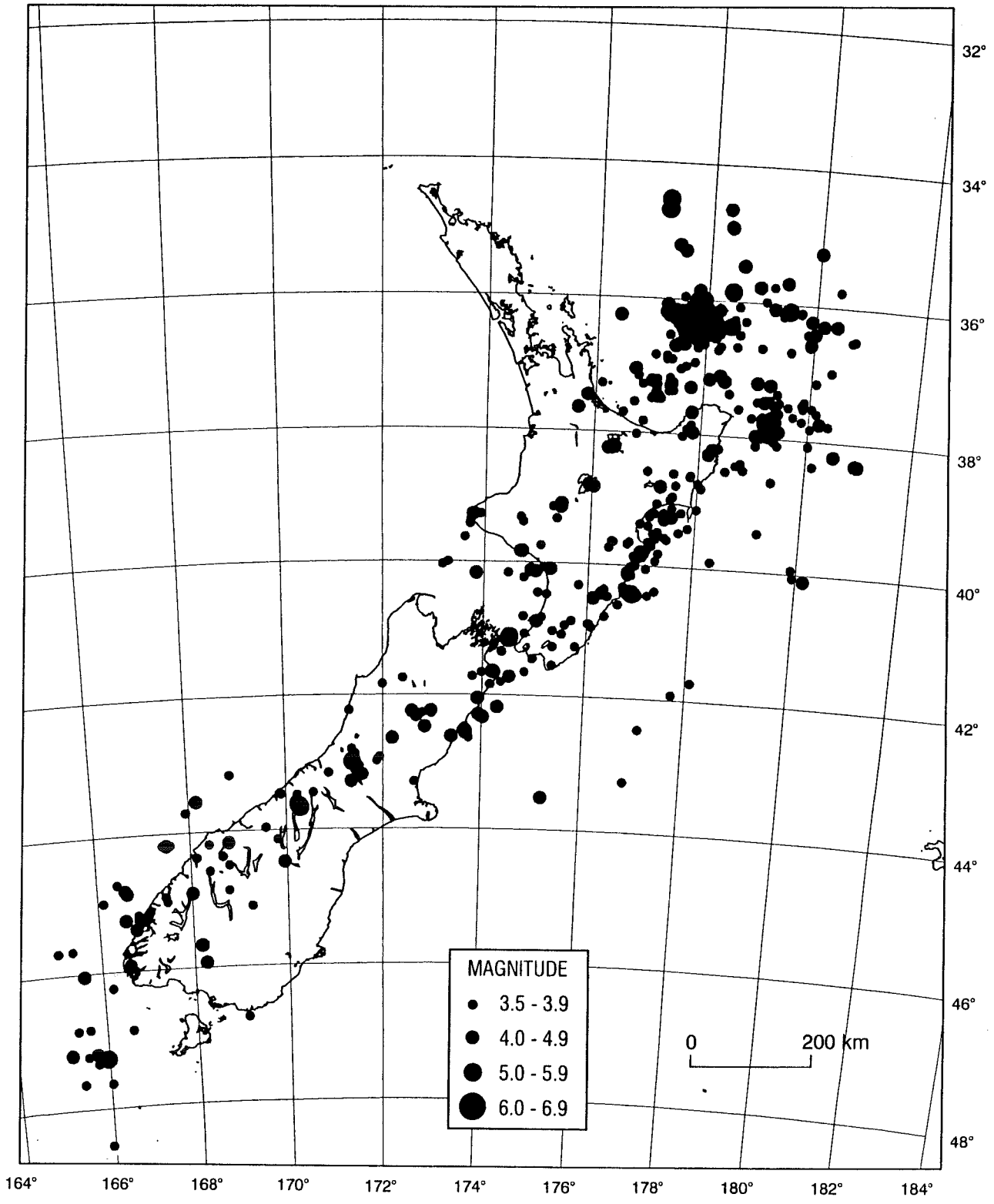
EARTHQUAKE CATALOGUE

The Observatory has a master file of some tens of thousands of earthquake origins and associated information stored on magnetic tape. From this, lists of earthquakes within particular geographical areas of New Zealand, or in categories defined in other ways, can be made available to researchers. Full details have been published elsewhere (W.D. Smith, 1976: A Computer File of New Zealand Earthquakes. *Bulletin of the New Zealand National Society for Earthquake Engineering. 9(2)*: p.136-13; *New Zealand journal of geology and geophysics, 19(3)*: p.393-394). Criteria that may be specified are dates, magnitudes, focal depths, intensities and regions bounded in a number of different ways. It is also possible to search for earthquakes likely to have produced intensities above a specified minimum at a particular place and to list reports of intensities above a given minimum intensities that have originated in a chosen reporting locality. Because of the dangers inherent in the use of incompletely assessed data, it is recommended that users should discuss their search criteria with the Observatory.

Waveforms of earthquakes recorded by digital seismographs are also archived and accessible for further processing by CUSP or other compatible software.

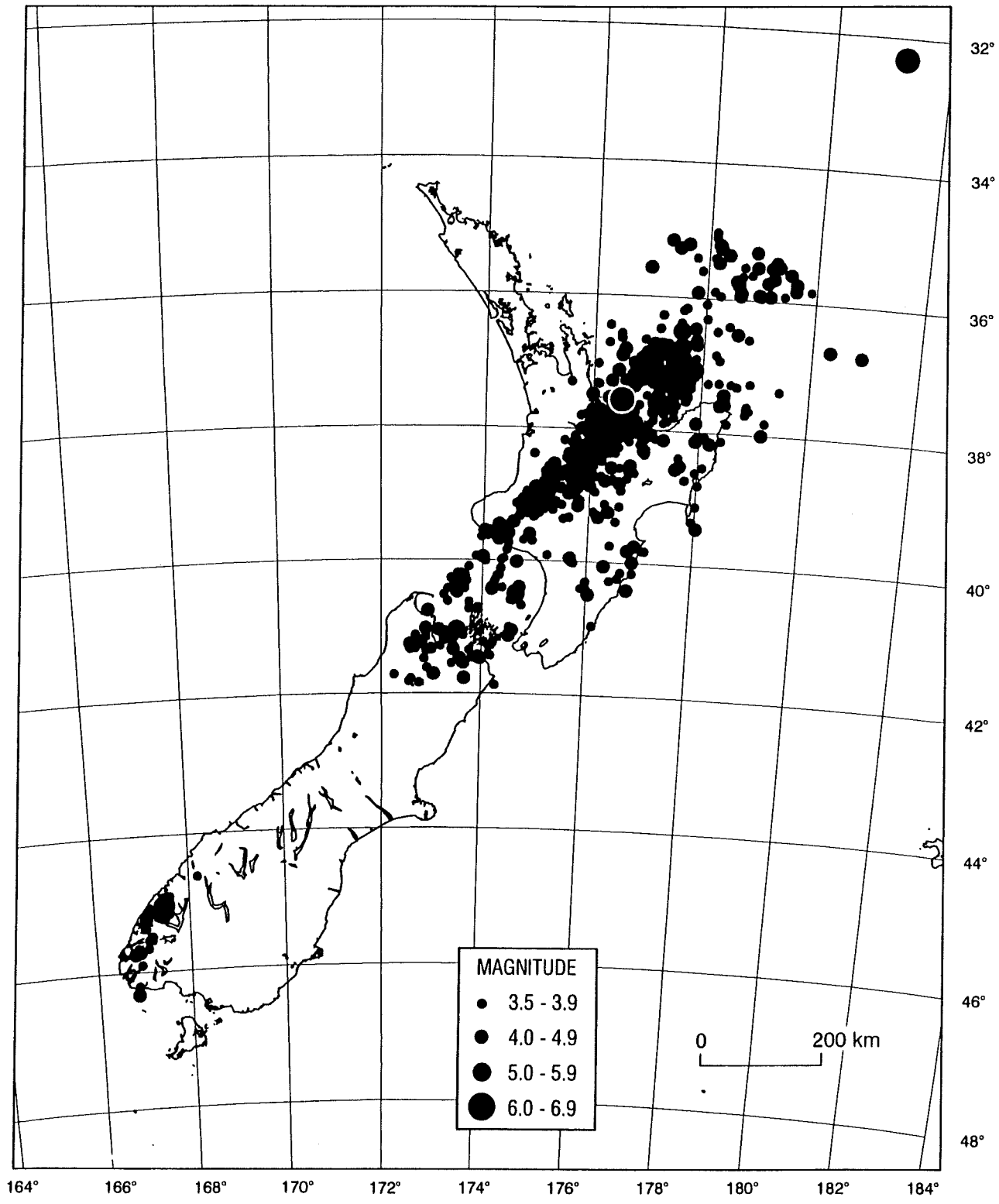
EPICENTRE MAPS 1997

REGIONAL SHALLOW EARTHQUAKES



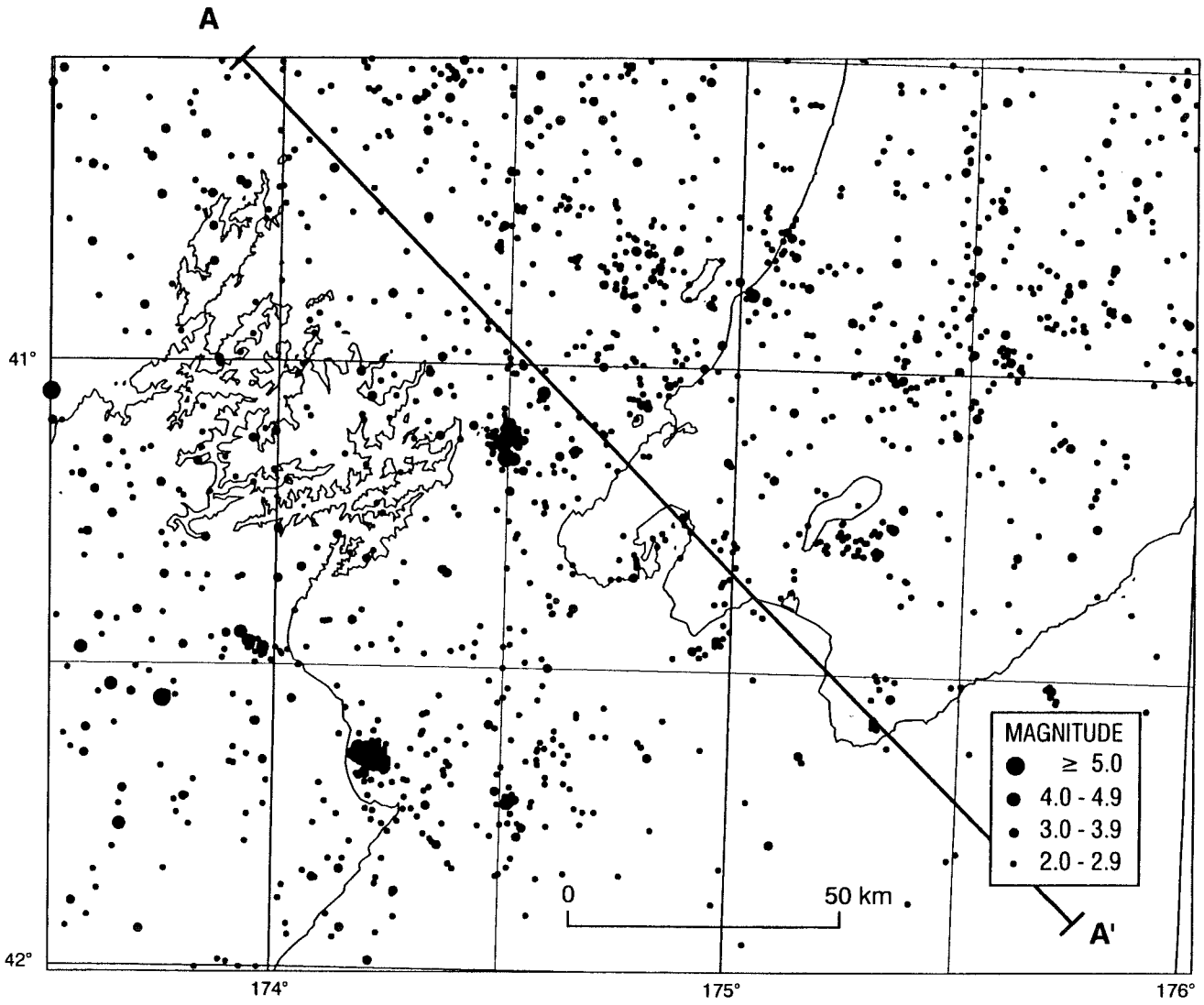
Epicentres of all earthquakes of $M_L \geq 3.5$ with focal depths less than 40 km. When several shocks have the same epicentre, the largest is shown.

REGIONAL DEEP EARTHQUAKES



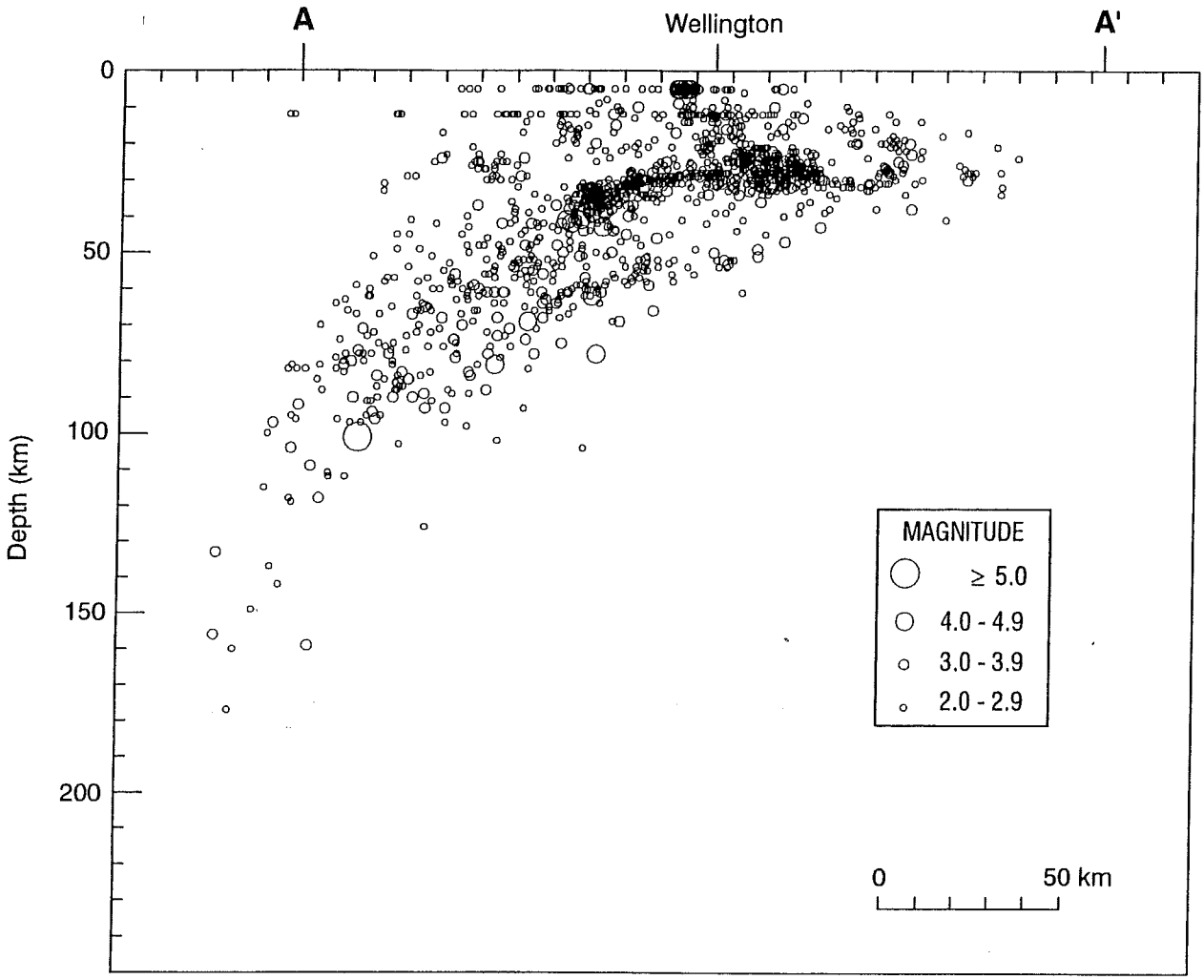
Epicentres of all earthquakes of $M_L \geq 3.5$ with focal depths of 40 km or more. When several shocks have the same epicentre, the largest is shown.

WELLINGTON AREA EPICENTRES



Epicentres of all earthquakes of $M_L \geq 2.0$ in the Wellington area. The distribution of these earthquakes in depth is shown on the next page, where the hypocentres have been projected onto a vertical plane passing through the line A-A'.

WELLINGTON HYPOCENTRE DEPTHS



In this diagram, the hypocentres of all shocks mapped on the previous page have been projected onto a vertical plane passing through the line A-A', which is roughly normal to the Pacific/Australian plate boundary.