

**New Zealand Seismological Report 1993
Seismological Observatory Bulletin E-184**

D E Maunder (ed.)
L Cowan

**GNS Science Report 2006/15
August 2006**

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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 serial numbers 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 currently 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Seismologists urgently requiring unpublished New Zealand data may apply to GNS Science. Historic (paper) data are also available but unless a two-way information exchange is involved it is the Institute's practice to make a charge for recovery of this material. Definitive origins for local earthquakes are usually available within a few months of their occurrence.

D E Maunder – Editor (Retired)
L Cowan

STAFF IN 1993**Wellington**

Chief Seismologist:	W D Smith, MSc (Auck), MA, PhD (Calif)
Scientists:	H J Anderson, BSc (Hons), PhD (Cantab) R A Benites, BSc (UNI Peru), PhD (MIT) D M Eberhart-Philips, MSc, PhD (Stanford) K R Gledhill, MSc (Hons), PhD A J Haines, MSc, PhD (Cantab) M J Randall, MSc (NZ), PhD (Calif) M E Reyners, BSc (Hons), PhD R Robinson, MSc, PhD (Stanford) T H Webb, BSc (Hons), PhD
Technical Officers:	A F Cresswell, NZCS G L Downes, BSc (Hons), MSc B G Ferris, NZCS J S Harris, NZCS D E Maunder, BSc R D Maunder
Technicians:	S C Ede N L Holland, BSc, BE J Hunnewell M Kopeykin F Langford, NZCE, BSc C Nathu (from October), NZCE S Swain (February - July)
Trainee Technicians:	J P Burt (January) S Harris (from April)
Word Processor:	C Hourihan
Technical Artist:	C Hume

STAFF IN 1993**Wairakei**

Taupo Net Managers: B J Scott NZCS, NZ Dip Sci
S Sherburn, BSc (Hons)

Technician: D E Keen

Christchurch

Technical Officer: T J O'Neill, NZCC

Rarotonga

Observer in Charge: R Taia

Raoul Island

Observer: G Simpson

Scott Base

Observers: G Avery
M Patton

NEW ZEALAND SEISMICITY IN 1993

The largest earthquake in New Zealand in 25 years occurred in Fiordland on August 10. It had a magnitude of 7.1 (Ms), and was located near Doubtful Sound, about 10 km west of Secretary Island, and 20 km deep. The last earthquake to reach this magnitude in New Zealand was the Inangahua shock in May 1968.

Fiordland is a very active part of the country, where the Pacific Plate overrides the Australian Plate, the latter plunging very steeply in a south-easterly direction. This configuration is reversed in the North Island, where it is the Pacific Plate that plunges beneath the Australian Plate, towards the north-west.

The earthquake was felt over most of the South Island, and as far away as Wanganui in the southern North Island, some 900 km distant. It was felt most strongly in Te Anau and Manapouri. Shaking from the event reached intensity MM 8 on Secretary Island and in Doubtful Sound, but the nearest town of any size was Te Anau, 73 km away, and the effects there were not severe. As Fiordland is a sparsely populated area, the event caused little damage to structures. However, numerous landslides were triggered on steep slopes in the epicentral region.

The earthquake was followed by many thousands of aftershocks. Portable seismographs which were installed to record these in detail by augmenting the permanent network, have yielded a wealth of data relevant to the process of earthquake occurrence in that part of the country.

The same evening there was an earthquake at Ormond (near Gisborne) that produced significantly more damage. It had a magnitude of 6.3 and a depth of 37 km. It was widely felt in the eastern part of the North Island and in the northern South Island. Reported intensities reached MM 8 near Waipaoa, and intensities of MM 7 were apparent between Ormond and Te Karaka, where soil liquefaction occurred on the Waipaoa River flats, and some natural slopes failed.

Immediately after the Ormond earthquake, four portable digital seismographs were installed in the region to supplement stations of the permanent network. These extra stations allowed more accurate determination of the locations and mechanisms of aftershocks, and provided information on the nature of the faulting that took place during the mainshock.

Another important earthquake occurred on April 11, near the small settlement of Tikokino in southern Hawke's Bay. It had a magnitude of 5.9 and a depth of 25 km. It was widely felt in the southern part of the North Island, and reported intensities reached MM 8 at Waititi station, 6 km north-west of Waipawa. Here unreinforced chimneys

were brought down at the homestead, and movement of a grand piano during the earthquake punched a hole in a wall.

Soon after the earthquake, six portable digital seismograph stations were deployed. For the next two weeks after the main shock, this denser network recorded 50 earthquakes of magnitudes 1.6 – 4.4. This is a surprisingly small number of events following a magnitude 5.9 mainshock.

On May 10, an earthquake of magnitude 5.3 occurred near Otira. It was felt at modest intensities from Westport to Christchurch. A sequence of moderate earthquakes occurred midway between Christchurch and Kaikoura at the beginning of September 2, one of 5.2 on September 3, and many smaller shocks. They were felt quite sharply in Cheviot and the surrounding towns. This area is known for the magnitude 7.0 damaging shock in 1901.

Earthquakes near the Chatham Islands are rare, but one of magnitude 4.5 occurred there on March 31. It was felt throughout the islands, dislodging some pictures and causing minor superficial damage.

Deep earthquakes are more prolific in New Zealand than shallow ones, and 1993 was no exception. The western Bay of Plenty usually has a number at between 200 and 300 km depth, and this year there were four exceeding magnitude 5.5: on January 3 (5.7), March 16 (5.8), August 3 (5.8) and October 1 (5.6). All were felt in Tauranga and the surrounding area. A number of other deep earthquakes exceeded magnitude 5.5 elsewhere in the deep earthquake zone that underlies the North Island. Southern Taranaki residents felt the magnitude 5.7 shock on March 19; it was centred 182 km deep beneath Waverley. But as expected, none of these caused any damage because they were so deep.

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INSTRUMENTATION IN 1993

By the end of 1993, the New Zealand digital network consisted of 31 stations, 11 with single component instruments and the rest 3 component; 6 analogue stations (excluding those stations of the Tongariro and Bay of Plenty Volcanic networks which are recorded digitally as well as visually) and 5 regional networks. As well, two temporary networks, Fiordland (April to June) and Marlborough (October until March 1994), operated during the year. Some sites of the Fiordland network were reoccupied after the Secretary Island earthquake of 10 August.

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 have been developed 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 (Automatic Equipment for the Automatic Recording of Seismic 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 is under development and will eventually supersede SNARE. Not included in the current re-equipment programme are instruments owned by organisations other than GNS Science. In 1993, organisations cooperating in continuous or ad hoc seismic monitoring were: the University of Auckland, Victoria University of Wellington, Taranaki Civil Defence and the Electricity Corporation of New Zealand.

INSTRUMENTAL CHANGES IN 1993

A single component Mark Products L4-C instrument was installed at Wether Hill (WHZ) in March. This was upgraded to a 3-component L4-3D seismometer in July when the station at Braida Crags (BCZ) was closed.

The station at Pongaroa (PGZ) was removed from the borehole and resited at the surface in August. (Its position is unchanged). Oban (OBZ) closed during October 1993.

The Tongariro Volcanic network was extended during the year. Mark Products L4-C seismographs were installed at Tukino (TUVZ) in May and at Karewarewa (KAVZ) in July. Since November their signals have been telemetered to the Chateau and recorded on a 16-channel EARSS recorder along with the other stations of the Volcanic network.

The Bay of Plenty Volcanic network was also added to in 1993. A 16-channel EARSS recorder, installed at Wairakei, began recording the stations of the network in July. Previously these signals had been sent to two 3-channel EARSS recorders. A new station at Edgecumbe (EDRZ) was added to the network at this time, and another station Hinemaiaia (HATZ) from November. The instrument at White Island (WIZ) was inoperative from late May until September. The signal was recorded on the 16-channel EARSS at Wairakei. Both the Tongariro and Bay of Plenty Volcanic networks are operated from the Wairakei office.

The Taranaki Volcanic network began operating in November. These recordings are operated by Taranaki Civil Defence and analysed by Auckland University.

INDEX OF STATION CODES AND POSITIONS

The growth in numbers of seismograph stations in recent years has been so great 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				LONGITUDE				ALT m
		d	m	s		d	m	s		

SEISMIC RESEARCH OBSERVATORY

SNZO	South Karori	41	18	37	S	174	42	17	E	-10
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STANDARD NETWORK

AUC	Auckland	36	51	36	S	174	46	41	E	79
BCZ	Braida Crags	46	00	24	S	167	50	23	E	120
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
CIZ	Chatham Islands	43	57	18	S	176	33	56	W	45
CNZ	Chateau	39	12	00	S	175	32	51	E	1116
DCZ	Deep Cove	45	28	42	S	167	09	15	E	20
DRZ	Dome Shelter	39	16	35	S	175	33	49	E	2600
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
MGZ	Maungaku	39	00	07	S	175	32	20	E	806
MNG	Mangahao	40	37	07	S	175	28	55	E	396
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
NEZ	North Egmont	39	16	22	S	174	05	46	E	920
NGZ	Ngauruhoe	39	10	37	S	175	36	04	E	806
NOZ	North Gisborne	38	37	05	S	178	02	12	E	60
NRZ	Ngariki	39	20	15	S	173	55	59	E	250
OBZ	Oban	46	54	18	S	168	06	55	E	26
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
PGZ	Pongaroa	40	37	08	S	176	16	25	E	-40
	(from August)									0
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
SBA	Scott Base	77	51	01	S	166	45	22	E	38
SIZ	Stewart Island	46	52	30	S	168	07	59	E	60
TAZ	Tarawera	38	13	59	S	176	30	28	E	1037
THZ	Top House	41	45	50	S	172	54	13	E	760
TMP	Tomahawk Gully	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
UTU	Utuhina	38	10	39	S	176	11	32	E	410
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
WIZ	White Island	37	31	42	S	177	11	21	E	40
WLZ	Whitehall	37	52	12	S	175	35	46	E	190
WVZ	Waitaha Valley	43	04	35	S	170	44	10	E	75

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
HATZ	Hinemaiaia	38	53	32	S	176	05	31	E	492
LIRZ	Lichensteins Road	38	00	18	S	176	23	03	E	340
MARZ	Manawahe	37	59	12	S	176	40	28	E	480
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

CLYDE NETWORK (Electricorp)

CFC	Cairnmuir Flats	45	11	03	S	169	17	32	E	576
CMCZ	Cairnmuir Mts	45	08	57	S	169	16	30	E	1039
LRCZ	Leaning Rock	45	03	55	S	169	20	46	E	1533
LSCZ	Lilico Spur	45	06	59	S	169	22	09	E	759
MHZ	Mt Horn	45	03	44	S	169	16	46	E	1127
MMCZ	Mount Michael	45	00	13	S	169	07	53	E	1163
MSCZ	Moutere Station	45	05	35	S	169	24	42	E	701
SBCZ	Sonora Basin	45	05	32	S	169	18	40	E	801
TBC	Trig B	45	08	47	S	169	19	49	E	619
TLC	Trig L	45	11	29	S	169	04	17	E	1393

HAWKE'S 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

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
WDW	Wainui Dam	41	16	07	S	174	59	37	E	130
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_0 , 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 Kinometrics VR-1 pen-recorder).	Z	1.0	3 800 at 0.25s
BCZ	BRAIDA CRAGS (until July) Foundation: Limestone. 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 Willmore II (with Kinometrics VR-1 pen-recorder).	Z	1.0	
CIZ	CHATHAM ISLANDS Foundation: Clay over basalt. Willmore II (with Kinometrics VR-1 pen-recorder).	Z	1.0	4 440 at 0.20s
CNZ	CHATEAU Foundation: Volcanic ash and Lava. Mark Products L4-C (telemetered to Kinometrics VR-1 pen-recorder and to EARSS digital recorder).	Z	1.0	Variable
DCZ	DEEP COVE Foundation: Granite. Mark Products L4-3D (with EARSS digital gain-ranging recorder)	ZNE	1.0	

Instrument	Compt.	To	Damping	Magnification
DRZ	DOME SHELTER (Department of Conservation) Foundation: Recent andesitic ash. Mark Products L4-C (High and low magnifications, telemetered to Kinematics VR-1 pen-recorders and high magnification to EARSS digital recorder).	Z	1.0	Variable
DSZ	DENNISTON NORTH Foundation: Upper Precambrian greywacke Mark Products L4-C (with EARSS digital gain-ranging recorder)	Z	1.0	
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 Kinematics VR-1 pen-recorder and EARSS digital 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	
MGZ	MAUNGAKU (Department of Conservation) Foundation: Quaternary andesite. Mark Products L4-C (telemetered to Kinematics VR-1 pen-recorder and to EARSS digital recorder).	Z	1.0	Variable
MNG	MANGAHAO Foundation: Greywacke Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0	

Instrument	Compt.	To	Damping	Magnification
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-C, replaced in June by Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0	
MSZ	MILFORD SOUND Foundation: Gneiss. Mark Products L4-3D (with EARSS digital gain-ranging recorder)	ZNE	1.0	
NEZ	NORTH EGMONT Foundation: Volcanic ash. Mark Products L4-C (with Kinometrics VR-1 pen-recorder).	Z	1.0	25 100 at 0.10s
NGZ	NGAURUHOE Foundation: Recent volcanic flows. Mark Products L4-C (telemetered to Kinometrics VR-1 pen-recorder and to EARSS digital recorder).	Z	1.0	Variable
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	
OBZ	OBAN (until October) Foundation: Weathered granite. Mark Products L4-C (with Kinometrics VR-1 pen-recorder).	Z	1.0	12 000 at 1.0s
ODZ	OTAHUA DOWNS Foundation: Greywacke. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0	

Instrument	Compt.	To	Damping	Magnification
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	
PGZ	PONGAROA Foundation: Tertiary Sediments Mark Products L4-C in borehole (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 Kinometrics VR-1 pen-recorder).	Z	1.0	4 800 at 0.25s
RAR	RAROTONGA (World-Wide Standard Station) Foundation: Basalt. Benioff Signal also recorded by EARSS digital event recorder tuned to trigger on T-waves.	ZNE	1.0	6 250 at 1.0s
	Press-Ewing GeoTech KS36000i broad band seismometer recorded on IRIS-2 digital recording system.	Z	15	375 at 15s
RTY	ROTOITI Foundation: Glacial gravels. Mark Products L4-C (with Kinometrics VR-1 pen-recorder).	Z	1.0	Uncertain
SBA	SCOTT BASE (World-Wide Standard Station) Foundation: Frozen basaltic debris resting on lava flows. Benioff	ZNE	1.0	12 500-50 000 at 1.0s according to season
	Press-Ewing	ZNE	15	750 at 15s
SIZ	STEWART ISLAND Foundation: Granite Mark Products L4-C (with EARSS digital gain-ranging recorder).	Z	1.0	

	Instrument	Compt.	To	Damping	Magnification
TAZ	TARAWERA Foundation: Rhyolite lava. Mark Products L4-C (telemetered to Kinometrics VR-1 pen-recorder and to EARSS digital recorder).	Z	1.0		Variable
THZ	TOPHOUSE Foundation: Permian Greywacke. Willmore II (with EARSS digital gain-ranging recorder).	ZNE	1.0		
TMP	TOMAHAWK GULLY Foundation: Mesozoic Greywacke Mark Products L4-C (telemetered to separate Kinometrics 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		
UTU	UTUHINA Foundation: Ignimbrite. Mark Products L4-C (telemetered to Kinometrics VR-1 pen-recorder and to EARSS digital recorder).	Z	1.0		Variable
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.	Z	1.0		6 250 at 1.0s
	Benioff	ZNE	15		375 at 15s
	Press-Ewing	NE	0.80	crit.	1 400 at 0.8s
	Wood-Anderson (until March)	Z	1	5:1	2
	Imamura	NE	4	5:1	2
	Kinometrics force-balance accelerometer (with EARSS digital gain-ranging recorder).	ZNE	1.0		
WHZ	WETHER HILL (from March) Foundation: Greywacke. Mark Products L4-C (with EARSS digital gain-ranging recorder)	Z	1.0		
	from July Mark Products L4-3D (with EARSS digital gain-ranging recorder)	ZNE	1.0		

Instrument	Compt.	To	Damping	Magnification
WIZ	WHITE ISLAND			
	Foundation: Recent andesite.			
	Mark Products L4-C (Telemetered to Kinometrics VR-1 pen-recorder).			
	Z	1.0		Variable
WLZ	WHITEHALL			
	Foundation: Jurassic Greywacke.			
	Willmore II	Z	1.0	
	Willmore I	NE	1.0	
	(with EARSS digital gain-ranging recorder).			
WVZ	WAITAHA VALLEY			
	Foundation: Granite.			
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).			
	ZNE	1.0		

BROADBAND IRIS STATION AND LOCAL NETWORKS

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.

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

BAY OF PLENTY VOLCANIC-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. Edgecumbe (EDRZ) was installed in July and in November Hinemaiaia (HATZ) began operating.

Data from these stations are telemetered to a 16-channel EARSS at Rotorua. Tarawera (TAZ), Utuhina (UTU) and White Island (WIZ), are recorded on VR-1 pen-and-ink visual recorders as part of the New Zealand network. The seismometers are Mark Products L4-C (1 Hz) short-period vertical seismometers.

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

CLYDE NETWORK

A network of seismometers has been installed near Clyde to collect data on the prevailing level of microseismicity in the area of the dam now being constructed on the Clutha River. This network operated by the Electricity Corporation of New Zealand, is used to monitor any changes in local seismicity associated with the use of the lake for the generation of electricity. The system records all detected seismic events in digital form, on magnetic tape. Tapes are interpreted and retained at the Observatory where they are

available for other seismological use. Clyde network stations are linked by radio telemetry to a multi-channel SNARE (Seismic Network Automatic Recording Equipment), which both detects and records seismic events, at Clyde. The seismometers are Mark Products L4-C or L4-3D instruments with a natural period of one second and the lithological foundation at all stations is Schist. Recorded waveforms can be displayed on a monitor screen at any required scale.

Code	Station	Component
CFC	Cairnmuir Flats	Z
CMCZ	Cairnmuir Mountains	ZNE
LRCZ	Leaning Rock	Z
LSCZ	Lilico Spur	Z
MMCZ	Mount Michael	Z
MHZ	Mount Horn	Z
MSCZ	Moutere Station	Z
SBCZ	Sonora Basin	Z
TBC	Trig B (formerly Clyde)	Z
TLC	Trig L	Z

HAWKE'S BAY NETWORK

The Hawke's Bay network has been installed to monitor seismicity in an area which has not only some potential for hydro-electric power generation, but also a history of severe earthquakes. Havelock North station produces high-

and low-gain records from a three-component seismometer. The network records on a SNARE System in Havelock North.

Code	Station	Component(s)	Foundation
HNH	Havelock North	ZNE (High gain)	Greywacke gravel
"	"	ZNE (Low gain)	" "
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

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 Wairakei Observatory. The signals from Chateau (CNZ), Dome Shelter (DRZ), Maungaku (MRZ) and Ngaruhoe (NGZ) 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	
MGZ	Maungaku	Z	Andesite
NGZ	Ngaruhoe	Z	Andesite lava
TUVZ	Tukino	Z	

WELLINGTON NETWORK

The stations of the Wellington network are linked by radio or land-line to a common SNARE event-detecting and recording system at the Observatory at Kelburn. The instrument at WEL is a Kinematics 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. SNARE records are made on magnetic tape and may be displayed on a monitor screen at any required magnification. The MRW vertical component is 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

FIORDLAND NETWORK

This network of 24 digital portable seismographs was installed to provide for the first time detailed information on the seismicity, structure and tectonics of the Fiordland region. The network operated from March 17 until June 26. Some of the sites were reoccupied in August to monitor aftershocks of the Mw 7.0 Secretary Island earthquake of 1993 August 10 (93/7828).

Stations DAVF, EDSF, FLSF, JRCF, LAHF, LWKF, MASF, SAMF, SUFF, TAKF and WJAF were equipped with 4.5 Hz vertical geophones and RATS digital arrival-time recorders. All other stations had 1 Hz three-component seismometers and EARSS digital recorders.

None of these stations have official international codes.

CODE	NAME	LATITUDE				LONGITUDE				ALT m
		d	m	s		d	m	s		
BDPF	Bend Point (Nancy Sound)	45	10	39	S	167	06	23	E	3
CG1F	Control Gates 1 (Waiau Weir)	45	37	04	S	167	41	34	E	180
DAVF	Davaar Station	45	33	59	S	167	56	50	E	380
DCVF	Duck Cove (Dusky Sound)	45	44	04	S	166	38	53	E	2
EDSF	Edwardson Sound	45	56	40	S	166	37	27	E	2
FLSF	Florence Stream	45	39	30	S	167	20	36	E	244
FRDF	Forest Road	44	44	18	S	168	23	37	E	396
HOBFB	Horoko Burn	45	50	05	S	167	08	31	E	152
JRCF	Jerusalem Creek	44	21	02	S	168	01	56	E	50
KPSF	Kisbee Bay	46	07	01	S	166	41	47	E	2
LAHF	Lake Horoko	45	59	11	S	167	22	09	E	152
LWKF	Lake Wakatipu	45	01	52	S	168	26	33	E	434
MASF	Mt Aspiring Station	44	30	01	S	168	47	12	E	366
MDAF	Middle Arm	45	05	57	S	167	34	21	E	203
NADF	North Arm Dagg	45	23	56	S	166	51	41	E	2
PARF	Paradise	44	43	28	S	168	21	30	E	396
POTF	Poteriteri	46	10	33	S	167	03	25	E	60
SAMF	South Arm	45	18	28	S	167	25	37	E	203
SBYF	Supply Bay	45	31	44	S	167	36	12	E	183
SMCF	Smithy Creek	44	57	21	S	168	01	25	E	430
SUFF	Sutherland Falls	44	47	47	S	167	44	40	E	300
TACF	Te Anau Control Gates	45	26	32	S	167	41	07	E	204
TAKF	Takaro Lodge	45	17	16	S	167	57	27	E	470
WJAF	Wet Jacket Arm	45	38	03	S	166	53	36	E	2
WWRFB	White Water River	44	56	47	S	167	21	58	E	2

MARLBOROUGH NETWORK

This network operated during the period 1993 October 17 until 1994 March 14. It formed part of a major seismograph deployment in the southern North Island and northern South Island, carried out in conjunction with Memphis State University, Victoria University of Wellington, and the University of Leeds.

Stations prefaced with RAM were equipped with 4.5 Hz vertical geophones and RATS digital arrival-time recorders. All other stations had 1 Hz three-component seismometers and EARSS digital recorders, with the exception of station YARM, which had only a vertical component 1 Hz seismometer and EARSS recorder.

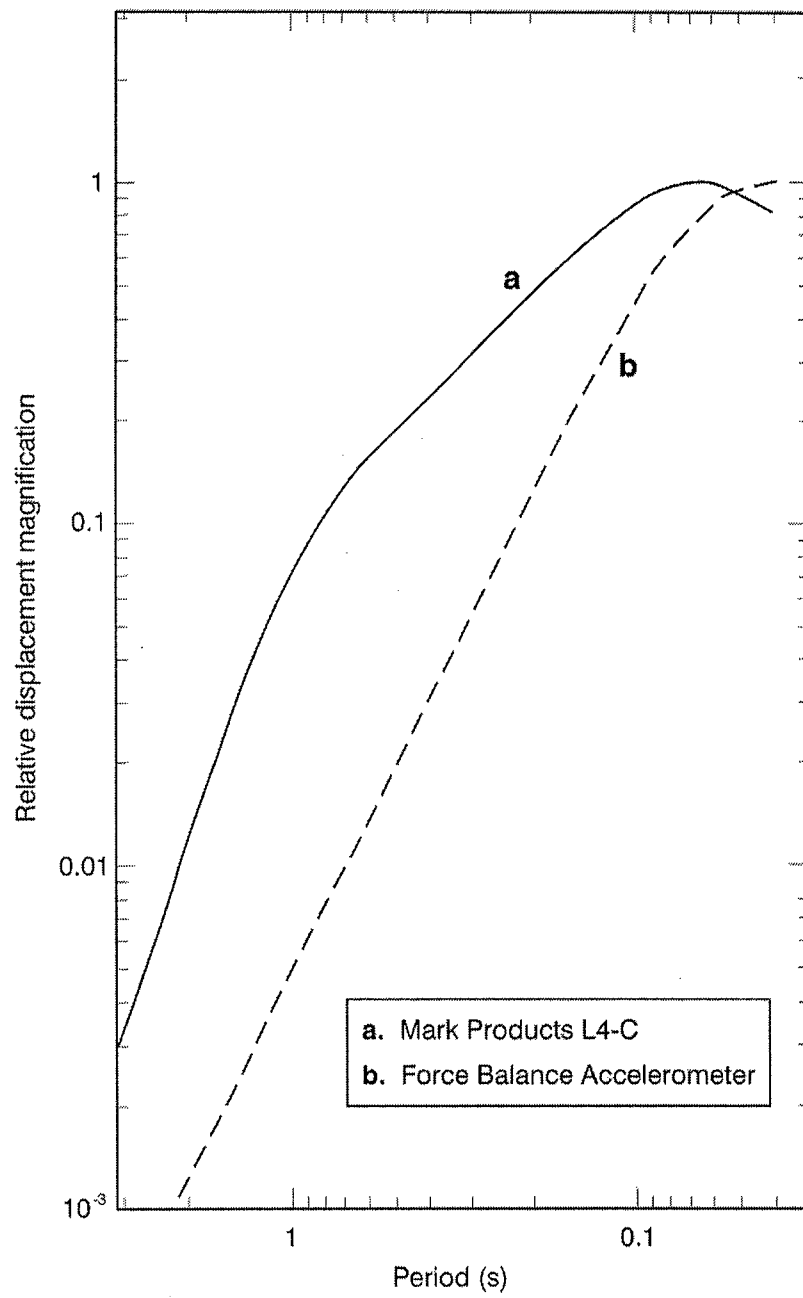
None of these stations have official international codes.

CODE	NAME	LATITUDE				LONGITUDE				ALT m
		d	m	s		d	m	s		
CASM	Castle River	41	58	49	S	173	26	26	E	740
CLAM	Clarence	42	04	39	S	173	50	28	E	160
CONM	Conway River	42	37	16	S	173	22	32	E	90
FABM	Fabian's Valley	41	30	16	S	173	34	32	E	170
FLAM	Flaxbourne	41	45	45	S	174	11	50	E	100
GOHM	Goat Hill	42	27	31	S	173	18	02	E	460
GRAM	Graham Valley	41	11	59	S	172	46	46	E	460
IRVM	Irvine's farm	41	27	03	S	173	05	43	E	120
ISIM	Isis Stream	41	51	50	S	173	42	13	E	480
ISOM	Isolated Hill	42	41	54	S	172	59	32	E	190
JOPM	Jollies Pass	42	27	46	S	172	51	52	E	800
KEKM	Kekerengu	41	58	17	S	173	58	58	E	120
KENM	Kenepuru	41	08	04	S	174	08	21	E	70
KOKM	Kokorua	41	06	15	S	173	33	06	E	20
KORM	Koromiko	41	19	49	S	173	55	50	E	80
LEAM	Leatham	41	45	08	S	173	12	28	E	510
LINM	Linkwater	41	16	08	S	173	51	29	E	40
LYLM	Lyndon Lea	42	50	46	S	173	17	52	E	80
MAPM	Maxwell Pass	41	34	37	S	173	57	13	E	120
MOLM	Molesworth	42	05	15	S	173	15	38	E	880
NMCM	No Man's Creek	42	06	10	S	172	54	30	E	970
PUHM	Puhi Puhi River	42	18	05	S	173	42	49	E	120
PUPM	Puponga	40	30	45	S	172	41	39	E	20
RAM1	Moutere RATS 1 (Gibbs Valley)	41	25	05	S	173	03	29	E	80
RAM2	Moutere RATS 2 (Pigeon Valley)	41	23	08	S	173	01	26	E	100
RAM3	Moutere RATS 3 (Forest)	41	21	18	S	172	59	04	E	270
RAM4	Moutere RATS 4 (Tobacco farm)	41	19	45	S	172	56	23	E	180
RAM5	Moutere RATS 5 (Orchard)	41	17	27	S	172	54	18	E	130
RAM6	Moutere RATS 6 (Silcock's farm)	41	15	54	S	172	51	57	E	320
RAM7	Moutere RATS 7 (Jenkins' farm)	41	14	12	S	172	49	24	E	80

CODE	NAME	LATITUDE				LONGITUDE				ALT m
		d	m	s		d	m	s		
RIMM	Rimutaka	41	14	00	S	175	09	31	E	50
ROBM	Mt Robertson	41	23	32	S	174	01	00	E	80
SPCM	Serpentine Creek	42	14	52	S	172	45	18	E	1080
SRWM	St Ronan's Well	41	56	49	S	172	53	51	E	770
TOTM	Totaranui	40	50	28	S	172	58	47	E	240
VERM	Vernon	41	33	31	S	174	07	00	E	60
WAIM	Waihopai	41	43	44	S	173	28	03	E	410
WROM	White Rock	41	33	12	S	175	23	45	E	50
YARM	Yarra River	42	14	20	S	173	03	35	E	810

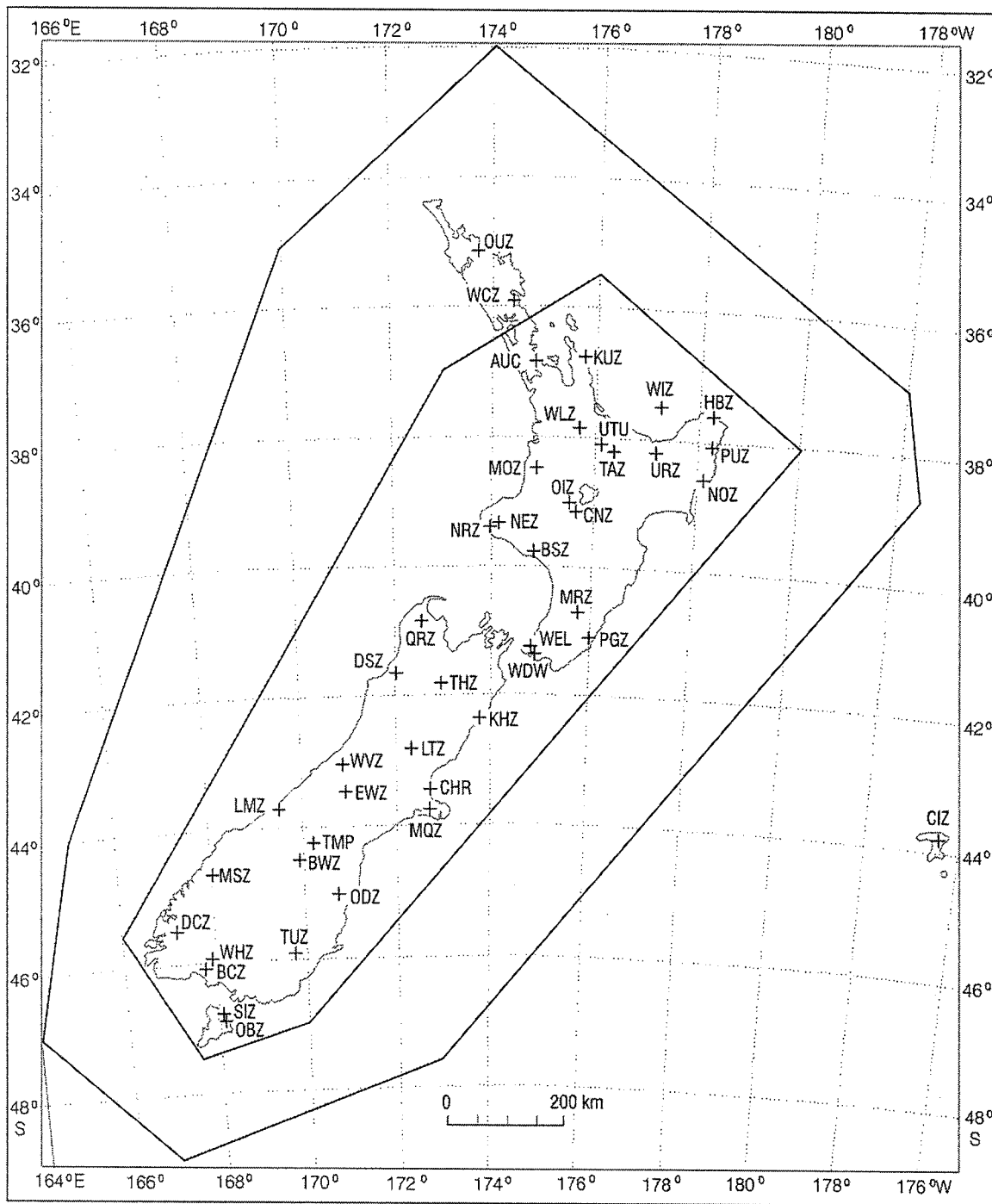
RESPONSE CURVE

EARSS RESPONSE



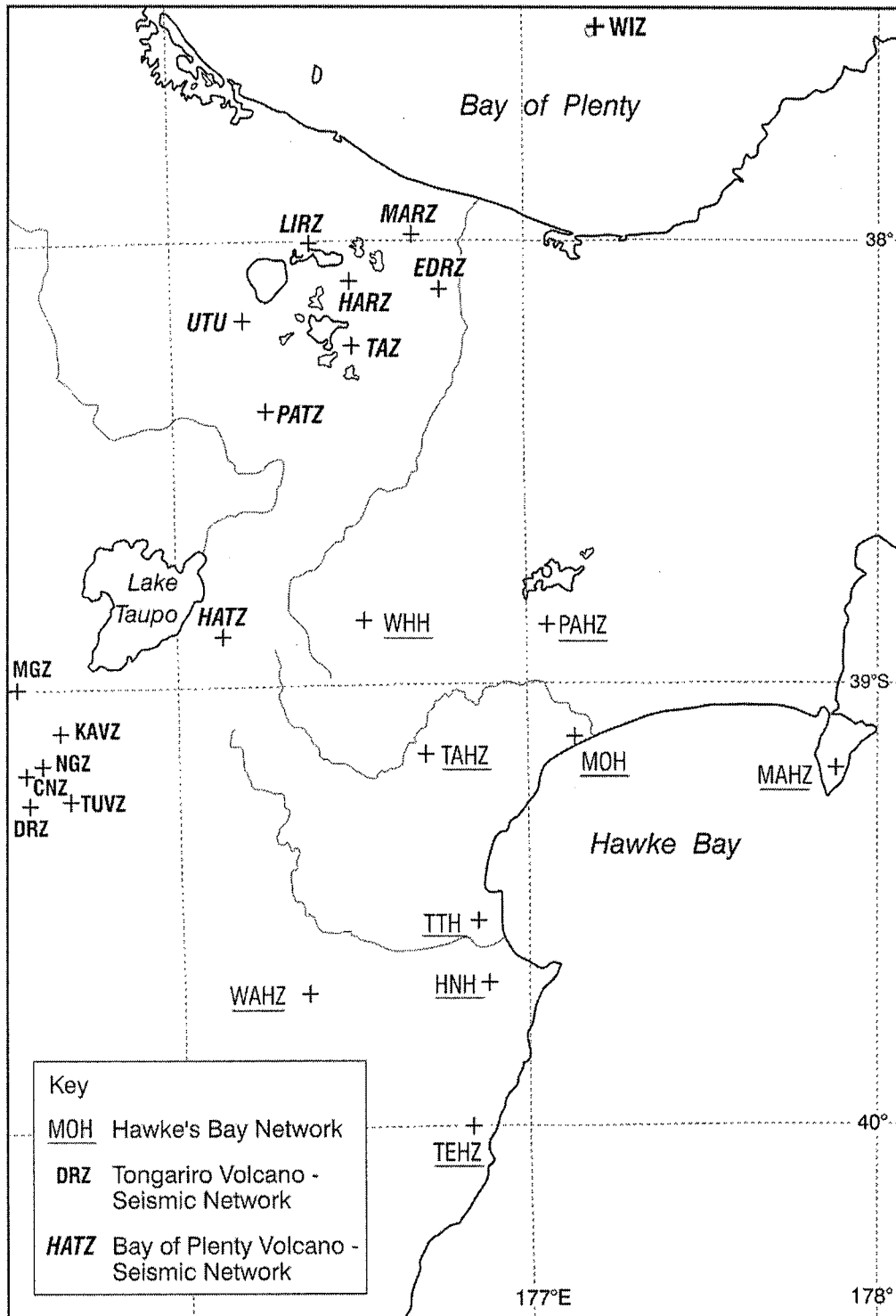
Period response curve of L4C seismometers with EARSS recorders.

NATIONAL SEISMOGRAPH NETWORK



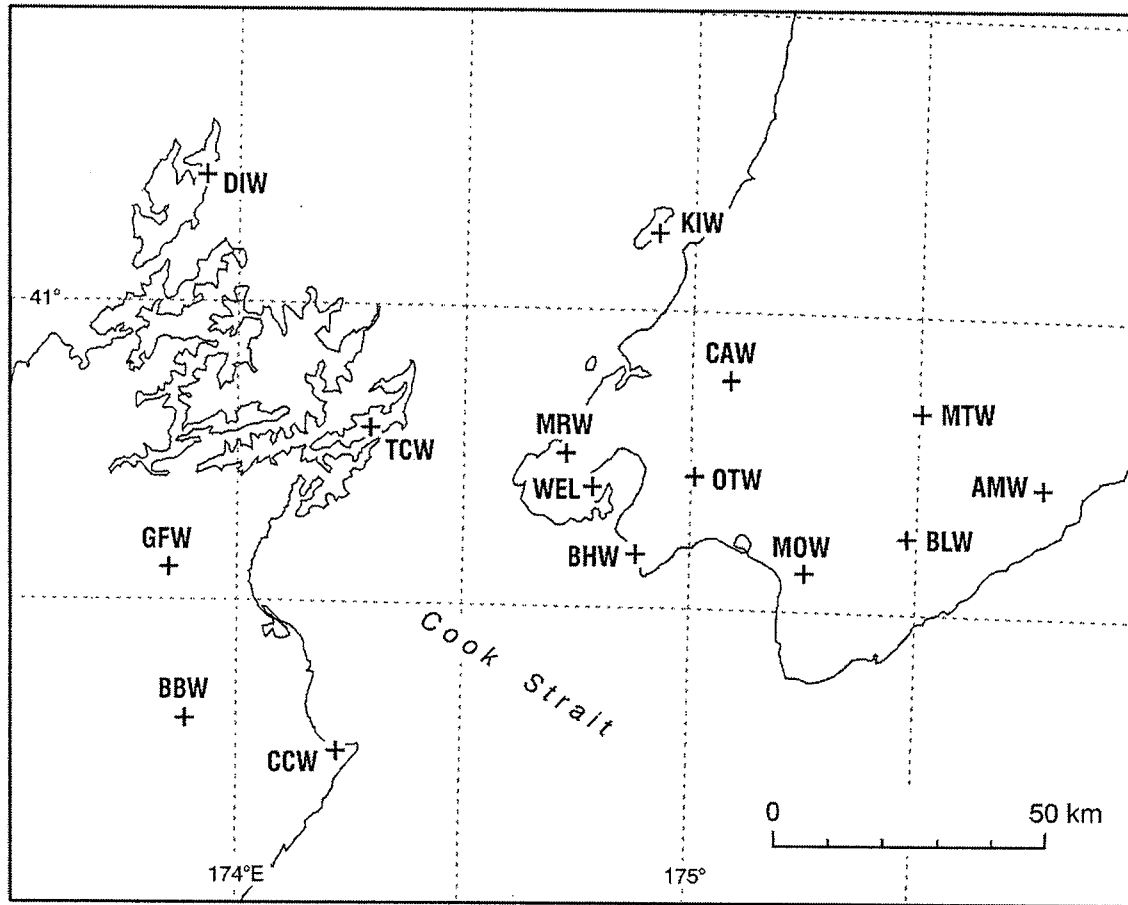
Stations of the National Seismograph Network. Some stations that are too closely spaced to show on this scale are shown instead on the map of the Volcanic and Hawke's Bay Networks. The inner and outer polygons define areas where accuracy of epicentre locations is considered reliable, less reliable and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

VOLCANIC AND HAWKE'S BAY NETWORK MAP



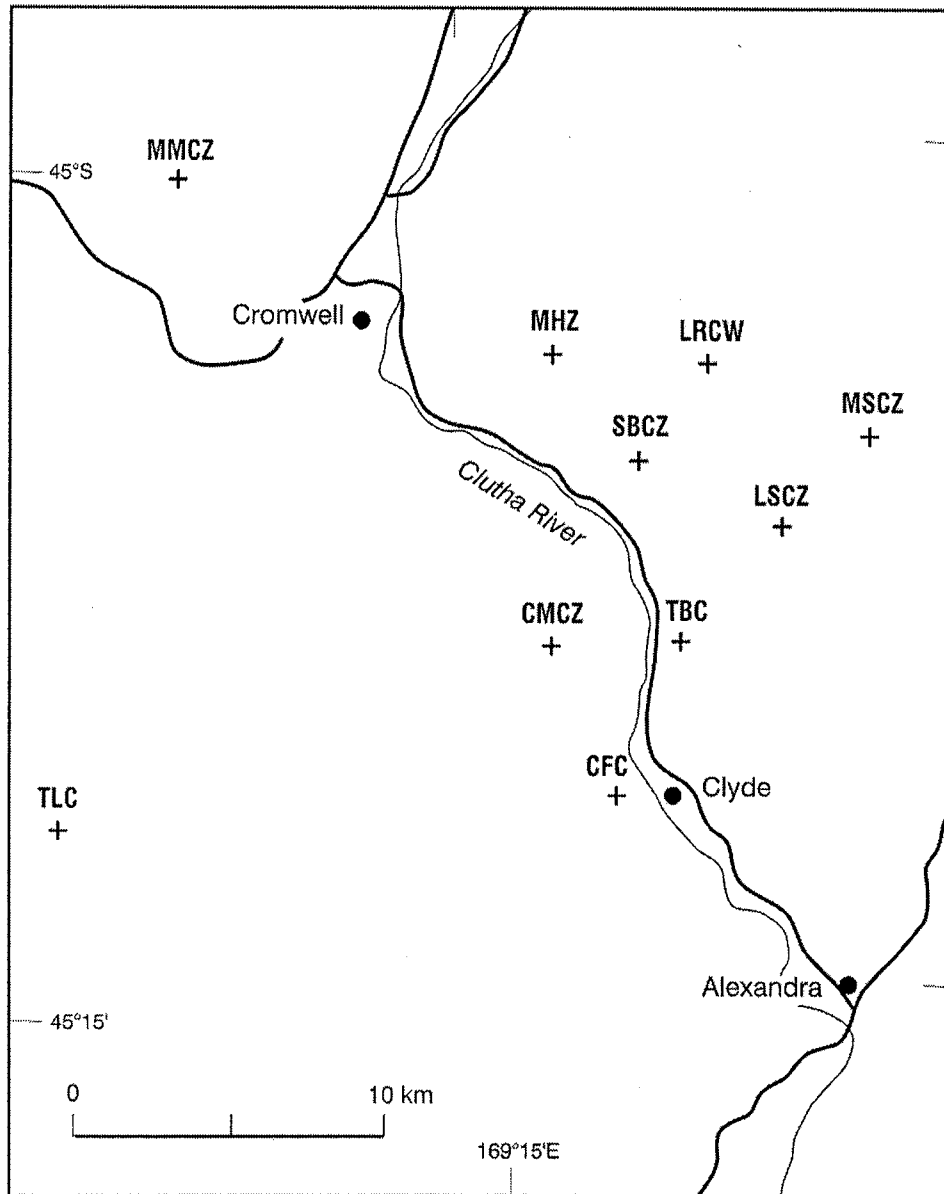
Stations of the Volcanic and Hawke's Bay Networks. Other stations lying within the boundaries of the map are also shown.

WELLINGTON NETWORK MAP



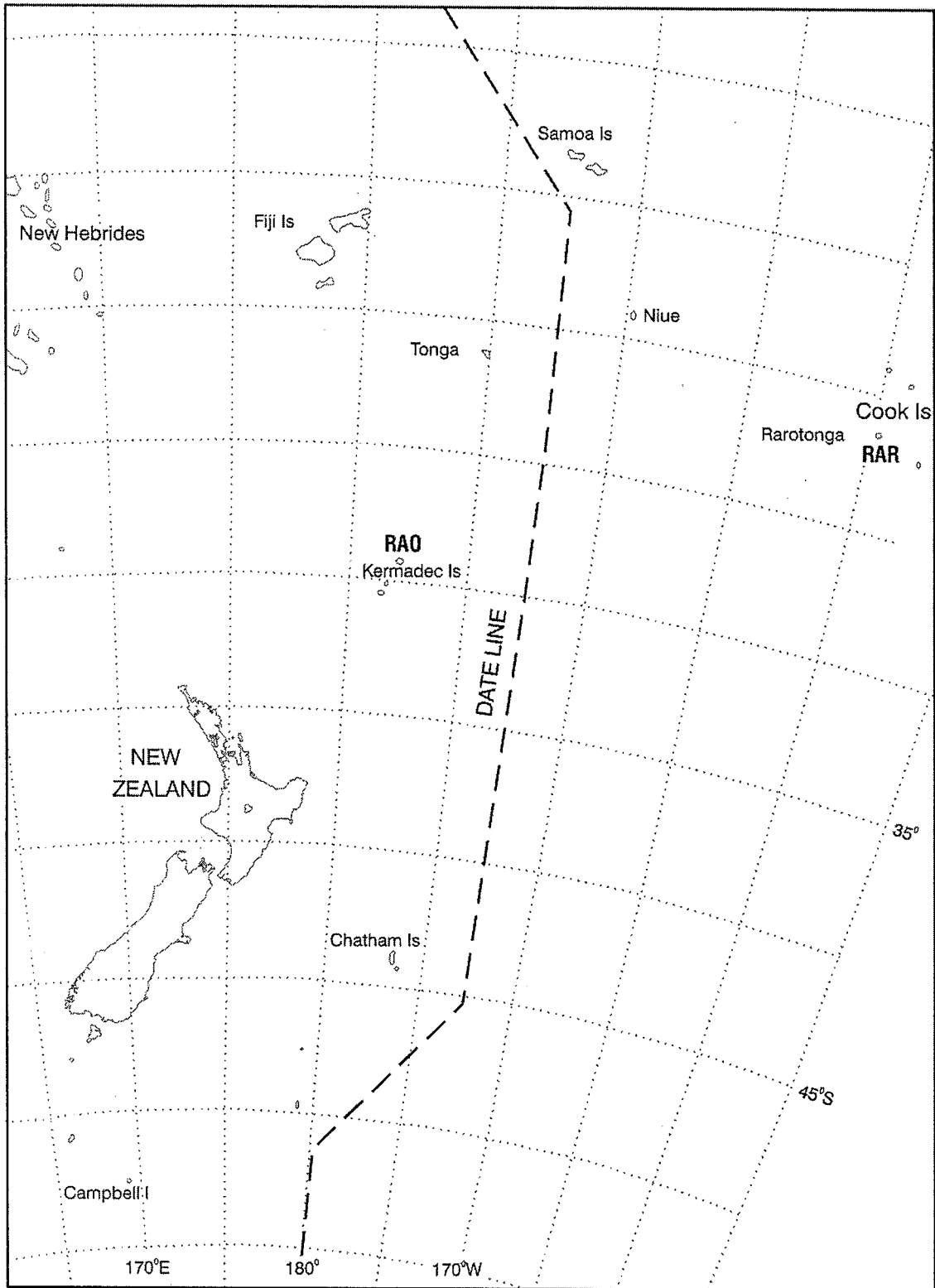
The Wellington Network includes stations on both sides of Cook Strait.

CLYDE NETWORK MAP



The Clyde Network monitors seismic activity around the Clyde Dam.

PACIFIC ISLAND STATIONS MAP



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 1993 Daylight Time was in effect until 02h NZST on March 21st, and from 02h NZST on October 3rd 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 Institute 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 Institute 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 23, 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 33), 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), Braida Crags (BCZ), 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 32 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 BCZ, 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

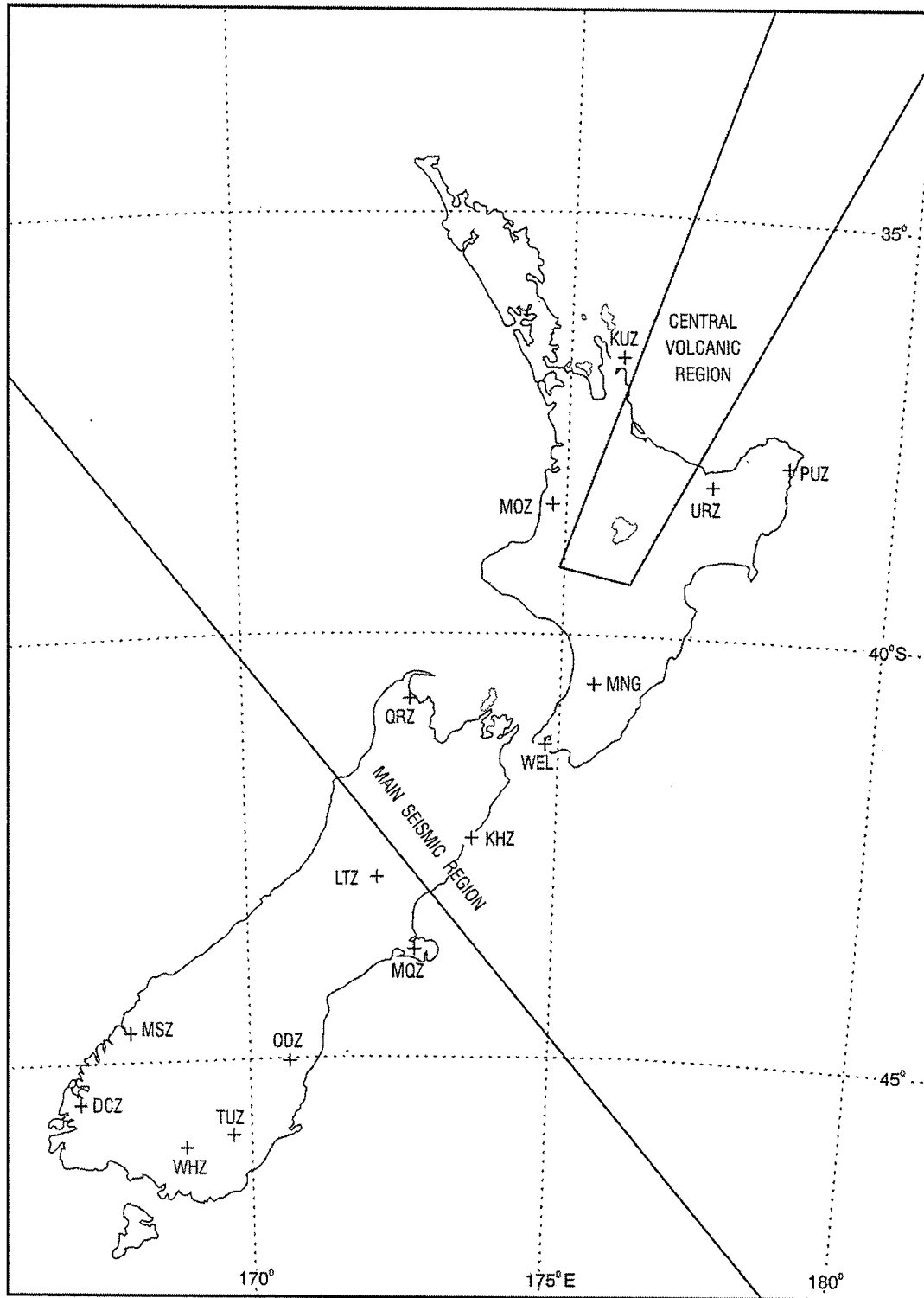
Synthetic Wood-Anderson seismograms are computed for all horizontal components at non-telemetered EARSS stations having Mark Products L4-C 1Hz seismometers or, in the case of WEL, a Kinematics force-balance accelerometer (see Map, page 33). The Wood-Anderson gain used is 2080. The maximum amplitude for 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)
BCZ	E Fiordland only		+0.36
BCZ	E All shallow	+0.18	
DCZ	H Fiordland only		+0.59
DCZ	H All shallow	+0.60	
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	
MSZ	H Fiordland only		+0.21
MSZ	H All shallow	+0.35	
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	P, Q	+0.30	+0.30
WEL	N	0.00	0.00
WEL	E	+0.09	+0.09

H refers to horizontal seismometers, either N/S or E/W.
P, Q refers to the Wood-Anderson seismograph operated at WEL at a gain of 1040. 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 magnitudes from digital records.

LISTS OF ORIGIN AND MAGNITUDE DETERMINATIONS

DATA FROM THE NATIONAL NETWORK

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,

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

where r_i is the i th 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.

93/18				93/83			
JAN 01 123534.9s	38.73S	177.42E	36km M=4.4	JAN 03 105120.0s	36.49S	179.56E	12km M=3.6
	0.1	0.01	0.01 3		0.4	0.03	0.03 R
Rsd 0.2s	27ph/22stn	Dmin 35km	Az.gap 65°	Rsd 0.1s	10ph/6stn	Dmin 167km	Az.gap 305°
Corr. 0.213	9M/5stn	Msd 0.4	4 ↑ 4↓	Corr. -0.079	5M/5stn	Msd 0.3	
Felt Gisborne (45) MM4.							
93/21				93/84			
JAN 01 124831.6s	37.85S	178.21E	60km M=3.8	JAN 03 105708.5s	38.69S	174.59E	22km M=3.8
	0.1	0.01	0.01 1		0.1	0.00	0.01 1
Rsd 0.1s	18ph/12stn	Dmin 25km	Az.gap 156°	Rsd 0.1s	19ph/11stn	Dmin 27km	Az.gap 138°
Corr. -0.125	22M/19stn	Msd 0.2	2 ↑ 1↓	Corr. -0.281	35M/31stn	Msd 0.2	1 ↑ 1↓
93/32				93/91			
JAN 02 010732.0s	37.61S	176.25E	224km M=3.8	JAN 03 141711.3s	38.39S	176.27E	5km M=2.9
	0.5	0.05	0.05 3		0.1	0.01	0.01 R
Rsd 0.1s	12ph/6stn	Dmin 105km	Az.gap 246°	Rsd 0.3s	14ph/12stn	Dmin 25km	Az.gap 50°
Corr. -0.773	13M/13stn	Msd 0.3		Corr. 0.217	12M/12stn	Msd 0.2	1 ↑
				Felt Reporoa (33) MM4. First of a series.			
93/43				93/92			
JAN 02 111205.8s	38.85S	175.87E	111km M=3.8	JAN 03 142504.8s	38.36S	176.26E	5km M=3.6
	0.3	0.01	0.01 3		0.1	0.01	0.01 R
Rsd 0.3s	36ph/23stn	Dmin 43km	Az.gap 55°	Rsd 0.3s	24ph/23stn	Dmin 21km	Az.gap 51°
Corr. -0.047	27M/23stn	Msd 0.3	1 ↑	Corr. -0.165	30M/29stn	Msd 0.2	1 ↑
				Felt Reporoa (33) MM4. Largest of a series of small felt quakes.			
93/46				93/105			
JAN 02 123230.3s	37.77S	176.48E	205km M=5.7	JAN 03 175104.0s	39.42S	176.93E	52km M=3.6
	0.4	0.03	0.02 3		0.1	0.01	0.01 2
Rsd 0.3s	36ph/23stn	Dmin 28km	Az.gap 115°	Rsd 0.2s	32ph/23stn	Dmin 16km	Az.gap 142°
Corr. 0.188	9M/5stn	Msd 0.2	16 ↑ 10↓	Corr. -0.469	23M/20stn	Msd 0.3	2 ↑ 2↓
93/57				93/141			
JAN 02 150112.4s	38.12S	176.18E	144km M=3.7	JAN 04 153233.8s	35.18S	178.20E	271km M=3.7
	0.6	0.04	0.03 3		0.4	0.05	0.09 7
Rsd 0.2s	16ph/12stn	Dmin 83km	Az.gap 225°	Rsd 0.1s	10ph/7stn	Dmin 269km	Az.gap 331°
Corr. -0.743	21M/20stn	Msd 0.3	1 ↑	Corr. -0.937	6M/6stn	Msd 0.2	
93/59				93/170			
JAN 02 165027.8s	35.92S	178.92E	256km M=3.8	JAN 05 135612.9s	38.76S	175.09E	192km M=3.5
	0.5	0.05	0.05 7		0.4	0.03	0.04 6
Rsd 0.1s	8ph/7stn	Dmin 246km	Az.gap 323°	Rsd 0.2s	17ph/14stn	Dmin 184km	Az.gap 226°
Corr. -0.414	8M/8stn	Msd 0.2		Corr. -0.881	6M/6stn	Msd 0.2	
93/64				93/174			
JAN 02 192933.1s	38.81S	175.33E	215km M=4.0	JAN 05 161546.9s	38.89S	175.20E	194km M=4.0
	0.4	0.02	0.03 3		0.4	0.02	0.03 3
Rsd 0.2s	27ph/19stn	Dmin 27km	Az.gap 127°	Rsd 0.2s	29ph/19stn	Dmin 24km	Az.gap 197°
Corr. 0.455	27M/22stn	Msd 0.3	5 ↑ 1↓	Corr. -0.124	26M/23stn	Msd 0.3	1 ↑
93/71				93/195			
JAN 03 013625.1s	35.84S	178.79E	263km M=3.9	JAN 06 024654.7s	38.49S	178.38E	31km M=3.8
	0.4	0.06	0.09 5		0.2	0.01	0.02 2
Rsd 0.0s	13ph/10stn	Dmin 253km	Az.gap 335°	Rsd 0.2s	12ph/8stn	Dmin 33km	Az.gap 213°
Corr. -0.951	8M/8stn	Msd 0.2		Corr. -0.438	19M/15stn	Msd 0.3	2 ↑ 1↓
93/74				93/204			
JAN 03 023759.5s	38.45S	175.62E	158km M=3.6	JAN 06 111922.1s	45.02S	167.56E	123km M=3.6
	0.4	0.02	0.04 5		0.3	0.01	0.01 2
Rsd 0.2s	21ph/14stn	Dmin 90km	Az.gap 274°	Rsd 0.1s	22ph/16stn	Dmin 48km	Az.gap 184°
Corr. -0.563	12M/12stn	Msd 0.3	1 ↑	Corr. -0.406	15M/15stn	Msd 0.2	1 ↓
93/77				93/204			
JAN 03 081948.9s	37.65S	179.66E	33km M=4.1				
	0.3	0.02	0.02 R				
Rsd 0.1s	17ph/13stn	Dmin 120km	Az.gap 289°				
Corr. 0.111	34M/29stn	Msd 0.1	1 ↑				

						93/224						93/319		
JAN	06	221925.8s	36.86S	176.84E	256km	M=3.8		JAN	11	120524.2s	37.85S	175.63E	280km	M=3.7
		0.6	0.08	0.07	6					0.4	0.06	0.09	8	
Rsd	0.2s	12ph/8stn	Dmin	157km	Az.gap	292°		Rsd	0.1s	19ph/15stn	Dmin	138km	Az.gap	274°
Corr.	-0.652	12M/12stn	Msd	0.2				Corr.	-0.944	11M/11stn	Msd	0.2		
							93/228							93/322
JAN	07	031951.1s	38.50S	175.93E	156km	M=4.6		JAN	11	134253.6s	39.03S	174.83E	216km	M=3.6
		0.5	0.02	0.02	4					0.5	0.05	0.06	7	
Rsd	0.3s	37ph/25stn	Dmin	43km	Az.gap	68°		Rsd	0.2s	24ph/18stn	Dmin	86km	Az.gap	199°
Corr.	-0.116	30M/23stn	Msd	0.2	7 ↑	2↓		Corr.	-0.817	18M/17stn	Msd	0.2		
							93/232							93/324
JAN	07	072104.2s	43.22S	170.92E	6km	M=3.6		JAN	11	143942.5s	44.60S	167.58E	7km	M=3.9
		0.1	0.00	0.00	1					0.3	0.01	0.01	1	
Rsd	0.1s	20ph/13stn	Dmin	22km	Az.gap	74°		Rsd	0.1s	25ph/17stn	Dmin	28km	Az.gap	207°
Corr.	-0.063	22M/20stn	Msd	0.2	1 ↓			Corr.	-0.728	24M/17stn	Msd	0.2	1 ↑	2↓
							93/234							93/341
JAN	07	102655.7s	36.37S	178.83E	99km	M=4.0		JAN	12	065909.7s	44.52S	168.30E	12km	M=4.3
		0.6	0.04	0.04	11					0.4	0.03	0.01	R	
Rsd	0.3s	11ph/5stn	Dmin	144km	Az.gap	294°		Rsd	0.2s	21ph/15stn	Dmin	34km	Az.gap	181°
Corr.	0.494	8M/6stn	Msd	0.1				Corr.	-0.184	21M/14stn	Msd	0.3	1 ↑	5↓
							93/269							93/352
JAN	08	215505.4s	45.21S	167.47E	109km	M=3.7		JAN	12	124731.6s	38.53S	175.41E	232km	M=4.1
		0.3	0.01	0.02	2					0.9	0.03	0.03	8	
Rsd	0.2s	25ph/17stn	Dmin	38km	Az.gap	172°		Rsd	0.3s	21ph/17stn	Dmin	53km	Az.gap	99°
Corr.	-0.366	19M/17stn	Msd	0.2	1 ↑			Corr.	-0.090	27M/23stn	Msd	0.2		
							93/271							93/353
JAN	08	224344.4s	36.64S	178.01E	212km	M=3.6		JAN	12	130808.0s	41.29S	172.85E	132km	M=3.8
		0.8	0.09	0.09	6					0.4	0.02	0.02	3	
Rsd	0.3s	8ph/4stn	Dmin	160km	Az.gap	326°		Rsd	0.3s	25ph/17stn	Dmin	53km	Az.gap	92°
Corr.	-0.679	4M/4stn	Msd	0.1				Corr.	-0.217	13M/10stn	Msd	0.1	1 ↑	
							93/275							93/359
JAN	09	074736.9s	36.88S	176.98E	259km	M=4.0		JAN	12	165319.1s	37.77S	176.27E	226km	M=4.6
		0.6	0.06	0.05	5					0.6	0.04	0.03	5	
Rsd	0.2s	13ph/10stn	Dmin	142km	Az.gap	278°		Rsd	0.3s	24ph/20stn	Dmin	61km	Az.gap	109°
Corr.	-0.616	18M/18stn	Msd	0.2				Corr.	0.180	8M/5stn	Msd	0.2	2 ↑	1↓
							93/290							93/362
JAN	09	195324.5s	37.54S	177.71E	84km	M=3.6		JAN	12	185220.4s	38.33S	175.78E	161km	M=3.6
		0.2	0.01	0.01	2					0.7	0.03	0.05	7	
Rsd	0.1s	15ph/10stn	Dmin	52km	Az.gap	161°		Rsd	0.2s	15ph/13stn	Dmin	88km	Az.gap	277°
Corr.	-0.043	13M/11stn	Msd	0.2	1 ↑	1↓		Corr.	-0.533	10M/10stn	Msd	0.2		
							93/292							93/365
JAN	09	204056.5s	38.18S	176.28E	127km	M=3.6		JAN	12	233210.7s	38.04S	176.16E	171km	M=4.6
		0.4	0.01	0.02	4					0.4	0.01	0.01	4	
Rsd	0.2s	14ph/11stn	Dmin	73km	Az.gap	123°		Rsd	0.2s	25ph/20stn	Dmin	53km	Az.gap	91°
Corr.	0.023	19M/19stn	Msd	0.2				Corr.	0.006	11M/6stn	Msd	0.3	7 ↑	3↓
							93/310							93/373
JAN	10	220346.2s	37.76S	176.57E	199km	M=3.6		JAN	13	051237.5s	39.16S	174.79E	220km	M=5.0
		1.7	0.41	0.40	76					0.3	0.01	0.02	2	
Rsd	0.1s	9ph/6stn	Dmin	285km	Az.gap	338°		Rsd	0.3s	53ph/35stn	Dmin	54km	Az.gap	106°
Corr.	-0.964	1M/1stn	Msd	N.D.				Corr.	0.063	11M/6stn	Msd	0.3	10 ↑	2↓
							93/315							93/375
JAN	11	034338.0s	36.05S	179.93W	33km	M=3.7		JAN	13	094640.0s	37.33S	177.94E	100km	M=3.7
		0.6	0.03	0.06	R					0.3	0.02	0.03	3	
Rsd	0.1s	7ph/4stn	Dmin	233km	Az.gap	317°		Rsd	0.2s	13ph/8stn	Dmin	44km	Az.gap	206°
Corr.	-0.513	4M/4stn	Msd	0.4				Corr.	-0.220	17M/16stn	Msd	0.1	1 ↑	

				93/379					93/475		
JAN 13	105757.8s	41.97S	173.34E	20km	M=3.7	JAN 15	232428.8s	35.51S	178.59E	209km	M=4.2
	0.1	0.01	0.01	2			0.6	0.10	0.17	13	
Rsd 0.2s	26ph/18stn		Dmin 43km		Az.gap 92°	Rsd 0.1s	13ph/8stn		Dmin 233km		Az.gap 333°
Corr. 0.259	12M/6stn		Msd 0.1		2 ↑ 2↓	Corr. -0.889	13M/13stn		Msd 0.1		
					93/395						93/476
JAN 13	182135.4s	35.90S	179.57E	147km	M=4.2	JAN 16	001849.2s	39.12S	179.19W	33km	M=4.5
	1.1	0.09	0.08	19			0.6	0.04	0.04	R	
Rsd 0.3s	13ph/11stn		Dmin 220km		Az.gap 308°	Rsd 0.3s	18ph/14stn		Dmin 247km		Az.gap 282°
Corr. 0.425	12M/10stn		Msd 0.3			Corr. -0.065	38M/32stn		Msd 0.2		
					93/406						93/478
JAN 14	060358.8s	36.83S	177.13E	198km	M=3.6	JAN 16	015540.5s	39.19S	174.82E	204km	M=3.5
	0.5	0.07	0.04	6			0.3	0.01	0.02	3	
Rsd 0.2s	10ph/4stn		Dmin 159km		Az.gap 302°	Rsd 0.1s	24ph/17stn		Dmin 67km		Az.gap 223°
Corr. -0.202	7M/7stn		Msd 0.3			Corr. -0.184	12M/12stn		Msd 0.2		
					93/410						93/482
JAN 14	083651.4s	47.57S	165.93E	33km	M=4.3	JAN 16	051406.4s	38.06S	175.90E	192km	M=3.8
	0.5	0.04	0.03	R			0.2	0.02	0.02	2	
Rsd 0.2s	17ph/12stn		Dmin 227km		Az.gap 323°	Rsd 0.1s	18ph/13stn		Dmin 106km		Az.gap 215°
Corr. -0.130	19M/14stn		Msd 0.1			Corr. -0.601	22M/22stn		Msd 0.2		1 ↓
					93/412						93/526
JAN 14	090832.4s	47.13S	165.33E	33km	M=3.6	JAN 17	144500.0s	40.07S	174.93E	32km	M=3.6
	0.5	0.04	0.02	R			0.2	0.01	0.01	2	
Rsd 0.1s	11ph/9stn		Dmin 230km		Az.gap 328°	Rsd 0.3s	33ph/24stn		Dmin 30km		Az.gap 66°
Corr. 0.193	11M/11stn		Msd 0.2			Corr. -0.151	8M/5stn		Msd 0.2		1 ↑
											Felt Wanganui (57) MM4.
					93/420						93/529
JAN 14	180528.0s	44.46S	168.03E	12km	M=3.7	JAN 17	163541.9s	40.64S	174.80E	46km	M=3.7
	0.3	0.02	0.01	R			0.1	0.01	0.01	3	
Rsd 0.2s	24ph/17stn		Dmin 25km		Az.gap 193°	Rsd 0.2s	31ph/23stn		Dmin 27km		Az.gap 70°
Corr. -0.792	25M/19stn		Msd 0.2		1 ↓	Corr. -0.211	23M/18stn		Msd 0.2		1 ↑
					93/433						93/532
JAN 15	010913.5s	37.68S	176.60E	171km	M=3.7	JAN 17	191041.1s	39.93S	176.81E	52km	M=3.7
	0.6	0.06	0.03	3			0.2	0.01	0.02	2	
Rsd 0.2s	11ph/8stn		Dmin 79km		Az.gap 253°	Rsd 0.2s	37ph/26stn		Dmin 6km		
Corr. -0.668	17M/17stn		Msd 0.2								Az.gap 129°
						Corr. -0.569	22M/18stn		Msd 0.2		1 ↑
					93/435						93/542
JAN 15	032926.1s	46.98S	165.32E	33km	M=5.2	JAN 18	060051.4s	38.06S	175.79E	172km	M=3.7
	0.4	0.03	0.03	R			0.5	0.04	0.04	4	
Rsd 0.2s	21ph/16stn		Dmin 220km		Az.gap 322°	Rsd 0.2s	15ph/11stn		Dmin 111km		Az.gap 217°
Corr. 0.104	17M/9stn		Msd 0.2		2 ↑ 1↓	Corr. -0.598	22M/21stn		Msd 0.2		
					93/437						93/544
JAN 15	040009.4s	37.82S	177.55E	47km	M=4.0	JAN 18	071334.2s	36.97S	176.59E	261km	M=3.9
	0.2	0.01	0.01	3			0.8	0.10	0.06	7	
Rsd 0.2s	24ph/19stn		Dmin 63km		Az.gap 124°	Rsd 0.3s	11ph/9stn		Dmin 151km		Az.gap 288°
Corr. 0.162	31M/24stn		Msd 0.2			Corr. -0.283	11M/11stn		Msd 0.2		
					93/453						93/548
JAN 15	124044.6s	38.66S	175.27E	5km	M=3.6	JAN 18	113233.0s	39.71S	173.96E	218km	M=4.0
	0.9	0.04	0.05	R			0.3	0.01	0.01	3	
Rsd 0.1s	16ph/10stn		Dmin 64km		Az.gap 234°	Rsd 0.2s	39ph/24stn		Dmin 41km		Az.gap 133°
Corr. -0.942	13M/11stn		Msd 0.6		1 ↑	Corr. -0.296	23M/21stn		Msd 0.1		1 ↓
					93/454						93/549
JAN 15	132328.2s	36.78S	177.49E	12km	M=3.9	JAN 18	115525.8s	40.41S	173.41E	191km	M=3.7
	0.7	0.06	0.04	R			0.3	0.02	0.01	3	
Rsd 0.5s	12ph/9stn		Dmin 88km		Az.gap 215°	Rsd 0.2s	33ph/18stn		Dmin 62km		Az.gap 152°
Corr. 0.780	12M/9stn		Msd 0.2			Corr. -0.154	13M/11stn		Msd 0.2		1 ↑

93/555
 JAN 18 201342.5s 48.92S 166.10E 33km M=4.0
 1.1 0.09 0.06 R
 Rsd 0.2s 12ph/11stn Dmin 350km Az.gap 332°
 Corr. -0.113 15M/13stn Msd 0.1

93/557
 JAN 18 233036.6s 44.61S 168.16E 74km M=3.6
 0.3 0.02 0.01 3
 Rsd 0.3s 27ph/18stn Dmin 20km Az.gap 154°
 Corr. -0.280 19M/17stn Msd 0.1 1 ↓

93/562
 JAN 19 042315.6s 36.58S 177.77E 160km M=3.5
 0.1 0.01 0.01 2
 Rsd 0.1s 7ph/4stn Dmin 123km Az.gap 321°
 Corr. -0.476 4M/4stn Msd 0.2

93/563
 JAN 19 044215.3s 37.63S 176.81E 141km M=3.8
 0.3 0.02 0.01 3
 Rsd 0.2s 17ph/12stn Dmin 72km Az.gap 134°
 Corr. 0.322 19M/19stn Msd 0.2 1 ↑

93/568
 JAN 19 072530.2s 38.72S 176.15E 91km M=3.5
 0.3 0.01 0.01 4
 Rsd 0.2s 31ph/21stn Dmin 35km Az.gap 102°
 Corr. -0.500 23M/22stn Msd 0.1 1 ↑

93/575
 JAN 19 132703.8s 38.65S 175.51E 158km M=3.5
 0.9 0.02 0.02 8
 Rsd 0.2s 17ph/11stn Dmin 63km Az.gap 141°
 Corr. 0.012 20M/19stn Msd 0.2

93/579
 JAN 19 201559.6s 36.89S 177.76E 120km M=3.8
 0.2 0.01 0.01 3
 Rsd 0.1s 10ph/6stn Dmin 93km Az.gap 235°
 Corr. 0.416 9M/9stn Msd 0.1

93/580
 JAN 19 220426.8s 39.29S 174.82E 210km M=3.6
 0.2 0.02 0.02 3
 Rsd 0.1s 19ph/13stn Dmin 57km Az.gap 265°
 Corr. -0.163 12M/12stn Msd 0.2 1 ↑

93/583
 JAN 20 003209.9s 36.95S 177.20E 154km M=3.6
 0.3 0.03 0.02 3
 Rsd 0.1s 9ph/5stn Dmin 122km Az.gap 280°
 Corr. -0.409 8M/8stn Msd 0.1

93/591
 JAN 20 095740.2s 37.92S 178.20E 59km M=5.1
 0.2 0.01 0.01 2
 Rsd 0.2s 26ph/20stn Dmin 18km Az.gap 149°
 Corr. 0.406 11M/6stn Msd 0.3 7 ↑ 9 ↓

Felt East Cape area (27,29,44,45), maximum intensity MM4.

93/592
 JAN 20 103514.3s 38.14S 176.26E 5km M=2.6
 0.1 0.01 0.01 R
 Rsd 0.2s 12ph/8stn Dmin 7km Az.gap 115°
 Corr. -0.293 4M/4stn Msd 0.2 1 ↑

Felt Rotorua (33) MM4.

93/598
 JAN 20 144002.5s 40.47S 174.30E 76km M=3.9
 0.2 0.01 0.01 4
 Rsd 0.2s 33ph/25stn Dmin 49km Az.gap 92°
 Corr. -0.170 27M/22stn Msd 0.3 2 ↑ 2 ↓

93/599
 JAN 20 144045.9s 37.62S 176.30E 205km M=3.7
 0.8 0.04 0.05 9
 Rsd 0.1s 11ph/9stn Dmin 100km Az.gap 247°
 Corr. -0.799 6M/6stn Msd 0.2

93/619
 JAN 21 165206.1s 38.99S 174.87E 195km M=4.0
 0.4 0.01 0.02 3
 Rsd 0.1s 30ph/22stn Dmin 54km Az.gap 130°
 Corr. -0.242 28M/23stn Msd 0.3

93/628
 JAN 22 001105.1s 37.62S 176.14E 200km M=3.5
 1.4 0.09 0.08 11
 Rsd 0.4s 10ph/7stn Dmin 111km Az.gap 276°
 Corr. -0.242 6M/6stn Msd 0.2

93/633
 JAN 22 055048.0s 47.59S 165.21E 33km M=3.6
 0.7 0.06 0.03 R
 Rsd 0.2s 14ph/12stn Dmin 267km Az.gap 330°
 Corr. -0.002 12M/12stn Msd 0.2

93/636
 JAN 22 071709.8s 37.60S 179.09E 29km M=3.6
 1.7 0.07 0.11 9
 Rsd 0.7s 7ph/5stn Dmin 69km Az.gap 294°
 Corr. 0.235 8M/6stn Msd 0.2 1 ↑

93/637
 JAN 22 074747.0s 37.39S 177.92E 68km M=4.0
 0.3 0.02 0.02 4
 Rsd 0.1s 11ph/7stn Dmin 41km Az.gap 196°
 Corr. -0.079 19M/16stn Msd 0.2 1 ↑ 2 ↓

93/646
 JAN 22 152025.2s 36.08S 177.11E 284km M=3.8
 1.6 0.16 0.17 16
 Rsd 0.4s 5ph/3stn Dmin 242km Az.gap 329°
 Corr. -0.680 2M/2stn Msd 0.1

93/655
 JAN 22 225610.7s 41.26S 172.62E 216km M=3.6
 0.3 0.02 0.02 3
 Rsd 0.2s 23ph/17stn Dmin 48km Az.gap 120°
 Corr. -0.137 11M/11stn Msd 0.2 2 ↑

93/671
 JAN 23 100753.2s 37.42S 178.29E 51km M=3.8
 0.2 0.01 0.01 2
 Rsd 0.1s 14ph/9stn Dmin 20km Az.gap 250°
 Corr. 0.029 24M/21stn Msd 0.3 1 ↑

93/683
 JAN 23 161542.8s 47.60S 165.33E 33km M=4.0
 1.0 0.07 0.06 R
 Rsd 0.3s 17ph/14stn Dmin 261km Az.gap 329°
 Corr. 0.228 19M/15stn Msd 0.2

93/685					93/786				
JAN 23	175329.7s	45.16S	167.40E	114km M=4.8	JAN 27	145334.6s	37.95S	175.92E	171km M=3.5
	0.3	0.02	0.02	3		0.5	0.09	0.13	22
Rsd 0.2s	23ph/15stn	Dmin 39km	Az.gap 188°		Rsd 0.2s	18ph/12stn	Dmin 200km	Az.gap 239°	
Corr. -0.314	22M/15stn	Msd 0.8	9 ↑ 3↓		Corr. -0.978	8M/8stn	Msd 0.3		
93/688					93/802				
JAN 23	194940.6s	38.44S	175.91E	157km M=4.3	JAN 28	015408.9s	36.68S	177.34E	202km M=3.8
	0.4	0.02	0.01	3		0.4	0.04	0.04	4
Rsd 0.2s	41ph/27stn	Dmin 38km	Az.gap 70°		Rsd 0.1s	10ph/7stn	Dmin 133km	Az.gap 294°	
Corr. 0.245	30M/24stn	Msd 0.2	1 ↑		Corr. -0.384	7M/7stn	Msd 0.2		
93/689					93/817				
JAN 23	203858.5s	37.94S	179.18E	24km M=4.0	JAN 28	114818.1s	44.70S	167.94E	92km M=3.7
	0.3	0.01	0.02	2		0.4	0.02	0.02	3
Rsd 0.1s	18ph/13stn	Dmin 83km	Az.gap 283°		Rsd 0.3s	26ph/17stn	Dmin 4km	Az.gap 124°	
Corr. -0.218	38M/33stn	Msd 0.2			Corr. -0.411	22M/18stn	Msd 0.2	1 ↑ 5↓	
93/700					93/818				
JAN 24	032854.1s	36.84S	176.45E	192km M=3.5	JAN 28	115117.7s	36.08S	177.82E	244km M=3.5
	0.8	0.14	0.08	54		0.9	0.09	0.10	8
Rsd 0.1s	11ph/9stn	Dmin 428km	Az.gap 343°		Rsd 0.2s	10ph/6stn	Dmin 174km	Az.gap 325°	
Corr. -0.011	6M/6stn	Msd 0.2			Corr. -0.790	4M/4stn	Msd 0.2		
93/705					93/824				
JAN 24	064340.2s	37.11S	177.25E	170km M=3.6	JAN 28	173029.8s	38.24S	176.20E	136km M=3.6
	0.5	0.05	0.04	4		0.5	0.04	0.03	4
Rsd 0.2s	13ph/9stn	Dmin 128km	Az.gap 299°		Rsd 0.2s	12ph/9stn	Dmin 76km	Az.gap 221°	
Corr. -0.613	7M/7stn	Msd 0.3			Corr. -0.637	19M/19stn	Msd 0.3	1 ↑	
93/711					93/831				
JAN 24	095551.5s	37.94S	179.18E	22km M=3.5	JAN 29	003602.4s	45.45S	166.73E	12km M=3.6
	0.3	0.01	0.01	2		0.3	0.01	0.02	R
Rsd 0.1s	10ph/6stn	Dmin 83km	Az.gap 287°		Rsd 0.2s	10ph/6stn	Dmin 33km	Az.gap 281°	
Corr. -0.345	11M/9stn	Msd 0.1	1 ↑		Corr. 0.210	8M/6stn	Msd 0.2	1 ↓	
93/717					93/842				
JAN 24	131427.3s	37.95S	179.20E	17km M=3.9	JAN 29	061803.4s	39.46S	175.05E	125km M=4.5
	0.2	0.01	0.01	2		0.2	0.01	0.01	3
Rsd 0.1s	13ph/10stn	Dmin 84km	Az.gap 283°		Rsd 0.2s	49ph/36stn	Dmin 39km	Az.gap 70°	
Corr. -0.321	29M/26stn	Msd 0.2	1 ↑		Corr. -0.180	9M/5stn	Msd 0.2	13 ↑ 3↓	
93/735					93/850				
JAN 25	010712.1s	38.03S	176.27E	144km M=3.8	JAN 29	120638.5s	40.42S	176.56E	23km M=3.7
	0.6	0.04	0.02	3		0.2	0.01	0.01	1
Rsd 0.2s	13ph/11stn	Dmin 78km	Az.gap 246°		Rsd 0.2s	29ph/23stn	Dmin 29km	Az.gap 187°	
Corr. -0.407	20M/19stn	Msd 0.3	1 ↑		Corr. -0.664	33M/28stn	Msd 0.2	2 ↑ 1↓	
93/737					93/851				
JAN 25	013040.3s	35.97S	178.60E	175km M=3.7	JAN 29	132314.5s	37.94S	176.16E	200km M=4.8
	0.4	0.08	0.04	13		0.4	0.02	0.02	3
Rsd 0.1s	6ph/3stn	Dmin 183km	Az.gap 340°		Rsd 0.2s	31ph/24stn	Dmin 21km	Az.gap 96°	
Corr. -0.409	3M/3stn	Msd 0.1			Corr. 0.118	11M/6stn	Msd 0.2	1 ↑ 2↓	
93/747					93/852				
JAN 25	135635.3s	40.98S	172.97E	165km M=3.6	JAN 29	133331.1s	36.48S	177.62E	203km M=3.9
	0.3	0.02	0.01	2		0.4	0.04	0.04	4
Rsd 0.2s	19ph/11stn	Dmin 41km	Az.gap 114°		Rsd 0.2s	10ph/8stn	Dmin 139km	Az.gap 304°	
Corr. -0.074	10M/10stn	Msd 0.2	1 ↑ 1↓		Corr. -0.587	12M/12stn	Msd 0.2		
93/757					93/863				
JAN 26	004133.8s	38.97S	176.26E	233km M=3.8	JAN 30	033519.7s	36.12S	177.34E	295km M=4.1
	0.4	0.04	0.07	4		0.5	0.07	0.08	7
Rsd 0.1s	13ph/8stn	Dmin 81km	Az.gap 310°		Rsd 0.2s	9ph/5stn	Dmin 185km	Az.gap 316°	
Corr. -0.679	11M/8stn	Msd 0.2			Corr. -0.691	4M/4stn	Msd 0.1		

93/871
JAN 30 171330.7s 42.93S 176.78E 33km M=3.6
 0.3 0.02 0.03 R
 Rsd 0.1s 15ph/11stn Dmin 205km Az.gap 323°
 Corr. 0.091 8M/8stn Msd 0.1

93/873
JAN 30 190135.8s 38.07S 175.88E 159km M=3.9
 0.8 0.05 0.05 5
 Rsd 0.2s 12ph/11stn Dmin 105km Az.gap 235°
 Corr. -0.534 15M/10stn Msd 0.2

93/882
JAN 30 234943.0s 37.53S 177.66E 121km M=3.5
 0.3 0.03 0.02 3
 Rsd 0.2s 13ph/6stn Dmin 57km Az.gap 246°
 Corr. -0.610 6M/6stn Msd 0.2

93/891
JAN 31 073524.7s 36.44S 177.34E 254km M=4.4
 0.3 0.02 0.02 2
 Rsd 0.1s 13ph/10stn Dmin 149km Az.gap 251°
 Corr. 0.487 27M/22stn Msd 0.2

93/899
JAN 31 201057.0s 37.66S 176.29E 152km M=3.9
 0.3 0.04 0.02 3
 Rsd 0.1s 15ph/12stn Dmin 98km Az.gap 238°
 Corr. -0.788 21M/21stn Msd 0.3

93/906
FEB 01 012232.8s 35.16S 178.54E 248km M=4.9
 0.5 0.05 0.04 8
 Rsd 0.2s 16ph/13stn Dmin 271km Az.gap 309°
 Corr. 0.769 29M/22stn Msd 0.3

93/907
FEB 01 025636.7s 44.47S 168.78E 5km M=3.0
 0.1 0.01 0.00 R
 Rsd 0.1s 10ph/5stn Dmin 71km Az.gap 134°
 Corr. -0.199 3M/3stn Msd 0.1
 Felt Mt Aspiring Station (113) MM4.

93/910
FEB 01 105840.5s 40.85S 174.71E 45km M=3.6
 0.1 0.01 0.01 2
 Rsd 0.1s 30ph/22stn Dmin 17km Az.gap 64°
 Corr. -0.229 17M/12stn Msd 0.2 3 ↑ 3 ↓

93/913
FEB 01 164001.5s 39.07S 174.84E 230km M=4.0
 0.3 0.02 0.03 3
 Rsd 0.1s 22ph/16stn Dmin 48km Az.gap 201°
 Corr. 0.040 16M/13stn Msd 0.1 1 ↑

93/920
FEB 02 082152.1s 35.79S 178.10E 192km M=3.8
 0.7 0.09 0.08 6
 Rsd 0.1s 8ph/7stn Dmin 201km Az.gap 327°
 Corr. -0.871 6M/6stn Msd 0.1

93/948
FEB 03 002740.0s 47.30S 165.65E 12km M=4.0
 0.5 0.03 0.03 R
 Rsd 0.2s 18ph/14stn Dmin 221km Az.gap 325°
 Corr. 0.048 19M/15stn Msd 0.1 1 ↓

93/965
FEB 03 114836.5s 39.00S 175.01E 217km M=3.7
 0.6 0.02 0.03 5
 Rsd 0.2s 29ph/21stn Dmin 52km Az.gap 198°
 Corr. -0.182 21M/20stn Msd 0.2 1 ↑

93/972
FEB 03 224508.7s 37.85S 176.17E 184km M=4.0
 0.4 0.04 0.02 3
 Rsd 0.2s 16ph/13stn Dmin 94km Az.gap 223°
 Corr. -0.662 26M/22stn Msd 0.2 1 ↑

93/975
FEB 04 045752.4s 45.20S 167.45E 111km M=4.2
 0.3 0.01 0.02 2
 Rsd 0.2s 24ph/16stn Dmin 37km Az.gap 175°
 Corr. -0.384 21M/14stn Msd 0.1 1 ↑

93/976
FEB 04 054113.1s 36.28S 177.89E 228km M=4.5
 0.5 0.03 0.02 4
 Rsd 0.2s 21ph/18stn Dmin 151km Az.gap 272°
 Corr. 0.643 29M/24stn Msd 0.3 1 ↑

93/978
FEB 04 062256.0s 39.82S 174.52E 85km M=3.6
 0.4 0.01 0.02 6
 Rsd 0.3s 30ph/22stn Dmin 35km Az.gap 80°
 Corr. -0.462 21M/17stn Msd 0.3 1 ↑

93/979
FEB 04 065558.4s 40.54S 174.56E 61km M=4.1
 0.2 0.01 0.01 4
 Rsd 0.2s 33ph/24stn Dmin 46km Az.gap 79°
 Corr. -0.404 24M/19stn Msd 0.2 1 ↑

93/984
FEB 04 090803.6s 37.97S 179.21E 12km M=3.7
 0.6 0.03 0.04 R
 Rsd 0.3s 14ph/10stn Dmin 84km Az.gap 282°
 Corr. 0.151 17M/14stn Msd 0.1 1 ↑

93/996
FEB 04 220109.6s 38.13S 176.15E 145km M=3.6
 0.4 0.02 0.03 2
 Rsd 0.1s 13ph/7stn Dmin 86km Az.gap 228°
 Corr. -0.820 6M/6stn Msd 0.3 1 ↑ 1 ↓

93/1003
FEB 05 050605.3s 37.96S 179.19E 14km M=3.8
 0.3 0.01 0.02 2
 Rsd 0.1s 14ph/11stn Dmin 83km Az.gap 282°
 Corr. -0.015 17M/14stn Msd 0.1 1 ↑

93/1013
FEB 05 131755.3s 36.97S 176.59E 243km M=3.9
 0.8 0.08 0.07 5
 Rsd 0.2s 12ph/10stn Dmin 151km Az.gap 257°
 Corr. -0.677 17M/17stn Msd 0.2

93/1026
FEB 06 033106.0s 41.65S 173.69E 51km M=4.4
 0.1 0.01 0.01 3
 Rsd 0.2s 35ph/26stn Dmin 17km Az.gap 73°
 Corr. -0.025 8M/4stn Msd 0.2 1 ↑ 13 ↓
 Felt Blenheim (77) and Fighting Bay (78) MM3.

				93/1030					93/1102
FEB 06 062946.1s	38.19S	179.01E	24km	M=3.6	FEB 09 061717.7s	46.95S	166.78E	12km	M=3.7
	0.3	0.01	0.02	1		0.4	0.02	0.02	R
Rsd 0.1s	16ph/13stn	Dmin 67km	Az.gap 263°		Rsd 0.2s	16ph/13stn	Dmin 133km	Az.gap 306°	
Corr. -0.230	27M/24stn	Msd 0.2			Corr. 0.497	17M/14stn	Msd 0.1		
				93/1041					93/1104
FEB 06 155600.2s	40.04S	174.64E	107km	M=4.0	FEB 09 095433.2s	38.60S	175.91E	5km	M=2.9
	0.2	0.01	0.01	3		0.1	0.01	0.01	R
Rsd 0.2s	43ph/26stn	Dmin 37km	Az.gap 79°		Rsd 0.2s	20ph/16stn	Dmin 53km	Az.gap 97°	
Corr. -0.298	25M/19stn	Msd 0.2	16 ↑ 2↓		Corr. -0.387	13M/13stn	Msd 0.4		
				93/1049					93/1112
FEB 06 233628.9s	41.27S	172.63E	212km	M=3.9	FEB 09 144438.2s	44.55S	169.85E	9km	M=4.2
	0.3	0.02	0.02	3		0.1	0.00	0.00	1
Rsd 0.2s	31ph/22stn	Dmin 50km	Az.gap 118°		Rsd 0.1s	28ph/19stn	Dmin 4km		
Corr. -0.169	16M/14stn	Msd 0.2	1 ↑		Az.gap 69°				
				93/1054					93/1124
FEB 07 084110.0s	42.56S	172.75E	47km	M=3.7	FEB 10 004319.9s	39.49S	174.62E	184km	M=4.0
	0.2	0.01	0.01	3		0.3	0.01	0.02	3
Rsd 0.2s	24ph/16stn	Dmin 46km	Az.gap 107°		Rsd 0.2s	37ph/26stn	Dmin 43km	Az.gap 188°	
Corr. -0.403	15M/13stn	Msd 0.2	1 ↑		Corr. -0.172	27M/22stn	Msd 0.2	1 ↑ 1↓	
				93/1061					93/1141
FEB 07 164440.3s	45.18S	166.70E	5km	M=4.0	FEB 10 092242.4s	37.39S	177.24E	145km	M=3.6
	0.4	0.01	0.02	R		0.3	0.03	0.01	3
Rsd 0.2s	17ph/13stn	Dmin 48km	Az.gap 271°		Rsd 0.2s	11ph/7stn	Dmin 97km	Az.gap 215°	
Corr. -0.282	24M/19stn	Msd 0.2	1 ↓		Corr. -0.098	8M/8stn	Msd 0.2		
				93/1080					93/1153
FEB 08 032540.1s	43.03S	177.32E	12km	M=3.6	FEB 10 205358.7s	40.93S	176.04E	27km	M=3.8
	0.4	0.03	0.03	R		0.2	0.01	0.01	2
Rsd 0.2s	17ph/14stn	Dmin 239km	Az.gap 325°		Rsd 0.2s	29ph/20stn	Dmin 31km	Az.gap 189°	
Corr. 0.082	10M/10stn	Msd 0.3			Corr. -0.590	8M/4stn	Msd 0.2	4 ↑ 1↓	
				93/1091					93/1157
FEB 08 221539.5s	36.89S	178.17E	33km	M=3.7	FEB 10 221325.9s	45.02S	167.56E	125km	M=3.7
	1.0	0.07	0.04	R		0.4	0.02	0.02	3
Rsd 0.3s	12ph/10stn	Dmin 80km	Az.gap 305°		Rsd 0.2s	23ph/17stn	Dmin 48km	Az.gap 185°	
Corr. 0.164	16M/15stn	Msd 0.3			Corr. -0.341	16M/15stn	Msd 0.2	3 ↑ 2↓	
				93/1092					93/1180
FEB 08 221847.9s	35.52S	177.77E	267km	M=4.1	FEB 11 165852.7s	40.15S	176.54E	46km	M=4.6
	1.2	0.15	0.16	12		0.1	0.01	0.01	2
Rsd 0.3s	9ph/8stn	Dmin 236km	Az.gap 324°		Rsd 0.1s	39ph/32stn	Dmin 29km	Az.gap 162°	
Corr. -0.785	9M/9stn	Msd 0.2			Corr. -0.577	9M/5stn	Msd 0.3	3 ↑ 1↓	
				93/1094					93/1195
FEB 08 234039.2s	37.93S	175.62E	179km	M=3.7	FEB 12 053235.4s	38.66S	177.64E	60km	M=3.9
	0.3	0.03	0.04	5		0.2	0.01	0.01	3
Rsd 0.2s	18ph/12stn	Dmin 136km	Az.gap 223°		Rsd 0.2s	21ph/16stn	Dmin 35km	Az.gap 78°	
Corr. -0.867	15M/15stn	Msd 0.2	1 ↓		Corr. -0.055	29M/23stn	Msd 0.2	3 ↑ 2↓	
				93/1099					93/1201
FEB 09 033238.6s	41.04S	172.45E	5km	M=3.5	FEB 12 115052.2s	36.01S	178.06E	218km	M=3.7
	0.1	0.01	0.01	R		0.7	0.06	0.07	6
Rsd 0.2s	15ph/12stn	Dmin 25km	Az.gap 160°		Rsd 0.2s	7ph/5stn	Dmin 264km	Az.gap 337°	
Corr. -0.322	18M/15stn	Msd 0.2	1 ↓		Corr. -0.680	4M/4stn	Msd 0.1		
				93/1101					
FEB 09 044507.2s	36.81S	177.27E	200km	M=4.3					
	0.6	0.03	0.03	5					
Rsd 0.3s	14ph/11stn	Dmin 127km	Az.gap 222°						
Corr. 0.517	26M/20stn	Msd 0.2	1 ↑						

93/1210					93/1303				
FEB 12 182205.1s	40.05S	176.75E	51km	M=4.0	FEB 16 052605.8s	40.08S	176.97E	40km	M=5.1
0.2	0.01	0.01	2		0.2	0.02	0.02	5	
Rsd 0.2s	42ph/31stn	Dmin 8km			Rsd 0.2s	44ph/33stn	Dmin 17km	Az.gap 182°	
Az.gap 170°					Corr. -0.827	11M/6stn	Msd 0.2	1 ↑ 1↓	
Corr. -0.459	27M/21stn	Msd 0.2	2 ↑ 1↓		Felt Napier (60) to Palmerston North (62), maximum intensity MM4.				
93/1212					93/1309				
FEB 12 220013.2s	38.70S	175.77E	143km	M=3.8	FEB 16 075826.3s	41.39S	172.90E	131km	M=3.8
0.4	0.01	0.02	3		0.3	0.01	0.01	3	
Rsd 0.3s	31ph/19stn	Dmin 51km	Az.gap 121°		Rsd 0.2s	30ph/21stn	Dmin 41km	Az.gap 88°	
Corr. -0.180	26M/22stn	Msd 0.2	2 ↑ 1↓		Corr. -0.150	17M/13stn	Msd 0.2	1 ↑	
93/1232					93/1311				
FEB 13 210744.4s	41.01S	173.14E	158km	M=3.7	FEB 16 090725.4s	36.55S	177.52E	193km	M=3.6
0.3	0.02	0.01	3		0.8	0.16	0.14	20	
Rsd 0.2s	28ph/16stn	Dmin 56km	Az.gap 139°		Rsd 0.2s	12ph/9stn	Dmin 181km	Az.gap 310°	
Corr. -0.217	15M/12stn	Msd 0.1	1 ↑		Corr. -0.794	12M/12stn	Msd 0.3		
93/1238					93/1315				
FEB 14 014537.5s	41.20S	173.71E	83km	M=3.6	FEB 16 102001.1s	39.58S	174.39E	210km	M=3.5
0.2	0.01	0.01	3		0.5	0.02	0.03	5	
Rsd 0.2s	33ph/19stn	Dmin 30km	Az.gap 90°		Rsd 0.2s	24ph/19stn	Dmin 52km	Az.gap 191°	
Corr. -0.237	14M/10stn	Msd 0.2	1 ↑ 4↓		Corr. -0.383	15M/14stn	Msd 0.2		
93/1244					93/1335				
FEB 14 110902.2s	41.32S	172.57E	197km	M=3.9	FEB 17 022759.6s	38.63S	175.85E	143km	M=4.1
0.3	0.02	0.02	2		0.6	0.02	0.02	5	
Rsd 0.2s	32ph/20stn	Dmin 55km	Az.gap 124°		Rsd 0.3s	27ph/19stn	Dmin 63km	Az.gap 117°	
Corr. -0.115	8M/4stn	Msd 0.1	12 ↑ 1↓		Corr. -0.176	29M/23stn	Msd 0.3	1 ↑	
93/1248					93/1344				
FEB 14 145522.8s	40.98S	178.50E	33km	M=3.8	FEB 17 152937.4s	41.23S	173.28E	106km	M=3.5
0.3	0.02	0.02	R		0.3	0.01	0.01	3	
Rsd 0.2s	28ph/21stn	Dmin 181km	Az.gap 239°		Rsd 0.3s	37ph/21stn	Dmin 52km	Az.gap 104°	
Corr. -0.798	17M/17stn	Msd 0.2			Corr. -0.166	12M/12stn	Msd 0.1	1 ↑	
93/1256					93/1378				
FEB 14 222632.1s	38.44S	177.41E	58km	M=4.3	FEB 18 174731.2s	44.20S	168.41E	5km	M=3.7
0.2	0.01	0.02	3		0.2	0.01	0.01	R	
Rsd 0.3s	27ph/22stn	Dmin 33km	Az.gap 93°		Rsd 0.2s	25ph/18stn	Dmin 65km	Az.gap 187°	
Corr. 0.256	28M/21stn	Msd 0.2	3 ↑ 1↓		Corr. -0.471	23M/19stn	Msd 0.1		
93/1257					93/1380				
FEB 14 223809.4s	44.54S	167.89E	55km	M=3.6	FEB 18 185827.0s	37.97S	175.33E	261km	M=3.7
0.2	0.01	0.01	1		0.4	0.04	0.07	7	
Rsd 0.1s	24ph/18stn	Dmin 15km	Az.gap 195°		Rsd 0.1s	20ph/13stn	Dmin 144km	Az.gap 279°	
Corr. -0.558	20M/18stn	Msd 0.2	1 ↑		Corr. -0.881	16M/14stn	Msd 0.2		
93/1278					93/1392				
FEB 15 102558.1s	38.21S	176.03E	158km	M=3.6	FEB 18 231711.0s	40.24S	174.17E	104km	M=4.0
0.5	0.04	0.03	4		0.3	0.01	0.01	3	
Rsd 0.2s	18ph/12stn	Dmin 85km	Az.gap 234°		Rsd 0.2s	39ph/27stn	Dmin 66km	Az.gap 105°	
Corr. -0.638	21M/19stn	Msd 0.2	1 ↑		Corr. -0.177	8M/4stn	Msd 0.3	10 ↑ 3↓	
93/1283					93/1399				
FEB 15 144432.5s	36.81S	177.03E	217km	M=3.6	FEB 19 043903.3s	38.97S	174.92E	213km	M=4.2
0.3	0.02	0.03	2		0.7	0.02	0.03	6	
Rsd 0.1s	11ph/7stn	Dmin 161km	Az.gap 311°		Rsd 0.2s	31ph/26stn	Dmin 60km	Az.gap 162°	
Corr. -0.492	9M/9stn	Msd 0.2			Corr. -0.110	20M/15stn	Msd 0.2	1 ↑	

				93/1402					93/1505
FEB 19 060959.6s	38.85S	176.13E	98km	M=3.7	FEB 22 223117.9s	39.80S	174.96E	25km	M=3.5
	0.5	0.02	0.02	5		0.2	0.01	0.01	2
Rsd 0.4s	24ph/17stn	Dmin 32km	Az.gap 162°		Rsd 0.3s	27ph/20stn	Dmin 2km	Az.gap 84°	
Corr. -0.484	17M/17stn	Msd 0.2			Corr. -0.303	26M/21stn	Msd 0.3	1 ↑	
				93/1403					93/1524
FEB 19 062937.7s	36.68S	177.55E	198km	M=3.8	FEB 23 075537.4s	38.91S	175.16E	218km	M=4.5
	0.7	0.06	0.07	6		0.4	0.02	0.02	3
Rsd 0.3s	12ph/7stn	Dmin 122km	Az.gap 300°		Rsd 0.2s	35ph/24stn	Dmin 25km	Az.gap 183°	
Corr. -0.701	11M/10stn	Msd 0.2			Corr. 0.018	28M/22stn	Msd 0.3	8 ↑ 2 ↓	
				93/1413					93/1581
FEB 19 151500.5s	36.72S	177.03E	270km	M=4.2	FEB 25 031028.5s	40.08S	174.90E	33km	M=3.7
	0.3	0.03	0.03	3		0.1	0.01	0.01	R
Rsd 0.1s	17ph/13stn	Dmin 149km	Az.gap 272°		Rsd 0.3s	35ph/26stn	Dmin 32km	Az.gap 68°	
Corr. -0.609	17M/17stn	Msd 0.2			Corr. -0.215	31M/26stn	Msd 0.2	1 ↑	
				93/1421					93/1606
FEB 19 222736.7s	39.01S	175.74E	176km	M=3.5	FEB 25 181248.4s	36.30S	177.98E	179km	M=4.0
	0.1	0.02	0.02	2		0.2	0.02	0.02	3
Rsd 0.0s	11ph/9stn	Dmin 184km	Az.gap 227°		Rsd 0.1s	11ph/7stn	Dmin 147km	Az.gap 321°	
Corr. -0.969	7M/6stn	Msd 0.4			Corr. -0.545	21M/20stn	Msd 0.3		
				93/1425					93/1609
FEB 20 000114.3s	38.47S	176.01E	168km	M=3.6	FEB 25 204846.7s	44.98S	167.59E	82km	M=3.7
	0.5	0.02	0.03	5		0.3	0.01	0.02	3
Rsd 0.2s	18ph/10stn	Dmin 91km	Az.gap 223°		Rsd 0.2s	27ph/17stn	Dmin 43km	Az.gap 185°	
Corr. -0.627	11M/10stn	Msd 0.3	1 ↓		Corr. -0.552	18M/16stn	Msd 0.2	1 ↓	
				93/1430					93/1614
FEB 20 062435.1s	35.14S	179.06E	167km	M=4.4	FEB 26 011116.9s	38.26S	175.59E	183km	M=3.6
	0.5	0.05	0.04	12		0.4	0.02	0.03	5
Rsd 0.1s	15ph/12stn	Dmin 281km	Az.gap 314°		Rsd 0.2s	16ph/10stn	Dmin 105km	Az.gap 245°	
Corr. 0.595	20M/18stn	Msd 0.2			Corr. -0.728	12M/11stn	Msd 0.1		
				93/1431					93/1615
FEB 20 063021.4s	37.06S	176.84E	224km	M=4.3	FEB 26 013146.1s	38.42S	175.94E	119km	M=3.7
	0.3	0.02	0.02	2		0.6	0.03	0.02	4
Rsd 0.1s	14ph/10stn	Dmin 105km	Az.gap 186°		Rsd 0.1s	13ph/11stn	Dmin 70km	Az.gap 227°	
Corr. 0.746	27M/23stn	Msd 0.2			Corr. -0.702	21M/20stn	Msd 0.3		
				93/1433					93/1626
FEB 20 072306.1s	35.25S	178.40E	213km	M=4.4	FEB 26 102208.6s	37.82S	179.89W	33km	M=3.7
	1.1	0.13	0.18	21		0.7	0.04	0.05	R
Rsd 0.2s	12ph/10stn	Dmin 261km	Az.gap 333°		Rsd 0.3s	15ph/11stn	Dmin 161km	Az.gap 296°	
Corr. -0.430	14M/14stn	Msd 0.1			Corr. 0.115	24M/22stn	Msd 0.1		
				93/1437					93/1630
FEB 20 131835.5s	37.25S	177.81E	77km	M=3.7	FEB 26 115446.9s	37.49S	176.45E	215km	M=3.7
	0.6	0.03	0.03	7		0.5	0.05	0.04	4
Rsd 0.2s	17ph/10stn	Dmin 58km	Az.gap 206°		Rsd 0.2s	16ph/11stn	Dmin 103km	Az.gap 263°	
Corr. 0.171	9M/6stn	Msd 0.2	1 ↑		Corr. -0.437	21M/21stn	Msd 0.2		
				93/1461					93/1646
FEB 21 084639.1s	37.65S	176.31E	223km	M=4.0	FEB 27 031008.8s	38.36S	176.04E	142km	M=3.9
	0.4	0.04	0.02	3		0.5	0.02	0.02	5
Rsd 0.2s	18ph/14stn	Dmin 68km	Az.gap 218°		Rsd 0.3s	18ph/15stn	Dmin 70km	Az.gap 124°	
Corr. -0.153	21M/21stn	Msd 0.4	1 ↑		Corr. 0.000	23M/21stn	Msd 0.3	1 ↑	
				93/1490					93/1647
FEB 22 123424.0s	35.78S	178.92E	256km	M=3.7	FEB 27 053550.2s	37.73S	176.13E	181km	M=3.6
	0.2	0.03	0.03	3		1.0	0.07	0.08	7
Rsd 0.1s	7ph/3stn	Dmin 261km	Az.gap 343°		Rsd 0.2s	14ph/12stn	Dmin 105km	Az.gap 237°	
Corr. -0.472	2M/2stn	Msd 0.2			Corr. -0.792	20M/19stn	Msd 0.2		

				93/1656					93/1722
FEB 27 110405.4s	40.54S	173.41E	150km	M=3.5	MAR 01 055854.3s	37.93S	179.10E	25km	M=4.0
	0.3	0.02	0.01	3		0.5	0.02	0.03	3
Rsd 0.3s	38ph/24stn	Dmin 52km	Az.gap 132°		Rsd 0.2s	10ph/7stn	Dmin 76km	Az.gap 280°	
Corr. 0.025	17M/16stn	Msd 0.2	2 ↑ 9↓		Corr. -0.155	38M/33stn	Msd 0.2	1 ↓	
				93/1662					93/1738
FEB 27 161401.4s	38.13S	175.83E	5km	M=2.8	MAR 01 160539.3s	37.15S	177.31E	144km	M=3.6
	1.1	0.04	0.06	R		0.1	0.01	0.01	1
Rsd 0.4s	7ph/4stn	Dmin 32km	Az.gap 308°		Rsd 0.0s	12ph/8stn	Dmin 101km	Az.gap 273°	
Corr. -0.125	3M/3stn	Msd 0.2			Corr. -0.553	16M/16stn	Msd 0.1	1 ↑	
Felt Rotorua (33) MM4.									
				93/1685					93/1746
FEB 28 100945.3s	40.09S	174.92E	27km	M=3.8	MAR 01 221442.5s	45.21S	167.48E	112km	M=4.1
	0.2	0.01	0.01	2		0.3	0.01	0.01	2
Rsd 0.4s	33ph/26stn	Dmin 33km	Az.gap 67°		Rsd 0.2s	26ph/17stn	Dmin 38km	Az.gap 170°	
Corr. -0.167	35M/30stn	Msd 0.2	1 ↑		Corr. -0.249	23M/18stn	Msd 0.2	1 ↑	
Felt Wanganui (57) to Sanson (61) MM4.									
				93/1691					93/1766
FEB 28 125517.5s	37.45S	175.80E	33km	M=4.0	MAR 02 125115.4s	35.25S	179.07E	267km	M=4.1
	0.3	0.02	0.02	R		1.2	0.17	0.18	10
Rsd 0.1s	10ph/4stn	Dmin 235km	Az.gap 300°		Rsd 0.3s	11ph/9stn	Dmin 270km	Az.gap 346°	
Corr. -0.535	2M/2stn	Msd 0.4			Corr. -0.631	5M/4stn	Msd 0.6		
				93/1692					93/1770
FEB 28 140923.2s	37.94S	176.03E	297km	M=3.8	MAR 02 155556.4s	38.45S	176.29E	122km	M=3.9
	0.8	0.03	0.05	7		0.5	0.02	0.01	4
Rsd 0.2s	20ph/16stn	Dmin 113km	Az.gap 218°		Rsd 0.3s	24ph/20stn	Dmin 9km		
Corr. -0.497	19M/19stn	Msd 0.2			Az.gap 87°				
					Corr. -0.146	27M/22stn	Msd 0.2	1 ↑	
				93/1699					93/1781
FEB 28 175216.1s	37.12S	176.94E	206km	M=4.5	MAR 03 005745.8s	38.23S	176.44E	124km	M=3.6
	0.4	0.04	0.03	3		0.5	0.03	0.03	3
Rsd 0.2s	22ph/16stn	Dmin 99km	Az.gap 183°		Rsd 0.2s	15ph/10stn	Dmin 58km	Az.gap 230°	
Corr. 0.571	8M/5stn	Msd 0.2	1 ↑		Corr. -0.768	10M/10stn	Msd 0.3		
				93/1703					93/1782
FEB 28 193029.7s	42.87S	170.82E	17km	M=3.7	MAR 03 005908.7s	37.05S	177.43E	119km	M=3.8
	0.3	0.01	0.02	3		1.4	0.09	0.07	13
Rsd 0.2s	13ph/8stn	Dmin 72km	Az.gap 160°		Rsd 0.3s	11ph/8stn	Dmin 98km	Az.gap 285°	
Corr. -0.310	33M/29stn	Msd 0.2	1 ↓		Corr. -0.260	6M/6stn	Msd 0.3		
Felt Mirror Creek (91) MM4.									93/1784
				93/1711					93/1789
FEB 28 234934.4s	40.08S	174.91E	33km	M=3.6	MAR 03 025014.4s	41.73S	174.62E	30km	M=3.6
	0.1	0.01	0.02	R		0.1	0.01	0.01	1
Rsd 0.3s	32ph/24stn	Dmin 32km	Az.gap 116°		Rsd 0.2s	27ph/19stn	Dmin 33km	Az.gap 168°	
Corr. -0.345	33M/28stn	Msd 0.2	3 ↑ 1↓		Corr. -0.569	22M/16stn	Msd 0.2	2 ↑ 3↓	
				93/1712					93/1802
MAR 01 013020.7s	40.09S	174.93E	25km	M=3.5	MAR 03 180935.0s	38.62S	177.91E	26km	M=4.0
	0.2	0.01	0.01	3		0.1	0.01	0.01	2
Rsd 0.4s	30ph/24stn	Dmin 33km	Az.gap 67°		Rsd 0.2s	19ph/14stn	Dmin 11km	Az.gap 92°	
Corr. -0.213	33M/27stn	Msd 0.3	3 ↑ 1↓		Corr. -0.527	23M/18stn	Msd 0.3	1 ↑ 1↓	
Felt Wanganui (57) MM4.					Felt Ormond (44) MM3, Gisborne (45).				
				93/1716					93/1813
MAR 01 034250.7s	37.76S	176.80E	5km	M=3.8	MAR 03 224049.9s	36.78S	176.84E	33km	M=3.7
	0.1	0.01	0.01	R		0.9	0.06	0.04	R
Rsd 0.2s	23ph/17stn	Dmin 28km	Az.gap 95°		Rsd 0.3s	8ph/4stn	Dmin 158km	Az.gap 291°	
Corr. -0.075	26M/22stn	Msd 0.2	1 ↑ 1↓		Corr. -0.354	3M/3stn	Msd 0.2		

93/1825					93/1905				
MAR 04 070645.0s	38.60S	175.59E	158km	M=3.6	MAR 06 134255.0s	36.54S	177.51E	204km	M=3.7
	0.8	0.04	0.04	7		0.2	0.04	0.02	4
Rsd 0.3s	18ph/15stn	Dmin 64km	Az.gap 209°		Rsd 0.1s	7ph/3stn	Dmin 182km	Az.gap 329°	
Corr. -0.645	13M/13stn	Msd 0.2			Corr. -0.267	3M/3stn	Msd 0.1		
93/1828					93/1906				
MAR 04 080929.2s	45.14S	167.29E	5km	M=3.7	MAR 06 143015.2s	44.40S	168.30E	12km	M=4.2
	0.2	0.01	0.01	R		0.1	0.01	0.01	R
Rsd 0.2s	24ph/15stn	Dmin 38km	Az.gap 209°		Rsd 0.1s	22ph/16stn	Dmin 42km	Az.gap 179°	
Corr. -0.765	19M/14stn	Msd 0.1	1 ↑		Corr. -0.486	8M/5stn	Msd 0.1	1 ↓	
93/1831					93/1907				
MAR 04 084759.2s	39.21S	174.75E	197km	M=4.6	MAR 06 150404.1s	38.49S	175.91E	185km	M=3.5
	0.3	0.01	0.02	2		0.2	0.01	0.01	2
Rsd 0.2s	46ph/30stn	Dmin 58km	Az.gap 104°		Rsd 0.1s	17ph/14stn	Dmin 81km	Az.gap 304°	
Corr. 0.179	8M/5stn	Msd 0.2	4 ↑ 2 ↓		Corr. -0.017	8M/8stn	Msd 0.3	1 ↑	
93/1832					93/1910				
MAR 04 095846.1s	41.49S	174.36E	14km	M=3.9	MAR 06 192258.9s	37.59S	177.04E	12km	M=3.6
	0.1	0.01	0.01	2		0.3	0.02	0.02	R
Rsd 0.2s	29ph/22stn	Dmin 31km	Az.gap 121°		Rsd 0.3s	9ph/5stn	Dmin 75km	Az.gap 143°	
Corr. -0.526	12M/7stn	Msd 0.2	1 ↑		Corr. 0.061	8M/5stn	Msd 0.2	1 ↑	
93/1840					93/1911				
MAR 04 150943.4s	37.93S	176.41E	140km	M=3.5	MAR 06 193413.0s	37.56S	177.07E	12km	M=3.7
	0.9	0.06	0.03	5		0.4	0.02	0.02	R
Rsd 0.2s	10ph/9stn	Dmin 71km	Az.gap 270°		Rsd 0.4s	9ph/5stn	Dmin 77km	Az.gap 145°	
Corr. -0.504	11M/11stn	Msd 0.3			Corr. 0.017	8M/5stn	Msd 0.1		
93/1863					93/1915				
MAR 05 050320.1s	38.46S	175.27E	110km	M=3.7	MAR 06 213055.3s	38.92S	175.97E	111km	M=3.8
	0.9	0.07	0.08	11		0.6	0.02	0.03	6
Rsd 0.3s	17ph/14stn	Dmin 152km	Az.gap 245°		Rsd 0.4s	30ph/21stn	Dmin 43km	Az.gap 140°	
Corr. -0.900	11M/11stn	Msd 0.2			Corr. -0.412	25M/20stn	Msd 0.2	2 ↑ 1 ↓	
93/1871					93/1920				
MAR 05 071120.2s	37.84S	175.68E	263km	M=3.8	MAR 07 031429.2s	36.16S	177.76E	235km	M=3.9
	0.7	0.08	0.12	7		0.2	0.03	0.03	3
Rsd 0.3s	23ph/16stn	Dmin 133km	Az.gap 243°		Rsd 0.1s	10ph/7stn	Dmin 167km	Az.gap 311°	
Corr. -0.913	17M/16stn	Msd 0.3			Corr. -0.604	14M/13stn	Msd 0.3		
93/1876					93/1921				
MAR 05 124140.8s	37.01S	177.23E	190km	M=3.8	MAR 07 042026.6s	37.57S	177.14E	12km	M=4.4
	0.4	0.05	0.03	3		0.3	0.02	0.01	R
Rsd 0.2s	13ph/9stn	Dmin 139km	Az.gap 290°		Rsd 0.3s	22ph/16stn	Dmin 76km	Az.gap 146°	
Corr. -0.586	18M/18stn	Msd 0.2			Corr. -0.004	26M/19stn	Msd 0.3	1 ↑	
93/1888					93/1926				
MAR 06 031438.3s	37.59S	177.05E	12km	M=3.9	MAR 07 050625.0s	38.62S	177.91E	24km	M=3.8
	0.2	0.01	0.01	R		0.1	0.01	0.01	2
Rsd 0.3s	11ph/7stn	Dmin 14km	Az.gap 114°		Rsd 0.2s	17ph/13stn	Dmin 11km	Az.gap 93°	
Corr. 0.104	8M/5stn	Msd 0.2			Corr. -0.174	17M/14stn	Msd 0.3	1 ↑ 1 ↓	
93/1889					93/1928				
MAR 06 031700.4s	37.58S	177.06E	12km	M=3.7	MAR 07 064333.6s	39.75S	174.03E	201km	M=3.9
	0.3	0.02	0.02	R		0.6	0.03	0.03	5
Rsd 0.3s	11ph/7stn	Dmin 13km	Az.gap 114°		Rsd 0.3s	25ph/18stn	Dmin 78km	Az.gap 193°	
Corr. 0.036	10M/5stn	Msd 0.2	1 ↑		Corr. -0.364	24M/20stn	Msd 0.3	1 ↑ 1 ↓	
93/1897					93/1932				
MAR 06 074201.1s	37.14S	178.10E	168km	M=3.6	MAR 07 082339.7s	36.60S	177.11E	228km	M=3.7
	0.5	0.06	0.07	4		0.3	0.04	0.03	3
Rsd 0.1s	11ph/6stn	Dmin 54km	Az.gap 306°		Rsd 0.1s	11ph/7stn	Dmin 185km	Az.gap 305°	
Corr. -0.799	4M/3stn	Msd 0.5			Corr. -0.457	12M/12stn	Msd 0.2		

93/1938
MAR 07 121803.3s 37.58S 177.08E 12km M=4.1
 0.2 0.02 0.02 R
 Rsd 0.4s 18ph/13stn Dmin 76km Az.gap 145°
 Corr. 0.330 27M/22stn Msd 0.3 2 ↑ 1↓

93/1939
MAR 07 122024.6s 37.58S 177.07E 12km M=3.6
 0.4 0.03 0.02 R
 Rsd 0.4s 10ph/6stn Dmin 76km Az.gap 144°
 Corr. 0.041 11M/8stn Msd 0.3

93/1956
MAR 07 175438.0s 37.59S 175.80E 33km M=3.8
 0.5 0.03 0.08 R
 Rsd 0.1s 9ph/3stn Dmin 305km Az.gap 348°
 Corr. 0.184 2M/2stn Msd 0.0

93/1965
MAR 07 235444.9s 40.88S 175.12E 30km M=4.1
 0.1 0.01 0.01 2
 Rsd 0.3s 33ph/29stn Dmin 18km Az.gap 60°
 Corr. -0.453 12M/7stn Msd 0.1 6 ↑ 2↓
 Felt Otaki (65) to Wellington (68).

93/1983
MAR 08 081738.1s 40.37S 173.54E 170km M=3.7
 0.2 0.01 0.01 2
 Rsd 0.2s 42ph/25stn Dmin 58km Az.gap 149°
 Corr. -0.261 18M/15stn Msd 0.2 6 ↑ 5↓

93/1995
MAR 08 123840.6s 41.48S 174.35E 16km M=4.3
 0.1 0.01 0.01 2
 Rsd 0.2s 24ph/22stn Dmin 30km Az.gap 116°
 Corr. 0.009 15M/8stn Msd 0.1 10 ↑ 1↓
 Felt Wellington (68) to Blenheim (77) MM4.

93/2014
MAR 08 184538.1s 37.78S 176.15E 306km M=3.7
 0.7 0.07 0.11 10
 Rsd 0.1s 17ph/13stn Dmin 143km Az.gap 285°
 Corr. -0.784 8M/8stn Msd 0.2

93/2025
MAR 09 004613.9s 38.38S 175.84E 174km M=4.9
 0.4 0.01 0.02 3
 Rsd 0.2s 37ph/28stn Dmin 36km Az.gap 78°
 Corr. -0.104 9M/5stn Msd 0.3 3 ↑ 2↓

93/2037
MAR 09 111732.1s 43.52S 168.54E 12km M=3.6
 0.9 0.05 0.04 R
 Rsd 0.2s 19ph/14stn Dmin 63km Az.gap 203°
 Corr. -0.879 21M/21stn Msd 0.2 1 ↑

93/2057
MAR 10 011838.5s 36.91S 177.56E 101km M=3.6
 0.9 0.08 0.06 10
 Rsd 0.3s 8ph/6stn Dmin 101km Az.gap 301°
 Corr. -0.683 5M/5stn Msd 0.2

93/2073
MAR 10 095829.5s 37.06S 177.47E 19km M=4.8
 0.7 0.04 0.03 4
 Rsd 0.2s 20ph/16stn Dmin 58km Az.gap 207°
 Corr. 0.789 12M/6stn Msd 0.2 2 ↑ 2↓

93/2086
MAR 10 155019.2s 36.80S 177.90E 133km M=4.1
 0.4 0.03 0.02 4
 Rsd 0.2s 19ph/15stn Dmin 96km Az.gap 247°
 Corr. 0.737 26M/24stn Msd 0.2 1 ↑

93/2100
MAR 11 063131.2s 38.72S 175.80E 136km M=3.8
 0.5 0.02 0.02 5
 Rsd 0.3s 29ph/17stn Dmin 51km Az.gap 77°
 Corr. -0.031 25M/21stn Msd 0.2 1 ↑

93/2120
MAR 11 180936.6s 37.86S 176.08E 179km M=3.5
 0.4 0.04 0.04 3
 Rsd 0.2s 11ph/10stn Dmin 101km Az.gap 231°
 Corr. -0.665 11M/11stn Msd 0.2

93/2129
MAR 12 050216.2s 44.26S 167.92E 5km M=3.7
 0.2 0.01 0.02 R
 Rsd 0.2s 19ph/15stn Dmin 46km Az.gap 206°
 Corr. -0.627 20M/15stn Msd 0.1 1 ↓

93/2157
MAR 13 021113.6s 38.47S 175.38E 228km M=3.9
 0.9 0.07 0.07 7
 Rsd 0.3s 15ph/10stn Dmin 152km Az.gap 220°
 Corr. -0.693 23M/19stn Msd 0.3 6 ↑ 1↓

93/2172
MAR 13 074940.6s 38.19S 176.53E 127km M=3.7
 0.5 0.02 0.01 5
 Rsd 0.3s 15ph/13stn Dmin 51km Az.gap 123°
 Corr. 0.235 20M/19stn Msd 0.2 6 ↑ 1↓

93/2173
MAR 13 083109.3s 44.85S 167.51E 5km M=4.3
 0.3 0.02 0.02 R
 Rsd 0.2s 22ph/17stn Dmin 39km Az.gap 202°
 Corr. -0.904 23M/16stn Msd 0.2 1 ↑ 3↓
 Felt Te Anau Downs (130) MM4.

93/2181
MAR 13 162501.4s 36.95S 176.88E 241km M=3.7
 0.5 0.05 0.04 4
 Rsd 0.1s 13ph/9stn Dmin 147km Az.gap 278°
 Corr. -0.550 13M/13stn Msd 0.2

93/2192
MAR 14 032942.4s 39.40S 173.83E 26km M=3.5
 0.2 0.01 0.02 1
 Rsd 0.2s 25ph/16stn Dmin 11km Az.gap 186°
 Corr. -0.532 29M/24stn Msd 0.3 1 ↑

93/2208
MAR 14 075841.6s 36.49S 177.63E 227km M=3.7
 0.7 0.10 0.09 9
 Rsd 0.4s 9ph/5stn Dmin 136km Az.gap 312°
 Corr. -0.546 5M/5stn Msd 0.2

93/2221
MAR 14 155256.0s 38.08S 178.59E 47km M=3.7
 0.1 0.01 0.01 1
 Rsd 0.1s 13ph/9stn Dmin 29km Az.gap 240°
 Corr. -0.612 17M/14stn Msd 0.2 1 ↓

				93/2226					93/2332
MAR 14 185850.8s	39.02S	176.61E	71km	M=3.6	MAR 18 022953.0s	40.26S	173.53E	182km	M=3.7
	0.2	0.01	0.01	2		0.4	0.03	0.01	3
Rsd 0.2s	33ph/23stn	Dmin 17km	Az.gap 61°		Rsd 0.2s	26ph/20stn	Dmin 69km	Az.gap 183°	
Corr. -0.014	22M/19stn	Msd 0.3	3 ↑ 2↓		Corr. -0.233	14M/12stn	Msd 0.2	1 ↓	
				93/2231					93/2342
MAR 14 205529.9s	46.02S	166.57E	28km	M=4.3	MAR 18 061710.7s	38.09S	175.94E	12km	M=2.7
	0.3	0.01	0.02	2		0.1	0.01	0.01	R
Rsd 0.2s	23ph/16stn	Dmin 76km	Az.gap 267°		Rsd 0.2s	8ph/5stn	Dmin 24km	Az.gap 164°	
Corr. 0.350	27M/20stn	Msd 0.2	1 ↓		Corr. 0.605	6M/6stn	Msd 0.2		
				93/2234					Felt Tokoroa (32) MM4. Largest of several events.
MAR 14 230703.1s	37.17S	176.70E	230km	M=4.0					93/2353
	0.2	0.04	0.02	3	MAR 18 122313.4s	36.90S	177.60E	167km	M=3.7
Rsd 0.1s	14ph/9stn	Dmin 127km	Az.gap 251°			1.3	0.11	0.12	11
Corr. -0.448	24M/22stn	Msd 0.2			Rsd 0.4s	8ph/6stn	Dmin 100km	Az.gap 299°	
				93/2264					Corr. -0.659
MAR 15 232250.5s	42.17S	176.27E	16km	M=4.4		6M/5stn	Msd 0.2		
	0.7	0.04	0.03	3					93/2356
Rsd 0.2s	19ph/15stn	Dmin 111km	Az.gap 205°		MAR 18 142506.7s	39.40S	174.58E	182km	M=5.7
Corr. -0.481	16M/10stn	Msd 0.3				0.3	0.01	0.01	3
				93/2275					Rsd 0.2s
MAR 16 061838.4s	38.45S	175.94E	157km	M=5.2		41ph/34stn	Dmin 54km	Az.gap 94°	
	0.3	0.01	0.01	3	Corr. -0.162	10M/6stn	Msd 0.3	17 ↑ 10↓	
Rsd 0.2s	44ph/32stn	Dmin 29km	Az.gap 69°						Felt Kimbolton (62) to Nelson (76), maximum intensity MM4.
Corr. 0.246	9M/5stn	Msd 0.2	12 ↑ 4↓						93/2359
				93/2286					MAR 18 160103.6s
MAR 16 105414.4s	37.63S	176.23E	280km	M=5.8		0.9	0.04	0.03	8
	0.6	0.05	0.03	5	Rsd 0.3s	15ph/12stn	Dmin 76km	Az.gap 203°	
Rsd 0.3s	35ph/28stn	Dmin 44km	Az.gap 108°		Corr. -0.718	23M/19stn	Msd 0.2	1 ↑	
Corr. -0.106	9M/5stn	Msd 0.2	14 ↑ 2↓						93/2374
				Felt Patoka (52) MM4.					MAR 19 060407.5s
				93/2292					0.1
MAR 16 142517.9s	37.55S	176.48E	224km	M=4.1		0.1	0.01	0.01	2
	0.4	0.03	0.02	4	Rsd 0.2s	29ph/25stn	Dmin 21km	Az.gap 111°	
Rsd 0.2s	16ph/14stn	Dmin 52km	Az.gap 208°		Corr. -0.266	20M/14stn	Msd 0.2	2 ↑ 3↓	
Corr. -0.011	27M/23stn	Msd 0.2							Felt Wellington (68), Fighting Bay (78) MM3.
				93/2296					93/2385
MAR 16 162244.7s	36.92S	177.54E	136km	M=3.5		0.3	0.02	0.01	3
	0.7	0.06	0.05	7	Rsd 0.2s	27ph/21stn	Dmin 63km	Az.gap 153°	
Rsd 0.3s	11ph/7stn	Dmin 101km	Az.gap 296°		Corr. -0.384	17M/13stn	Msd 0.2	2 ↑ 2↓	
Corr. -0.603	4M/4stn	Msd 0.2							93/2388
				93/2309					MAR 19 140450.3s
MAR 17 044637.1s	36.67S	177.60E	214km	M=4.3		1.2	0.08	0.12	9
	0.5	0.04	0.03	5	Rsd 0.4s	12ph/9stn	Dmin 107km	Az.gap 275°	
Rsd 0.2s	19ph/16stn	Dmin 120km	Az.gap 276°		Corr. -0.720	10M/10stn	Msd 0.3		
Corr. 0.127	21M/19stn	Msd 0.2							93/2395
				93/2315					MAR 19 164826.6s
MAR 17 084512.6s	39.64S	175.48E	63km	M=4.2		1.4	0.20	0.31	19
	0.2	0.01	0.01	4	Rsd 0.2s	7ph/6stn	Dmin 211km	Az.gap 337°	
Rsd 0.3s	40ph/34stn	Dmin 41km	Az.gap 51°		Corr. -0.788	5M/5stn	Msd 0.1		
Corr. -0.186	26M/22stn	Msd 0.2	1 ↑ 2↓						93/2419
				Felt Wanganui (57) MM3.					MAR 20 132527.7s
				93/2318					0.3
MAR 17 092743.3s	39.08S	178.74W	12km	M=3.6		0.3	0.01	0.01	2
	1.1	0.12	0.08	R	Rsd 0.2s	32ph/26stn	Dmin 22km	Az.gap 190°	
Rsd 0.3s	9ph/7stn	Dmin 285km	Az.gap 316°		Corr. -0.632	19M/10stn	Msd 0.2	9 ↑ 2↓	
Corr. 0.492	7M/7stn	Msd 0.1							

				93/2426					93/2499
MAR 20 143615.7s	44.59S	167.69E	8km	M=3.7	MAR 22 162612.3s	36.82S	177.54E	143km	M=3.6
	0.2	0.01	0.01	1		0.7	0.06	0.05	9
Rsd 0.2s	27ph/22stn	Dmin 21km	Az.gap 190°		Rsd 0.3s	9ph/6stn	Dmin 110km	Az.gap 300°	
Corr. -0.534	16M/9stn	Msd 0.1	2 ↑		Corr. -0.427	5M/5stn	Msd 0.2		
				93/2429					93/2502
MAR 20 145956.4s	37.90S	176.09E	205km	M=3.6	MAR 22 174622.0s	39.16S	174.86E	244km	M=3.9
	0.5	0.04	0.05	4		0.4	0.02	0.03	3
Rsd 0.2s	12ph/9stn	Dmin 98km	Az.gap 232°		Rsd 0.1s	24ph/20stn	Dmin 60km	Az.gap 198°	
Corr. -0.843	10M/10stn	Msd 0.2			Corr. -0.262	17M/15stn	Msd 0.2	1 ↑	
				93/2440					93/2511
MAR 20 214637.1s	37.99S	176.46E	159km	M=3.6	MAR 22 233702.2s	38.12S	176.09E	175km	M=3.7
	0.4	0.03	0.03	3		0.6	0.05	0.07	9
Rsd 0.2s	11ph/9stn	Dmin 64km	Az.gap 227°		Rsd 0.2s	17ph/14stn	Dmin 145km	Az.gap 297°	
Corr. -0.787	18M/17stn	Msd 0.2	1 ↑		Corr. -0.826	10M/10stn	Msd 0.3	1 ↑	
				93/2444					93/2513
MAR 21 012329.2s	37.60S	176.47E	171km	M=3.6	MAR 22 235158.3s	38.37S	176.04E	223km	M=3.5
	0.6	0.04	0.04	4		1.0	0.26	0.21	30
Rsd 0.2s	11ph/9stn	Dmin 93km	Az.gap 246°		Rsd 0.2s	10ph/8stn	Dmin 255km	Az.gap 349°	
Corr. -0.738	11M/11stn	Msd 0.2			Corr. 0.469	3M/3stn	Msd 0.1		
				93/2449					93/2528
MAR 21 073527.1s	41.00S	172.86E	211km	M=3.6	MAR 23 085131.0s	45.13S	167.34E	117km	M=3.7
	0.5	0.03	0.02	4		0.2	0.01	0.01	1
Rsd 0.3s	20ph/15stn	Dmin 34km	Az.gap 106°		Rsd 0.3s	57ph/39stn	Dmin 19km	Az.gap 114°	
Corr. -0.207	7M/7stn	Msd 0.2			Corr. -0.581	23M/14stn	Msd 0.2	20 ↑ 1 ↓	
				93/2461					93/2534
MAR 21 165540.6s	38.19S	175.86E	175km	M=4.5	MAR 23 110349.2s	45.99S	170.38E	5km	M=3.0
	0.4	0.02	0.02	4		0.5	0.02	0.02	R
Rsd 0.2s	23ph/19stn	Dmin 96km	Az.gap 107°		Rsd 0.3s	17ph/14stn	Dmin 58km	Az.gap 229°	
Corr. -0.015	10M/6stn	Msd 0.2	1 ↑		Corr. -0.666	15M/14stn	Msd 0.2	1 ↓	
				93/2464					Felt Brighton (144) MM3.
MAR 21 222521.9s	38.86S	176.76E	173km	M=3.5	MAR 23 122555.2s	40.81S	176.37E	19km	M=3.8
	0.4	0.03	0.05	4		0.3	0.01	0.01	2
Rsd 0.1s	11ph/8stn	Dmin 23km	Az.gap 119°		Rsd 0.2s	29ph/23stn	Dmin 23km	Az.gap 191°	
Corr. -0.865	7M/7stn	Msd 0.3			Corr. -0.494	38M/33stn	Msd 0.3	5 ↑ 3 ↓	
				93/2476					Felt Hataitai (68).
MAR 22 035520.9s	41.00S	172.38E	5km	M=3.6	MAR 23 180112.8s	38.04S	176.35E	138km	M=3.6
	0.3	0.01	0.02	R		0.6	0.04	0.03	4
Rsd 0.3s	13ph/9stn	Dmin 23km	Az.gap 183°		Rsd 0.2s	11ph/10stn	Dmin 71km	Az.gap 262°	
Corr. -0.358	19M/16stn	Msd 0.1	1 ↑		Corr. -0.564	12M/12stn	Msd 0.3	1 ↑	
				93/2488					93/2550
MAR 22 110426.6s	38.56S	175.90E	123km	M=3.6	MAR 24 042058.8s	45.10S	167.32E	111km	M=4.0
	0.5	0.02	0.01	5		0.2	0.01	0.01	2
Rsd 0.2s	19ph/16stn	Dmin 63km	Az.gap 151°		Rsd 0.2s	50ph/40stn	Dmin 18km	Az.gap 127°	
Corr. -0.256	17M/17stn	Msd 0.3	1 ↑		Corr. -0.569	31M/16stn	Msd 0.2	27 ↑ 1 ↓	
				93/2490					93/2562
MAR 22 115338.2s	40.18S	174.75E	20km	M=3.7	MAR 24 072328.5s	37.26S	177.25E	144km	M=3.7
	0.2	0.01	0.01	3		0.4	0.02	0.02	4
Rsd 0.3s	30ph/24stn	Dmin 45km	Az.gap 75°		Rsd 0.2s	12ph/10stn	Dmin 100km	Az.gap 181°	
Corr. -0.066	34M/27stn	Msd 0.2	2 ↑ 1 ↓		Corr. 0.384	18M/17stn	Msd 0.3	1 ↑	
									Felt Wanganui (57) MM4.

93/2571				93/2714			
MAR 24 072858.0s	38.45S	177.99E	65km M=4.0	MAR 27 234032.3s	45.17S	167.33E	80km M=3.7
	0.1	0.00	1		0.2	0.01	1
Rsd 0.1s	18ph/16stn	Dmin 19km	Az.gap 139°	Rsd 0.2s	56ph/41stn	Dmin 17km	Az.gap 100°
Corr. -0.225	27M/22stn	Msd 0.2	1 ↑	Corr. -0.449	25M/13stn	Msd 0.1	5 ↑ 9 ↓
93/2575				93/2725			
MAR 24 105841.1s	38.02S	176.39E	144km M=3.6	MAR 28 073620.3s	38.26S	175.98E	153km M=3.7
	0.5	0.03	4		0.6	0.04	5
Rsd 0.2s	14ph/12stn	Dmin 69km	Az.gap 264°	Rsd 0.2s	12ph/10stn	Dmin 83km	Az.gap 240°
Corr. -0.436	19M/19stn	Msd 0.3	1 ↑	Corr. -0.492	18M/15stn	Msd 0.2	1 ↑
93/2583				93/2753			
MAR 24 151421.3s	40.40S	175.79E	40km M=4.1	MAR 28 172937.7s	39.88S	173.78E	219km M=3.9
	0.1	0.01	1		0.4	0.02	3
Rsd 0.1s	33ph/28stn	Dmin 34km	Az.gap 73°	Rsd 0.2s	33ph/23stn	Dmin 99km	Az.gap 165°
Corr. -0.563	25M/20stn	Msd 0.2	5 ↑ 4 ↓	Corr. -0.242	23M/20stn	Msd 0.2	7 ↑ 5 ↓
Felt Mt Vernon (60) to Paraparaumu (65), maximum intensity MM4.							
93/2644				93/2756			
MAR 25 232332.7s	36.76S	177.51E	167km M=4.0	MAR 28 182231.0s	45.19S	167.41E	18km M=4.4
	0.5	0.04	6		0.1	0.01	2
Rsd 0.3s	7ph/5stn	Dmin 117km	Az.gap 233°	Rsd 0.3s	56ph/41stn	Dmin 13km	Az.gap 79°
Corr. 0.535	5M/4stn	Msd 0.3		Corr. -0.386	32M/17stn	Msd 0.2	6 ↑ 19 ↓
Felt Te Anau (130) MM4.							
93/2645				93/2759			
MAR 26 002545.2s	36.10S	178.10E	213km M=4.9	MAR 28 183935.4s	36.79S	177.15E	234km M=4.5
	0.7	0.05	7		0.9	0.07	7
Rsd 0.3s	21ph/17stn	Dmin 167km	Az.gap 283°	Rsd 0.2s	14ph/11stn	Dmin 127km	Az.gap 219°
Corr. 0.494	29M/22stn	Msd 0.3	7 ↑ 1 ↓	Corr. 0.631	9M/6stn	Msd 0.2	6 ↑ 2 ↓
93/2654				93/2766			
MAR 26 094106.4s	36.54S	177.27E	248km M=4.3	MAR 28 210703.6s	37.77S	176.13E	173km M=3.7
	0.5	0.03	4		1.0	0.06	8
Rsd 0.2s	14ph/12stn	Dmin 140km	Az.gap 242°	Rsd 0.3s	14ph/12stn	Dmin 102km	Az.gap 271°
Corr. 0.594	26M/22stn	Msd 0.2		Corr. -0.574	15M/15stn	Msd 0.2	1 ↑
93/2684				93/2796			
MAR 27 035513.7s	38.53S	175.85E	158km M=4.2	MAR 29 100130.5s	36.85S	177.40E	185km M=4.0
	0.5	0.02	4		0.5	0.03	5
Rsd 0.3s	32ph/26stn	Dmin 39km	Az.gap 72°	Rsd 0.2s	16ph/14stn	Dmin 115km	Az.gap 222°
Corr. -0.107	30M/24stn	Msd 0.2	1 ↑	Corr. 0.538	21M/20stn	Msd 0.3	1 ↑ 1 ↓
93/2693				93/2832			
MAR 27 092914.7s	40.54S	176.09E	28km M=3.6	MAR 30 091832.5s	38.43S	175.61E	158km M=3.5
	0.1	0.01	2		0.8	0.05	10
Rsd 0.3s	29ph/24stn	Dmin 18km	Az.gap 89°	Rsd 0.4s	21ph/15stn	Dmin 92km	Az.gap 233°
Corr. -0.566	8M/5stn	Msd 0.3	2 ↑	Corr. -0.736	14M/13stn	Msd 0.3	
Felt Pongaroa (67).							
93/2698				93/2846			
MAR 27 114037.6s	36.30S	179.57E	156km M=3.8	MAR 30 192756.3s	41.28S	173.34E	103km M=3.6
	0.3	0.06	8		0.3	0.02	4
Rsd 0.1s	6ph/4stn	Dmin 183km	Az.gap 343°	Rsd 0.3s	25ph/18stn	Dmin 46km	Az.gap 77°
Corr. -0.476	4M/4stn	Msd 0.3		Corr. -0.298	17M/13stn	Msd 0.3	3 ↑ 2 ↓
93/2700				93/2848			
MAR 27 125138.8s	47.38S	165.71E	12km M=3.7	MAR 30 222106.9s	44.95S	167.07E	23km M=3.7
	1.2	0.06	R		0.4	0.02	2
Rsd 0.3s	35ph/32stn	Dmin 160km	Az.gap 308°	Rsd 0.4s	36ph/27stn	Dmin 23km	Az.gap 225°
Corr. 0.747	33M/28stn	Msd 0.2	1 ↑ 4 ↓	Corr. -0.634	29M/15stn	Msd 0.2	12 ↑ 2 ↓
93/2711				93/2861			
MAR 27 225011.2s	38.18S	175.79E	141km M=3.6	MAR 31 081200.4s	44.10S	177.04W	33km M=4.6
	0.8	0.05	9		0.8	0.12	R
Rsd 0.4s	23ph/20stn	Dmin 116km	Az.gap 233°	Rsd 0.2s	18ph/14stn	Dmin 41km	Az.gap 183°
Corr. -0.835	17M/16stn	Msd 0.3	1 ↑	Corr. 0.436	42M/41stn	Msd 0.2	1 ↓
Felt Chatham Islands (159) MM4.							

	93/2869					93/2921			
MAR 31 140950.3s	39.11S	174.88E	241km	M=3.9	APR 01 192839.3s	37.52S	178.33E	73km	M=4.0
	0.4	0.02	0.03	4		0.1	0.01	0.01	1
Rsd 0.2s	24ph/20stn	Dmin 59km	Az.gap 199°		Rsd 0.1s	15ph/10stn	Dmin 9km	Az.gap 256°	
Corr. -0.140	17M/15stn	Msd 0.2	11 ↑ 2↓		Corr. 0.287	13M/10stn	Msd 0.2	1 ↑	
	93/2872					93/2924			
MAR 31 145859.2s	40.41S	176.16E	60km	M=3.7	APR 01 195218.3s	41.66S	175.40E	25km	M=3.7
	0.1	0.01	0.01	2		0.2	0.02	0.01	1
Rsd 0.2s	32ph/26stn	Dmin 13km	Az.gap 107°		Rsd 0.2s	22ph/17stn	Dmin 29km	Az.gap 191°	
Corr. -0.583	22M/18stn	Msd 0.2	3 ↑ 9↓		Corr. -0.392	24M/18stn	Msd 0.2	5 ↑ 5↓	
	93/2878					93/2928			
MAR 31 183120.7s	41.29S	172.88E	141km	M=3.8	APR 01 202441.1s	41.15S	172.94E	144km	M=3.6
	0.4	0.02	0.01	3		0.4	0.02	0.02	3
Rsd 0.3s	28ph/20stn	Dmin 53km	Az.gap 90°		Rsd 0.3s	24ph/18stn	Dmin 50km	Az.gap 109°	
Corr. -0.293	17M/13stn	Msd 0.2	8 ↑ 1↓		Corr. -0.239	11M/11stn	Msd 0.2	1 ↑	
	93/2882					93/2930			
MAR 31 194942.7s	38.50S	176.58E	204km	M=3.7	APR 01 222116.9s	39.93S	174.40E	118km	M=3.7
	0.3	0.08	0.14	4		0.3	0.01	0.01	3
Rsd 0.1s	11ph/9stn	Dmin 135km	Az.gap 338°		Rsd 0.3s	35ph/25stn	Dmin 48km	Az.gap 91°	
Corr. -0.958	8M/8stn	Msd 0.2	1 ↑		Corr. -0.082	17M/13stn	Msd 0.3	1 ↑	
	93/2884					93/2935			
MAR 31 212734.4s	38.17S	175.78E	155km	M=3.6	APR 02 011948.7s	38.17S	174.13E	12km	M=3.5
	0.8	0.05	0.08	9		0.2	0.01	0.01	R
Rsd 0.3s	11ph/10stn	Dmin 101km	Az.gap 277°		Rsd 0.1s	13ph/8stn	Dmin 69km	Az.gap 196°	
Corr. -0.180	8M/8stn	Msd 0.3			Corr. -0.562	23M/19stn	Msd 0.3	1 ↑	
	93/2891					93/2991			
MAR 31 231150.1s	39.11S	175.11E	217km	M=3.9	APR 03 031055.1s	36.83S	178.15E	21km	M=3.7
	0.3	0.02	0.02	3		0.5	0.02	0.02	3
Rsd 0.1s	22ph/17stn	Dmin 44km	Az.gap 232°		Rsd 0.2s	16ph/13stn	Dmin 86km	Az.gap 259°	
Corr. -0.314	16M/15stn	Msd 0.3	1 ↑		Corr. 0.693	22M/19stn	Msd 0.3	1 ↑	
	93/2904					93/3000			
APR 01 063558.1s	44.87S	167.59E	76km	M=3.9	APR 03 071039.9s	41.88S	171.69E	12km	M=3.0
	0.1	0.01	0.01	1		0.5	0.01	0.03	R
Rsd 0.2s	52ph/41stn	Dmin 14km	Az.gap 147°		Rsd 0.4s	11ph/5stn	Dmin 17km	Az.gap 236°	
Corr. -0.612	32M/17stn	Msd 0.2	12 ↑ 11↓		Corr. -0.125	7M/7stn	Msd 0.1	1 ↑	
	93/2907					93/3042			
APR 01 103415.4s	38.02S	176.41E	150km	M=3.6	APR 04 005259.5s	36.67S	177.70E	5km	M=3.8
	0.7	0.06	0.08	4		0.6	0.04	0.03	R
Rsd 0.3s	12ph/11stn	Dmin 67km	Az.gap 229°		Rsd 0.3s	9ph/7stn	Dmin 116km	Az.gap 246°	
Corr. -0.883	11M/11stn	Msd 0.2	1 ↑		Corr. 0.690	10M/7stn	Msd 0.3		
	93/2909					93/3047			
APR 01 124456.1s	37.97S	176.74E	103km	M=3.5	APR 04 015034.3s	38.91S	175.93E	5km	M=3.3
	0.7	0.05	0.04	5		0.1	0.01	0.01	R
Rsd 0.2s	10ph/9stn	Dmin 45km	Az.gap 228°		Rsd 0.3s	23ph/19stn	Dmin 41km	Az.gap 53°	
Corr. -0.775	8M/8stn	Msd 0.1	1 ↑		Corr. -0.212	26M/25stn	Msd 0.3	2 ↑ 2↓	
	93/2912					93/3049			
APR 01 141639.8s	37.49S	179.68E	12km	M=4.0	APR 04 030205.9s	38.32S	179.33E	61km	M=3.6
	0.7	0.04	0.04	R		1.1	0.09	0.16	34
Rsd 0.3s	12ph/11stn	Dmin 122km	Az.gap 296°		Rsd 0.4s	6ph/4stn	Dmin 97km	Az.gap 279°	
Corr. 0.111	21M/17stn	Msd 0.2			Corr. -0.833	6M/4stn	Msd 0.2		
	93/2916					93/3062			
APR 01 152811.4s	35.70S	178.88E	258km	M=4.0	APR 04 082112.7s	35.50S	179.37E	273km	M=4.1
	0.9	0.10	0.18	9		0.4	0.05	0.07	5
Rsd 0.2s	7ph/4stn	Dmin 269km	Az.gap 343°		Rsd 0.1s	10ph/7stn	Dmin 252km	Az.gap 346°	
Corr. -0.869	3M/3stn	Msd 0.2			Corr. -0.237	5M/4stn	Msd 0.5		

93/3086
APR 05 001041.3s 38.58S 175.84E 180km M=4.4
 0.6 0.03 0.02 5
 Rsd 0.2s 31ph/24stn Dmin 64km Az.gap 70°
 Corr. 0.070 8M/5stn Msd 0.3 1 ↑

93/3087
APR 05 001239.4s 37.07S 176.80E 266km M=4.5
 0.5 0.05 0.04 4
 Rsd 0.2s 18ph/16stn Dmin 135km Az.gap 254°
 Corr. -0.200 26M/23stn Msd 0.2 1 ↑

93/3089
APR 05 011353.3s 39.32S 176.63E 14km M=3.6
 0.1 0.01 0.01 3
 Rsd 0.3s 27ph/24stn Dmin 23km Az.gap 62°
 Corr. -0.253 29M/23stn Msd 0.2 3 ↑ 1 ↓

93/3104
APR 05 070353.2s 38.10S 176.31E 163km M=4.0
 0.4 0.02 0.01 3
 Rsd 0.3s 25ph/21stn Dmin 13km Az.gap 50°
 Corr. 0.091 28M/24stn Msd 0.3 6 ↑ 1 ↓

93/3114
APR 05 125653.1s 39.58S 174.35E 210km M=4.7
 0.5 0.02 0.02 4
 Rsd 0.3s 38ph/32stn Dmin 45km Az.gap 79°
 Corr. -0.213 8M/5stn Msd 0.3 21 ↑ 3 ↓

93/3123
APR 05 212609.7s 38.39S 175.83E 189km M=3.5
 0.7 0.09 0.13 13
 Rsd 0.2s 6ph/4stn Dmin 152km Az.gap 336°
 Corr. -0.854 2M/2stn Msd 0.1 1 ↑

93/3127
APR 05 232555.8s 40.31S 173.47E 171km M=3.8
 0.4 0.02 0.01 3
 Rsd 0.2s 29ph/23stn Dmin 67km Az.gap 176°
 Corr. -0.292 24M/20stn Msd 0.2 3 ↑ 1 ↓

93/3138
APR 06 053148.6s 37.95S 176.17E 331km M=3.7
 0.3 0.05 0.05 4
 Rsd 0.1s 17ph/15stn Dmin 186km Az.gap 299°
 Corr. -0.849 9M/9stn Msd 0.2

93/3141
APR 06 061630.7s 38.56S 175.97E 5km M=2.7
 0.1 0.01 0.01 R
 Rsd 0.3s 11ph/8stn Dmin 32km Az.gap 133°
 Corr. -0.580 8M/8stn Msd 0.3 1 ↑
 Felt Waihora Road (40) MM4.

93/3147
APR 06 090318.7s 36.20S 178.32E 263km M=3.8
 1.1 0.14 0.18 8
 Rsd 0.3s 10ph/8stn Dmin 208km Az.gap 333°
 Corr. -0.792 11M/11stn Msd 0.2

93/3175
APR 06 212355.3s 39.43S 175.10E 87km M=3.6
 0.3 0.01 0.02 4
 Rsd 0.2s 24ph/21stn Dmin 43km Az.gap 114°
 Corr. 0.161 24M/20stn Msd 0.3 1 ↑

93/3178
APR 07 010407.8s 37.83S 176.11E 107km M=3.6
 0.3 0.02 0.14 8
 Rsd 0.1s 9ph/8stn Dmin 160km Az.gap 350°
 Corr. -0.281 5M/5stn Msd 0.4

93/3183
APR 07 023900.2s 45.32S 167.17E 109km M=3.9
 0.2 0.01 0.01 2
 Rsd 0.3s 56ph/38stn Dmin 16km Az.gap 92°
 Corr. -0.449 18M/10stn Msd 0.1 18 ↑ 6 ↓

93/3202
APR 07 164749.0s 36.63S 177.38E 105km M=3.8
 0.4 0.03 0.03 8
 Rsd 0.2s 5ph/3stn Dmin 149km Az.gap 250°
 Corr. 0.805 2M/2stn Msd 0.2 1 ↓

93/3206
APR 07 220456.8s 37.43S 176.48E 243km M=3.6
 1.6 0.13 0.14 11
 Rsd 0.4s 7ph/6stn Dmin 108km Az.gap 293°
 Corr. -0.804 6M/6stn Msd 0.2

93/3210
APR 08 010855.6s 37.56S 176.70E 121km M=3.7
 1.1 0.09 0.10 7
 Rsd 0.4s 9ph/8stn Dmin 85km Az.gap 265°
 Corr. -0.846 9M/8stn Msd 0.2

93/3224
APR 08 142115.1s 38.33S 175.97E 162km M=3.8
 0.9 0.03 0.03 7
 Rsd 0.3s 19ph/15stn Dmin 61km Az.gap 102°
 Corr. -0.244 23M/19stn Msd 0.3 1 ↑

93/3230
APR 08 183931.7s 42.34S 174.18E 16km M=4.0
 0.2 0.02 0.01 2
 Rsd 0.2s 25ph/20stn Dmin 53km Az.gap 174°
 Corr. -0.725 14M/8stn Msd 0.1 1 ↑

93/3235
APR 08 194535.9s 42.38S 174.26E 12km M=3.6
 0.4 0.02 0.01 3
 Rsd 0.1s 23ph/18stn Dmin 59km Az.gap 181°
 Corr. -0.813 27M/21stn Msd 0.2

93/3244
APR 09 065537.7s 38.46S 175.95E 157km M=3.8
 0.7 0.02 0.02 6
 Rsd 0.2s 21ph/15stn Dmin 67km Az.gap 103°
 Corr. 0.203 24M/20stn Msd 0.3

93/3245
APR 09 070251.0s 38.66S 175.79E 182km M=3.6
 0.7 0.07 0.09 10
 Rsd 0.3s 19ph/17stn Dmin 125km Az.gap 226°
 Corr. -0.855 11M/11stn Msd 0.3

93/3246
APR 09 072430.0s 42.35S 174.18E 17km M=3.6
 0.2 0.01 0.01 1
 Rsd 0.1s 21ph/16stn Dmin 53km Az.gap 174°
 Corr. -0.667 20M/16stn Msd 0.2 1 ↑

93/3257				93/3419			
APR 09 152545.0s	37.45S	177.20E	161km M=3.5	APR 14 015455.4s	40.92S	176.10E	26km M=3.6
	0.7	0.06	5		0.2	0.01	2
Rsd 0.3s	12ph/9stn	Dmin 91km	Az.gap 252°	Rsd 0.2s	28ph/20stn	Dmin 37km	Az.gap 195°
Corr. -0.580	8M/8stn	Msd 0.2		Corr. -0.674	15M/8stn	Msd 0.1	1 ↑
93/3270				93/3442			
APR 10 014543.4s	38.28S	176.01E	161km M=4.1	APR 14 110016.7s	40.67S	176.82E	23km M=3.6
	0.5	0.02	4		0.2	0.01	2
Rsd 0.3s	22ph/18stn	Dmin 58km	Az.gap 109°	Rsd 0.2s	24ph/17stn	Dmin 47km	Az.gap 232°
Corr. -0.011	26M/21stn	Msd 0.3	1 ↑	Corr. -0.553	12M/6stn	Msd 0.1	1 ↑
93/3290				93/3455			
APR 11 061144.4s	41.26S	172.68E	156km M=3.5	APR 14 125251.4s	38.80S	175.97E	100km M=3.8
	0.5	0.02	4		0.3	0.01	4
Rsd 0.2s	15ph/9stn	Dmin 50km	Az.gap 111°	Rsd 0.3s	41ph/33stn	Dmin 46km	Az.gap 55°
Corr. 0.282	4M/4stn	Msd 0.4	1 ↑	Corr. -0.092	33M/26stn	Msd 0.2	7 ↑ 1 ↓
93/3294				93/3464			
APR 11 065949.7s	39.73S	176.71E	38km M=6.1	APR 14 181211.3s	37.72S	178.08E	56km M=3.8
	0.1	0.01	3		0.2	0.01	2
Rsd 0.3s	37ph/33stn	Dmin 16km	Az.gap 99°	Rsd 0.1s	21ph/16stn	Dmin 24km	Az.gap 114°
Corr. -0.497	10M/6stn	Msd 0.2	15 ↑ 11 ↓	Corr. -0.211	30M/25stn	Msd 0.3	1 ↑ 1 ↓
Felt Taupo (41) to Wellington (68), maximum intensity MM8 at Tikokino (60).							
93/3314				93/3475			
APR 11 155501.6s	37.73S	179.98W	33km M=3.5	APR 14 213235.1s	38.29S	175.73E	186km M=3.9
	0.8	0.04	R		0.7	0.03	6
Rsd 0.4s	10ph/6stn	Dmin 152km	Az.gap 313°	Rsd 0.3s	19ph/15stn	Dmin 94km	Az.gap 226°
Corr. 0.133	8M/6stn	Msd 0.2	1 ↑	Corr. -0.323	23M/22stn	Msd 0.3	1 ↑
93/3316				93/3492			
APR 11 173427.7s	37.90S	177.61E	86km M=3.6	APR 15 045412.4s	46.46S	165.72E	16km M=3.9
	0.1	0.01	1		1.1	0.05	5
Rsd 0.1s	20ph/15stn	Dmin 59km	Az.gap 114°	Rsd 0.3s	20ph/17stn	Dmin 84km	Az.gap 292°
Corr. -0.404	13M/12stn	Msd 0.3	3 ↑ 5 ↓	Corr. 0.561	22M/12stn	Msd 0.1	1 ↓
93/3362				93/3494			
APR 12 185923.5s	37.10S	176.78E	266km M=4.0	APR 15 061425.4s	40.67S	176.82E	27km M=4.0
	0.6	0.03	5		0.2	0.01	2
Rsd 0.3s	20ph/15stn	Dmin 102km	Az.gap 181°	Rsd 0.1s	28ph/22stn	Dmin 46km	Az.gap 208°
Corr. 0.290	8M/5stn	Msd 0.3	1 ↑	Corr. -0.700	19M/10stn	Msd 0.1	2 ↑ 1 ↓
93/3375				93/3562			
APR 13 013003.7s	38.34S	176.01E	145km M=3.7	APR 16 123013.9s	38.35S	176.14E	5km M=2.5
	0.4	0.02	3		0.3	0.01	R
Rsd 0.2s	22ph/16stn	Dmin 74km	Az.gap 169°	Rsd 0.2s	5ph/3stn	Dmin 11km	Az.gap 265°
Corr. -0.164	21M/21stn	Msd 0.3	1 ↑	Corr. 0.656	2M/2stn	Msd 0.3	1 ↑
				Felt Ngakuru (33) MM4.			
93/3379				93/3567			
APR 13 032828.8s	39.73S	176.50E	23km M=4.4	APR 16 123614.7s	38.38S	175.98E	181km M=3.8
	0.1	0.01	1		0.5	0.02	4
Rsd 0.2s	41ph/32stn	Dmin 8km		Rsd 0.3s	36ph/28stn	Dmin 55km	Az.gap 67°
	Az.gap 36°			Corr. 0.083	11M/6stn	Msd 0.1	1 ↑
Corr. -0.222	24M/13stn	Msd 0.2	2 ↑ 8 ↓	Felt Ngakuru (33) MM4.			
Felt Dannevirke (63).				93/3572			
93/3386				93/3572			
APR 13 085245.3s	40.89S	175.16E	27km M=3.8	APR 16 124823.9s	38.34S	176.14E	5km M=2.5
	0.1	0.01	2		0.4	0.01	R
Rsd 0.3s	39ph/31stn	Dmin 21km	Az.gap 74°	Rsd 0.2s	5ph/3stn	Dmin 11km	Az.gap 261°
Corr. -0.566	23M/12stn	Msd 0.2	4 ↑ 5 ↓	Corr. 0.823	2M/2stn	Msd 0.3	1 ↑
Felt Masterton (66) and Hutt Valley (68).				Felt Ngakuru (33) MM4.			

93/3827					93/3920				
APR 20 054418.3s	37.50S	176.52E	231km	M=3.6	APR 22 081504.7s	42.33S	174.24E	19km	M=3.7
	1.2	0.12	0.14	12		0.2	0.01	0.01	2
Rsd 0.5s	7ph/4stn	Dmin 100km	Az.gap 279°		Rsd 0.1s	21ph/16stn	Dmin 58km	Az.gap 179°	
Corr. -0.804	6M/5stn	Msd 0.5			Corr. -0.662	11M/6stn	Msd 0.2	1 ↑	
93/3834					93/3927				
APR 20 081126.2s	42.32S	172.73E	5km	M=3.5	APR 22 110313.4s	38.05S	176.09E	131km	M=3.5
	0.1	0.01	0.01	R		0.3	0.02	0.02	3
Rsd 0.2s	15ph/12stn	Dmin 63km	Az.gap 87°		Rsd 0.1s	13ph/10stn	Dmin 93km	Az.gap 267°	
Corr. -0.246	29M/23stn	Msd 0.2	2 ↑ 2↓		Corr. -0.779	8M/7stn	Msd 0.1	1 ↑	
93/3838					93/3932				
APR 20 094105.8s	42.32S	172.73E	9km	M=3.9	APR 22 123914.3s	42.33S	174.26E	21km	M=3.6
	0.3	0.01	0.01	3		0.2	0.02	0.01	2
Rsd 0.2s	21ph/17stn	Dmin 63km	Az.gap 82°		Rsd 0.2s	22ph/17stn	Dmin 60km	Az.gap 179°	
Corr. -0.251	15M/8stn	Msd 0.2	2 ↑ 2↓		Corr. -0.763	21M/16stn	Msd 0.2	3 ↑ 1↓	
93/3852					93/3934				
APR 20 172632.8s	38.32S	176.11E	165km	M=3.5	APR 22 125021.0s	38.08S	176.19E	153km	M=3.6
	0.5	0.02	0.04	5		0.4	0.01	0.02	3
Rsd 0.3s	19ph/14stn	Dmin 71km	Az.gap 215°		Rsd 0.2s	21ph/16stn	Dmin 57km	Az.gap 91°	
Corr. -0.271	18M/18stn	Msd 0.3	1 ↑ 1↓		Corr. 0.354	21M/18stn	Msd 0.2	1 ↑	
93/3865					93/3936				
APR 20 231337.4s	40.20S	173.52E	162km	M=3.5	APR 22 130715.9s	40.99S	172.35E	5km	M=3.8
	0.5	0.03	0.02	5		0.2	0.01	0.02	R
Rsd 0.2s	16ph/11stn	Dmin 109km	Az.gap 188°		Rsd 0.2s	17ph/13stn	Dmin 24km	Az.gap 189°	
Corr. 0.031	3M/3stn	Msd 0.3	1 ↑		Corr. -0.601	10M/7stn	Msd 0.1	1 ↑	
93/3873					93/3941				
APR 21 043736.2s	45.08S	167.42E	119km	M=3.5	APR 22 163707.1s	36.92S	177.36E	181km	M=3.6
	0.2	0.01	0.01	2		1.0	0.07	0.07	12
Rsd 0.3s	51ph/38stn	Dmin 12km	Az.gap 98°		Rsd 0.4s	9ph/7stn	Dmin 148km	Az.gap 246°	
Corr. -0.506	18M/11stn	Msd 0.1	12 ↑ 1↓		Corr. 0.733	8M/7stn	Msd 0.2	1 ↓	
93/3877					93/3956				
APR 21 093233.7s	36.27S	177.76E	204km	M=3.6	APR 22 235112.0s	40.11S	174.58E	106km	M=3.6
	0.8	0.11	0.07	11		0.3	0.01	0.01	4
Rsd 0.3s	11ph/8stn	Dmin 205km	Az.gap 325°		Rsd 0.3s	30ph/21stn	Dmin 46km	Az.gap 82°	
Corr. -0.404	8M/8stn	Msd 0.3			Corr. -0.043	17M/12stn	Msd 0.3	1 ↑	
93/3881					93/3977				
APR 21 105203.6s	41.49S	172.52E	103km	M=3.7	APR 23 103848.8s	37.34S	179.63E	33km	M=3.6
	0.2	0.01	0.01	2		1.4	0.05	0.11	R
Rsd 0.2s	14ph/10stn	Dmin 44km	Az.gap 117°		Rsd 0.5s	10ph/8stn	Dmin 121km	Az.gap 290°	
Corr. -0.092	10M/10stn	Msd 0.1	1 ↑		Corr. 0.070	9M/6stn	Msd 0.3		
93/3888					93/3986				
APR 21 164358.6s	38.82S	178.53E	41km	M=3.8	APR 23 133356.9s	37.60S	178.30E	50km	M=3.6
	0.3	0.01	0.02	5		0.1	0.01	0.01	1
Rsd 0.1s	21ph/15stn	Dmin 49km	Az.gap 229°		Rsd 0.1s	14ph/11stn	Dmin 0km		
Corr. -0.326	14M/8stn	Msd 0.3	1 ↑		Az.gap 223°				
					Corr. 0.362	16M/13stn	Msd 0.3	1 ↑	
93/3898					93/4002				
APR 21 220509.3s	42.36S	174.27E	12km	M=4.6	APR 24 012452.0s	37.75S	177.57E	47km	M=3.8
	0.1	0.01	0.01	R		0.1	0.01	0.01	3
Rsd 0.2s	27ph/21stn	Dmin 61km	Az.gap 178°		Rsd 0.1s	18ph/15stn	Dmin 41km	Az.gap 130°	
Corr. -0.682	29M/16stn	Msd 0.2	7 ↑ 3↓		Corr. -0.032	26M/20stn	Msd 0.2		
Felt Lower Hutt (68).									
93/3901					93/4017				
APR 21 222447.1s	42.36S	174.25E	12km	M=3.6	APR 24 090802.2s	42.38S	174.23E	16km	M=3.8
	0.1	0.01	0.01	R		0.1	0.01	0.01	1
Rsd 0.1s	21ph/17stn	Dmin 59km	Az.gap 178°		Rsd 0.1s	29ph/20stn	Dmin 57km	Az.gap 178°	
Corr. -0.781	8M/5stn	Msd 0.2	1 ↑ 2↓		Corr. -0.664	11M/7stn	Msd 0.2	4 ↑ 1↓	

				93/4049					93/4186
APR 24 193135.4s	37.20S	177.33E	151km	M=3.6	APR 27 182822.6s	46.72S	165.44E	33km	M=3.7
	0.5	0.05	0.03	4		0.5	0.03	0.03	R
Rsd 0.2s	14ph/11stn	Dmin 119km	Az.gap 292°		Rsd 0.2s	21ph/17stn	Dmin 118km	Az.gap 301°	
Corr. -0.344	14M/14stn	Msd 0.2	1 ↑		Corr. 0.122	14M/8stn	Msd 0.1	4 ↑ 3↓	
				93/4070					93/4188
APR 25 071232.0s	35.18S	179.06E	295km	M=3.8	APR 27 185151.7s	46.71S	165.49E	33km	M=3.5
	0.6	0.10	0.11	4		0.6	0.04	0.05	R
Rsd 0.1s	9ph/7stn	Dmin 329km	Az.gap 345°		Rsd 0.3s	20ph/13stn	Dmin 114km	Az.gap 301°	
Corr. -0.925	5M/5stn	Msd 0.1			Corr. -0.059	8M/4stn	Msd 0.1	2 ↑ 2↓	
				93/4105					93/4189
APR 26 031501.4s	36.80S	177.44E	211km	M=3.9	APR 27 185615.1s	46.60S	165.54E	33km	M=3.8
	0.5	0.07	0.04	5		0.3	0.03	0.02	R
Rsd 0.2s	14ph/12stn	Dmin 159km	Az.gap 302°		Rsd 0.2s	24ph/18stn	Dmin 105km	Az.gap 298°	
Corr. -0.610	16M/15stn	Msd 0.2			Corr. -0.182	24M/14stn	Msd 0.1	1 ↑ 2↓	
				93/4134					93/4200
APR 26 155915.9s	45.14S	167.35E	63km	M=3.6	APR 27 225436.2s	38.11S	176.25E	12km	M=2.3
	0.1	0.01	0.01	1		0.2	0.02	0.01	R
Rsd 0.2s	54ph/38stn	Dmin 18km	Az.gap 104°		Rsd 0.3s	8ph/4stn	Dmin 63km	Az.gap 169°	
Corr. -0.524	25M/13stn	Msd 0.1	3 ↑ 16↓		Corr. 0.492	4M/4stn	Msd 0.1		
				93/4141					93/4204
APR 27 015547.2s	36.80S	177.98E	295km	M=3.7	APR 27 235708.3s	40.72S	174.49E	79km	M=4.2
	0.7	0.37	0.09	55		0.2	0.01	0.01	3
Rsd 0.0s	8ph/7stn	Dmin 476km	Az.gap 353°		Rsd 0.2s	35ph/27stn	Dmin 39km	Az.gap 78°	
Corr. -0.844	4M/4stn	Msd 0.1			Corr. -0.404	23M/18stn	Msd 0.2		
				93/4165					93/4209
APR 27 145557.9s	46.67S	165.38E	33km	M=5.5	APR 28 013918.8s	40.08S	174.84E	12km	M=4.0
	0.5	0.03	0.03	R		0.1	0.01	0.01	R
Rsd 0.2s	28ph/21stn	Dmin 118km	Az.gap 303°		Rsd 0.2s	31ph/25stn	Dmin 32km	Az.gap 70°	
Corr. 0.116	42M/22stn	Msd 0.2	10 ↑ 1↓		Corr. -0.428	8M/5stn	Msd 0.3	1 ↓	
				93/4166					93/4231
APR 27 145950.6s	46.76S	165.40E	33km	M=4.0	APR 28 083021.4s	37.30S	178.54E	33km	M=3.7
	0.6	0.04	0.05	R		0.5	0.03	0.03	R
Rsd 0.2s	16ph/12stn	Dmin 123km	Az.gap 303°		Rsd 0.2s	15ph/10stn	Dmin 39km	Az.gap 265°	
Corr. -0.217	8M/5stn	Msd 0.1			Corr. 0.276	17M/14stn	Msd 0.3	2 ↑ 1↓	
				93/4174					93/4234
APR 27 164147.9s	46.78S	165.32E	33km	M=4.2	APR 28 091516.2s	40.40S	176.38E	34km	M=4.4
	0.3	0.02	0.02	R		0.1	0.01	0.02	1
Rsd 0.1s	26ph/16stn	Dmin 129km	Az.gap 304°		Rsd 0.2s	31ph/25stn	Dmin 14km	Az.gap 156°	
Corr. -0.207	30M/16stn	Msd 0.1	1 ↑		Corr. -0.730	8M/5stn	Msd 0.2	2 ↑ 3↓	
				93/4178					93/4241
APR 27 172125.3s	38.01S	176.04E	155km	M=4.2	APR 28 125526.4s	38.80S	175.90E	105km	M=3.7
	0.5	0.04	0.02	3		0.4	0.01	0.01	3
Rsd 0.2s	19ph/16stn	Dmin 98km	Az.gap 215°		Rsd 0.3s	26ph/19stn	Dmin 50km	Az.gap 76°	
Corr. -0.726	27M/22stn	Msd 0.2	1 ↑		Corr. 0.020	25M/21stn	Msd 0.3	7 ↑ 1↓	
				93/4180					93/4249
APR 27 174335.8s	46.83S	165.36E	33km	M=3.9	APR 28 165454.9s	37.96S	176.29E	154km	M=3.9
	0.3	0.02	0.02	R		0.5	0.04	0.02	3
Rsd 0.1s	24ph/16stn	Dmin 130km	Az.gap 305°		Rsd 0.2s	12ph/11stn	Dmin 79km	Az.gap 271°	
Corr. -0.296	21M/13stn	Msd 0.1	7 ↑ 2↓		Corr. -0.553	20M/19stn	Msd 0.2	1 ↑	
				93/4184					
APR 27 180750.6s	46.64S	165.43E	33km	M=4.2					
	0.5	0.03	0.03	R					
Rsd 0.2s	25ph/19stn	Dmin 114km	Az.gap 301°						
Corr. 0.035	31M/17stn	Msd 0.1	6 ↑ 2↓						

Felt Rotorua (33).

Felt Paraparaumu (65).

Felt Wanganui (57) MM4.

Felt Waipawa (60) to Palmerston North (62) and Pongaroa (67).

93/4265					93/4338				
APR 28 213930.4s	39.92S	174.44E	24km	M=3.9	APR 30 213941.0s	43.41S	171.46E	12km	M=3.1
	0.2	0.01	0.01	2		0.1	0.01	0.01	R
Rsd 0.3s	30ph/22stn	Dmin 44km	Az.gap 89°		Rsd 0.3s	14ph/11stn	Dmin 50km	Az.gap 112°	
Corr. 0.048	9M/6stn	Msd 0.5	1 ↑ 3↓		Corr. -0.302	8M/8stn	Msd 0.2	1 ↑	
93/4292					93/4349				
APR 29 103035.9s	38.99S	174.84E	248km	M=3.8	MAY 01 052137.2s	38.25S	175.81E	154km	M=3.6
	0.6	0.02	0.05	5		1.1	0.06	0.09	10
Rsd 0.1s	23ph/19stn	Dmin 48km	Az.gap 133°		Rsd 0.5s	18ph/14stn	Dmin 92km	Az.gap 255°	
Corr. 0.533	16M/12stn	Msd 0.2	1 ↑		Corr. -0.641	10M/9stn	Msd 0.2	1 ↑	
93/4293					93/4388				
APR 29 103049.1s	38.31S	176.93E	60km	M=4.0	MAY 02 041741.1s	38.31S	175.90E	159km	M=3.6
	0.2	0.01	0.01	2		1.3	0.07	0.12	12
Rsd 0.3s	24ph/19stn	Dmin 17km	Az.gap 47°		Rsd 0.4s	17ph/14stn	Dmin 82km	Az.gap 250°	
Corr. -0.330	19M/16stn	Msd 0.2	3 ↑ 1↓		Corr. -0.627	13M/12stn	Msd 0.3		
93/4295					93/4400				
APR 29 104224.2s	38.05S	176.21E	149km	M=3.5	MAY 02 094651.4s	38.67S	175.84E	143km	M=3.6
	0.6	0.04	0.04	4		0.5	0.03	0.03	4
Rsd 0.2s	13ph/11stn	Dmin 83km	Az.gap 267°		Rsd 0.3s	17ph/12stn	Dmin 57km	Az.gap 205°	
Corr. -0.554	13M/13stn	Msd 0.3	1 ↑		Corr. -0.609	11M/8stn	Msd 0.2	1 ↑	
93/4297					93/4425				
APR 29 125107.1s	38.99S	175.36E	155km	M=3.6	MAY 03 024401.1s	38.61S	177.76E	30km	M=3.7
	0.8	0.03	0.04	9		0.1	0.01	0.01	2
Rsd 0.3s	14ph/10stn	Dmin 97km	Az.gap 194°		Rsd 0.2s	20ph/18stn	Dmin 24km	Az.gap 78°	
Corr. -0.481	15M/15stn	Msd 0.3	1 ↑		Corr. 0.172	40M/35stn	Msd 0.2	1 ↑	
93/4308					93/4431				
APR 29 202328.3s	37.93S	175.87E	133km	M=3.6	MAY 03 053907.1s	38.56S	176.00E	111km	M=3.5
	0.4	0.03	0.04	4		0.5	0.02	0.02	4
Rsd 0.2s	10ph/7stn	Dmin 115km	Az.gap 274°		Rsd 0.2s	18ph/13stn	Dmin 56km	Az.gap 203°	
Corr. -0.857	6M/6stn	Msd 0.4	1 ↑		Corr. -0.640	19M/16stn	Msd 0.3		
93/4319					93/4435				
APR 30 071557.6s	38.93S	176.03E	107km	M=3.6	MAY 03 085841.0s	37.16S	176.86E	192km	M=3.9
	0.6	0.02	0.03	5		0.2	0.02	0.01	2
Rsd 0.3s	12ph/7stn	Dmin 46km	Az.gap 156°		Rsd 0.1s	13ph/11stn	Dmin 111km	Az.gap 177°	
Corr. -0.640	5M/5stn	Msd 0.4	1 ↑		Corr. 0.734	20M/20stn	Msd 0.3		
93/4320					93/4448				
APR 30 072702.5s	41.38S	173.16E	108km	M=3.5	MAY 03 165450.5s	40.38S	173.39E	194km	M=4.3
	0.4	0.02	0.01	4		0.3	0.01	0.01	3
Rsd 0.3s	24ph/18stn	Dmin 48km	Az.gap 86°		Rsd 0.2s	35ph/27stn	Dmin 65km	Az.gap 147°	
Corr. -0.047	12M/11stn	Msd 0.3	1 ↑ 1↓		Corr. -0.010	27M/22stn	Msd 0.3	7 ↑ 2↓	
93/4324					93/4465				
APR 30 122440.8s	37.63S	175.13E	33km	M=3.7	MAY 04 043343.4s	45.41S	167.52E	14km	M=3.8
	1.0	0.06	0.06	R		0.0	0.00	0.00	1
Rsd 0.4s	7ph/4stn	Dmin 188km	Az.gap 298°		Rsd 0.2s	57ph/41stn	Dmin 13km	Az.gap 37°	
Corr. -0.536	3M/3stn	Msd 0.0			Corr. -0.367	31M/17stn	Msd 0.2	7 ↑ 8↓	
93/4326					93/4482				
APR 30 124757.1s	38.64S	175.36E	243km	M=3.8	MAY 04 145801.3s	42.35S	172.26E	5km	M=3.8
	0.7	0.05	0.06	8		0.1	0.01	0.01	R
Rsd 0.5s	22ph/15stn	Dmin 134km	Az.gap 211°		Rsd 0.2s	17ph/13stn	Dmin 6km	Az.gap 73°	
Corr. -0.803	9M/9stn	Msd 0.3	1 ↑		Corr. -0.357	8M/4stn	Msd 0.2	1 ↑ 2↓	
93/4327					93/4482				
APR 30 141012.7s	38.03S	177.15E	60km	M=5.2					
	0.2	0.01	0.01	2					
Rsd 0.2s	24ph/22stn	Dmin 25km	Az.gap 107°						
Corr. 0.261	10M/6stn	Msd 0.2	2 ↑ 3↓						
Felt Opotiki (35) MM4 and Whakatane (27).					Felt Lake Coleridge Village (93) MM4.				
Felt Manapouri (139) MM4.					Felt Maruia (87) MM4.				

				93/4487					93/4525
MAY 04 190434.2s	40.75S	174.79E	43km	M=3.6	MAY 05 191225.9s	39.49S	177.37E	26km	M=4.8
	0.1	0.00	0.01	1		0.2	0.01	0.01	1
Rsd 0.1s	26ph/23stn	Dmin 16km	Az.gap 68°		Rsd 0.1s	36ph/30stn	Dmin 44km	Az.gap 191°	
Corr. -0.331	14M/10stn	Msd 0.2	4 ↑ 3↓		Corr. -0.581	20M/10stn	Msd 0.2	4 ↑ 1↓	
				93/4504					93/4540
MAY 05 034216.8s	40.42S	173.39E	189km	M=3.9	MAY 06 035025.5s	40.76S	174.46E	63km	M=4.0
	0.3	0.02	0.01	3		0.2	0.01	0.01	3
Rsd 0.2s	32ph/23stn	Dmin 86km	Az.gap 171°		Rsd 0.2s	29ph/25stn	Dmin 40km	Az.gap 77°	
Corr. -0.258	20M/16stn	Msd 0.2	1 ↑		Corr. -0.211	23M/17stn	Msd 0.2	4 ↑ 1↓	
				93/4505					93/4553
MAY 05 035119.2s	38.75S	174.57E	577km	M=4.6	MAY 06 092255.0s	37.08S	177.52E	140km	M=4.1
	0.4	0.05	0.06	5		0.3	0.03	0.02	4
Rsd 0.3s	36ph/28stn	Dmin 120km	Az.gap 139°		Rsd 0.1s	11ph/9stn	Dmin 57km	Az.gap 248°	
Corr. -0.742	27M/22stn	Msd 0.3			Corr. -0.110	23M/21stn	Msd 0.2	1 ↑	
				93/4509					93/4598
MAY 05 063719.2s	36.19S	179.28E	33km	M=3.8	MAY 07 115747.9s	38.09S	176.25E	138km	M=3.6
	1.4	0.08	0.10	R		0.8	0.05	0.02	6
Rsd 0.5s	9ph/8stn	Dmin 179km	Az.gap 304°		Rsd 0.2s	11ph/10stn	Dmin 78km	Az.gap 249°	
Corr. 0.348	8M/6stn	Msd 0.5			Corr. -0.318	16M/16stn	Msd 0.3	1 ↑	
				93/4510					93/4625
MAY 05 071247.9s	36.82S	177.29E	12km	M=3.5	MAY 07 235027.7s	38.65S	175.74E	154km	M=4.1
	0.6	0.05	0.03	R		0.5	0.02	0.02	3
Rsd 0.4s	9ph/6stn	Dmin 79km	Az.gap 221°		Rsd 0.3s	25ph/18stn	Dmin 53km	Az.gap 79°	
Corr. 0.699	5M/4stn	Msd 0.2			Corr. -0.081	25M/21stn	Msd 0.3	2 ↑	
				93/4511					93/4636
MAY 05 083443.1s	36.32S	176.85E	278km	M=4.0	MAY 08 035130.6s	37.73S	177.29E	45km	M=3.8
	0.5	0.06	0.05	4		0.3	0.02	0.01	9
Rsd 0.1s	10ph/9stn	Dmin 216km	Az.gap 302°		Rsd 0.3s	20ph/17stn	Dmin 24km	Az.gap 102°	
Corr. -0.357	16M/15stn	Msd 0.2			Corr. 0.267	16M/13stn	Msd 0.2	1 ↑	
				93/4516					93/4645
MAY 05 113127.5s	38.72S	177.46E	49km	M=3.9	MAY 08 081102.7s	35.77S	179.18E	12km	M=4.1
	0.2	0.01	0.01	3		1.0	0.05	0.07	R
Rsd 0.2s	28ph/21stn	Dmin 39km	Az.gap 68°		Rsd 0.3s	11ph/8stn	Dmin 218km	Az.gap 282°	
Corr. 0.085	29M/22stn	Msd 0.2	3 ↑ 8↓		Corr. 0.314	14M/12stn	Msd 0.2		
				93/4517					93/4667
MAY 05 114747.7s	35.15S	179.07E	209km	M=4.4	MAY 08 180627.1s	36.28S	177.27E	240km	M=3.6
	0.3	0.04	0.06	8		0.9	0.09	0.10	8
Rsd 0.1s	10ph/7stn	Dmin 280km	Az.gap 341°		Rsd 0.2s	6ph/4stn	Dmin 220km	Az.gap 329°	
Corr. -0.093	20M/16stn	Msd 0.3			Corr. -0.731	3M/3stn	Msd 0.1		
				93/4518					93/4696
MAY 05 131846.0s	41.26S	172.54E	218km	M=3.9	MAY 09 114156.3s	38.94S	176.78E	57km	M=3.5
	0.3	0.02	0.02	2		0.2	0.01	0.01	4
Rsd 0.2s	28ph/21stn	Dmin 49km	Az.gap 130°		Rsd 0.3s	32ph/24stn	Dmin 22km	Az.gap 50°	
Corr. -0.236	13M/13stn	Msd 0.2	1 ↑ 2↓		Corr. -0.105	20M/18stn	Msd 0.3	3 ↑ 1↓	
				93/4521					93/4713
MAY 05 144520.7s	38.30S	175.31E	96km	M=3.6	MAY 09 204632.6s	38.00S	176.04E	159km	M=3.8
	0.4	0.03	0.07	17		1.0	0.06	0.06	7
Rsd 0.2s	14ph/11stn	Dmin 158km	Az.gap 260°		Rsd 0.2s	11ph/10stn	Dmin 98km	Az.gap 257°	
Corr. -0.836	5M/5stn	Msd 0.2	1 ↑		Corr. -0.546	21M/20stn	Msd 0.3	1 ↑	
				93/4524					93/4722
MAY 05 183512.4s	38.74S	175.47E	201km	M=3.7	MAY 09 233540.6s	39.36S	174.93E	153km	M=3.5
	0.9	0.04	0.04	7		0.2	0.02	0.01	3
Rsd 0.3s	17ph/13stn	Dmin 35km	Az.gap 204°		Rsd 0.1s	15ph/12stn	Dmin 48km	Az.gap 213°	
Corr. -0.404	18M/17stn	Msd 0.3	1 ↑		Corr. -0.494	13M/13stn	Msd 0.2	1 ↑	

				93/4729					93/4776
MAY 10 023442.5s	37.46S	178.21E	82km	M=3.6	MAY 11 054527.6s	37.59S	177.40E	120km	M=3.6
	0.1	0.00	0.00	1		0.2	0.02	0.01	2
Rsd 0.0s	5ph/3stn	Dmin 18km	Az.gap 286°		Rsd 0.1s	17ph/13stn	Dmin 78km	Az.gap 193°	
Corr. -0.452	4M/3stn	Msd 0.1			Corr. -0.057	22M/21stn	Msd 0.2		
				93/4732					93/4779
MAY 10 042639.1s	38.99S	173.92E	11km	M=4.0	MAY 11 070145.7s	37.93S	176.17E	186km	M=4.4
	0.3	0.01	0.02	3		0.4	0.02	0.01	3
Rsd 0.1s	22ph/16stn	Dmin 38km	Az.gap 183°		Rsd 0.2s	22ph/19stn	Dmin 51km	Az.gap 96°	
Corr. -0.492	8M/4stn	Msd 0.1	1 ↑ 1↓		Corr. -0.031	28M/23stn	Msd 0.2	1 ↓	
				93/4739					93/4783
MAY 10 084652.7s	39.38S	174.55E	180km	M=3.6	MAY 11 081239.2s	35.94S	177.78E	219km	M=3.9
	0.5	0.02	0.03	5		0.6	0.10	0.07	10
Rsd 0.3s	28ph/22stn	Dmin 57km	Az.gap 147°		Rsd 0.1s	10ph/8stn	Dmin 240km	Az.gap 330°	
Corr. -0.266	18M/17stn	Msd 0.4			Corr. -0.541	10M/10stn	Msd 0.2		
				93/4742					93/4789
MAY 10 092321.7s	38.02S	176.77E	5km	M=3.1	MAY 11 130036.1s	35.86S	178.06E	214km	M=3.7
	0.1	0.01	0.01	R		0.0	0.00	0.00	0
Rsd 0.2s	17ph/14stn	Dmin 9km			Rsd 0.0s	4ph/3stn	Dmin 194km	Az.gap 337°	
Az.gap 105°					Corr. -0.697	2M/2stn	Msd 0.2		
Corr. 0.436	16M/14stn	Msd 0.3	1 ↑						
				93/4746					93/4792
MAY 10 111149.2s	39.15S	177.14E	12km	M=3.8	MAY 11 164723.4s	40.65S	174.42E	61km	M=3.8
	0.1	0.01	0.01	1		0.1	0.01	0.01	3
Rsd 0.2s	30ph/26stn	Dmin 2km			Rsd 0.2s	34ph/22stn	Dmin 45km	Az.gap 82°	
Az.gap 103°					Corr. -0.092	22M/18stn	Msd 0.2	1 ↑	
Corr. -0.079	8M/4stn	Msd 0.1	4 ↑ 3↓						
				93/4755					93/4799
MAY 10 165058.9s	40.58S	174.61E	69km	M=4.5	MAY 11 204545.3s	37.96S	176.10E	177km	M=4.2
	0.1	0.01	0.01	2		0.4	0.03	0.02	3
Rsd 0.2s	38ph/26stn	Dmin 40km	Az.gap 76°		Rsd 0.2s	20ph/17stn	Dmin 95km	Az.gap 198°	
Corr. -0.386	11M/6stn	Msd 0.3	6 ↑ 3↓		Corr. -0.505	29M/23stn	Msd 0.2		
				93/4756					93/4812
MAY 10 170809.6s	42.80S	171.62E	5km	M=5.3	MAY 12 073519.4s	36.78S	177.93E	77km	M=4.0
	0.1	0.01	0.01	R		0.5	0.03	0.02	6
Rsd 0.1s	14ph/11stn	Dmin 54km	Az.gap 121°		Rsd 0.2s	8ph/6stn	Dmin 96km	Az.gap 250°	
Corr. -0.260	46M/25stn	Msd 0.2	7 ↑ 11↓		Corr. 0.359	8M/4stn	Msd 0.3		
				93/4762					93/4822
MAY 10 221441.0s	36.88S	176.28E	211km	M=3.6	MAY 12 162901.9s	40.33S	174.28E	69km	M=4.0
	1.3	0.13	0.09	9		0.2	0.01	0.01	5
Rsd 0.3s	11ph/10stn	Dmin 169km	Az.gap 302°		Rsd 0.2s	38ph/28stn	Dmin 60km	Az.gap 96°	
Corr. -0.586	12M/12stn	Msd 0.2			Corr. -0.271	27M/22stn	Msd 0.3	3 ↑ 2↓	
				93/4771					93/4827
MAY 11 021154.1s	38.25S	176.14E	156km	M=3.8	MAY 12 201058.2s	38.95S	176.81E	66km	M=3.5
	0.4	0.02	0.01	4		0.3	0.01	0.01	3
Rsd 0.2s	19ph/15stn	Dmin 77km	Az.gap 174°		Rsd 0.3s	24ph/18stn	Dmin 22km	Az.gap 53°	
Corr. -0.233	24M/22stn	Msd 0.3	1 ↑		Corr. -0.013	11M/9stn	Msd 0.3	5 ↑ 2↓	
				93/4772					93/4838
MAY 11 025101.3s	37.92S	176.60E	150km	M=3.7	MAY 13 021607.7s	36.65S	177.43E	173km	M=3.8
	0.4	0.02	0.02	4		0.3	0.04	0.02	4
Rsd 0.3s	19ph/16stn	Dmin 36km	Az.gap 108°		Rsd 0.1s	6ph/4stn	Dmin 130km	Az.gap 315°	
Corr. 0.254	19M/18stn	Msd 0.2	1 ↑ 1↓		Corr. -0.253	5M/4stn	Msd 0.5		
				93/4772					93/4855
MAY 11 025101.3s	37.92S	176.60E	150km	M=3.7	MAY 13 112915.7s	37.94S	176.46E	174km	M=3.9
	0.4	0.02	0.02	4		0.6	0.02	0.04	5
Rsd 0.3s	19ph/16stn	Dmin 36km	Az.gap 108°		Rsd 0.3s	11ph/8stn	Dmin 67km	Az.gap 150°	
Corr. 0.254	19M/18stn	Msd 0.2	1 ↑ 1↓		Corr. 0.479	23M/19stn	Msd 0.3		

93/4870					93/4933				
MAY 13 221048.4s	38.53S	176.80E	61km	M=3.7	MAY 15 185321.1s	38.34S	175.82E	136km	M=3.9
	0.2	0.01	0.01	3		1.0	0.04	0.03	8
Rsd 0.3s	26ph/23stn	Dmin 40km	Az.gap 53°		Rsd 0.2s	15ph/12stn	Dmin 84km	Az.gap 205°	
Corr. 0.045	29M/22stn	Msd 0.2	5 ↑ 5↓		Corr. -0.635	28M/23stn	Msd 0.2	1 ↑	
93/4881					93/4935				
MAY 14 030926.5s	39.23S	175.16E	135km	M=3.6	MAY 15 203614.2s	37.80S	177.39E	90km	M=3.6
	0.3	0.01	0.02	3		0.3	0.03	0.02	3
Rsd 0.3s	31ph/25stn	Dmin 29km	Az.gap 140°		Rsd 0.3s	12ph/10stn	Dmin 57km	Az.gap 204°	
Corr. -0.146	24M/19stn	Msd 0.3	1 ↑		Corr. -0.725	14M/11stn	Msd 0.2		
93/4883					93/4939				
MAY 14 042455.7s	37.27S	176.75E	187km	M=3.7	MAY 16 041804.8s	38.52S	175.92E	164km	M=4.0
	1.5	0.12	0.09	10		0.8	0.03	0.03	7
Rsd 0.3s	10ph/9stn	Dmin 114km	Az.gap 313°		Rsd 0.3s	15ph/13stn	Dmin 64km	Az.gap 123°	
Corr. -0.274	16M/15stn	Msd 0.2			Corr. 0.144	23M/18stn	Msd 0.2		
93/4887					93/4948				
MAY 14 073329.4s	40.93S	174.52E	57km	M=3.8	MAY 16 150836.2s	39.98S	176.96E	32km	M=4.4
	0.1	0.01	0.01	2		0.2	0.01	0.02	1
Rsd 0.2s	33ph/25stn	Dmin 34km	Az.gap 59°		Rsd 0.2s	36ph/29stn	Dmin 12km	Az.gap 177°	
Corr. -0.274	22M/17stn	Msd 0.2	4 ↑ 2↓		Corr. -0.737	19M/10stn	Msd 0.3	5 ↑ 2↓	
93/4893					Felt Napier-Hastings district and Mt Vernon (60) MM4.				
MAY 14 111519.5s	40.17S	173.58E	189km	M=3.6	93/4963				
	0.4	0.03	0.02	4	MAY 17 054221.1s	38.43S	175.66E	146km	M=3.6
Rsd 0.2s	25ph/19stn	Dmin 76km	Az.gap 188°			0.3	0.02	0.03	4
Corr. -0.161	19M/17stn	Msd 0.2	4 ↑ 2↓		Rsd 0.1s	17ph/14stn	Dmin 89km	Az.gap 278°	
93/4898					Corr. -0.591 9M/8stn Msd 0.3 1 ↓				
MAY 14 141218.5s	37.02S	177.32E	138km	M=3.5	93/4967				
	0.8	0.04	0.03	8	MAY 17 093208.7s	44.93S	167.57E	69km	M=3.9
Rsd 0.4s	12ph/10stn	Dmin 108km	Az.gap 206°			0.2	0.01	0.01	1
Corr. 0.481	15M/15stn	Msd 0.1			Rsd 0.2s	49ph/37stn	Dmin 17km	Az.gap 127°	
93/4905					Corr. -0.674 28M/14stn Msd 0.1 9 ↑ 11↓				
MAY 14 172236.2s	38.06S	176.26E	172km	M=3.7	93/4970				
	0.4	0.03	0.02	3	MAY 17 101529.5s	38.48S	175.84E	180km	M=4.4
Rsd 0.2s	15ph/14stn	Dmin 78km	Az.gap 221°			0.6	0.02	0.02	4
Corr. -0.567	20M/20stn	Msd 0.3	1 ↑		Rsd 0.3s	32ph/25stn	Dmin 38km	Az.gap 75°	
93/4912					Corr. -0.084 9M/5stn Msd 0.2 1 ↑				
MAY 14 220118.1s	36.10S	178.24E	207km	M=3.7	93/4987				
	0.6	0.06	0.07	7	MAY 17 201442.7s	35.54S	178.70E	294km	M=4.1
Rsd 0.2s	8ph/5stn	Dmin 219km	Az.gap 335°			3.0	0.37	0.57	29
Corr. -0.635	5M/4stn	Msd 0.3			Rsd 0.5s	5ph/4stn	Dmin 283km	Az.gap 342°	
93/4914					Corr. -0.863 4M/4stn Msd 0.2				
MAY 14 233225.1s	38.14S	176.11E	162km	M=4.4	93/4997				
	0.4	0.02	0.01	3	MAY 18 011403.3s	40.03S	173.06E	33km	M=3.9
Rsd 0.2s	30ph/22stn	Dmin 9km				0.2	0.02	0.02	R
Az.gap 86°					Rsd 0.2s	20ph/16stn	Dmin 99km	Az.gap 193°	
Corr. 0.041	9M/5stn	Msd 0.2	1 ↑ 3↓		Corr. -0.569	10M/5stn	Msd 0.2		
93/4930					93/5000				
MAY 15 162942.5s	38.00S	176.62E	154km	M=3.5	MAY 18 021948.4s	39.61S	174.15E	140km	M=3.9
	0.8	0.04	0.06	10		0.4	0.01	0.02	5
Rsd 0.2s	15ph/12stn	Dmin 99km	Az.gap 225°		Rsd 0.3s	27ph/19stn	Dmin 70km	Az.gap 160°	
Corr. -0.881	19M/18stn	Msd 0.2	1 ↓		Corr. -0.264	19M/15stn	Msd 0.2	1 ↑ 5↓	
93/4932					93/5006				
MAY 15 172143.4s	36.81S	177.04E	226km	M=4.6	MAY 18 064025.0s	37.82S	175.99E	186km	M=3.5
	0.3	0.02	0.02	3		0.7	0.05	0.08	6
Rsd 0.2s	16ph/14stn	Dmin 118km	Az.gap 215°		Rsd 0.3s	11ph/7stn	Dmin 110km	Az.gap 276°	
Corr. 0.297	10M/6stn	Msd 0.1	1 ↑		Corr. -0.732	6M/6stn	Msd 0.2		

	93/5007						93/5204				
MAY 18	073314.5s	35.71S	178.78E	172km	M=3.7	MAY 22	133328.7s	36.32S	177.85E	12km	M=3.7
	0.2	0.05	0.03	9			1.5	0.10	0.08	R	
Rsd 0.0s	5ph/3stn		Dmin 214km		Az.gap 343°	Rsd 0.5s	6ph/5stn		Dmin 147km		Az.gap 269°
Corr. -0.876	3M/3stn		Msd 0.2			Corr. 0.601	5M/5stn		Msd 0.1		
	93/5015						93/5234				
MAY 18	135414.9s	40.26S	173.80E	141km	M=3.9	MAY 23	103926.1s	36.75S	177.42E	219km	M=3.6
	0.3	0.01	0.01	3			1.0	0.11	0.10	9	
Rsd 0.3s	34ph/23stn		Dmin 61km		Az.gap 127°	Rsd 0.4s	7ph/4stn		Dmin 164km		Az.gap 313°
Corr. -0.022	20M/16stn		Msd 0.3		6 ↑ 1↓	Corr. -0.651	3M/3stn		Msd 0.2		
	93/5026						93/5267				
MAY 18	205544.3s	45.02S	167.55E	131km	M=3.8	MAY 23	232327.7s	38.16S	176.25E	158km	M=3.6
	0.2	0.01	0.01	2			0.6	0.05	0.04	5	
Rsd 0.3s	59ph/36stn		Dmin 9km		Az.gap 90°	Rsd 0.2s	13ph/10stn		Dmin 76km		Az.gap 224°
Corr. -0.574	26M/15stn		Msd 0.1		19 ↑ 5↓	Corr. -0.779	16M/16stn		Msd 0.2		1 ↑
	93/5037						93/5274				
MAY 19	105400.3s	40.04S	174.95E	12km	M=3.4	MAY 24	024114.2s	37.24S	176.58E	237km	M=3.6
	0.1	0.01	0.01	R			0.6	0.03	0.04	5	
Rsd 0.3s	26ph/19stn		Dmin 27km		Az.gap 110°	Rsd 0.2s	10ph/8stn		Dmin 94km		Az.gap 178°
Corr. -0.302	30M/24stn		Msd 0.3		3 ↑ 1↓	Corr. 0.259	15M/15stn		Msd 0.2		
	Felt Wanganui (57).						93/5279				
	93/5050					MAY 24	053700.0s	38.84S	174.90E	204km	M=3.6
MAY 19	182346.9s	39.27S	174.91E	162km	M=4.3		0.6	0.04	0.04	8	
	0.3	0.01	0.02	3		Rsd 0.3s	19ph/15stn		Dmin 203km		Az.gap 210°
Rsd 0.3s	35ph/25stn		Dmin 49km		Az.gap 125°	Corr. -0.781	10M/10stn		Msd 0.3		
Corr. 0.050	10M/6stn		Msd 0.3		18 ↑ 5↓		93/5306				
	93/5081					MAY 25	004239.2s	38.36S	176.00E	157km	M=3.8
MAY 20	024819.6s	40.52S	176.82E	12km	M=3.6		0.9	0.04	0.03	8	
	0.6	0.01	0.02	3		Rsd 0.4s	18ph/15stn		Dmin 65km		Az.gap 117°
Rsd 0.2s	23ph/19stn		Dmin 47km		Az.gap 227°	Corr. 0.147	20M/19stn		Msd 0.3		1 ↑
Corr. -0.698	31M/25stn		Msd 0.2		3 ↑ 1↓		93/5308				
	93/5089					MAY 25	021841.4s	40.87S	175.61E	23km	M=4.5
MAY 20	072516.3s	36.82S	177.18E	207km	M=4.2		0.1	0.01	0.01	1	
	0.5	0.03	0.03	4		Rsd 0.2s	31ph/28stn		Dmin 24km		Az.gap 129°
Rsd 0.2s	16ph/14stn		Dmin 131km		Az.gap 218°	Corr. -0.591	20M/11stn		Msd 0.3		3 ↑ 6↓
Corr. 0.391	8M/4stn		Msd 0.1		1 ↓		Felt southern North Island, maximum intensity MM4 at Masterton (66).				
	93/5136						93/5312				
MAY 21	083007.7s	37.66S	175.87E	269km	M=3.5	MAY 25	024922.4s	47.76S	165.33E	33km	M=4.0
	0.7	0.07	0.09	6			1.0	0.06	0.08	R	
Rsd 0.2s	12ph/10stn		Dmin 127km		Az.gap 280°	Rsd 0.3s	28ph/26stn		Dmin 210km		Az.gap 325°
Corr. -0.752	9M/9stn		Msd 0.1			Corr. 0.190	18M/11stn		Msd 0.1		1 ↓
	93/5191						93/5315				
MAY 22	093715.9s	37.11S	177.80E	114km	M=4.3	MAY 25	043722.4s	35.33S	179.33E	166km	M=4.1
	0.3	0.02	0.01	3			1.0	0.10	0.11	17	
Rsd 0.1s	17ph/13stn		Dmin 70km		Az.gap 219°	Rsd 0.2s	10ph/7stn		Dmin 268km		Az.gap 329°
Corr. 0.272	27M/22stn		Msd 0.3		1 ↑ 3↓	Corr. -0.397	10M/10stn		Msd 0.1		
	93/5197						93/5324				
MAY 22	110820.2s	35.73S	179.11E	155km	M=3.8	MAY 25	111936.6s	46.02S	166.82E	106km	M=4.1
	0.7	0.08	0.09	12			0.2	0.01	0.01	2	
Rsd 0.2s	11ph/7stn		Dmin 220km		Az.gap 344°	Rsd 0.2s	53ph/36stn		Dmin 14km		Az.gap 86°
Corr. -0.604	13M/13stn		Msd 0.3			Corr. -0.125	29M/16stn		Msd 0.2		10 ↑ 12↓
	93/5200						93/5325				
MAY 22	115640.1s	45.54S	165.82E	29km	M=3.5	MAY 25	112130.5s	38.40S	177.28E	46km	M=4.3
	0.6	0.02	0.04	4			0.2	0.01	0.01	2	
Rsd 0.4s	31ph/25stn		Dmin 68km		Az.gap 278°	Rsd 0.2s	27ph/23stn		Dmin 21km		Az.gap 51°
Corr. -0.257	24M/13stn		Msd 0.1		8 ↑ 4↓	Corr. 0.198	27M/21stn		Msd 0.2		1 ↑ 4↓

93/5340					93/5431				
MAY 25 181210.4s	37.11S	177.35E	147km	M=3.6	MAY 28 025108.8s	39.64S	174.05E	188km	M=4.5
	0.3	0.02	0.01	3		0.4	0.01	0.02	3
Rsd 0.2s	15ph/13stn	Dmin 100km	Az.gap 242°		Rsd 0.3s	34ph/24stn	Dmin 78km	Az.gap 164°	
Corr. 0.039	16M/16stn	Msd 0.1	1 ↑		Corr. -0.376	25M/20stn	Msd 0.2	1 ↑ 3 ↓	
93/5349					93/5434				
MAY 25 214329.7s	36.35S	177.81E	12km	M=3.9	MAY 28 055316.5s	38.04S	176.37E	155km	M=3.9
	1.6	0.11	0.09	R		0.4	0.01	0.02	4
Rsd 0.6s	8ph/6stn	Dmin 142km	Az.gap 267°		Rsd 0.2s	14ph/12stn	Dmin 22km	Az.gap 111°	
Corr. 0.730	9M/6stn	Msd 0.3			Corr. 0.252	19M/18stn	Msd 0.2	1 ↑	
93/5394					93/5450				
MAY 27 000039.6s	37.31S	176.20E	210km	M=3.5	MAY 28 183422.9s	36.17S	177.33E	228km	M=3.6
	0.4	0.04	0.05	3		1.1	0.12	0.15	11
Rsd 0.1s	10ph/7stn	Dmin 132km	Az.gap 252°		Rsd 0.2s	5ph/3stn	Dmin 233km	Az.gap 329°	
Corr. -0.908	13M/13stn	Msd 0.2			Corr. -0.809	2M/2stn	Msd 0.1		
93/5399					93/5486				
MAY 27 035129.8s	38.70S	178.10E	27km	M=3.7	MAY 29 125129.1s	38.59S	177.43E	174km	M=3.5
	0.3	0.02	0.03	3		1.3	0.39	0.70	29
Rsd 0.4s	13ph/11stn	Dmin 11km	Az.gap 188°		Rsd 0.2s	8ph/5stn	Dmin 46km	Az.gap 245°	
Corr. -0.592	20M/16stn	Msd 0.3	1 ↑ 1 ↓		Corr. -0.997	6M/6stn	Msd 0.3		
93/5402					93/5492				
MAY 27 042131.6s	35.42S	178.66E	194km	M=4.7	MAY 29 162025.5s	38.23S	175.91E	182km	M=3.7
	0.6	0.06	0.05	9		0.5	0.03	0.05	5
Rsd 0.3s	14ph/11stn	Dmin 244km	Az.gap 307°		Rsd 0.2s	12ph/9stn	Dmin 89km	Az.gap 229°	
Corr. 0.606	26M/22stn	Msd 0.2			Corr. -0.604	17M/15stn	Msd 0.2		
93/5410					93/5496				
MAY 27 063748.8s	35.81S	178.88E	241km	M=4.0	MAY 29 174135.1s	37.91S	176.03E	173km	M=3.9
	0.6	0.09	0.08	9		1.0	0.07	0.07	7
Rsd 0.2s	7ph/4stn	Dmin 257km	Az.gap 342°		Rsd 0.3s	14ph/12stn	Dmin 102km	Az.gap 219°	
Corr. -0.630	3M/3stn	Msd 0.2			Corr. -0.790	18M/18stn	Msd 0.3	1 ↑	
93/5417					93/5519				
MAY 27 134022.0s	38.15S	176.65E	124km	M=3.5	MAY 30 062647.2s	38.37S	175.82E	160km	M=4.7
	1.3	0.07	0.06	8		0.5	0.02	0.02	4
Rsd 0.3s	12ph/10stn	Dmin 42km	Az.gap 218°		Rsd 0.3s	24ph/19stn	Dmin 59km	Az.gap 81°	
Corr. -0.741	9M/7stn	Msd 0.2	1 ↑		Corr. 0.031	9M/5stn	Msd 0.2	2 ↑ 1 ↓	
93/5419					93/5531				
MAY 27 142159.7s	36.63S	179.37E	12km	M=3.7	MAY 30 152536.3s	45.09S	167.37E	120km	M=3.9
	0.8	0.03	0.05	R		0.3	0.01	0.01	2
Rsd 0.2s	7ph/3stn	Dmin 144km	Az.gap 314°		Rsd 0.3s	49ph/37stn	Dmin 16km	Az.gap 114°	
Corr. -0.047	3M/3stn	Msd 0.3			Corr. -0.618	27M/14stn	Msd 0.1	7 ↑ 10 ↓	
93/5421					93/5548				
MAY 27 162255.0s	37.99S	176.13E	115km	M=3.7	MAY 31 074933.7s	41.63S	174.67E	30km	M=3.5
	0.7	0.05	0.11	12		0.1	0.01	0.01	1
Rsd 0.3s	13ph/9stn	Dmin 91km	Az.gap 247°		Rsd 0.1s	22ph/18stn	Dmin 30km	Az.gap 169°	
Corr. -0.661	12M/12stn	Msd 0.3			Corr. -0.645	22M/16stn	Msd 0.2	3 ↑ 2 ↓	
93/5422					93/5572				
MAY 27 163433.0s	38.00S	175.81E	123km	M=3.5	MAY 31 221604.4s	37.46S	178.81E	21km	M=4.7
	0.8	0.07	0.14	21		0.5	0.03	0.02	2
Rsd 0.4s	10ph/7stn	Dmin 117km	Az.gap 264°		Rsd 0.1s	16ph/13stn	Dmin 47km	Az.gap 278°	
Corr. -0.753	3M/3stn	Msd 0.4			Corr. 0.401	12M/6stn	Msd 0.3	1 ↓	
93/5429					93/5574				
MAY 28 014021.5s	38.01S	176.16E	199km	M=4.4	MAY 31 230518.3s	39.24S	174.81E	185km	M=4.1
	0.4	0.02	0.02	3		0.5	0.02	0.03	4
Rsd 0.2s	27ph/19stn	Dmin 39km	Az.gap 93°		Rsd 0.3s	27ph/22stn	Dmin 63km	Az.gap 133°	
Corr. 0.148	27M/20stn	Msd 0.2	3 ↑ 2 ↓		Corr. 0.191	24M/20stn	Msd 0.3	4 ↑ 3 ↓	

				93/5577					93/5718							
JUN	01	005231.3s	38.41S	175.93E	307km	M=3.7			JUN	05	095438.1s	36.74S	177.44E	225km	M=3.6	
		0.4	0.15	0.19	12						0.2	0.05	0.02	4		
Rsd	0.1s	10ph/8stn		Dmin	148km	Az.gap	312°		Rsd	0.1s	5ph/3stn		Dmin	165km	Az.gap	324°
Corr.	-0.984	6M/6stn		Msd	0.1				Corr.	-0.225	3M/3stn		Msd	0.2		
				93/5591												93/5726
JUN	01	134312.3s	38.86S	175.19E	242km	M=5.2			JUN	05	152808.6s	38.50S	176.03E	183km	M=3.7	
		0.6	0.02	0.04	4						0.3	0.02	0.02	3		
Rsd	0.3s	34ph/27stn		Dmin	27km	Az.gap	95°		Rsd	0.1s	18ph/15stn		Dmin	84km	Az.gap	303°
Corr.	0.003	8M/5stn		Msd	0.2		8 ↑ 3↓		Corr.	-0.193	8M/8stn		Msd	0.2		1 ↑
				93/5594												93/5736
JUN	01	160825.9s	37.42S	176.29E	261km	M=3.6			JUN	05	201827.1s	41.53S	172.88E	93km	M=3.9	
		1.0	0.09	0.07	9						0.4	0.02	0.02	5		
Rsd	0.3s	12ph/10stn		Dmin	118km	Az.gap	265°		Rsd	0.3s	24ph/17stn		Dmin	26km	Az.gap	89°
Corr.	-0.634	8M/8stn		Msd	0.2				Corr.	-0.345	14M/11stn		Msd	0.2		1 ↑
				93/5605												93/5738
JUN	01	201453.2s	38.50S	175.74E	195km	M=3.8			JUN	05	210648.6s	36.96S	176.58E	254km	M=3.7	
		1.1	0.05	0.03	9						0.0	0.00	0.00	0		
Rsd	0.2s	16ph/13stn		Dmin	76km	Az.gap	168°		Rsd	0.0s	4ph/3stn		Dmin	193km	Az.gap	297°
Corr.	-0.060	20M/17stn		Msd	0.2		1 ↑		Corr.	-1.000	3M/3stn		Msd	0.3		
				93/5642												93/5743
JUN	02	190722.9s	35.25S	179.22E	220km	M=4.1			JUN	06	034552.2s	36.90S	177.60E	145km	M=3.8	
		0.7	0.08	0.13	15						0.5	0.05	0.03	6		
Rsd	0.2s	11ph/6stn		Dmin	273km	Az.gap	346°		Rsd	0.2s	8ph/6stn		Dmin	99km	Az.gap	294°
Corr.	0.227	6M/6stn		Msd	0.4				Corr.	-0.378	9M/7stn		Msd	0.2		
				93/5644												93/5761
JUN	02	204253.5s	36.06S	179.85E	93km	M=6.1			JUN	06	163550.8s	37.73S	176.87E	12km	M=3.5	
		0.8	0.09	0.06	31						0.5	0.03	0.03	R		
Rsd	0.3s	18ph/15stn		Dmin	220km	Az.gap	309°		Rsd	0.4s	11ph/7stn		Dmin	63km	Az.gap	205°
Corr.	0.660	8M/5stn		Msd	0.2		1 ↑		Corr.	0.682	11M/9stn		Msd	0.1		
																93/5770
							Felt Lower Hutt (68).									
				93/5652												93/5776
JUN	03	031620.0s	40.14S	174.96E	26km	M=3.7			JUN	06	224037.6s	37.75S	176.97E	133km	M=4.2	
		0.2	0.01	0.02	2						0.3	0.01	0.01	3		
Rsd	0.3s	30ph/23stn		Dmin	38km	Az.gap	107°		Rsd	0.2s	15ph/14stn		Dmin	58km	Az.gap	127°
Corr.	-0.011	31M/25stn		Msd	0.2		3 ↑ 1↓		Corr.	0.252	24M/19stn		Msd	0.3		1 ↑ 1↓
				93/5659												93/5776
JUN	03	085109.6s	38.69S	178.78E	39km	M=4.2			JUN	07	032147.1s	41.18S	172.80E	168km	M=3.6	
		0.4	0.01	0.03	11						0.3	0.02	0.01	3		
Rsd	0.2s	13ph/11stn		Dmin	65km	Az.gap	240°		Rsd	0.2s	19ph/15stn		Dmin	45km	Az.gap	97°
Corr.	-0.279	27M/20stn		Msd	0.3		1 ↓		Corr.	-0.258	6M/6stn		Msd	0.5		
				93/5673												93/5803
JUN	03	133234.8s	40.41S	174.15E	82km	M=3.8			JUN	08	123051.1s	39.27S	174.96E	5km	M=3.8	
		0.3	0.02	0.01	4						0.1	0.01	0.01	R		
Rsd	0.2s	30ph/21stn		Dmin	48km	Az.gap	124°		Rsd	0.2s	23ph/17stn		Dmin	45km	Az.gap	122°
Corr.	-0.218	19M/16stn		Msd	0.2				Corr.	-0.217	9M/6stn		Msd	0.2		1 ↑
				93/5695												93/5811
JUN	04	144504.3s	37.51S	177.30E	131km	M=3.9			JUN	09	010734.2s	38.16S	176.06E	238km	M=3.8	
		0.1	0.01	0.01	2						0.4	0.10	0.14	10		
Rsd	0.1s	14ph/12stn		Dmin	85km	Az.gap	201°		Rsd	0.1s	6ph/5stn		Dmin	173km	Az.gap	327°
Corr.	-0.099	21M/19stn		Msd	0.2		4 ↑ 1↓		Corr.	-0.972	4M/4stn		Msd	0.3		
				93/5710												93/5818
JUN	05	043437.9s	36.72S	178.26E	33km	M=3.6			JUN	09	091246.2s	38.99S	176.05E	91km	M=4.4	
		1.6	0.08	0.10	R						0.3	0.01	0.01	4		
Rsd	0.7s	9ph/6stn		Dmin	97km	Az.gap	269°		Rsd	0.3s	29ph/22stn		Dmin	40km	Az.gap	47°
Corr.	0.666	10M/6stn		Msd	0.3				Corr.	0.079	23M/20stn		Msd	0.2		1 ↑

93/5828				93/5895			
JUN 09 180737.1s	41.71S	174.05E	37km M=3.7	JUN 12 070500.2s	37.35S	178.83E	26km M=3.7
	0.1	0.02	0.01		1.9	0.08	0.13
Rsd 0.3s	25ph/20stn	Dmin 14km	Az.gap 122°	Rsd 0.7s	7ph/5stn	Dmin 55km	Az.gap 283°
Corr. -0.311	15M/12stn	Msd 0.2	3 ↑ 12↓	Corr. 0.250	6M/4stn	Msd 0.1	
93/5834				93/5915			
JUN 10 001312.8s	38.30S	176.22E	182km M=3.6	JUN 13 080107.2s	38.53S	175.75E	152km M=3.8
	0.5	0.03	0.02		0.8	0.03	0.03
Rsd 0.2s	22ph/18stn	Dmin 96km	Az.gap 275°	Rsd 0.2s	15ph/13stn	Dmin 73km	Az.gap 225°
Corr. -0.317	13M/12stn	Msd 0.3	1 ↑	Corr. -0.613	17M/14stn	Msd 0.2	
93/5836				93/5918			
JUN 10 010245.7s	37.84S	175.82E	294km M=4.3	JUN 13 130714.9s	41.28S	172.62E	185km M=4.0
	0.5	0.04	0.02		0.3	0.02	0.02
Rsd 0.1s	12ph/11stn	Dmin 150km	Az.gap 225°	Rsd 0.2s	26ph/20stn	Dmin 51km	Az.gap 118°
Corr. -0.630	21M/18stn	Msd 0.2		Corr. -0.181	14M/13stn	Msd 0.2	5 ↑ 1↓
93/5840				93/5919			
JUN 10 021026.7s	39.35S	174.82E	215km M=4.0	JUN 13 160023.2s	39.15S	178.78E	33km M=3.9
	0.3	0.02	0.02		0.5	0.01	0.04
Rsd 0.1s	24ph/20stn	Dmin 51km	Az.gap 190°	Rsd 0.1s	11ph/10stn	Dmin 77km	Az.gap 276°
Corr. -0.321	18M/16stn	Msd 0.2		Corr. -0.274	24M/20stn	Msd 0.2	
93/5850				93/5927			
JUN 10 153812.3s	38.53S	177.75E	68km M=3.6	JUN 13 202558.4s	38.76S	175.40E	228km M=3.8
	0.4	0.02	0.02		0.7	0.05	0.06
Rsd 0.2s	16ph/14stn	Dmin 27km	Az.gap 87°	Rsd 0.3s	17ph/14stn	Dmin 123km	Az.gap 218°
Corr. 0.506	12M/10stn	Msd 0.2	1 ↑	Corr. -0.855	15M/12stn	Msd 0.3	1 ↑
93/5859				93/5942			
JUN 10 220631.0s	37.28S	176.39E	104km M=3.6	JUN 14 130608.3s	36.06S	177.91E	254km M=3.6
	0.7	0.07	0.10		0.7	0.80	1.58
Rsd 0.2s	14ph/12stn	Dmin 126km	Az.gap 308°	Rsd 0.1s	6ph/5stn	Dmin 254km	Az.gap 351°
Corr. -0.722	6M/6stn	Msd 0.4		Corr. -0.996	5M/5stn	Msd 0.2	
93/5872				93/5946			
JUN 11 120138.7s	38.19S	176.36E	147km M=3.7	JUN 14 180216.9s	36.73S	178.25E	33km M=4.0
	0.7	0.04	0.02		1.8	0.09	0.12
Rsd 0.4s	15ph/12stn	Dmin 66km	Az.gap 159°	Rsd 0.8s	6ph/4stn	Dmin 198km	Az.gap 276°
Corr. 0.198	16M/15stn	Msd 0.3	1 ↑	Corr. 0.632	6M/4stn	Msd 0.4	1 ↓
93/5877				93/5947			
JUN 11 153446.1s	38.37S	175.72E	167km M=3.6	JUN 14 180358.1s	37.17S	177.20E	165km M=3.6
	1.3	0.04	0.05		0.3	0.02	0.02
Rsd 0.2s	14ph/12stn	Dmin 90km	Az.gap 228°	Rsd 0.1s	13ph/10stn	Dmin 121km	Az.gap 308°
Corr. -0.520	20M/17stn	Msd 0.1		Corr. -0.671	9M/9stn	Msd 0.2	
93/5878				93/5948			
JUN 11 160832.3s	38.22S	176.54E	131km M=3.8	JUN 14 181108.1s	41.00S	172.91E	187km M=3.7
	0.6	0.03	0.02		0.4	0.02	0.02
Rsd 0.3s	18ph/14stn	Dmin 50km	Az.gap 119°	Rsd 0.2s	23ph/15stn	Dmin 38km	Az.gap 135°
Corr. 0.222	20M/18stn	Msd 0.2	1 ↑	Corr. -0.164	10M/9stn	Msd 0.1	5 ↑ 2↓
93/5881				93/5956			
JUN 11 200417.3s	35.19S	179.93W	33km M=4.2	JUN 15 004509.4s	37.52S	178.36E	46km M=3.6
	1.1	0.06	0.08		0.3	0.02	0.02
Rsd 0.3s	7ph/6stn	Dmin 311km	Az.gap 320°	Rsd 0.1s	6ph/4stn	Dmin 11km	Az.gap 264°
Corr. 0.033	7M/6stn	Msd 0.3		Corr. 0.744	3M/3stn	Msd 0.3	1 ↓
93/5886				93/5961			
JUN 11 223626.8s	37.30S	177.56E	118km M=3.9	JUN 15 045827.6s	38.51S	176.16E	112km M=3.8
	0.2	0.01	0.01		0.4	0.01	0.01
Rsd 0.1s	11ph/10stn	Dmin 73km	Az.gap 187°	Rsd 0.2s	18ph/15stn	Dmin 86km	Az.gap 83°
Corr. 0.313	21M/19stn	Msd 0.2	1 ↑	Corr. 0.211	21M/18stn	Msd 0.2	3 ↑ 2↓

93/5986					93/6088				
JUN 16	074839.6s	38.41S	175.75E	160km M=4.0	JUN 19	074451.9s	38.87S	175.26E	220km M=3.7
	0.4	0.01	0.02	4		0.5	0.02	0.02	4
Rsd 0.1s	16ph/12stn	Dmin 62km	Az.gap 137°		Rsd 0.1s	20ph/17stn	Dmin 45km	Az.gap 233°	
Corr. 0.252	21M/18stn	Msd 0.3	1 ↑		Corr. -0.031	16M/16stn	Msd 0.3	3 ↑ 1↓	
93/6001					93/6092				
JUN 17	010744.4s	37.14S	177.81E	124km M=3.7	JUN 19	131908.2s	39.84S	174.11E	238km M=3.9
	0.8	0.04	0.04	7		0.3	0.02	0.03	3
Rsd 0.2s	10ph/9stn	Dmin 67km	Az.gap 216°		Rsd 0.2s	27ph/20stn	Dmin 70km	Az.gap 199°	
Corr. 0.600	12M/12stn	Msd 0.2	1 ↓		Corr. -0.321	18M/16stn	Msd 0.3		
93/6012					93/6093				
JUN 17	072110.5s	37.43S	176.38E	197km M=3.7	JUN 19	132009.7s	38.15S	176.24E	182km M=4.0
	4.3	0.21	0.09	27		0.7	0.01	0.01	7
Rsd 0.2s	10ph/10stn	Dmin 113km	Az.gap 290°		Rsd 0.2s	17ph/16stn	Dmin 20km	Az.gap 56°	
Corr. -0.875	14M/14stn	Msd 0.2			Corr. 0.092	21M/19stn	Msd 0.2	1 ↑ 1↓	
93/6016					93/6098				
JUN 17	090019.0s	37.54S	175.49E	5km M=3.8	JUN 19	160952.1s	37.43S	176.52E	227km M=4.1
	0.1	0.01	0.01	R		2.6	0.08	0.05	23
Rsd 0.2s	14ph/10stn	Dmin 34km	Az.gap 164°		Rsd 0.3s	13ph/12stn	Dmin 106km	Az.gap 245°	
Corr. -0.146	19M/13stn	Msd 0.2	1 ↑		Corr. -0.594	19M/19stn	Msd 0.2		
Felt Te Aroha (25).					93/6103				
93/6027					JUN 19	200217.3s	39.24S	175.64E	81km M=3.9
JUN 17	162154.5s	38.70S	177.40E	12km M=3.6		0.3	0.01	0.02	4
	0.2	0.02	0.01	R	Rsd 0.4s	37ph/30stn	Dmin 8km	Az.gap 61°	
Rsd 0.1s	6ph/3stn	Dmin 56km	Az.gap 224°		Corr. 0.032	24M/21stn	Msd 0.2	3 ↑ 1↓	
Corr. -0.971	1M/1stn	Msd N.D.	1 ↑		93/6107				
93/6034					JUN 19	231514.3s	38.18S	175.73E	170km M=3.6
JUN 17	205807.0s	36.62S	177.18E	248km M=4.1		0.6	0.06	0.10	14
	0.3	0.02	0.02	2	Rsd 0.3s	14ph/11stn	Dmin 138km	Az.gap 282°	
Rsd 0.1s	11ph/9stn	Dmin 131km	Az.gap 235°		Corr. -0.854	7M/7stn	Msd 0.2	1 ↑	
Corr. 0.516	10M/10stn	Msd 0.2			93/6110				
93/6035					JUN 19	234622.3s	38.11S	175.60E	159km M=3.7
JUN 17	210115.4s	40.06S	173.89E	215km M=3.7		0.9	0.06	0.11	18
	0.5	0.03	0.04	4	Rsd 0.3s	22ph/18stn	Dmin 134km	Az.gap 259°	
Rsd 0.2s	19ph/14stn	Dmin 83km	Az.gap 194°		Corr. -0.800	16M/16stn	Msd 0.2	1 ↑	
Corr. -0.424	13M/12stn	Msd 0.2			93/6117				
93/6045					JUN 20	041409.0s	44.91S	167.60E	75km M=3.7
JUN 18	033415.6s	43.03S	176.00E	33km M=3.8		0.2	0.01	0.01	2
	0.6	0.03	0.03	R	Rsd 0.2s	40ph/30stn	Dmin 17km	Az.gap 131°	
Rsd 0.4s	26ph/20stn	Dmin 189km	Az.gap 223°		Corr. -0.596	12M/6stn	Msd 0.1	4 ↑ 6↓	
Corr. -0.724	42M/39stn	Msd 0.2			93/6118				
93/6061					JUN 20	051508.0s	39.30S	175.22E	116km M=5.2
JUN 18	161806.8s	47.27S	165.66E	33km M=4.0		0.2	0.01	0.01	2
	0.3	0.02	0.02	R	Rsd 0.2s	46ph/37stn	Dmin 30km	Az.gap 71°	
Rsd 0.1s	22ph/15stn	Dmin 151km	Az.gap 306°		Corr. -0.055	19M/14stn	Msd 0.5	19 ↑ 6↓	
Corr. 0.290	23M/13stn	Msd 0.1	1 ↑		Felt Ohakune (49) to Raumati (65), maximum intensity MM4.				
93/6070					93/6119				
JUN 18	211216.3s	37.45S	177.30E	130km M=3.7	JUN 20	062449.9s	40.27S	173.66E	176km M=3.7
	1.1	0.03	0.02	12		0.3	0.02	0.02	3
Rsd 0.2s	12ph/12stn	Dmin 81km	Az.gap 162°		Rsd 0.2s	28ph/23stn	Dmin 63km	Az.gap 164°	
Corr. 0.002	11M/11stn	Msd 0.2			Corr. -0.443	20M/17stn	Msd 0.2	3 ↑ 3↓	
93/6081					93/6122				
JUN 19	032246.8s	39.06S	175.22E	156km M=3.8	JUN 20	082146.0s	38.47S	176.27E	200km M=3.6
	0.6	0.03	0.04	8		0.5	0.08	0.10	9
Rsd 0.2s	24ph/20stn	Dmin 86km	Az.gap 207°		Rsd 0.3s	18ph/13stn	Dmin 128km	Az.gap 248°	
Corr. -0.666	19M/19stn	Msd 0.2			Corr. -0.931	9M/9stn	Msd 0.2	1 ↑	

JUN 20 102718.0s	36.76S	178.80E	12km	M=4.4						93/6188
	0.7	0.04	0.04	R						
Rsd 0.2s	12ph/11stn	Dmin 103km	Az.gap 287°							
Corr. 0.888	34M/28stn	Msd 0.2								
										93/6132
JUN 20 142712.9s	45.86S	166.22E	20km	M=3.8						93/6201
	0.7	0.02	0.04	3						
Rsd 0.3s	16ph/12stn	Dmin 33km	Az.gap 274°							
Corr. -0.007	16M/9stn	Msd 0.2	1 ↑							
										93/6140
JUN 20 185344.4s	39.47S	174.33E	216km	M=3.8						93/6204
	0.5	0.02	0.03	4						
Rsd 0.2s	27ph/22stn	Dmin 63km	Az.gap 176°							
Corr. -0.099	21M/18stn	Msd 0.2	1 ↑							
										93/6143
JUN 20 222143.6s	37.30S	177.93E	61km	M=3.6						93/6209
	0.4	0.02	0.03	4						
Rsd 0.1s	6ph/4stn	Dmin 47km	Az.gap 208°							
Corr. 0.890	2M/2stn	Msd 0.2								
										93/6153
JUN 21 055223.5s	37.55S	175.55E	5km	M=3.5						93/6220
	0.2	0.01	0.02	R						
Rsd 0.3s	9ph/5stn	Dmin 33km	Az.gap 157°							
Corr. -0.345	17M/12stn	Msd 0.2	1 ↑							
										93/6165
JUN 21 174343.5s	37.53S	175.50E	5km	M=3.9						93/6231
	0.2	0.01	0.01	R						
Rsd 0.3s	14ph/10stn	Dmin 35km	Az.gap 164°							
Corr. -0.094	22M/16stn	Msd 0.2	1 ↑							
										Felt Te Aroha (25) MM3.
										93/6167
JUN 21 193413.4s	37.67S	177.12E	128km	M=3.5						93/6232
	0.9	0.07	0.04	7						
Rsd 0.2s	8ph/7stn	Dmin 66km	Az.gap 292°							
Corr. -0.130	8M/8stn	Msd 0.2	1 ↑ 1 ↓							
										93/6172
JUN 21 235158.6s	39.66S	174.00E	217km	M=3.9						93/6235
	0.6	0.02	0.04	6						
Rsd 0.3s	24ph/19stn	Dmin 81km	Az.gap 171°							
Corr. -0.364	16M/14stn	Msd 0.3								
										93/6180
JUN 22 030113.2s	40.81S	175.37E	30km	M=4.0						93/6237
	0.1	0.01	0.01	1						
Rsd 0.2s	27ph/22stn	Dmin 24km	Az.gap 110°							
Corr. -0.640	26M/21stn	Msd 0.3	8 ↑ 2 ↓							
										Felt Palmerston North (62), Levin, Manakau (65).
										93/6182
JUN 22 044158.2s	38.13S	176.24E	5km	M=2.8						93/6241
	0.1	0.00	0.00	R						
Rsd 0.1s	10ph/7stn	Dmin 6km	Az.gap 81°							
Corr. 0.118	5M/5stn	Msd 0.2	1 ↓							
										Felt Rotorua (33) MM4.
										93/6185
JUN 22 071211.9s	38.56S	175.39E	213km	M=3.7						93/6245
	1.4	0.07	0.06	11						
Rsd 0.4s	14ph/11stn	Dmin 71km	Az.gap 238°							
Corr. -0.584	11M/10stn	Msd 0.3	1 ↑							
JUN 22 082425.8s	37.00S	177.30E	185km	M=3.5						
	0.9	0.04	0.06	7						
Rsd 0.4s	10ph/8stn	Dmin 111km	Az.gap 206°							
Corr. 0.374	3M/3stn	Msd 0.1								
JUN 22 165329.9s	45.15S	167.05E	30km	M=3.7						
	0.3	0.02	0.02	1						
Rsd 0.3s	21ph/15stn	Dmin 5km	Az.gap 207°							
Corr. -0.674	12M/6stn	Msd 0.1	1 ↑ 3 ↓							
JUN 22 200328.9s	38.13S	176.04E	199km	M=4.2						
	0.9	0.04	0.03	7						
Rsd 0.3s	14ph/12stn	Dmin 48km	Az.gap 127°							
Corr. 0.038	25M/21stn	Msd 0.2	1 ↑ 1 ↓							
JUN 23 004954.5s	38.14S	176.32E	153km	M=3.8						
	0.9	0.06	0.06	6						
Rsd 0.4s	10ph/9stn	Dmin 71km	Az.gap 217°							
Corr. -0.726	23M/20stn	Msd 0.3	1 ↑							
JUN 23 104044.4s	37.54S	175.49E	5km	M=3.8						
	0.2	0.01	0.02	R						
Rsd 0.3s	17ph/12stn	Dmin 37km	Az.gap 164°							
Corr. -0.234	32M/26stn	Msd 0.3	1 ↑							Felt Springdale (25) MM4.
JUN 23 160602.8s	38.43S	176.20E	171km	M=3.6						
	0.6	0.04	0.04	5						
Rsd 0.2s	14ph/9stn	Dmin 88km	Az.gap 270°							
Corr. -0.173	10M/10stn	Msd 0.3	1 ↑							
JUN 23 164655.0s	37.84S	176.92E	137km	M=4.1						
	0.5	0.03	0.02	4						
Rsd 0.3s	21ph/19stn	Dmin 27km	Az.gap 120°							
Corr. 0.334	23M/21stn	Msd 0.3	5 ↑ 1 ↓							
JUN 23 213811.8s	37.88S	176.14E	156km	M=3.9						
	1.1	0.08	0.10	7						
Rsd 0.4s	15ph/12stn	Dmin 95km	Az.gap 231°							
Corr. -0.875	20M/19stn	Msd 0.4	2 ↑ 2 ↓							
JUN 23 223954.9s	37.04S	177.26E	166km	M=3.6						
	2.0	0.19	0.19	13						
Rsd 0.8s	6ph/5stn	Dmin 111km	Az.gap 277°							
Corr. -0.810	6M/4stn	Msd 0.3	1 ↑							
JUN 24 013420.7s	42.15S	173.67E	39km	M=3.8						
	0.1	0.01	0.01	3						
Rsd 0.2s	25ph/20stn	Dmin 32km	Az.gap 139°							
Corr. -0.492	18M/13stn	Msd 0.2	3 ↑ 2 ↓							
JUN 24 031043.8s	38.23S	176.07E	139km	M=3.8						
	0.8	0.05	0.04	6						
Rsd 0.2s	12ph/10stn	Dmin 91km	Az.gap 248°							
Corr. -0.531	17M/16stn	Msd 0.3	1 ↑							

93/6246					93/6332				
JUN 24 044610.9s 41.85S 171.93E 5km M=3.8					JUN 27 114438.9s 38.41S 176.69E 162km M=3.5				
	0.2	0.01	0.01	R		0.3	0.18	0.35	7
Rsd 0.2s	12ph/8stn	Dmin 16km		Az.gap 107°	Rsd 0.1s	5ph/3stn	Dmin 40km		Az.gap 223°
Corr. 0.326	21M/18stn	Msd 0.3	1 ↑ 2 ↓		Corr. -0.997	2M/2stn	Msd 0.2	1 ↑ 1 ↓	
Felt Westport (79) MM4.									
93/6273					93/6346				
JUN 25 132309.9s 37.13S 177.03E 240km M=5.3					JUN 28 050807.3s 43.28S 171.92E 17km M=3.9				
	0.6	0.05	0.04	5		0.1	0.01	0.01	2
Rsd 0.2s	20ph/17stn	Dmin 100km		Az.gap 186°	Rsd 0.1s	12ph/9stn	Dmin 62km		Az.gap 78°
Corr. 0.508	22M/18stn	Msd 0.2	14 ↑ 2 ↓		Corr. 0.094	8M/5stn	Msd 0.1	1 ↑ 2 ↓	
93/6283					93/6349				
JUN 25 214356.4s 40.33S 173.61E 193km M=3.9					JUN 28 073133.5s 45.37S 167.29E 135km M=4.2				
	0.4	0.03	0.03	3		0.4	0.02	0.02	3
Rsd 0.3s	28ph/21stn	Dmin 58km		Az.gap 189°	Rsd 0.2s	23ph/18stn	Dmin 16km		Az.gap 169°
Corr. -0.533	22M/19stn	Msd 0.3	7 ↑ 1 ↓		Corr. -0.189	17M/14stn	Msd 0.3	2 ↑ 4 ↓	
93/6288					93/6371				
JUN 26 030258.4s 37.85S 179.38E 12km M=3.9					JUN 29 132724.8s 40.38S 173.48E 153km M=3.6				
	0.5	0.02	0.03	R		0.5	0.03	0.01	4
Rsd 0.1s	10ph/9stn	Dmin 99km		Az.gap 289°	Rsd 0.2s	20ph/15stn	Dmin 60km		Az.gap 222°
Corr. 0.521	19M/16stn	Msd 0.2			Corr. -0.070	12M/10stn	Msd 0.3		
93/6291					93/6397				
JUN 26 041706.6s 37.70S 179.87E 33km M=3.7					JUN 30 203434.0s 37.42S 176.81E 421km M=5.2				
	0.8	0.04	0.05	R		0.6	0.09	0.08	4
Rsd 0.2s	10ph/9stn	Dmin 139km		Az.gap 310°	Rsd 0.2s	23ph/19stn	Dmin 64km		Az.gap 152°
Corr. 0.341	8M/8stn	Msd 0.2			Corr. 0.479	24M/18stn	Msd 0.3	1 ↓	
93/6293					93/6412				
JUN 26 051915.3s 38.11S 176.01E 152km M=3.7					JUL 01 050219.1s 38.30S 175.59E 178km M=3.5				
	0.8	0.05	0.04	5		0.6	0.05	0.07	7
Rsd 0.2s	12ph/11stn	Dmin 98km		Az.gap 257°	Rsd 0.3s	11ph/9stn	Dmin 133km		Az.gap 240°
Corr. -0.558	17M/16stn	Msd 0.3	5 ↑ 1 ↓		Corr. -0.866	6M/6stn	Msd 0.3		
93/6294					93/6428				
JUN 26 053003.8s 41.83S 172.75E 93km M=3.9					JUL 01 160520.0s 38.23S 176.12E 174km M=4.5				
	0.2	0.01	0.01	2		0.5	0.02	0.02	4
Rsd 0.2s	24ph/18stn	Dmin 15km		Az.gap 109°	Rsd 0.3s	25ph/20stn	Dmin 34km		Az.gap 56°
Corr. -0.510	14M/12stn	Msd 0.3	4 ↑ 11 ↓		Corr. 0.139	23M/17stn	Msd 0.3	3 ↑ 1 ↓	
93/6295					93/6432				
JUN 26 062348.8s 37.73S 179.87E 33km M=4.2					JUL 01 183855.8s 38.42S 175.33E 33km M=3.8				
	0.6	0.03	0.04	R		0.7	0.04	0.04	R
Rsd 0.2s	14ph/11stn	Dmin 139km		Az.gap 307°	Rsd 0.4s	14ph/10stn	Dmin 156km		Az.gap 254°
Corr. 0.325	29M/25stn	Msd 0.2	1 ↑		Corr. -0.807	11M/11stn	Msd 0.3	1 ↑	
93/6299					93/6436				
JUN 26 111213.7s 40.33S 173.65E 199km M=4.0					JUL 01 210329.6s 36.79S 177.36E 187km M=3.9				
	0.3	0.02	0.02	3		1.3	0.11	0.11	8
Rsd 0.2s	27ph/19stn	Dmin 57km		Az.gap 189°	Rsd 0.4s	12ph/10stn	Dmin 123km		Az.gap 289°
Corr. -0.289	22M/19stn	Msd 0.3	4 ↑ 1 ↓		Corr. -0.749	10M/9stn	Msd 0.2		
93/6302					93/6442				
JUN 26 125527.7s 40.91S 175.54E 23km M=4.3					JUL 02 011603.6s 40.53S 174.38E 82km M=3.5				
	0.1	0.01	0.01	2		0.2	0.01	0.01	3
Rsd 0.3s	33ph/26stn	Dmin 27km		Az.gap 123°	Rsd 0.3s	26ph/17stn	Dmin 49km		Az.gap 133°
Corr. -0.581	8M/5stn	Msd 0.3	1 ↑ 3 ↓		Corr. -0.225	11M/9stn	Msd 0.2	3 ↑ 1 ↓	
Felt Masterton (66), Wellington (68), Carterton (70).									
93/6321					93/6444				
JUN 27 000213.0s 38.87S 175.42E 213km M=3.6					JUL 02 030612.7s 39.29S 175.10E 106km M=3.6				
	1.0	0.04	0.06	9		0.3	0.01	0.02	3
Rsd 0.3s	13ph/10stn	Dmin 38km		Az.gap 216°	Rsd 0.3s	27ph/20stn	Dmin 37km		Az.gap 112°
Corr. -0.482	10M/10stn	Msd 0.3	1 ↑		Corr. 0.059	19M/16stn	Msd 0.2	3 ↑ 2 ↓	

93/6461				93/6561					
JUL 02 193724.6s	36.90S	176.65E	262km	M=3.5	JUL 06 063735.7s	37.73S	176.34E	206km	M=3.8
	0.4	0.04	0.05	3		1.1	0.06	0.05	9
Rsd 0.1s	7ph/5stn	Dmin 156km	Az.gap 315°		Rsd 0.4s	11ph/10stn	Dmin 68km	Az.gap 228°	
Corr. -0.781	4M/4stn	Msd 0.2			Corr. 0.063	17M/17stn	Msd 0.2		
93/6462				93/6564					
JUL 02 201419.7s	37.83S	176.62E	156km	M=3.7	JUL 06 095808.1s	41.28S	172.80E	144km	M=3.7
	0.9	0.05	0.04	9		0.4	0.02	0.02	4
Rsd 0.4s	13ph/9stn	Dmin 64km	Az.gap 197°		Rsd 0.3s	24ph/17stn	Dmin 55km	Az.gap 97°	
Corr. -0.419	11M/11stn	Msd 0.1			Corr. -0.302	10M/10stn	Msd 0.2	2 ↑ 1 ↓	
93/6466				93/6565					
JUL 03 004452.0s	35.84S	179.16E	209km	M=3.7	JUL 06 101704.6s	39.54S	175.55E	5km	M=4.0
	0.8	0.15	0.16	11		0.1	0.01	0.01	R
Rsd 0.2s	10ph/7stn	Dmin 209km	Az.gap 347°		Rsd 0.3s	37ph/30stn	Dmin 29km	Az.gap 52°	
Corr. -0.758	14M/14stn	Msd 0.2			Corr. 0.059	33M/28stn	Msd 0.3	3 ↑ 3 ↓	
Felt Moawhango (58) MM4, Ohakune (49).									
93/6479				93/6570					
JUL 03 103432.5s	37.37S	178.84E	33km	M=3.6	JUL 06 121150.7s	37.65S	177.22E	113km	M=4.6
	2.4	0.18	0.13	R		0.2	0.02	0.01	2
Rsd 0.8s	6ph/5stn	Dmin 54km	Az.gap 319°		Rsd 0.1s	22ph/18stn	Dmin 69km	Az.gap 140°	
Corr. 0.082	9M/7stn	Msd 0.3			Corr. 0.419	23M/20stn	Msd 0.3	6 ↑ 4 ↓	
93/6487				93/6574					
JUL 03 144753.1s	37.82S	176.58E	173km	M=4.6	JUL 06 140003.9s	38.04S	175.90E	170km	M=3.5
	0.5	0.03	0.02	4		0.8	0.05	0.09	7
Rsd 0.3s	30ph/24stn	Dmin 21km	Az.gap 114°		Rsd 0.4s	13ph/9stn	Dmin 109km	Az.gap 254°	
Corr. 0.112	27M/21stn	Msd 0.2	12 ↑ 4 ↓		Corr. -0.785	13M/13stn	Msd 0.2	1 ↑	
93/6503				93/6577					
JUL 04 044244.9s	43.66S	169.70E	5km	M=2.9	JUL 06 153757.7s	40.57S	173.85E	104km	M=3.5
	0.1	0.00	0.00	R		0.3	0.02	0.01	3
Rsd 0.1s	16ph/12stn	Dmin 35km	Az.gap 154°		Rsd 0.3s	28ph/20stn	Dmin 26km	Az.gap 125°	
Corr. -0.499	10M/10stn	Msd 0.3	1 ↓		Corr. -0.230	12M/11stn	Msd 0.3	1 ↑	
Felt Mahitahi (104) MM4.									
93/6513				93/6582					
JUL 04 140436.3s	38.06S	176.30E	151km	M=3.8	JUL 06 161645.6s	43.24S	177.10E	33km	M=3.5
	0.3	0.01	0.02	3		0.4	0.03	0.03	R
Rsd 0.2s	18ph/17stn	Dmin 9km	Az.gap 71°		Rsd 0.1s	11ph/10stn	Dmin 248km	Az.gap 326°	
Corr. 0.205	20M/18stn	Msd 0.2	1 ↑		Corr. -0.180	6M/6stn	Msd 0.3		
93/6544				93/6598					
JUL 05 160954.3s	44.50S	167.88E	30km	M=3.7	JUL 07 030909.0s	41.36S	172.34E	5km	M=3.7
	0.2	0.02	0.01	1		0.2	0.01	0.01	R
Rsd 0.2s	22ph/17stn	Dmin 20km	Az.gap 197°		Rsd 0.3s	21ph/15stn	Dmin 61km	Az.gap 149°	
Corr. -0.611	19M/16stn	Msd 0.2	1 ↓		Corr. -0.186	11M/7stn	Msd 0.2	1 ↑ 2 ↓	
93/6550				93/6618					
JUL 05 220433.2s	38.80S	175.52E	126km	M=4.8	JUL 07 101111.8s	41.34S	173.20E	104km	M=4.2
	0.3	0.01	0.02	3		0.4	0.02	0.01	4
Rsd 0.2s	29ph/22stn	Dmin 30km	Az.gap 69°		Rsd 0.3s	30ph/21stn	Dmin 53km	Az.gap 67°	
Corr. -0.013	23M/18stn	Msd 0.2	7 ↑ 3 ↓		Corr. -0.089	22M/17stn	Msd 0.3	5 ↑ 3 ↓	
93/6554				93/6619					
JUL 06 011947.3s	36.77S	177.93E	138km	M=3.6	JUL 07 103129.7s	36.53S	176.97E	243km	M=4.1
	1.5	0.12	0.11	11		0.6	0.06	0.06	4
Rsd 0.5s	7ph/4stn	Dmin 97km	Az.gap 315°		Rsd 0.2s	9ph/7stn	Dmin 167km	Az.gap 277°	
Corr. -0.757	4M/4stn	Msd 0.1			Corr. -0.642	13M/13stn	Msd 0.2		
93/6555				93/6623					
JUL 06 012209.8s	41.31S	174.53E	60km	M=3.6	JUL 07 141923.8s	37.37S	176.23E	314km	M=4.0
	0.1	0.01	0.01	1		0.6	0.06	0.07	5
Rsd 0.1s	33ph/24stn	Dmin 17km	Az.gap 97°		Rsd 0.2s	13ph/11stn	Dmin 126km	Az.gap 240°	
Corr. -0.290	14M/12stn	Msd 0.1	5 ↑ 4 ↓		Corr. -0.787	12M/12stn	Msd 0.2		

93/6624					93/6693				
JUL 07 152116.7s	36.36S	177.41E	276km	M=5.4	JUL 09 084849.9s	38.10S	176.34E	152km	M=3.7
	0.7	0.05	0.05	6		1.3	0.05	0.06	11
Rsd 0.3s	22ph/18stn	Dmin 158km	Az.gap 256°		Rsd 0.4s	12ph/9stn	Dmin 70km	Az.gap 174°	
Corr. 0.428	8M/5stn	Msd 0.1	3 ↑ 1↓		Corr. 0.529	12M/12stn	Msd 0.2	2 ↑ 2↓	
93/6637					93/6713				
JUL 08 022334.1s	40.98S	172.34E	5km	M=4.3	JUL 10 042708.3s	37.90S	176.58E	137km	M=3.9
	0.5	0.02	0.04	R		0.4	0.03	0.01	3
Rsd 0.3s	21ph/17stn	Dmin 23km	Az.gap 173°		Rsd 0.2s	22ph/19stn	Dmin 13km	Az.gap 166°	
Corr. -0.634	14M/8stn	Msd 0.2	1 ↑		Corr. 0.225	21M/16stn	Msd 0.2		
93/6642					93/6718				
JUL 08 031537.2s	40.99S	172.37E	5km	M=4.6	JUL 10 084226.3s	38.47S	176.70E	70km	M=3.7
	0.4	0.01	0.03	R		0.4	0.02	0.01	5
Rsd 0.3s	21ph/17stn	Dmin 23km	Az.gap 173°		Rsd 0.2s	17ph/13stn	Dmin 31km	Az.gap 52°	
Corr. -0.501	14M/8stn	Msd 0.1	1 ↑		Corr. 0.254	17M/15stn	Msd 0.2	1 ↑	
Felt Golden Bay (72).									
93/6664					93/6719				
JUL 08 123220.9s	39.01S	176.78E	68km	M=4.5	JUL 10 085742.1s	38.65S	175.52E	184km	M=3.6
	0.2	0.01	0.01	3		0.4	0.01	0.02	3
Rsd 0.2s	30ph/25stn	Dmin 15km	Az.gap 117°		Rsd 0.1s	20ph/17stn	Dmin 59km	Az.gap 224°	
Corr. -0.087	18M/13stn	Msd 0.2	7 ↑ 4↓		Corr. 0.419	11M/11stn	Msd 0.3		
93/6667					93/6728				
JUL 08 132020.2s	38.10S	175.50E	122km	M=3.7	JUL 10 153708.2s	37.91S	176.30E	171km	M=3.7
	0.8	0.05	0.10	17		0.8	0.04	0.02	7
Rsd 0.3s	16ph/12stn	Dmin 142km	Az.gap 267°		Rsd 0.2s	12ph/11stn	Dmin 62km	Az.gap 205°	
Corr. -0.741	9M/9stn	Msd 0.3	1 ↑		Corr. 0.137	11M/11stn	Msd 0.1	1 ↑	
93/6674					93/6729				
JUL 08 153030.4s	41.07S	179.26W	33km	M=4.1	JUL 10 160557.0s	42.61S	173.63E	33km	M=4.9
	0.6	0.04	0.04	R		0.2	0.02	0.01	R
Rsd 0.2s	17ph/13stn	Dmin 389km	Az.gap 298°		Rsd 0.2s	23ph/19stn	Dmin 102km	Az.gap 164°	
Corr. -0.356	9M/9stn	Msd 0.2			Corr. -0.542	16M/10stn	Msd 0.3	12 ↑ 1↓	
					Felt Kaikoura (90) to Cheviot (96), maximum intensity MM6 at Goose Bay (90).				
93/6676					93/6731				
JUL 08 170344.6s	43.25S	172.15E	15km	M=3.5	JUL 10 161057.1s	42.56S	173.59E	33km	M=2.9
	0.2	0.01	0.01	2		0.3	0.02	0.02	R
Rsd 0.1s	19ph/16stn	Dmin 52km	Az.gap 90°		Rsd 0.3s	12ph/8stn	Dmin 98km	Az.gap 219°	
Corr. -0.493	17M/15stn	Msd 0.2	1 ↑		Corr. -0.513	10M/10stn	Msd 0.2		
93/6679					93/6760				
JUL 08 194755.9s	39.07S	174.95E	219km	M=5.2	JUL 11 124235.6s	41.06S	174.17E	52km	M=3.5
	0.3	0.01	0.02	2		0.1	0.01	0.01	2
Rsd 0.2s	32ph/26stn	Dmin 38km	Az.gap 97°		Rsd 0.2s	25ph/22stn	Dmin 19km	Az.gap 47°	
Corr. 0.225	18M/13stn	Msd 0.3	4 ↑ 7↓		Corr. -0.043	13M/10stn	Msd 0.1	3 ↑ 1↓	
Felt Newlands and Titahi Bay (68).									
93/6681					93/6777				
JUL 08 234250.7s	38.21S	175.47E	110km	M=3.7	JUL 11 203010.5s	37.06S	176.97E	224km	M=5.5
	0.7	0.05	0.10	20		0.7	0.05	0.04	6
Rsd 0.4s	17ph/13stn	Dmin 143km	Az.gap 245°		Rsd 0.2s	21ph/16stn	Dmin 106km	Az.gap 190°	
Corr. -0.832	10M/10stn	Msd 0.2	3 ↑ 1↓		Corr. 0.401	16M/11stn	Msd 0.3	7 ↑ 3↓	
93/6685					93/6780				
JUL 09 030116.3s	40.63S	174.59E	69km	M=5.0	JUL 11 222937.0s	39.01S	175.31E	141km	M=4.7
	0.2	0.01	0.01	3		0.3	0.01	0.02	3
Rsd 0.2s	36ph/28stn	Dmin 38km	Az.gap 77°		Rsd 0.2s	40ph/34stn	Dmin 8km	Az.gap 93°	
Corr. -0.336	16M/11stn	Msd 0.3	9 ↑ 2↓		Corr. -0.063	20M/15stn	Msd 0.2	8 ↑ 1↓	
Felt Levin (65) to Nelson (76).									

93/6782					93/6920				
JUL 12 023008.5s	37.06S	176.48E	231km	M=3.6	JUL 15 123529.1s	37.77S	179.26W	33km	M=3.5
	0.5	0.03	0.04	4		1.2	0.06	0.08	R
Rsd 0.1s	11ph/9stn	Dmin 144km	Az.gap 293°		Rsd 0.4s	7ph/5stn	Dmin 216km	Az.gap 319°	
Corr. -0.730	6M/6stn	Msd 0.2			Corr. -0.067	4M/4stn	Msd 0.1		
93/6795					93/6929				
JUL 12 115907.7s	36.28S	177.16E	246km	M=3.8	JUL 15 154608.7s	34.44S	177.54E	283km	M=3.7
	0.8	0.09	0.12	7		0.3	0.05	0.14	4
Rsd 0.2s	12ph/10stn	Dmin 220km	Az.gap 320°		Rsd 0.0s	10ph/9stn	Dmin 425km	Az.gap 345°	
Corr. -0.793	10M/10stn	Msd 0.1			Corr. -0.958	6M/6stn	Msd 0.1		
93/6800					93/6937				
JUL 12 150956.0s	38.72S	175.63E	128km	M=3.6	JUL 15 214901.1s	35.88S	178.01E	240km	M=3.7
	0.4	0.02	0.02	3		1.4	0.18	0.22	16
Rsd 0.2s	20ph/13stn	Dmin 42km	Az.gap 71°		Rsd 0.6s	7ph/4stn	Dmin 192km	Az.gap 330°	
Corr. -0.100	20M/17stn	Msd 0.2	1 ↑		Corr. -0.840	4M/4stn	Msd 0.3		
93/6818					93/6943				
JUL 13 045840.5s	41.36S	178.19E	12km	M=3.7	JUL 16 025456.5s	45.25S	167.19E	12km	M=3.6
	0.9	0.06	0.05	R		0.5	0.01	0.04	R
Rsd 0.4s	26ph/21stn	Dmin 192km	Az.gap 255°		Rsd 0.3s	19ph/16stn	Dmin 24km	Az.gap 215°	
Corr. -0.681	25M/23stn	Msd 0.2			Corr. -0.522	18M/14stn	Msd 0.2		
93/6829					93/6944				
JUL 13 110443.5s	40.34S	173.56E	177km	M=4.1	JUL 16 025941.5s	39.90S	174.50E	113km	M=3.5
	0.3	0.02	0.01	3		0.4	0.01	0.02	4
Rsd 0.2s	33ph/23stn	Dmin 60km	Az.gap 176°		Rsd 0.3s	27ph/21stn	Dmin 39km	Az.gap 84°	
Corr. -0.260	21M/17stn	Msd 0.3	4 ↑ 7 ↓		Corr. -0.206	17M/15stn	Msd 0.2	1 ↑	
93/6839					93/6959				
JUL 13 220524.4s	38.62S	175.78E	148km	M=3.6	JUL 16 162144.5s	37.53S	176.34E	278km	M=3.7
	0.6	0.03	0.02	6		0.9	0.09	0.17	9
Rsd 0.3s	18ph/14stn	Dmin 64km	Az.gap 154°		Rsd 0.3s	11ph/9stn	Dmin 106km	Az.gap 279°	
Corr. -0.198	20M/18stn	Msd 0.3	5 ↑ 2 ↓		Corr. -0.675	14M/14stn	Msd 0.2	1 ↑	
93/6845					93/6988				
JUL 14 014827.2s	45.03S	167.58E	136km	M=4.4	JUL 17 121422.3s	37.75S	177.48E	50km	M=3.8
	0.4	0.01	0.02	3		0.1	0.01	0.01	3
Rsd 0.2s	21ph/16stn	Dmin 48km	Az.gap 181°		Rsd 0.1s	18ph/16stn	Dmin 66km	Az.gap 133°	
Corr. -0.468	21M/16stn	Msd 0.3	2 ↑ 11 ↓		Corr. 0.023	23M/20stn	Msd 0.2	2 ↑ 2 ↓	
93/6874					93/7007				
JUL 14 171321.6s	37.99S	176.61E	144km	M=3.6	JUL 18 121918.6s	37.48S	176.74E	175km	M=3.6
	0.5	0.04	0.02	5		1.0	0.08	0.07	8
Rsd 0.3s	14ph/11stn	Dmin 53km	Az.gap 185°		Rsd 0.3s	12ph/11stn	Dmin 93km	Az.gap 248°	
Corr. -0.371	18M/18stn	Msd 0.2	1 ↑		Corr. -0.735	15M/15stn	Msd 0.2		
93/6876					93/7013				
JUL 14 184945.5s	38.26S	176.12E	173km	M=3.6	JUL 18 181639.4s	35.88S	178.14E	194km	M=3.8
	0.6	0.03	0.02	5		1.1	0.11	0.08	10
Rsd 0.3s	19ph/15stn	Dmin 18km	Az.gap 71°		Rsd 0.2s	5ph/4stn	Dmin 191km	Az.gap 329°	
Corr. -0.033	16M/13stn	Msd 0.3	1 ↑		Corr. -0.586	6M/6stn	Msd 0.1		
93/6877					93/7016				
JUL 14 193422.7s	38.90S	175.50E	185km	M=3.6	JUL 18 203254.3s	44.95S	167.63E	66km	M=3.6
	0.3	0.01	0.04	3		0.4	0.01	0.02	3
Rsd 0.1s	15ph/13stn	Dmin 31km	Az.gap 312°		Rsd 0.2s	18ph/13stn	Dmin 39km	Az.gap 185°	
Corr. 0.114	12M/12stn	Msd 0.4			Corr. -0.394	12M/10stn	Msd 0.2	2 ↑ 2 ↓	
93/6917					93/7019				
JUL 15 105306.1s	37.79S	179.33W	33km	M=3.5	JUL 18 225357.5s	41.26S	172.67E	215km	M=3.6
	1.1	0.07	0.07	R		0.4	0.02	0.02	3
Rsd 0.5s	8ph/5stn	Dmin 210km	Az.gap 313°		Rsd 0.2s	22ph/17stn	Dmin 49km	Az.gap 113°	
Corr. -0.149	5M/5stn	Msd 0.1			Corr. -0.224	10M/10stn	Msd 0.2	1 ↑	

	93/7024					93/7140			
JUL 19 013005.0s	41.24S	174.80E	0km	M=2.1	JUL 22 112221.3s	38.06S	176.29E	169km	M=3.7
	0.1	R	R	R		0.7	0.05	0.07	9
Rsd 0.4s	9ph/9stn	Dmin 6km	Az.gap 70°		Rsd 0.3s	15ph/11stn	Dmin 76km	Az.gap 229°	
Corr. R	8M/8stn	Msd 0.2	1 ↑		Corr. -0.903	16M/16stn	Msd 0.3	1 ↑	
Ngauranga quarry blast; felt Broadmeadows and Johnsonville (68).									
	93/7030					93/7144			
JUL 19 060929.0s	37.87S	176.18E	183km	M=4.0	JUL 22 140702.0s	37.21S	179.39E	12km	M=3.9
	0.3	0.01	0.02	3		0.9	0.05	0.05	R
Rsd 0.1s	16ph/14stn	Dmin 51km	Az.gap 99°		Rsd 0.2s	11ph/8stn	Dmin 105km	Az.gap 297°	
Corr. 0.378	24M/19stn	Msd 0.2	1 ↓		Corr. 0.328	13M/12stn	Msd 0.2		
	93/7060					93/7152			
JUL 20 031317.2s	38.41S	175.76E	188km	M=3.6	JUL 22 212748.4s	37.83S	176.19E	292km	M=4.5
	1.2	0.05	0.06	10		2.9	0.07	0.05	24
Rsd 0.3s	17ph/15stn	Dmin 86km	Az.gap 227°		Rsd 0.3s	15ph/14stn	Dmin 52km	Az.gap 178°	
Corr. -0.694	13M/13stn	Msd 0.1			Corr. -0.057	21M/18stn	Msd 0.2		
	93/7064					93/7163			
JUL 20 075606.1s	38.61S	175.83E	162km	M=3.8	JUL 23 125726.7s	39.34S	174.63E	207km	M=3.8
	0.4	0.01	0.01	3		0.3	0.01	0.02	3
Rsd 0.2s	22ph/16stn	Dmin 66km	Az.gap 105°		Rsd 0.1s	22ph/18stn	Dmin 58km	Az.gap 231°	
Corr. 0.145	19M/16stn	Msd 0.3	1 ↑		Corr. -0.311	15M/13stn	Msd 0.2	1 ↓	
	93/7069					93/7164			
JUL 20 085633.7s	38.48S	175.70E	196km	M=4.1	JUL 23 132453.3s	38.09S	176.20E	175km	M=3.9
	0.4	0.02	0.02	3		1.3	0.01	0.03	14
Rsd 0.1s	17ph/15stn	Dmin 69km	Az.gap 84°		Rsd 0.2s	12ph/11stn	Dmin 82km	Az.gap 119°	
Corr. 0.008	24M/21stn	Msd 0.2	1 ↑		Corr. 0.128	20M/17stn	Msd 0.2		
	93/7080					93/7166			
JUL 20 125446.1s	37.48S	179.05E	33km	M=3.7	JUL 23 145041.9s	38.12S	176.24E	181km	M=3.5
	5.4	0.27	0.32	R		0.7	0.07	0.10	13
Rsd 0.2s	12ph/12stn	Dmin 68km	Az.gap 284°		Rsd 0.2s	8ph/7stn	Dmin 109km	Az.gap 233°	
Corr. 0.987	19M/19stn	Msd 0.1			Corr. -0.901	7M/7stn	Msd 0.1		
Depth uncertain.									
	93/7086					93/7176			
JUL 20 163149.6s	36.84S	176.49E	213km	M=3.6	JUL 24 013911.8s	38.40S	176.00E	173km	M=4.2
	2.0	0.11	0.16	30		0.4	0.01	0.02	3
Rsd 0.3s	10ph/8stn	Dmin 182km	Az.gap 276°		Rsd 0.2s	27ph/20stn	Dmin 69km	Az.gap 75°	
Corr. -0.814	14M/14stn	Msd 0.2			Corr. 0.247	23M/20stn	Msd 0.3	1 ↑	
	93/7103					93/7178			
JUL 21 011751.1s	38.33S	176.00E	169km	M=3.9	JUL 24 070424.6s	40.08S	175.77E	63km	M=4.7
	0.4	0.01	0.01	3		0.1	0.00	0.01	1
Rsd 0.2s	27ph/23stn	Dmin 23km	Az.gap 66°		Rsd 0.1s	47ph/41stn	Dmin 49km	Az.gap 67°	
Corr. -0.102	22M/19stn	Msd 0.2			Corr. -0.390	19M/14stn	Msd 0.3	20 ↑ 2↓	
					Felt Urenui (38) to Waikanae (65), maximum intensity MM4.				
	93/7109					93/7179			
JUL 21 051012.4s	34.87S	177.39E	33km	M=4.5	JUL 24 075126.2s	39.20S	173.80E	12km	M=3.5
	1.8	0.12	0.09	R		0.3	0.01	0.02	R
Rsd 0.3s	8ph/7stn	Dmin 313km	Az.gap 325°		Rsd 0.2s	19ph/14stn	Dmin 19km	Az.gap 198°	
Corr. 0.599	3M/3stn	Msd 0.3			Corr. -0.386	23M/18stn	Msd 0.3		
	93/7129					93/7193			
JUL 22 001944.2s	38.70S	176.11E	190km	M=3.6	JUL 24 234818.3s	36.77S	177.28E	201km	M=3.6
	0.6	0.05	0.06	6		0.9	0.06	0.06	8
Rsd 0.2s	15ph/12stn	Dmin 112km	Az.gap 267°		Rsd 0.2s	10ph/9stn	Dmin 166km	Az.gap 315°	
Corr. -0.801	7M/7stn	Msd 0.2			Corr. -0.251	4M/4stn	Msd 0.3	1 ↑	
	93/7136					93/7194			
JUL 22 050852.8s	38.97S	175.43E	165km	M=3.7	JUL 25 003228.8s	39.40S	174.29E	231km	M=4.5
	0.4	0.02	0.02	3		0.3	0.01	0.03	3
Rsd 0.2s	26ph/21stn	Dmin 27km	Az.gap 191°		Rsd 0.2s	38ph/30stn	Dmin 70km	Az.gap 161°	
Corr. -0.194	19M/18stn	Msd 0.2	2 ↑ 1↓		Corr. -0.022	25M/20stn	Msd 0.2	3 ↑ 4↓	

93/7200					93/7253				
JUL 25 044307.5s	38.84S	174.98E	219km	M=3.5	JUL 26 204303.3s	37.98S	176.37E	221km	M=3.6
	0.5	0.07	0.04	8		1.7	0.08	0.08	15
Rsd 0.2s	16ph/13stn	Dmin 202km	Az.gap 303°		Rsd 0.3s	12ph/11stn	Dmin 114km	Az.gap 263°	
Corr. -0.157	8M/8stn	Msd 0.2	1 ↑		Corr. -0.804	13M/13stn	Msd 0.1	1 ↑	
93/7202					93/7258				
JUL 25 052427.5s	35.34S	178.82E	12km	M=4.5	JUL 27 021428.6s	45.12S	167.36E	47km	M=3.7
	2.6	0.14	0.15	R		0.3	0.01	0.02	3
Rsd 0.6s	12ph/9stn	Dmin 255km	Az.gap 310°		Rsd 0.2s	21ph/16stn	Dmin 42km	Az.gap 199°	
Corr. 0.755	20M/17stn	Msd 0.4			Corr. -0.486	20M/16stn	Msd 0.2	8 ↑ 2↓	
93/7203					93/7261				
JUL 25 052924.7s	35.49S	178.65E	12km	M=4.5	JUL 27 033645.2s	38.60S	175.58E	174km	M=4.2
	2.2	0.13	0.11	R		0.7	0.02	0.03	5
Rsd 0.8s	9ph/7stn	Dmin 236km	Az.gap 306°		Rsd 0.3s	22ph/20stn	Dmin 52km	Az.gap 82°	
Corr. 0.570	14M/13stn	Msd 0.3			Corr. 0.049	24M/21stn	Msd 0.3	1 ↑	
93/7208					93/7268				
JUL 25 092937.6s	35.50S	178.61E	12km	M=4.6	JUL 27 072236.4s	42.10S	172.18E	12km	M=3.3
	2.2	0.13	0.11	R		0.2	0.01	0.02	R
Rsd 0.8s	11ph/9stn	Dmin 235km	Az.gap 306°		Rsd 0.3s	14ph/9stn	Dmin 50km	Az.gap 95°	
Corr. 0.596	19M/15stn	Msd 0.3			Corr. 0.006	16M/13stn	Msd 0.2	1 ↑	
93/7209					Felt Maruia (87) MM4.				
JUL 25 093515.2s	35.18S	178.27E	12km	M=4.0					
	3.0	0.18	0.19	R					
Rsd 0.8s	6ph/5stn	Dmin 269km	Az.gap 324°						
Corr. 0.248	2M/2stn	Msd 0.3							
93/7214					93/7272				
JUL 25 130221.9s	40.32S	176.24E	44km	M=3.5	JUL 27 094720.9s	36.90S	177.17E	271km	M=4.7
	0.1	0.01	0.01	2		0.9	0.06	0.06	8
Rsd 0.2s	23ph/20stn	Dmin 1km	Az.gap 125°		Rsd 0.2s	16ph/15stn	Dmin 127km	Az.gap 211°	
Corr. -0.327	19M/16stn	Msd 0.3	1 ↑ 2↓		Corr. 0.576	26M/21stn	Msd 0.3	1 ↑	
93/7215					93/7274				
JUL 25 135655.0s	39.07S	174.96E	232km	M=4.0	JUL 27 112404.8s	41.34S	174.73E	12km	M=3.2
	0.3	0.02	0.02	3		0.1	0.01	0.00	1
Rsd 0.1s	27ph/21stn	Dmin 53km	Az.gap 214°		Rsd 0.2s	21ph/16stn	Dmin 7km		
Corr. -0.173	19M/16stn	Msd 0.2	1 ↑			Az.gap 97°			
93/7216					Corr. -0.141 20M/17stn Msd 0.2 8 ↑ 5↓				
JUL 25 155403.7s	35.36S	178.78E	33km	M=4.2	Felt Wellington (68).				
	1.3	0.08	0.07	R					
Rsd 0.5s	10ph/7stn	Dmin 252km	Az.gap 310°						
Corr. 0.441	14M/13stn	Msd 0.4							
93/7225					93/7279				
JUL 26 030443.8s	38.13S	175.65E	186km	M=3.5	JUL 27 135156.6s	35.81S	178.02E	229km	M=3.8
	0.9	0.07	0.09	18		2.0	0.20	0.17	16
Rsd 0.4s	19ph/16stn	Dmin 129km	Az.gap 231°		Rsd 0.4s	9ph/8stn	Dmin 200km	Az.gap 328°	
Corr. -0.908	9M/9stn	Msd 0.2			Corr. -0.544	8M/8stn	Msd 0.1	1 ↑	
93/7241					93/7301				
JUL 26 131948.6s	40.55S	175.46E	34km	M=3.7	JUL 28 112011.6s	37.15S	176.75E	235km	M=3.7
	0.1	0.01	0.01	1		0.8	0.06	0.06	6
Rsd 0.2s	26ph/22stn	Dmin 8km	Az.gap 72°		Rsd 0.3s	12ph/11stn	Dmin 127km	Az.gap 266°	
Corr. -0.384	21M/18stn	Msd 0.2	2 ↑ 2↓		Corr. -0.655	12M/12stn	Msd 0.2		
93/7250					93/7316				
JUL 26 183151.6s	41.20S	172.52E	5km	M=3.5	JUL 28 195421.8s	38.52S	175.72E	206km	M=3.6
	0.2	0.01	0.02	R		0.3	0.02	0.03	3
Rsd 0.4s	18ph/12stn	Dmin 41km	Az.gap 137°		Rsd 0.1s	14ph/10stn	Dmin 74km	Az.gap 266°	
Corr. -0.025	23M/19stn	Msd 0.2	1 ↓		Corr. -0.526	12M/11stn	Msd 0.1		

93/7325					93/7431				
JUL 29	005023.9s	36.80S	177.61E	262km M=3.6	JUL 31	213809.7s	37.48S	177.21E	302km M=3.7
	1.3	0.19	0.19	9		1.5	0.16	0.28	13
Rsd 0.4s	7ph/4stn		Dmin 108km	Az.gap 302°	Rsd 0.5s	9ph/6stn		Dmin 87km	Az.gap 249°
Corr. -0.769	4M/4stn		Msd 0.1		Corr. -0.848	3M/3stn		Msd 0.1	
93/7326					93/7462				
JUL 29	013053.0s	38.20S	175.87E	156km M=3.7	AUG 01	205157.4s	37.49S	175.45E	133km M=3.6
	1.4	0.08	0.12	16		0.6	0.06	0.12	21
Rsd 0.3s	13ph/11stn		Dmin 109km	Az.gap 230°	Rsd 0.3s	13ph/9stn		Dmin 169km	Az.gap 285°
Corr. -0.931	8M/8stn		Msd 0.3	1 ↑	Corr. -0.834	9M/9stn		Msd 0.2	
93/7342					93/7464				
JUL 29	093723.7s	38.72S	175.86E	174km M=3.5	AUG 01	234937.5s	44.29S	169.28E	5km M=4.7
	0.4	0.05	0.07	7		0.0	0.00	0.00	R
Rsd 0.2s	15ph/11stn		Dmin 117km	Az.gap 299°	Rsd 0.1s	20ph/17stn		Dmin 55km	Az.gap 111°
Corr. -0.846	9M/9stn		Msd 0.3	1 ↑	Corr. -0.025	14M/8stn		Msd 0.2	10 ↑ 2↓
93/7351					93/7478				
JUL 29	155922.1s	35.60S	178.98E	302km M=3.7	AUG 02	054406.1s	40.18S	174.24E	71km M=3.8
	0.6	0.07	0.09	2		0.3	0.01	0.01	5
Rsd 0.1s	7ph/6stn		Dmin 339km	Az.gap 355°	Rsd 0.2s	31ph/24stn		Dmin 73km	Az.gap 101°
Corr. -0.587	3M/3stn		Msd 0.1		Corr. -0.410	21M/17stn		Msd 0.2	1 ↓
93/7360					93/7496				
JUL 29	202220.8s	41.18S	174.80E	52km M=3.5	AUG 02	181013.1s	37.39S	176.92E	235km M=5.9
	0.1	0.01	0.01	1		0.3	0.03	0.03	2
Rsd 0.2s	28ph/22stn		Dmin 10km	Az.gap 60°	Rsd 0.2s	22ph/18stn		Dmin 70km	Az.gap 153°
Corr. -0.485	14M/11stn		Msd 0.2	3 ↑ 1↓	Corr. 0.657	9M/5stn		Msd 0.2	27 ↑ 4↓
93/7367					93/7497				
JUL 30	000142.2s	40.06S	176.34E	66km M=3.6	AUG 02	190250.0s	38.93S	175.35E	122km M=3.9
	0.1	0.01	0.01	2		0.3	0.01	0.02	2
Rsd 0.2s	37ph/27stn		Dmin 29km	Az.gap 116°	Rsd 0.2s	31ph/24stn		Dmin 13km	Az.gap 87°
Corr. -0.591	23M/20stn		Msd 0.2	2 ↑ 4↓	Corr. 0.328	23M/20stn		Msd 0.3	3 ↑ 1↓
93/7368					93/7509				
JUL 30	001043.4s	37.48S	177.33E	133km M=4.1	AUG 03	044731.4s	38.79S	175.73E	121km M=4.7
	0.4	0.03	0.02	4		0.5	0.01	0.02	5
Rsd 0.2s	21ph/17stn		Dmin 81km	Az.gap 160°	Rsd 0.3s	35ph/28stn		Dmin 41km	Az.gap 62°
Corr. 0.408	23M/21stn		Msd 0.2	1 ↑	Corr. -0.082	27M/21stn		Msd 0.2	9 ↑ 4↓
93/7381					93/7511				
JUL 30	090625.4s	37.31S	176.32E	234km M=3.8	AUG 03	055537.4s	41.32S	173.09E	108km M=3.6
	1.0	0.09	0.10	6		0.4	0.02	0.01	4
Rsd 0.3s	11ph/10stn		Dmin 127km	Az.gap 292°	Rsd 0.3s	24ph/17stn		Dmin 51km	Az.gap 73°
Corr. -0.647	13M/13stn		Msd 0.2		Corr. -0.201	13M/12stn		Msd 0.2	1 ↑
93/7388					93/7550				
JUL 30	133453.2s	38.37S	176.11E	163km M=4.4	AUG 03	185856.5s	37.21S	176.99E	235km M=4.2
	0.4	0.02	0.02	3		0.7	0.05	0.04	6
Rsd 0.3s	33ph/27stn		Dmin 13km	Az.gap 59°	Rsd 0.3s	16ph/15stn		Dmin 90km	Az.gap 177°
Corr. -0.104	8M/5stn		Msd 0.2	16 ↑ 7↓	Corr. 0.018	25M/20stn		Msd 0.2	4 ↑ 1↓
93/7389					93/7565				
JUL 30	134745.6s	45.16S	167.47E	115km M=3.7	AUG 03	231359.8s	37.58S	178.33E	45km M=3.9
	0.3	0.01	0.02	2		0.3	0.02	0.01	2
Rsd 0.2s	21ph/16stn		Dmin 42km	Az.gap 178°	Rsd 0.1s	12ph/9stn		Dmin 4km	
Corr. -0.214	15M/13stn		Msd 0.2	1 ↑		Az.gap 252°			
93/7419					93/7566				
JUL 31	142154.0s	35.52S	179.63E	203km M=4.2	AUG 03	231446.6s	37.55S	178.33E	47km M=3.6
	2.9	0.60	0.74	22		0.3	0.01	0.02	3
Rsd 0.5s	7ph/5stn		Dmin 259km	Az.gap 349°	Rsd 0.2s	9ph/6stn		Dmin 6km	Az.gap 262°
Corr. -0.972	3M/3stn		Msd 0.1		Corr. 0.218	5M/3stn		Msd 0.3	

Felt Lake Ohau Station (115) MM4, Wanaka (123).

Felt Napier (60).

				93/7569					93/7691
AUG 04 005920.4s	44.31S	169.32E	5km	M=3.6	AUG 06 223222.0s	45.09S	167.43E	91km	M=3.9
	0.1	0.01	0.01	R		0.2	0.01	0.01	2
Rsd 0.2s	22ph/18stn	Dmin 52km	Az.gap 108°		Rsd 0.1s	21ph/17stn	Dmin 47km	Az.gap 192°	
Corr. 0.051	17M/14stn	Msd 0.2	4 ↑ 4 ↓		Corr. -0.301	18M/16stn	Msd 0.2	4 ↑ 9 ↓	
				93/7575					93/7698
AUG 04 041812.8s	38.11S	176.14E	147km	M=3.5	AUG 07 020307.6s	37.57S	176.52E	206km	M=3.8
	0.5	0.03	0.03	4		0.7	0.07	0.04	6
Rsd 0.2s	13ph/9stn	Dmin 86km	Az.gap 231°		Rsd 0.2s	14ph/12stn	Dmin 48km	Az.gap 230°	
Corr. -0.738	11M/9stn	Msd 0.3			Corr. -0.066	15M/15stn	Msd 0.1	1 ↑	
				93/7579					93/7717
AUG 04 085912.3s	40.34S	173.98E	119km	M=3.5	AUG 07 141917.5s	37.62S	176.49E	199km	M=4.5
	0.3	0.01	0.01	3		0.5	0.03	0.02	4
Rsd 0.3s	30ph/22stn	Dmin 51km	Az.gap 112°		Rsd 0.2s	29ph/25stn	Dmin 44km	Az.gap 125°	
Corr. -0.057	14M/11stn	Msd 0.3	2 ↑ 1 ↓		Corr. 0.231	23M/18stn	Msd 0.3	1 ↑	
				93/7581					93/7745
AUG 04 113052.5s	38.53S	175.94E	156km	M=3.6	AUG 08 080151.0s	40.43S	176.51E	27km	M=4.0
	0.7	0.04	0.03	6		0.1	0.01	0.01	1
Rsd 0.2s	14ph/9stn	Dmin 78km	Az.gap 220°		Rsd 0.2s	32ph/25stn	Dmin 25km	Az.gap 186°	
Corr. -0.732	10M/10stn	Msd 0.3			Corr. -0.631	8M/5stn	Msd 0.2	3 ↑ 4 ↓	
				93/7607					93/7757
AUG 05 044308.9s	38.64S	178.76E	28km	M=4.0	AUG 08 121828.5s	37.59S	176.45E	203km	M=4.0
	0.4	0.01	0.02	3		0.7	0.05	0.04	5
Rsd 0.1s	18ph/15stn	Dmin 63km	Az.gap 239°		Rsd 0.3s	14ph/11stn	Dmin 81km	Az.gap 219°	
Corr. -0.062	37M/33stn	Msd 0.2	1 ↑		Corr. -0.174	19M/18stn	Msd 0.2	1 ↑	
				93/7608					93/7758
AUG 05 045109.9s	39.44S	174.85E	142km	M=4.9	AUG 08 122000.4s	46.15S	166.67E	12km	M=3.6
	0.2	0.01	0.01	2		1.1	0.04	0.07	R
Rsd 0.2s	47ph/39stn	Dmin 40km	Az.gap 75°		Rsd 0.9s	25ph/18stn	Dmin 85km	Az.gap 260°	
Corr. -0.035	26M/19stn	Msd 0.3	6 ↑ 8 ↓		Corr. 0.051	19M/15stn	Msd 0.3	9 ↑ 1 ↓	
				93/7614					93/7784
AUG 05 094622.3s	42.04S	173.65E	43km	M=4.0	AUG 09 025847.6s	38.15S	175.45E	115km	M=3.5
	0.1	0.01	0.01	3		0.3	0.08	0.16	27
Rsd 0.2s	28ph/20stn	Dmin 41km	Az.gap 129°		Rsd 0.1s	13ph/10stn	Dmin 146km	Az.gap 257°	
Corr. -0.253	18M/12stn	Msd 0.2	2 ↑ 2 ↓		Corr. -0.986	11M/9stn	Msd 0.3		
				93/7626					93/7790
AUG 05 150500.4s	39.74S	173.97E	178km	M=3.7	AUG 09 060956.6s	37.70S	177.50E	59km	M=3.5
	0.6	0.02	0.02	6		0.5	0.04	0.02	7
Rsd 0.3s	28ph/23stn	Dmin 45km	Az.gap 131°		Rsd 0.3s	6ph/4stn	Dmin 71km	Az.gap 232°	
Corr. -0.317	15M/13stn	Msd 0.3	1 ↑		Corr. -0.508	3M/1stn	Msd 0.1	1 ↓	
				93/7641					93/7814
AUG 06 014321.6s	37.88S	176.61E	159km	M=4.2	AUG 09 162523.2s	37.55S	177.65E	104km	M=3.8
	0.5	0.02	0.02	4		0.5	0.03	0.02	5
Rsd 0.3s	27ph/22stn	Dmin 13km	Az.gap 112°		Rsd 0.2s	16ph/14stn	Dmin 58km	Az.gap 159°	
Corr. 0.024	23M/19stn	Msd 0.2	1 ↑		Corr. 0.303	17M/15stn	Msd 0.2	1 ↓	
				93/7644					93/7828
AUG 06 035219.6s	38.09S	176.38E	154km	M=3.9	AUG 10 005151.6s	45.21S	166.71E	5km	M=6.7
	0.5	0.02	0.01	4		0.6	0.02	0.05	R
Rsd 0.3s	25ph/22stn	Dmin 9km	Az.gap 87°		Rsd 0.1s	16ph/15stn	Dmin 45km	Az.gap 255°	
Corr. -0.032	20M/17stn	Msd 0.3	1 ↑		Corr. 0.324	24M/13stn	Msd 0.2	1 ↓	
				93/7649					93/7829
AUG 06 065140.2s	36.42S	177.92E	219km	M=4.2	AUG 10 005357.4s	45.14S	166.77E	18km	M=4.9
	1.1	0.10	0.12	10		0.5	0.01	0.03	3
Rsd 0.4s	9ph/7stn	Dmin 135km	Az.gap 317°		Rsd 0.2s	10ph/4stn	Dmin 47km	Az.gap 280°	
Corr. -0.658	6M/5stn	Msd 0.1			Corr. -0.464	5M/5stn	Msd 0.1		

Felt Wanganui (57) to Invercargill (149), maximum intensity MM8 at Doubtful Sound and Secretary Island (128).

93/7830				93/7841			
AUG 10 005448.4s	45.21S	166.83E	19km M=5.2	AUG 10 010159.7s	45.32S	167.00E	20km M=4.3
	0.4	0.01	0.03		0.9	0.02	0.05
Rsd 0.2s	9ph/4stn	Dmin 38km	Az.gap 277°	Rsd 0.3s	6ph/3stn	Dmin 20km	Az.gap 264°
Corr. -0.217	8M/8stn	Msd 0.4		Corr. -0.228	4M/2stn	Msd 0.1	
93/7831				93/7842			
AUG 10 005549.2s	45.10S	166.67E	20km M=4.7	AUG 10 010211.2s	45.43S	166.80E	20km M=4.4
	1.3	0.04	0.07		1.5	0.08	0.09
Rsd 0.5s	8ph/4stn	Dmin 56km	Az.gap 288°	Rsd 0.5s	5ph/3stn	Dmin 28km	Az.gap 287°
Corr. -0.441	2M/2stn	Msd 0.0		Corr. 0.558	4M/2stn	Msd 0.1	
93/7832				93/7843			
AUG 10 005637.4s	45.17S	166.81E	20km M=5.4	AUG 10 010254.0s	45.36S	166.82E	20km M=4.1
	0.8	0.02	0.05		0.8	0.06	0.06
Rsd 0.3s	11ph/6stn	Dmin 42km	Az.gap 266°	Rsd 0.3s	5ph/3stn	Dmin 29km	Az.gap 286°
Corr. -0.205	16M/9stn	Msd 0.2		Corr. 0.575	3M/3stn	Msd 0.1	
Felt Gore (150) MM4.							
93/7833				93/7844			
AUG 10 005734.0s	45.25S	166.70E	20km M=4.4	AUG 10 010307.1s	45.43S	166.81E	23km M=4.7
	0.5	0.01	0.03		0.6	0.02	0.04
Rsd 0.2s	10ph/5stn	Dmin 43km	Az.gap 290°	Rsd 0.2s	9ph/6stn	Dmin 27km	Az.gap 286°
Corr. 0.099	4M/4stn	Msd 0.1		Corr. 0.322	17M/13stn	Msd 0.2	
93/7834				93/7845			
AUG 10 005738.6s	45.17S	166.62E	20km M=4.5	AUG 10 010329.3s	45.38S	166.59E	20km M=4.3
	1.0	0.03	0.06		0.1	0.00	0.00
Rsd 0.4s	11ph/5stn	Dmin 54km	Az.gap 294°	Rsd 0.0s	5ph/3stn	Dmin 45km	Az.gap 295°
Corr. 0.176	2M/2stn	Msd 0.0		Corr. 0.486	6M/2stn	Msd 0.2	
93/7835				93/7846			
AUG 10 005824.3s	45.19S	166.99E	20km M=4.5	AUG 10 010419.2s	45.34S	166.87E	20km M=3.6
	0.2	0.01	0.01		1.4	0.03	0.09
Rsd 0.1s	8ph/3stn	Dmin 34km	Az.gap 256°	Rsd 0.4s	9ph/4stn	Dmin 27km	Az.gap 282°
Corr. -0.432	6M/4stn	Msd 0.4		Corr. 0.460	5M/3stn	Msd 0.2	
93/7836				93/7847			
AUG 10 005832.1s	45.36S	166.43E	20km M=4.5	AUG 10 010509.4s	45.17S	167.19E	20km M=4.0
	0.7	0.03	0.04		0.7	0.04	0.08
Rsd 0.3s	9ph/4stn	Dmin 58km	Az.gap 301°	Rsd 0.3s	5ph/3stn	Dmin 33km	Az.gap 222°
Corr. 0.145	4M/4stn	Msd 0.1		Corr. -0.835	3M/3stn	Msd 0.2	
93/7837				93/7848			
AUG 10 005902.8s	45.21S	166.72E	20km M=4.2	AUG 10 010531.2s	45.01S	167.64E	20km M=3.7
	0.8	0.02	0.05		0.6	0.04	0.04
Rsd 0.2s	7ph/3stn	Dmin 45km	Az.gap 289°	Rsd 0.1s	13ph/11stn	Dmin 115km	Az.gap 303°
Corr. 0.095	7M/3stn	Msd 0.1		Corr. 0.459	9M/9stn	Msd 0.1	
93/7838				93/7849			
AUG 10 005934.6s	45.39S	166.85E	20km M=4.3	AUG 10 010540.1s	44.97S	166.58E	20km M=4.3
	0.9	0.03	0.05		1.0	0.05	0.06
Rsd 0.3s	5ph/3stn	Dmin 26km	Az.gap 284°	Rsd 0.3s	13ph/10stn	Dmin 112km	Az.gap 282°
Corr. 0.465	9M/5stn	Msd 0.4		Corr. -0.496	10M/10stn	Msd 0.1	
93/7839				93/7850			
AUG 10 005957.8s	45.32S	166.75E	20km M=4.5	AUG 10 010614.2s	45.09S	166.95E	20km M=4.3
	0.4	0.01	0.02		0.6	0.03	0.04
Rsd 0.1s	14ph/8stn	Dmin 35km	Az.gap 264°	Rsd 0.1s	10ph/7stn	Dmin 90km	Az.gap 324°
Corr. -0.211	10M/9stn	Msd 0.3		Corr. -0.673	5M/5stn	Msd 0.1	
93/7840				93/7851			
AUG 10 010116.7s	45.30S	166.75E	20km M=4.7	AUG 10 010642.6s	45.18S	166.83E	20km M=4.4
	0.8	0.02	0.05		0.5	0.03	0.03
Rsd 0.4s	10ph/5stn	Dmin 37km	Az.gap 288°	Rsd 0.1s	16ph/11stn	Dmin 103km	Az.gap 326°
Corr. 0.230	17M/14stn	Msd 0.4		Corr. -0.369	7M/7stn	Msd 0.3	

93/7852				93/7863			
AUG 10 010726.5s	45.25S	166.65E	20km M=4.5	AUG 10 011529.9s	45.22S	166.63E	20km M=4.4
	0.4	0.02	0.03 R		2.2	0.06	0.13 R
Rsd 0.1s	16ph/12stn	Dmin 119km	Az.gap 270°	Rsd 0.9s	10ph/5stn	Dmin 119km	Az.gap 272°
Corr. -0.706	8M/8stn	Msd 0.2		Corr. 0.020	6M/6stn	Msd 0.2	
93/7853				93/7864			
AUG 10 010810.5s	45.02S	166.81E	20km M=4.3	AUG 10 011627.0s	45.23S	166.85E	20km M=3.9
	1.2	0.09	0.08 R		1.2	0.03	0.07 R
Rsd 0.3s	12ph/9stn	Dmin 96km	Az.gap 330°	Rsd 0.3s	7ph/5stn	Dmin 105km	Az.gap 262°
Corr. -0.734	7M/7stn	Msd 0.3		Corr. -0.034	3M/3stn	Msd 0.2	
93/7854				93/7865			
AUG 10 010821.8s	45.02S	166.57E	20km M=4.1	AUG 10 011651.1s	45.14S	166.95E	20km M=4.0
	1.4	0.15	0.09 R		1.0	0.03	0.06 R
Rsd 0.4s	12ph/7stn	Dmin 114km	Az.gap 335°	Rsd 0.5s	11ph/5stn	Dmin 93km	Az.gap 262°
Corr. -0.582	7M/7stn	Msd 0.1		Corr. -0.406	6M/6stn	Msd 0.3	
93/7855				93/7866			
AUG 10 010849.2s	45.29S	166.93E	20km M=4.0	AUG 10 011737.4s	45.31S	166.93E	20km M=3.9
	0.8	0.04	0.06 R		0.7	0.02	0.04 R
Rsd 0.2s	10ph/8stn	Dmin 104km	Az.gap 322°	Rsd 0.3s	8ph/4stn	Dmin 103km	Az.gap 257°
Corr. -0.421	10M/10stn	Msd 0.1		Corr. 0.010	4M/4stn	Msd 0.3	
93/7856				93/7867			
AUG 10 010945.5s	45.33S	166.79E	20km M=4.5	AUG 10 011811.4s	45.26S	166.76E	20km M=3.9
	1.1	0.03	0.07 R		2.0	0.06	0.15 R
Rsd 0.3s	13ph/10stn	Dmin 110km	Az.gap 286°	Rsd 0.6s	6ph/4stn	Dmin 117km	Az.gap 260°
Corr. -0.017	9M/7stn	Msd 0.3		Corr. 0.616	4M/4stn	Msd 0.3	
93/7857				93/7868			
AUG 10 011055.6s	45.34S	166.86E	20km M=3.9	AUG 10 011848.0s	45.18S	166.77E	20km M=4.3
	1.3	0.03	0.09 R		1.2	0.04	0.08 R
Rsd 0.5s	15ph/12stn	Dmin 105km	Az.gap 282°	Rsd 0.5s	8ph/5stn	Dmin 107km	Az.gap 261°
Corr. 0.246	13M/12stn	Msd 0.1		Corr. -0.432	5M/5stn	Msd 0.3	
93/7858				93/7869			
AUG 10 011129.6s	45.45S	167.92E	111km M=3.7	AUG 10 011851.1s	45.16S	166.80E	20km M=4.8
	0.6	0.02	0.04 4		0.3	0.01	0.02 R
Rsd 0.2s	11ph/8stn	Dmin 50km	Az.gap 184°	Rsd 0.1s	11ph/6stn	Dmin 104km	Az.gap 242°
Corr. -0.030	6M/4stn	Msd 0.1		Corr. -0.217	20M/19stn	Msd 0.2	
93/7859				93/7870			
AUG 10 011247.5s	45.06S	166.59E	20km M=4.8	AUG 10 011918.3s	45.36S	166.87E	20km M=4.5
	0.9	0.04	0.07 R		1.8	0.04	0.10 R
Rsd 0.4s	8ph/4stn	Dmin 114km	Az.gap 266°	Rsd 0.6s	8ph/4stn	Dmin 103km	Az.gap 282°
Corr. -0.585	3M/3stn	Msd 0.3		Corr. 0.299	4M/4stn	Msd 0.2	
93/7860				93/7871			
AUG 10 011328.6s	45.16S	166.42E	20km M=3.9	AUG 10 011953.1s	45.14S	166.81E	20km M=4.6
	2.1	0.08	0.14 R		0.5	0.02	0.03 R
Rsd 0.6s	7ph/3stn	Dmin 131km	Az.gap 280°	Rsd 0.3s	11ph/5stn	Dmin 103km	Az.gap 268°
Corr. -0.665	2M/2stn	Msd 0.1		Corr. -0.390	9M/5stn	Msd 0.2	
93/7861				93/7872			
AUG 10 011439.9s	45.24S	166.82E	20km M=3.8	AUG 10 012022.0s	45.19S	166.70E	20km M=4.4
	1.4	0.05	0.11 R		0.7	0.02	0.04 R
Rsd 0.5s	7ph/5stn	Dmin 108km	Az.gap 259°	Rsd 0.3s	7ph/3stn	Dmin 112km	Az.gap 291°
Corr. -0.354	2M/2stn	Msd 0.3		Corr. -0.280	3M/3stn	Msd 0.2	
93/7862				93/7873			
AUG 10 011502.2s	45.16S	166.74E	20km M=4.3	AUG 10 012036.2s	45.24S	166.84E	20km M=4.1
	1.7	0.06	0.10 R		1.9	0.04	0.11 R
Rsd 0.7s	8ph/6stn	Dmin 108km	Az.gap 269°	Rsd 0.7s	7ph/3stn	Dmin 106km	Az.gap 284°
Corr. -0.216	6M/6stn	Msd 0.1		Corr. 0.208	2M/2stn	Msd 0.1	

93/7874					93/7885				
AUG 10 012057.4s	45.26S	166.81E	20km	M=4.0	AUG 10 012730.5s	45.32S	166.95E	20km	M=5.1
	1.3	0.03	0.09	R		1.0	0.03	0.07	R
Rsd 0.4s	7ph/4stn	Dmin 110km	Az.gap 281°		Rsd 0.3s	11ph/10stn	Dmin 101km	Az.gap 263°	
Corr. 0.357	4M/4stn	Msd 0.5			Corr. 0.380	18M/10stn	Msd 0.2		
93/7875					93/7886				
AUG 10 012141.1s	45.32S	166.76E	20km	M=4.1	AUG 10 012830.7s	45.31S	166.83E	20km	M=4.1
	1.9	0.05	0.13	R		2.6	0.06	0.18	R
Rsd 0.7s	6ph/4stn	Dmin 112km	Az.gap 287°		Rsd 0.8s	6ph/4stn	Dmin 109km	Az.gap 284°	
Corr. 0.030	7M/5stn	Msd 0.3			Corr. 0.051	5M/5stn	Msd 0.1		
93/7876					93/7887				
AUG 10 012158.0s	45.36S	166.88E	20km	M=4.5	AUG 10 012901.8s	45.23S	167.16E	20km	M=4.4
	0.6	0.01	0.04	R		1.7	0.04	0.13	R
Rsd 0.2s	8ph/4stn	Dmin 102km	Az.gap 282°		Rsd 0.7s	6ph/3stn	Dmin 86km	Az.gap 264°	
Corr. 0.331	8M/6stn	Msd 0.3			Corr. -0.381	11M/10stn	Msd 0.3		
93/7877					93/7888				
AUG 10 012218.4s	45.20S	166.84E	20km	M=4.4	AUG 10 012952.4s	45.28S	166.97E	20km	M=4.0
	1.9	0.05	0.12	R		1.4	0.03	0.09	R
Rsd 0.6s	7ph/4stn	Dmin 104km	Az.gap 264°		Rsd 0.4s	5ph/3stn	Dmin 101km	Az.gap 276°	
Corr. -0.600	10M/6stn	Msd 0.5			Corr. 0.017	6M/4stn	Msd 0.2		
93/7878					93/7889				
AUG 10 012315.9s	45.25S	166.82E	20km	M=3.9	AUG 10 013502.7s	45.39S	167.09E	20km	M=4.4
	2.1	0.06	0.13	R		0.9	0.03	0.07	R
Rsd 0.8s	7ph/3stn	Dmin 108km	Az.gap 284°		Rsd 0.1s	15ph/15stn	Dmin 88km	Az.gap 246°	
Corr. -0.284	6M/4stn	Msd 0.3			Corr. -0.889	16M/12stn	Msd 0.2		
93/7879					93/7890				
AUG 10 012341.3s	45.47S	166.74E	20km	M=4.0	AUG 10 013612.6s	45.35S	167.16E	20km	M=4.2
	1.4	0.05	0.09	R		1.7	0.03	0.12	R
Rsd 0.4s	7ph/4stn	Dmin 105km	Az.gap 290°		Rsd 0.6s	10ph/8stn	Dmin 86km	Az.gap 264°	
Corr. 0.585	4M/4stn	Msd 0.4			Corr. -0.034	17M/13stn	Msd 0.3		
93/7880					93/7891				
AUG 10 012351.4s	45.20S	166.76E	20km	M=3.9	AUG 10 013638.7s	45.30S	166.89E	20km	M=4.3
	1.0	0.02	0.05	R		1.3	0.03	0.09	R
Rsd 0.3s	8ph/4stn	Dmin 109km	Az.gap 267°		Rsd 0.4s	7ph/5stn	Dmin 106km	Az.gap 281°	
Corr. -0.251	4M/4stn	Msd 0.7			Corr. -0.116	6M/4stn	Msd 0.3		
93/7881					93/7892				
AUG 10 012516.6s	45.30S	166.88E	20km	M=3.8	AUG 10 013641.8s	45.26S	166.98E	20km	M=4.4
	1.2	0.03	0.08	R		0.6	0.01	0.03	R
Rsd 0.7s	8ph/4stn	Dmin 106km	Az.gap 259°		Rsd 0.2s	11ph/5stn	Dmin 99km	Az.gap 276°	
Corr. 0.168	5M/5stn	Msd 0.5			Corr. -0.193	13M/7stn	Msd 0.3		
93/7882					93/7895				
AUG 10 012520.8s	45.23S	166.96E	20km	M=4.6	AUG 10 014021.0s	45.34S	166.79E	20km	M=4.7
	0.8	0.02	0.06	R		0.5	0.02	0.03	R
Rsd 0.4s	8ph/5stn	Dmin 99km	Az.gap 254°		Rsd 0.1s	18ph/15stn	Dmin 109km	Az.gap 245°	
Corr. -0.049	7M/5stn	Msd 0.3			Corr. 0.725	9M/5stn	Msd 0.1		
93/7883					93/7898				
AUG 10 012556.3s	45.24S	166.73E	20km	M=4.2	AUG 10 014241.4s	45.30S	166.94E	20km	M=3.8
	1.2	0.03	0.07	R		0.4	0.01	0.03	R
Rsd 0.4s	8ph/3stn	Dmin 114km	Az.gap 289°		Rsd 0.2s	19ph/15stn	Dmin 102km	Az.gap 256°	
Corr. -0.161	3M/3stn	Msd 0.1			Corr. 0.262	17M/15stn	Msd 0.2		
93/7884					93/7899				
AUG 10 012652.8s	45.40S	166.69E	20km	M=3.8	AUG 10 014525.7s	45.32S	166.93E	20km	M=4.3
	0.4	0.01	0.03	R		1.3	0.03	0.07	R
Rsd 0.2s	7ph/4stn	Dmin 112km	Az.gap 289°		Rsd 0.4s	8ph/3stn	Dmin 102km	Az.gap 279°	
Corr. 0.318	5M/3stn	Msd 0.2			Corr. -0.125	6M/3stn	Msd 0.3		

93/7900					93/7915				
AUG 10 014606.6s	45.22S	166.72E	20km	M=3.7	AUG 10 015502.9s	45.34S	166.77E	20km	M=4.0
	1.2	0.04	0.08	R		0.6	0.03	0.04	R
Rsd 0.4s	8ph/3stn	Dmin 113km	Az.gap 290°		Rsd 0.2s	16ph/9stn	Dmin 111km	Az.gap 293°	
Corr. 0.190	4M/2stn	Msd 0.1			Corr. 0.452	13M/11stn	Msd 0.2		
93/7902					93/7916				
AUG 10 014715.5s	45.25S	166.62E	20km	M=3.7	AUG 10 015519.0s	45.23S	166.74E	20km	M=4.4
	0.5	0.03	0.04	R		0.5	0.02	0.03	R
Rsd 0.1s	4ph/3stn	Dmin 121km	Az.gap 309°		Rsd 0.1s	19ph/12stn	Dmin 112km	Az.gap 267°	
Corr. -0.548	2M/2stn	Msd 0.6			Corr. -0.814	7M/7stn	Msd 0.2		
93/7903					93/7917				
AUG 10 014741.8s	45.11S	166.52E	20km	M=4.1	AUG 10 015605.1s	45.34S	167.04E	20km	M=3.6
	1.2	0.05	0.08	R		0.7	0.02	0.04	R
Rsd 0.4s	8ph/4stn	Dmin 122km	Az.gap 279°		Rsd 0.2s	13ph/8stn	Dmin 94km	Az.gap 273°	
Corr. -0.728	4M/4stn	Msd 0.3			Corr. 0.147	8M/6stn	Msd 0.3		
93/7904					93/7918				
AUG 10 014903.1s	45.17S	166.73E	20km	M=3.5	AUG 10 015606.2s	45.32S	166.74E	20km	M=4.4
	0.5	0.03	0.04	R		0.7	0.01	0.03	R
Rsd 0.2s	6ph/3stn	Dmin 109km	Az.gap 269°		Rsd 0.2s	17ph/9stn	Dmin 113km	Az.gap 288°	
Corr. -0.777	3M/3stn	Msd 0.2			Corr. 0.430	7M/5stn	Msd 0.1		
93/7905					93/7919				
AUG 10 014923.3s	45.15S	166.40E	20km	M=3.6	AUG 10 015637.9s	45.25S	167.06E	20km	M=3.7
	1.3	0.07	0.10	R		1.1	0.02	0.06	R
Rsd 0.3s	6ph/3stn	Dmin 132km	Az.gap 281°		Rsd 0.4s	17ph/10stn	Dmin 93km	Az.gap 271°	
Corr. -0.769	3M/3stn	Msd 0.2			Corr. -0.120	9M/7stn	Msd 0.1		
93/7906					93/7920				
AUG 10 015009.9s	45.03S	166.30E	20km	M=3.7	AUG 10 015700.9s	45.41S	167.10E	20km	M=3.5
	0.8	0.05	0.05	R		0.5	0.01	0.03	R
Rsd 0.4s	20ph/14stn	Dmin 219km	Az.gap 294°		Rsd 0.2s	17ph/9stn	Dmin 85km	Az.gap 270°	
Corr. -0.191	13M/13stn	Msd 0.3			Corr. 0.379	11M/9stn	Msd 0.2		
93/7907					93/7922				
AUG 10 015027.1s	45.34S	166.96E	20km	M=4.2	AUG 10 015848.2s	45.15S	166.73E	5km	M=3.5
	0.3	0.01	0.02	R		0.5	0.03	0.03	R
Rsd 0.1s	15ph/14stn	Dmin 98km	Az.gap 251°		Rsd 0.2s	8ph/3stn	Dmin 244km	Az.gap 323°	
Corr. 0.191	21M/16stn	Msd 0.2			Corr. 0.285	3M/3stn	Msd 0.1		
93/7908					93/7923				
AUG 10 015112.5s	45.35S	166.86E	20km	M=3.8	AUG 10 015856.3s	45.11S	166.84E	5km	M=3.8
	1.1	0.03	0.06	R		1.0	0.04	0.07	R
Rsd 0.4s	11ph/5stn	Dmin 104km	Az.gap 283°		Rsd 0.3s	6ph/4stn	Dmin 237km	Az.gap 298°	
Corr. 0.257	3M/3stn	Msd 0.2			Corr. 0.439	4M/4stn	Msd 0.2		
93/7909					93/7924				
AUG 10 015117.3s	45.25S	167.03E	20km	M=3.7	AUG 10 020008.6s	45.08S	166.63E	20km	M=4.0
	1.1	0.02	0.06	R		1.0	0.07	0.06	R
Rsd 0.4s	15ph/8stn	Dmin 95km	Az.gap 253°		Rsd 0.3s	7ph/4stn	Dmin 254km	Az.gap 303°	
Corr. -0.263	8M/8stn	Msd 0.2			Corr. -0.443	3M/3stn	Msd 0.1		
93/7910					93/7925				
AUG 10 015124.2s	45.08S	166.62E	20km	M=4.0	AUG 10 020357.6s	37.62S	176.19E	286km	M=3.9
	0.6	0.02	0.03	R		1.0	0.08	0.08	9
Rsd 0.2s	19ph/13stn	Dmin 113km	Az.gap 277°		Rsd 0.3s	15ph/10stn	Dmin 108km	Az.gap 246°	
Corr. -0.767	15M/13stn	Msd 0.2			Corr. -0.409	13M/12stn	Msd 0.3	1 ↓	
93/7911					93/7926				
AUG 10 015209.5s	44.66S	166.62E	20km	M=3.6	AUG 10 020433.1s	45.59S	166.70E	20km	M=4.1
	0.3	0.08	0.01	R		0.6	0.07	0.04	R
Rsd 0.1s	16ph/10stn	Dmin 104km	Az.gap 342°		Rsd 0.2s	13ph/10stn	Dmin 191km	Az.gap 346°	
Corr. -0.119	8M/8stn	Msd 0.1			Corr. -0.289	11M/11stn	Msd 0.2		

93/7928					93/7940				
AUG 10 020651.3s	44.92S	166.68E	20km	M=4.0	AUG 10 021632.6s	45.27S	167.01E	20km	M=4.3
	0.3	0.02	0.02	R		0.6	0.02	0.04	R
Rsd 0.1s	16ph/12stn	Dmin 102km	Az.gap 335°		Rsd 0.2s	17ph/14stn	Dmin 98km	Az.gap 250°	
Corr. -0.678	12M/12stn	Msd 0.2			Corr. 0.291	15M/11stn	Msd 0.1		
93/7929					93/7941				
AUG 10 020828.4s	45.05S	166.75E	20km	M=3.8	AUG 10 021642.3s	45.30S	167.11E	20km	M=4.5
	0.1	0.01	0.01	R		0.6	0.01	0.03	R
Rsd 0.0s	7ph/3stn	Dmin 102km	Az.gap 335°		Rsd 0.2s	21ph/14stn	Dmin 93km	Az.gap 247°	
Corr. -0.416	3M/3stn	Msd 0.2			Corr. -0.275	9M/5stn	Msd 0.1		
93/7930					93/7942				
AUG 10 020846.1s	45.19S	166.87E	20km	M=4.0	AUG 10 021853.6s	45.26S	166.64E	20km	M=4.6
	0.6	0.03	0.04	R		0.7	0.02	0.04	R
Rsd 0.2s	8ph/3stn	Dmin 102km	Az.gap 328°		Rsd 0.2s	9ph/6stn	Dmin 121km	Az.gap 270°	
Corr. -0.408	3M/3stn	Msd 0.3			Corr. 0.476	16M/9stn	Msd 0.2		
93/7931					93/7943				
AUG 10 020938.8s	45.21S	166.80E	20km	M=4.0	AUG 10 021923.3s	45.31S	166.93E	20km	M=4.4
	1.1	0.07	0.08	R		1.2	0.02	0.07	R
Rsd 0.4s	7ph/3stn	Dmin 107km	Az.gap 329°		Rsd 0.4s	14ph/9stn	Dmin 103km	Az.gap 256°	
Corr. -0.551	3M/3stn	Msd 0.2			Corr. 0.088	14M/9stn	Msd 0.3		
93/7932					93/7944				
AUG 10 021031.2s	45.42S	166.80E	20km	M=3.6	AUG 10 022005.0s	45.29S	166.89E	20km	M=4.1
	0.5	0.02	0.03	R		0.8	0.01	0.04	R
Rsd 0.2s	12ph/7stn	Dmin 104km	Az.gap 259°		Rsd 0.2s	13ph/6stn	Dmin 107km	Az.gap 282°	
Corr. 0.400	12M/12stn	Msd 0.2			Corr. -0.071	10M/6stn	Msd 0.3		
93/7933					93/7945				
AUG 10 021033.2s	45.43S	166.77E	20km	M=4.1	AUG 10 022034.8s	45.28S	166.75E	20km	M=4.6
	0.4	0.01	0.02	R		1.4	0.04	0.09	R
Rsd 0.2s	11ph/6stn	Dmin 105km	Az.gap 289°		Rsd 0.6s	12ph/8stn	Dmin 115km	Az.gap 288°	
Corr. 0.225	17M/14stn	Msd 0.2			Corr. -0.005	17M/11stn	Msd 0.2		
93/7934					93/7947				
AUG 10 021149.0s	45.22S	167.47E	20km	M=4.3	AUG 10 022138.8s	45.21S	166.88E	20km	M=3.6
	0.9	0.01	0.06	R		0.6	0.02	0.04	R
Rsd 0.3s	22ph/16stn	Dmin 71km	Az.gap 226°		Rsd 0.3s	12ph/6stn	Dmin 36km	Az.gap 272°	
Corr. -0.247	28M/21stn	Msd 0.2	1 ↑		Corr. -0.019	15M/9stn	Msd 0.4		
93/7935					93/7948				
AUG 10 021156.7s	45.24S	167.39E	20km	M=4.3	AUG 10 022233.8s	45.37S	166.86E	20km	M=3.9
	1.4	0.03	0.09	R		0.5	0.01	0.03	R
Rsd 0.6s	14ph/10stn	Dmin 76km	Az.gap 245°		Rsd 0.2s	19ph/14stn	Dmin 103km	Az.gap 283°	
Corr. -0.362	13M/8stn	Msd 0.3			Corr. 0.169	18M/15stn	Msd 0.3		
93/7936					93/7949				
AUG 10 021219.8s	45.32S	167.01E	20km	M=3.9	AUG 10 022325.6s	45.23S	166.78E	20km	M=3.7
	1.4	0.02	0.08	R		0.4	0.01	0.02	R
Rsd 0.5s	13ph/8stn	Dmin 97km	Az.gap 252°		Rsd 0.2s	21ph/14stn	Dmin 110km	Az.gap 286°	
Corr. 0.159	14M/9stn	Msd 0.2			Corr. -0.037	14M/12stn	Msd 0.2		
93/7937					93/7952				
AUG 10 021323.1s	45.09S	166.86E	20km	M=3.5	AUG 10 022425.4s	45.00S	166.53E	20km	M=4.0
	0.8	0.05	0.06	R		0.7	0.08	0.05	R
Rsd 0.2s	13ph/9stn	Dmin 96km	Az.gap 307°		Rsd 0.2s	12ph/9stn	Dmin 116km	Az.gap 318°	
Corr. -0.809	11M/11stn	Msd 0.2			Corr. -0.655	13M/12stn	Msd 0.2		
93/7939					93/7954				
AUG 10 021629.8s	45.18S	166.40E	20km	M=4.5	AUG 10 022647.4s	45.24S	166.69E	20km	M=3.7
	0.6	0.02	0.04	R		0.5	0.01	0.03	R
Rsd 0.3s	20ph/15stn	Dmin 133km	Az.gap 301°		Rsd 0.2s	15ph/9stn	Dmin 116km	Az.gap 291°	
Corr. 0.155	15M/8stn	Msd 0.3			Corr. -0.129	16M/13stn	Msd 0.3		

93/7955				93/7972			
AUG 10 022707.5s	45.31S	166.92E	20km M=4.3	AUG 10 024626.2s	45.18S	167.04E	20km M=3.5
0.5	0.01	0.03	R	0.5	0.01	0.03	R
Rsd 0.2s	19ph/14stn	Dmin 103km	Az.gap 257°	Rsd 0.1s	11ph/8stn	Dmin 90km	Az.gap 274°
Corr. -0.151	17M/12stn	Msd 0.2		Corr. -0.250	9M/7stn	Msd 0.4	
93/7956				93/7973			
AUG 10 022749.1s	45.27S	167.04E	20km M=3.9	AUG 10 024628.0s	45.18S	167.03E	20km M=4.4
1.2	0.02	0.07	R	0.5	0.01	0.03	R
Rsd 0.5s	14ph/8stn	Dmin 97km	Az.gap 272°	Rsd 0.2s	20ph/16stn	Dmin 90km	Az.gap 249°
Corr. -0.141	18M/13stn	Msd 0.1		Corr. -0.385	17M/12stn	Msd 0.2	
93/7957				93/7974			
AUG 10 022800.8s	45.36S	166.73E	20km M=3.8	AUG 10 024717.0s	45.27S	167.02E	20km M=3.6
1.1	0.03	0.07	R	2.1	0.04	0.12	R
Rsd 0.4s	13ph/7stn	Dmin 112km	Az.gap 289°	Rsd 0.8s	11ph/5stn	Dmin 98km	Az.gap 273°
Corr. 0.094	6M/4stn	Msd 0.2		Corr. -0.041	7M/5stn	Msd 0.3	
93/7958				93/7983			
AUG 10 022823.8s	45.16S	166.79E	20km M=3.8	AUG 10 025251.2s	45.37S	166.71E	20km M=3.6
0.7	0.02	0.04	R	0.2	0.01	0.01	R
Rsd 0.3s	18ph/11stn	Dmin 105km	Az.gap 288°	Rsd 0.1s	18ph/12stn	Dmin 112km	Az.gap 290°
Corr. -0.330	12M/10stn	Msd 0.1		Corr. 0.430	15M/13stn	Msd 0.2	
93/7960				93/7984			
AUG 10 022856.9s	45.27S	166.76E	20km M=4.1	AUG 10 025340.5s	45.41S	166.59E	20km M=4.1
1.0	0.02	0.06	R	0.6	0.01	0.04	R
Rsd 0.4s	15ph/9stn	Dmin 114km	Az.gap 288°	Rsd 0.2s	18ph/10stn	Dmin 119km	Az.gap 296°
Corr. -0.072	18M/14stn	Msd 0.2		Corr. 0.022	21M/18stn	Msd 0.2	
93/7961				93/7985			
AUG 10 022937.0s	45.32S	166.81E	20km M=3.9	AUG 10 025454.4s	45.37S	166.75E	20km M=4.1
1.0	0.02	0.06	R	0.4	0.02	0.03	R
Rsd 0.4s	12ph/7stn	Dmin 109km	Az.gap 285°	Rsd 0.1s	16ph/13stn	Dmin 110km	Az.gap 283°
Corr. -0.242	14M/12stn	Msd 0.2		Corr. 0.566	21M/16stn	Msd 0.2	
93/7962				93/7986			
AUG 10 023532.8s	45.39S	166.71E	20km M=5.1	AUG 10 025655.6s	45.31S	166.17E	20km M=3.6
0.4	0.01	0.03	R	2.3	0.12	0.16	R
Rsd 0.2s	20ph/15stn	Dmin 111km	Az.gap 247°	Rsd 0.9s	15ph/12stn	Dmin 153km	Az.gap 319°
Corr. 0.142	20M/11stn	Msd 0.2		Corr. 0.341	15M/13stn	Msd 0.3	
93/7963				93/7987			
AUG 10 023733.4s	45.38S	166.61E	20km M=4.6	AUG 10 025734.3s	45.35S	166.73E	20km M=3.7
0.5	0.01	0.03	R	1.2	0.04	0.08	R
Rsd 0.2s	13ph/8stn	Dmin 119km	Az.gap 285°	Rsd 0.5s	6ph/3stn	Dmin 112km	Az.gap 286°
Corr. 0.394	8M/5stn	Msd 0.1		Corr. 0.455	5M/3stn	Msd 0.2	
93/7964				93/7988			
AUG 10 023837.4s	45.32S	166.83E	20km M=3.8	AUG 10 025958.5s	45.21S	166.87E	20km M=3.8
1.6	0.04	0.10	R	0.6	0.01	0.03	R
Rsd 0.5s	14ph/8stn	Dmin 108km	Az.gap 284°	Rsd 0.2s	22ph/15stn	Dmin 102km	Az.gap 252°
Corr. -0.266	13M/11stn	Msd 0.2		Corr. -0.035	16M/14stn	Msd 0.2	
93/7965				93/7990			
AUG 10 023907.4s	45.10S	167.11E	20km M=3.5	AUG 10 030113.3s	45.59S	166.59E	20km M=4.0
1.8	0.05	0.10	R	0.1	0.01	0.01	R
Rsd 0.6s	17ph/12stn	Dmin 80km	Az.gap 255°	Rsd 0.0s	17ph/13stn	Dmin 110km	Az.gap 298°
Corr. -0.491	15M/13stn	Msd 0.2		Corr. 0.761	17M/14stn	Msd 0.2	
93/7970				93/7991			
AUG 10 024346.4s	45.68S	166.76E	86km M=3.8	AUG 10 030248.7s	45.24S	166.74E	20km M=3.6
0.1	0.08	0.06	12	0.4	0.01	0.02	R
Rsd 0.0s	16ph/11stn	Dmin 95km	Az.gap 319°	Rsd 0.1s	14ph/10stn	Dmin 113km	Az.gap 289°
Corr. -0.984	14M/11stn	Msd 0.1		Corr. 0.123	15M/13stn	Msd 0.2	

Poorly recorded.

93/7994				93/8016			
AUG 10 030439.0s	45.25S	166.76E	20km M=3.7	AUG 10 032337.7s	45.27S	166.86E	20km M=3.9
	0.4	0.03	R		0.6	0.01	R
Rsd 0.1s	15ph/11stn	Dmin 117km	Az.gap 305°	Rsd 0.2s	16ph/9stn	Dmin 107km	Az.gap 283°
Corr. 0.690	16M/14stn	Msd 0.1		Corr. -0.088	14M/12stn	Msd 0.1	
93/7995				93/8017			
AUG 10 030732.3s	45.35S	166.66E	22km M=4.3	AUG 10 032411.8s	45.18S	166.88E	20km M=3.6
	0.5	0.02	2		0.8	0.02	R
Rsd 0.2s	18ph/13stn	Dmin 41km	Az.gap 288°	Rsd 0.3s	14ph/8stn	Dmin 100km	Az.gap 282°
Corr. 0.205	23M/17stn	Msd 0.2		Corr. -0.369	12M/10stn	Msd 0.1	
Felt Manapouri (139).							
93/7996				93/8018			
AUG 10 030800.0s	45.21S	166.96E	20km M=3.7	AUG 10 032734.5s	45.39S	166.40E	20km M=3.9
	1.1	0.02	R		0.7	0.05	R
Rsd 0.3s	13ph/8stn	Dmin 32km	Az.gap 261°	Rsd 0.1s	12ph/10stn	Dmin 211km	Az.gap 327°
Corr. -0.660	12M/9stn	Msd 0.1		Corr. 0.448	8M/8stn	Msd 0.4	
				Poorly recorded.			
93/7997				93/8019			
AUG 10 030822.5s	45.32S	166.78E	20km M=3.6	AUG 10 032808.0s	45.44S	166.95E	20km M=4.4
	0.3	0.01	R		0.8	0.03	R
Rsd 0.1s	17ph/11stn	Dmin 34km	Az.gap 286°	Rsd 0.1s	14ph/12stn	Dmin 169km	Az.gap 276°
Corr. -0.093	15M/13stn	Msd 0.2		Corr. -0.853	16M/13stn	Msd 0.2	
93/8000				93/8021			
AUG 10 031023.5s	45.43S	166.66E	20km M=3.9	AUG 10 032933.5s	45.17S	166.74E	12km M=4.1
	0.5	0.01	R		0.5	0.01	3
Rsd 0.2s	15ph/9stn	Dmin 39km	Az.gap 292°	Rsd 0.2s	20ph/14stn	Dmin 47km	Az.gap 284°
Corr. 0.173	20M/15stn	Msd 0.2		Corr. -0.032	22M/16stn	Msd 0.3	
93/8002				93/8022			
AUG 10 031220.4s	45.01S	166.60E	20km M=3.9	AUG 10 033021.8s	45.20S	166.79E	20km M=3.7
	0.3	0.03	R		1.3	0.04	R
Rsd 0.1s	13ph/12stn	Dmin 112km	Az.gap 280°	Rsd 0.6s	9ph/4stn	Dmin 107km	Az.gap 287°
Corr. -0.734	13M/13stn	Msd 0.2		Corr. -0.223	6M/4stn	Msd 0.2	
93/8003				93/8023			
AUG 10 031602.4s	45.33S	166.83E	20km M=3.7	AUG 10 033110.7s	45.39S	166.84E	20km M=3.6
	0.5	0.02	R		0.9	0.03	R
Rsd 0.2s	18ph/13stn	Dmin 30km	Az.gap 284°	Rsd 0.4s	9ph/4stn	Dmin 103km	Az.gap 284°
Corr. 0.124	17M/13stn	Msd 0.2		Corr. 0.200	7M/5stn	Msd 0.2	
93/8004				93/8024			
AUG 10 031614.0s	45.36S	166.69E	20km M=3.8	AUG 10 033144.3s	45.37S	166.68E	20km M=3.6
	0.5	0.01	R		2.3	0.07	R
Rsd 0.2s	20ph/15stn	Dmin 39km	Az.gap 292°	Rsd 0.7s	7ph/4stn	Dmin 115km	Az.gap 288°
Corr. 0.573	19M/14stn	Msd 0.1		Corr. 0.256	7M/5stn	Msd 0.2	
93/8007				93/8025			
AUG 10 031820.8s	45.20S	166.88E	20km M=3.7	AUG 10 033236.4s	45.38S	166.65E	20km M=4.9
	0.5	0.01	R		0.2	0.01	R
Rsd 0.2s	16ph/10stn	Dmin 102km	Az.gap 282°	Rsd 0.1s	15ph/12stn	Dmin 116km	Az.gap 274°
Corr. -0.391	16M/13stn	Msd 0.3		Corr. 0.643	12M/7stn	Msd 0.1	1 ↓
93/8011				93/8026			
AUG 10 032102.2s	45.29S	166.76E	20km M=3.7	AUG 10 033649.3s	45.36S	166.72E	20km M=3.5
	0.6	0.02	3		0.5	0.01	R
Rsd 0.3s	20ph/14stn	Dmin 37km	Az.gap 287°	Rsd 0.2s	11ph/8stn	Dmin 113km	Az.gap 290°
Corr. -0.038	17M/13stn	Msd 0.1		Corr. 0.267	14M/12stn	Msd 0.3	
93/8015				93/8027			
AUG 10 032321.1s	45.33S	166.73E	20km M=3.6	AUG 10 033758.3s	45.36S	166.98E	20km M=4.0
	0.5	0.01	R		0.3	0.01	R
Rsd 0.2s	16ph/12stn	Dmin 114km	Az.gap 289°	Rsd 0.2s	10ph/7stn	Dmin 96km	Az.gap 251°
Corr. 0.142	14M/12stn	Msd 0.1		Corr. 0.242	14M/9stn	Msd 0.2	

93/8032				93/8052			
AUG 10 034322.5s	45.36S	166.81E	20km M=3.6	AUG 10 040205.7s	45.26S	166.76E	20km M=3.8
	0.4	0.01	0.03 R		0.4	0.01	0.02 R
Rsd 0.2s	18ph/14stn	Dmin 107km	Az.gap 286°	Rsd 0.1s	12ph/8stn	Dmin 113km	Az.gap 287°
Corr. 0.453	15M/13stn	Msd 0.2		Corr. -0.179	14M/12stn	Msd 0.1	
93/8034				93/8060			
AUG 10 034523.9s	45.43S	166.71E	20km M=3.7	AUG 10 041101.9s	45.41S	166.71E	20km M=4.2
	0.6	0.01	0.04 R		0.5	0.01	0.03 R
Rsd 0.2s	14ph/10stn	Dmin 110km	Az.gap 290°	Rsd 0.2s	19ph/13stn	Dmin 111km	Az.gap 285°
Corr. 0.016	16M/14stn	Msd 0.2		Corr. 0.216	22M/18stn	Msd 0.2	
93/8036				93/8062			
AUG 10 034658.4s	45.49S	166.49E	20km M=4.0	AUG 10 041358.1s	45.34S	166.76E	20km M=3.6
	1.0	0.03	0.06 R		0.5	0.01	0.03 R
Rsd 0.4s	20ph/15stn	Dmin 122km	Az.gap 297°	Rsd 0.2s	18ph/13stn	Dmin 111km	Az.gap 285°
Corr. 0.214	16M/13stn	Msd 0.2		Corr. -0.158	16M/14stn	Msd 0.2	
93/8038				93/8063			
AUG 10 034849.5s	45.24S	166.80E	20km M=3.7	AUG 10 041421.8s	45.20S	166.77E	20km M=3.7
	0.9	0.02	0.05 R		0.6	0.02	0.03 R
Rsd 0.4s	9ph/4stn	Dmin 109km	Az.gap 285°	Rsd 0.2s	12ph/7stn	Dmin 108km	Az.gap 288°
Corr. -0.242	7M/5stn	Msd 0.3		Corr. -0.051	12M/10stn	Msd 0.1	
93/8040				93/8064			
AUG 10 034903.5s	45.16S	166.82E	20km M=3.6	AUG 10 041451.9s	45.18S	166.81E	20km M=4.1
	0.9	0.02	0.05 R		0.4	0.01	0.03 R
Rsd 0.3s	9ph/4stn	Dmin 103km	Az.gap 286°	Rsd 0.2s	18ph/13stn	Dmin 105km	Az.gap 286°
Corr. -0.327	4M/4stn	Msd 0.2		Corr. -0.060	18M/13stn	Msd 0.2	
93/8043				93/8066			
AUG 10 035132.3s	45.39S	166.68E	20km M=4.7	AUG 10 041627.3s	45.32S	166.65E	20km M=3.6
	0.5	0.01	0.03 R		0.5	0.01	0.03 R
Rsd 0.2s	18ph/14stn	Dmin 114km	Az.gap 274°	Rsd 0.2s	18ph/13stn	Dmin 119km	Az.gap 292°
Corr. 0.261	9M/5stn	Msd 0.1		Corr. -0.130	16M/14stn	Msd 0.2	
93/8044				93/8068			
AUG 10 035337.2s	44.91S	166.53E	20km M=3.5	AUG 10 041751.1s	45.32S	166.90E	20km M=4.4
	0.3	0.04	0.02 R		0.4	0.01	0.02 R
Rsd 0.1s	14ph/12stn	Dmin 113km	Az.gap 320°	Rsd 0.2s	21ph/15stn	Dmin 104km	Az.gap 253°
Corr. -0.744	7M/7stn	Msd 0.1		Corr. -0.064	17M/12stn	Msd 0.2	
93/8047				93/8070			
AUG 10 035425.7s	45.23S	166.82E	20km M=4.1	AUG 10 042415.4s	45.16S	166.76E	20km M=4.0
	0.8	0.02	0.05 R		0.6	0.01	0.03 R
Rsd 0.3s	19ph/14stn	Dmin 107km	Az.gap 285°	Rsd 0.2s	18ph/13stn	Dmin 107km	Az.gap 288°
Corr. -0.106	18M/13stn	Msd 0.2		Corr. -0.263	15M/13stn	Msd 0.2	
93/8048				93/8074			
AUG 10 035457.8s	45.26S	166.73E	20km M=3.6	AUG 10 042854.3s	45.21S	166.81E	20km M=4.2
	0.7	0.02	0.04 R		0.4	0.01	0.02 R
Rsd 0.3s	13ph/8stn	Dmin 115km	Az.gap 289°	Rsd 0.2s	21ph/14stn	Dmin 106km	Az.gap 285°
Corr. -0.106	9M/7stn	Msd 0.1		Corr. -0.137	21M/16stn	Msd 0.2	
93/8049				93/8076			
AUG 10 035552.2s	45.26S	166.72E	20km M=3.8	AUG 10 043101.8s	45.36S	166.89E	20km M=3.6
	0.6	0.02	0.04 R		0.7	0.02	0.04 R
Rsd 0.2s	16ph/13stn	Dmin 116km	Az.gap 262°	Rsd 0.3s	19ph/13stn	Dmin 101km	Az.gap 281°
Corr. 0.327	15M/13stn	Msd 0.2		Corr. 0.334	17M/14stn	Msd 0.2	
93/8050				93/8081			
AUG 10 035720.3s	45.30S	166.48E	20km M=3.6	AUG 10 043414.9s	45.52S	166.52E	20km M=3.6
	1.1	0.07	0.07 R		0.2	0.01	0.01 R
Rsd 0.3s	19ph/12stn	Dmin 204km	Az.gap 325°	Rsd 0.1s	12ph/6stn	Dmin 118km	Az.gap 299°
Corr. 0.098	10M/10stn	Msd 0.1		Corr. 0.483	15M/13stn	Msd 0.2	

93/8082					93/8141				
AUG 10 043426.0s	45.28S	166.81E	20km	M=3.9	AUG 10 053924.4s	45.11S	166.74E	20km	M=3.9
	0.5	0.01	0.03	R		0.6	0.02	0.03	R
Rsd 0.2s	18ph/13stn	Dmin 111km	Az.gap 285°		Rsd 0.2s	16ph/10stn	Dmin 105km	Az.gap 290°	
Corr. -0.241	17M/15stn	Msd 0.2			Corr. -0.452	17M/14stn	Msd 0.1		
93/8089					93/8144				
AUG 10 043935.2s	45.45S	166.65E	20km	M=3.5	AUG 10 054543.8s	45.44S	166.72E	20km	M=3.6
	0.3	0.03	0.02	R		0.5	0.02	0.03	R
Rsd 0.1s	16ph/12stn	Dmin 113km	Az.gap 313°		Rsd 0.2s	8ph/4stn	Dmin 108km	Az.gap 310°	
Corr. 0.714	13M/11stn	Msd 0.2			Corr. 0.551	8M/6stn	Msd 0.2		
93/8101					93/8147				
AUG 10 045443.8s	45.35S	166.71E	20km	M=4.1	AUG 10 055430.9s	45.30S	166.84E	20km	M=3.7
	0.5	0.01	0.03	R		0.6	0.01	0.04	R
Rsd 0.2s	15ph/10stn	Dmin 114km	Az.gap 282°		Rsd 0.3s	18ph/14stn	Dmin 109km	Az.gap 283°	
Corr. 0.103	23M/18stn	Msd 0.2			Corr. 0.027	16M/14stn	Msd 0.1		
93/8102					93/8151				
AUG 10 045445.5s	45.18S	166.52E	20km	M=4.1	AUG 10 060004.9s	45.30S	166.87E	20km	M=4.1
	1.5	0.04	0.09	R		0.5	0.01	0.03	R
Rsd 0.4s	14ph/10stn	Dmin 125km	Az.gap 298°		Rsd 0.2s	16ph/13stn	Dmin 107km	Az.gap 276°	
Corr. -0.195	15M/12stn	Msd 0.1			Corr. -0.325	23M/18stn	Msd 0.2		
93/8104					93/8152				
AUG 10 045551.6s	45.22S	166.88E	20km	M=3.9	AUG 10 060114.3s	45.36S	166.74E	20km	M=3.6
	0.9	0.02	0.06	R		0.5	0.01	0.03	R
Rsd 0.4s	19ph/14stn	Dmin 103km	Az.gap 282°		Rsd 0.2s	10ph/7stn	Dmin 111km	Az.gap 288°	
Corr. -0.201	19M/16stn	Msd 0.2			Corr. 0.222	15M/12stn	Msd 0.2		
93/8105					93/8153				
AUG 10 045743.0s	45.21S	166.73E	20km	M=4.0	AUG 10 060221.8s	45.36S	166.60E	20km	M=3.5
	0.4	0.01	0.02	R		0.7	0.02	0.04	R
Rsd 0.2s	19ph/13stn	Dmin 112km	Az.gap 289°		Rsd 0.3s	14ph/10stn	Dmin 121km	Az.gap 295°	
Corr. -0.133	17M/15stn	Msd 0.2			Corr. 0.119	14M/11stn	Msd 0.1		
93/8106					93/8154				
AUG 10 050547.6s	45.28S	166.68E	20km	M=3.8	AUG 10 060248.4s	45.30S	166.71E	20km	M=3.6
	0.6	0.02	0.04	R		0.6	0.01	0.03	R
Rsd 0.3s	13ph/9stn	Dmin 119km	Az.gap 291°		Rsd 0.2s	11ph/6stn	Dmin 117km	Az.gap 290°	
Corr. 0.106	17M/14stn	Msd 0.2			Corr. -0.182	16M/13stn	Msd 0.3		
93/8117					93/8158				
AUG 10 052101.7s	45.39S	166.90E	20km	M=4.1	AUG 10 060518.8s	45.44S	166.16E	20km	M=3.7
	0.4	0.02	0.03	R		0.9	0.07	0.05	R
Rsd 0.2s	15ph/13stn	Dmin 99km	Az.gap 256°		Rsd 0.2s	20ph/12stn	Dmin 230km	Az.gap 329°	
Corr. 0.599	22M/17stn	Msd 0.2			Corr. 0.138	10M/10stn	Msd 0.2		
93/8128					93/8160				
AUG 10 052850.2s	45.28S	166.81E	20km	M=3.9	AUG 10 061256.7s	45.29S	166.72E	20km	M=3.9
	0.6	0.01	0.04	R		0.6	0.02	0.04	R
Rsd 0.2s	16ph/11stn	Dmin 111km	Az.gap 262°		Rsd 0.3s	18ph/13stn	Dmin 116km	Az.gap 290°	
Corr. 0.115	18M/15stn	Msd 0.2			Corr. 0.154	16M/14stn	Msd 0.2		
93/8129					93/8161				
AUG 10 052853.8s	45.28S	166.78E	20km	M=3.9	AUG 10 061350.5s	45.24S	166.67E	20km	M=3.7
	1.2	0.03	0.08	R		1.4	0.03	0.10	R
Rsd 0.5s	13ph/10stn	Dmin 113km	Az.gap 287°		Rsd 0.4s	8ph/6stn	Dmin 117km	Az.gap 279°	
Corr. 0.038	17M/14stn	Msd 0.1			Corr. 0.415	14M/12stn	Msd 0.2		
93/8139					93/8163				
AUG 10 053722.9s	45.47S	166.71E	20km	M=3.5	AUG 10 062135.4s	45.29S	166.71E	20km	M=3.7
	0.2	0.01	0.01	R		0.6	0.01	0.03	R
Rsd 0.1s	14ph/11stn	Dmin 108km	Az.gap 312°		Rsd 0.2s	19ph/13stn	Dmin 118km	Az.gap 290°	
Corr. 0.635	14M/12stn	Msd 0.3			Corr. 0.079	14M/12stn	Msd 0.2		

				93/8165					93/8201		
AUG 10	062359.8s	45.20S	166.74E	20km	M=3.5	AUG 10	071839.3s	45.28S	166.58E	20km	M=4.5
	0.8	0.02	0.05	R			1.2	0.03	0.07	R	
Rsd 0.2s	18ph/13stn	Dmin 111km	Az.gap 288°			Rsd 0.4s	14ph/9stn	Dmin 126km	Az.gap 295°		
Corr. -0.041	15M/13stn	Msd 0.2				Corr. 0.121	14M/10stn	Msd 0.2			
				93/8167					93/8202		
AUG 10	062626.6s	45.27S	166.66E	20km	M=3.8	AUG 10	072022.4s	45.30S	166.84E	20km	M=3.8
	0.4	0.01	0.03	R			0.5	0.01	0.03	R	
Rsd 0.2s	19ph/13stn	Dmin 119km	Az.gap 292°			Rsd 0.2s	19ph/14stn	Dmin 109km	Az.gap 284°		
Corr. -0.009	18M/15stn	Msd 0.2				Corr. 0.251	14M/11stn	Msd 0.2			
				93/8169					93/8208		
AUG 10	062811.6s	45.48S	166.45E	20km	M=3.6	AUG 10	073011.5s	45.35S	166.66E	20km	M=4.8
	1.3	0.06	0.08	R			0.5	0.02	0.03	R	
Rsd 0.4s	21ph/15stn	Dmin 126km	Az.gap 298°			Rsd 0.2s	18ph/13stn	Dmin 117km	Az.gap 284°		
Corr. 0.456	13M/13stn	Msd 0.2				Corr. 0.165	11M/7stn	Msd 0.2			
				93/8174					93/8210		
AUG 10	063958.9s	45.30S	166.76E	20km	M=3.6	AUG 10	073254.1s	45.33S	166.77E	20km	M=4.6
	0.7	0.02	0.04	R			1.0	0.02	0.05	R	
Rsd 0.3s	14ph/10stn	Dmin 114km	Az.gap 287°			Rsd 0.3s	17ph/13stn	Dmin 111km	Az.gap 287°		
Corr. -0.092	16M/14stn	Msd 0.2				Corr. -0.118	19M/12stn	Msd 0.2			
				93/8182					93/8213		
AUG 10	065307.6s	45.36S	166.82E	20km	M=4.3	AUG 10	073816.0s	45.03S	166.40E	20km	M=3.6
	0.5	0.02	0.03	R			0.5	0.05	0.04	R	
Rsd 0.2s	20ph/15stn	Dmin 106km	Az.gap 245°			Rsd 0.2s	15ph/13stn	Dmin 127km	Az.gap 336°		
Corr. 0.297	28M/23stn	Msd 0.2	1 ↓			Corr. -0.749	11M/11stn	Msd 0.1			
				93/8183					93/8214		
AUG 10	065453.6s	45.22S	166.98E	20km	M=3.5	AUG 10	073924.0s	45.31S	166.54E	20km	M=4.3
	0.6	0.01	0.04	R			0.5	0.01	0.03	R	
Rsd 0.3s	16ph/11stn	Dmin 96km	Az.gap 276°			Rsd 0.2s	12ph/10stn	Dmin 127km	Az.gap 296°		
Corr. -0.265	14M/12stn	Msd 0.2				Corr. 0.066	22M/17stn	Msd 0.2	1 ↑		
				93/8185					93/8217		
AUG 10	070007.2s	45.25S	166.94E	20km	M=4.0	AUG 10	074427.0s	45.25S	166.90E	20km	M=3.8
	0.5	0.02	0.03	R			1.0	0.02	0.06	R	
Rsd 0.2s	18ph/16stn	Dmin 101km	Az.gap 252°			Rsd 0.3s	17ph/15stn	Dmin 103km	Az.gap 259°		
Corr. 0.141	18M/15stn	Msd 0.2				Corr. 0.111	15M/13stn	Msd 0.2			
				93/8186					93/8221		
AUG 10	070114.6s	45.24S	166.79E	20km	M=4.0	AUG 10	074815.5s	45.31S	166.62E	20km	M=3.8
	0.7	0.02	0.04	R			0.4	0.01	0.02	R	
Rsd 0.3s	12ph/8stn	Dmin 110km	Az.gap 287°			Rsd 0.1s	15ph/11stn	Dmin 122km	Az.gap 294°		
Corr. 0.029	21M/16stn	Msd 0.3				Corr. 0.125	16M/14stn	Msd 0.2			
				93/8188					93/8228		
AUG 10	070506.8s	45.25S	166.88E	20km	M=4.4	AUG 10	080302.5s	45.36S	166.84E	20km	M=4.0
	0.6	0.02	0.04	R			0.8	0.02	0.05	R	
Rsd 0.3s	19ph/15stn	Dmin 104km	Az.gap 274°			Rsd 0.2s	17ph/14stn	Dmin 105km	Az.gap 283°		
Corr. -0.244	8M/5stn	Msd 0.3				Corr. -0.372	21M/17stn	Msd 0.2			
				93/8190					93/8240		
AUG 10	070656.4s	45.25S	167.03E	20km	M=3.6	AUG 10	082117.2s	45.21S	166.71E	20km	M=3.5
	0.8	0.02	0.05	R			0.6	0.01	0.04	R	
Rsd 0.3s	14ph/10stn	Dmin 96km	Az.gap 273°			Rsd 0.2s	17ph/12stn	Dmin 113km	Az.gap 290°		
Corr. 0.293	20M/16stn	Msd 0.3				Corr. -0.234	16M/14stn	Msd 0.2			
				93/8200					93/8242		
AUG 10	071727.5s	45.24S	166.86E	20km	M=5.1	AUG 10	082535.8s	45.24S	166.57E	20km	M=4.3
	0.8	0.02	0.05	R			0.4	0.01	0.03	R	
Rsd 0.2s	16ph/15stn	Dmin 105km	Az.gap 242°			Rsd 0.2s	11ph/7stn	Dmin 124km	Az.gap 295°		
Corr. 0.014	21M/12stn	Msd 0.2	1 ↓			Corr. -0.037	20M/15stn	Msd 0.2	1 ↓		

93/8243					93/8296				
AUG 10 082649.0s	45.30S	166.68E	20km	M=3.8	AUG 10 094819.6s	38.52S	177.93E	57km	M=4.7
	0.6	0.02	0.04	R		0.4	0.02	0.02	5
Rsd 0.2s	13ph/8stn	Dmin 119km	Az.gap 291°		Rsd 0.2s	9ph/6stn	Dmin 14km	Az.gap 109°	
Corr. -0.009	14M/12stn	Msd 0.2			Corr. -0.455	5M/5stn	Msd 0.2		
93/8244					93/8297				
AUG 10 082808.5s	45.17S	167.02E	20km	M=4.3	AUG 10 094838.8s	38.57S	177.85E	63km	M=4.5
	0.6	0.01	0.03	R		0.7	0.02	0.03	7
Rsd 0.2s	20ph/16stn	Dmin 91km	Az.gap 253°		Rsd 0.3s	8ph/6stn	Dmin 17km	Az.gap 95°	
Corr. -0.310	20M/15stn	Msd 0.1			Corr. -0.191	3M/3stn	Msd 0.1		
93/8250					93/8298				
AUG 10 083730.4s	45.29S	166.73E	20km	M=3.5	AUG 10 094931.5s	45.18S	166.93E	20km	M=3.7
	0.4	0.01	0.03	R		1.0	0.02	0.06	R
Rsd 0.2s	10ph/6stn	Dmin 116km	Az.gap 289°		Rsd 0.3s	10ph/6stn	Dmin 97km	Az.gap 280°	
Corr. 0.120	16M/14stn	Msd 0.1			Corr. -0.338	6M/4stn	Msd 0.2	1 ↓	
93/8257					93/8300				
AUG 10 084648.9s	45.28S	166.78E	20km	M=3.6	AUG 10 094952.7s	38.44S	177.69E	75km	M=3.9
	0.4	0.01	0.03	R		0.7	0.04	0.02	6
Rsd 0.2s	17ph/13stn	Dmin 112km	Az.gap 287°		Rsd 0.3s	6ph/3stn	Dmin 36km	Az.gap 169°	
Corr. 0.282	15M/13stn	Msd 0.1			Corr. 0.140	3M/3stn	Msd 0.1		
93/8261					93/8301				
AUG 10 085318.9s	45.37S	166.80E	20km	M=4.4	AUG 10 095015.3s	45.38S	166.69E	20km	M=4.0
	0.6	0.02	0.04	R		2.3	0.08	0.16	R
Rsd 0.2s	19ph/15stn	Dmin 107km	Az.gap 255°		Rsd 0.9s	12ph/8stn	Dmin 113km	Az.gap 292°	
Corr. 0.046	25M/18stn	Msd 0.3			Corr. 0.431	6M/4stn	Msd 0.2		
93/8268					93/8302				
AUG 10 090712.2s	45.30S	166.74E	20km	M=3.8	AUG 10 095033.6s	38.49S	177.82E	31km	M=4.4
	0.4	0.01	0.02	R		0.1	0.01	0.01	2
Rsd 0.2s	17ph/12stn	Dmin 115km	Az.gap 288°		Rsd 0.2s	19ph/17stn	Dmin 24km	Az.gap 88°	
Corr. -0.017	16M/14stn	Msd 0.2			Corr. 0.157	34M/32stn	Msd 0.2		
93/8275					93/8303				
AUG 10 091143.9s	45.23S	166.66E	20km	M=3.5	AUG 10 095105.4s	38.53S	177.83E	59km	M=4.0
	0.3	0.01	0.02	R		0.7	0.03	0.02	6
Rsd 0.1s	17ph/13stn	Dmin 125km	Az.gap 307°		Rsd 0.2s	6ph/3stn	Dmin 21km	Az.gap 177°	
Corr. 0.538	18M/16stn	Msd 0.2			Corr. 0.037	2M/2stn	Msd 0.2		
93/8281					93/8304				
AUG 10 091635.7s	45.51S	166.66E	20km	M=3.5	AUG 10 095211.7s	38.55S	177.86E	39km	M=3.5
	0.2	0.02	0.02	R		0.3	0.02	0.02	7
Rsd 0.1s	13ph/10stn	Dmin 109km	Az.gap 314°		Rsd 0.2s	14ph/12stn	Dmin 18km	Az.gap 93°	
Corr. 0.689	12M/10stn	Msd 0.2			Corr. -0.405	15M/15stn	Msd 0.2	1 ↑	
93/8284					93/8306				
AUG 10 092509.1s	45.27S	167.10E	20km	M=4.4	AUG 10 095355.8s	45.34S	166.70E	20km	M=3.9
	1.4	0.03	0.10	R		0.8	0.02	0.05	R
Rsd 0.4s	14ph/12stn	Dmin 93km	Az.gap 256°		Rsd 0.3s	12ph/9stn	Dmin 115km	Az.gap 290°	
Corr. -0.681	32M/26stn	Msd 0.2			Corr. 0.342	17M/14stn	Msd 0.2		
93/8285					93/8308				
AUG 10 092602.3s	45.15S	166.70E	20km	M=3.9	AUG 10 095507.4s	38.57S	177.96E	48km	M=3.7
	0.7	0.02	0.04	R		0.2	0.01	0.01	4
Rsd 0.2s	12ph/6stn	Dmin 110km	Az.gap 291°		Rsd 0.2s	22ph/20stn	Dmin 9km	Az.gap 101°	
Corr. -0.356	17M/14stn	Msd 0.3			Corr. -0.074	18M/18stn	Msd 0.2	1 ↑	
93/8295					93/8309				
AUG 10 094639.9s	38.53S	177.91E	46km	M=6.3	AUG 10 095521.9s	38.55S	177.83E	53km	M=3.6
	0.3	0.01	0.02	4		0.4	0.02	0.02	5
Rsd 0.2s	23ph/21stn	Dmin 15km	Az.gap 101°		Rsd 0.2s	14ph/12stn	Dmin 19km	Az.gap 96°	
Corr. 0.181	11M/5stn	Msd 0.4	3 ↑ 10 ↓		Corr. -0.147	18M/18stn	Msd 0.2	1 ↑	

Felt Auckland (16) to Westport (79) and Akaroa (111), maximum intensity MM8 west of Gisborne.

93/8316					93/8348				
AUG 10 095930.8s	45.18S	166.79E	20km	M=3.6	AUG 10 103707.9s	38.58S	177.89E	48km	M=3.6
	0.6	0.02	0.04	R		0.4	0.02	0.01	4
Rsd 0.2s	16ph/12stn	Dmin 105km	Az.gap 287°		Rsd 0.2s	5ph/3stn	Dmin 13km	Az.gap 191°	
Corr. -0.477	14M/12stn	Msd 0.2			Corr. -0.486	3M/2stn	Msd 0.2	1 ↑	
93/8317					93/8350				
AUG 10 095940.5s	38.53S	177.86E	57km	M=3.5	AUG 10 103818.0s	45.30S	166.84E	20km	M=4.5
	0.3	0.01	0.01	3		0.5	0.01	0.03	R
Rsd 0.2s	12ph/8stn	Dmin 18km	Az.gap 100°		Rsd 0.2s	19ph/16stn	Dmin 109km	Az.gap 243°	
Corr. -0.307	6M/4stn	Msd 0.3			Corr. 0.056	34M/27stn	Msd 0.3		
93/8322					93/8351				
AUG 10 100329.7s	38.56S	177.95E	53km	M=3.6	AUG 10 103903.1s	45.40S	166.73E	20km	M=4.3
	0.2	0.01	0.01	3		0.3	0.01	0.02	R
Rsd 0.2s	21ph/17stn	Dmin 9km	Az.gap 105°		Rsd 0.1s	7ph/3stn	Dmin 110km	Az.gap 290°	
Corr. -0.291	21M/18stn	Msd 0.2	1 ↓		Corr. 0.454	13M/10stn	Msd 0.2		
93/8323					93/8369				
AUG 10 100425.4s	45.51S	166.79E	20km	M=4.4	AUG 10 105804.8s	45.23S	166.83E	20km	M=3.7
	0.3	0.01	0.02	R		1.0	0.03	0.07	R
Rsd 0.2s	21ph/15stn	Dmin 99km	Az.gap 258°		Rsd 0.4s	16ph/14stn	Dmin 106km	Az.gap 254°	
Corr. 0.177	9M/5stn	Msd 0.1	1 ↓		Corr. -0.083	17M/15stn	Msd 0.2	1 ↓	
93/8324					93/8382				
AUG 10 100636.1s	45.31S	166.70E	20km	M=3.6	AUG 10 111722.1s	38.52S	177.79E	46km	M=4.6
	0.6	0.02	0.04	R		0.2	0.01	0.01	3
Rsd 0.2s	14ph/10stn	Dmin 117km	Az.gap 290°		Rsd 0.2s	24ph/21stn	Dmin 24km	Az.gap 83°	
Corr. -0.075	17M/14stn	Msd 0.2			Corr. 0.375	8M/5stn	Msd 0.3	2 ↑ 1 ↓	
93/8328					93/8383				
AUG 10 101011.1s	45.20S	166.79E	20km	M=3.6	AUG 10 112043.9s	45.33S	166.66E	20km	M=3.9
	0.6	0.01	0.04	R		1.0	0.02	0.06	R
Rsd 0.2s	15ph/11stn	Dmin 107km	Az.gap 286°		Rsd 0.3s	7ph/4stn	Dmin 119km	Az.gap 284°	
Corr. 0.061	18M/16stn	Msd 0.2			Corr. 0.183	20M/17stn	Msd 0.2		
93/8330					93/8386				
AUG 10 101309.4s	45.18S	166.37E	20km	M=3.5	AUG 10 112410.6s	45.29S	166.67E	20km	M=3.6
	2.3	0.07	0.15	R		0.5	0.01	0.04	R
Rsd 0.9s	7ph/3stn	Dmin 135km	Az.gap 302°		Rsd 0.2s	13ph/11stn	Dmin 120km	Az.gap 292°	
Corr. 0.021	3M/3stn	Msd 0.1			Corr. -0.082	14M/14stn	Msd 0.2		
93/8331					93/8387				
AUG 10 101358.2s	45.36S	166.74E	20km	M=3.6	AUG 10 112457.0s	45.30S	166.76E	20km	M=3.9
	0.5	0.01	0.03	R		1.1	0.03	0.08	R
Rsd 0.2s	16ph/13stn	Dmin 112km	Az.gap 289°		Rsd 0.4s	13ph/11stn	Dmin 114km	Az.gap 279°	
Corr. 0.440	13M/11stn	Msd 0.2			Corr. -0.019	18M/14stn	Msd 0.2	1 ↑	
93/8332					93/8390				
AUG 10 101444.1s	45.29S	166.79E	20km	M=3.5	AUG 10 112940.5s	45.29S	166.72E	20km	M=3.9
	0.6	0.01	0.03	R		0.6	0.01	0.04	R
Rsd 0.2s	14ph/10stn	Dmin 112km	Az.gap 286°		Rsd 0.2s	10ph/8stn	Dmin 117km	Az.gap 280°	
Corr. -0.048	12M/10stn	Msd 0.1			Corr. -0.045	19M/16stn	Msd 0.2		
93/8335					93/8392				
AUG 10 101922.5s	38.50S	177.83E	53km	M=3.8	AUG 10 113136.9s	45.32S	166.57E	20km	M=3.6
	0.3	0.01	0.02	3		1.4	0.04	0.09	R
Rsd 0.2s	23ph/20stn	Dmin 22km	Az.gap 99°		Rsd 0.4s	5ph/3stn	Dmin 125km	Az.gap 296°	
Corr. 0.394	22M/19stn	Msd 0.3	2 ↑ 3 ↓		Corr. -0.013	15M/13stn	Msd 0.1		
93/8341					93/8394				
AUG 10 102633.5s	45.23S	166.61E	20km	M=4.6	AUG 10 113302.8s	45.27S	166.47E	20km	M=3.8
	0.8	0.02	0.05	R		1.5	0.05	0.10	R
Rsd 0.3s	9ph/6stn	Dmin 121km	Az.gap 264°		Rsd 0.5s	11ph/9stn	Dmin 133km	Az.gap 300°	
Corr. -0.310	9M/5stn	Msd 0.1			Corr. -0.044	15M/13stn	Msd 0.2		
Felt Manapouri (139).									

				93/8412					93/8469
AUG 10 115130.7s	45.36S	166.63E	20km	M=3.7	AUG 10 132758.5s	45.35S	166.72E	20km	M=4.8
	0.8	0.02	0.05	R		0.6	0.02	0.04	R
Rsd 0.2s	13ph/11stn	Dmin 119km	Az.gap 285°		Rsd 0.2s	16ph/14stn	Dmin 113km	Az.gap 271°	
Corr. -0.044	17M/15stn	Msd 0.2			Corr. 0.087	10M/6stn	Msd 0.1		
				93/8422					93/8472
AUG 10 120705.3s	45.30S	166.74E	20km	M=3.5	AUG 10 133147.5s	45.35S	166.61E	20km	M=3.9
	1.0	0.02	0.07	R		0.7	0.02	0.05	R
Rsd 0.4s	15ph/13stn	Dmin 115km	Az.gap 289°		Rsd 0.3s	12ph/10stn	Dmin 120km	Az.gap 285°	
Corr. 0.018	16M/14stn	Msd 0.2	1 ↑ 1 ↓		Corr. 0.256	18M/15stn	Msd 0.2		
				93/8424					93/8473
AUG 10 121130.4s	45.27S	166.67E	20km	M=4.3	AUG 10 133336.9s	45.29S	166.58E	20km	M=3.8
	0.7	0.02	0.05	R		0.6	0.02	0.04	R
Rsd 0.2s	7ph/5stn	Dmin 119km	Az.gap 281°		Rsd 0.2s	10ph/7stn	Dmin 126km	Az.gap 295°	
Corr. -0.303	21M/16stn	Msd 0.2			Corr. 0.173	17M/14stn	Msd 0.2	1 ↓	
				93/8425					93/8475
AUG 10 121228.4s	45.27S	166.77E	20km	M=3.5	AUG 10 133619.7s	45.34S	166.80E	20km	M=5.0
	1.1	0.03	0.06	R		0.8	0.02	0.05	R
Rsd 0.3s	7ph/4stn	Dmin 113km	Az.gap 286°		Rsd 0.3s	15ph/12stn	Dmin 108km	Az.gap 269°	
Corr. -0.137	6M/4stn	Msd 0.2			Corr. 0.052	14M/8stn	Msd 0.1	1 ↓	
				93/8429					93/8488
AUG 10 121909.2s	45.28S	166.96E	20km	M=4.2	AUG 10 140108.2s	45.25S	166.84E	20km	M=3.5
	0.3	0.01	0.02	R		1.0	0.02	0.07	R
Rsd 0.1s	18ph/14stn	Dmin 102km	Az.gap 262°		Rsd 0.3s	13ph/11stn	Dmin 107km	Az.gap 275°	
Corr. 0.251	28M/23stn	Msd 0.2			Corr. -0.140	16M/14stn	Msd 0.3		
				93/8430					93/8495
AUG 10 121953.5s	45.38S	166.48E	20km	M=3.7	AUG 10 141252.2s	45.38S	166.65E	20km	M=4.9
	1.9	0.06	0.10	R		0.4	0.01	0.03	R
Rsd 0.5s	9ph/6stn	Dmin 128km	Az.gap 299°		Rsd 0.1s	16ph/13stn	Dmin 116km	Az.gap 274°	
Corr. 0.336	13M/11stn	Msd 0.1			Corr. 0.044	13M/8stn	Msd 0.1	1 ↓	
				93/8431					93/8496
AUG 10 122207.3s	45.19S	166.80E	20km	M=3.5	AUG 10 141344.6s	45.33S	166.77E	20km	M=4.1
	1.2	0.03	0.09	R		1.9	0.03	0.10	R
Rsd 0.4s	15ph/13stn	Dmin 106km	Az.gap 286°		Rsd 0.4s	9ph/5stn	Dmin 111km	Az.gap 287°	
Corr. -0.277	15M/14stn	Msd 0.2	1 ↓		Corr. 0.203	12M/12stn	Msd 0.2		
				93/8432					93/8501
AUG 10 122513.1s	45.30S	166.66E	20km	M=3.6	AUG 10 142004.6s	45.26S	166.78E	20km	M=3.9
	0.8	0.02	0.06	R		0.9	0.02	0.05	R
Rsd 0.2s	8ph/6stn	Dmin 120km	Az.gap 292°		Rsd 0.2s	15ph/12stn	Dmin 111km	Az.gap 260°	
Corr. 0.195	17M/14stn	Msd 0.3			Corr. -0.157	17M/15stn	Msd 0.2		
				93/8453					93/8503
AUG 10 130432.5s	45.36S	166.79E	20km	M=3.6	AUG 10 142418.5s	45.32S	166.65E	20km	M=3.7
	2.6	0.07	0.19	R		1.0	0.03	0.06	R
Rsd 0.4s	14ph/13stn	Dmin 108km	Az.gap 286°		Rsd 0.3s	9ph/7stn	Dmin 119km	Az.gap 283°	
Corr. 0.655	16M/14stn	Msd 0.2			Corr. 0.062	17M/15stn	Msd 0.2		
				93/8460					93/8504
AUG 10 131429.9s	45.50S	166.70E	20km	M=4.1	AUG 10 142501.5s	45.38S	166.68E	20km	M=4.2
	0.5	0.01	0.03	R		0.7	0.02	0.05	R
Rsd 0.2s	13ph/11stn	Dmin 106km	Az.gap 289°		Rsd 0.2s	10ph/8stn	Dmin 114km	Az.gap 291°	
Corr. 0.373	24M/18stn	Msd 0.3			Corr. 0.252	21M/16stn	Msd 0.1		
				93/8462					93/8506
AUG 10 132011.1s	45.21S	166.71E	20km	M=3.9	AUG 10 142741.5s	45.38S	166.77E	20km	M=4.0
	0.1	R	R	R		0.4	0.01	0.02	R
Rsd 0.5s	15ph/12stn	Dmin 113km	Az.gap 277°		Rsd 0.1s	16ph/13stn	Dmin 108km	Az.gap 283°	
Corr. R	20M/16stn	Msd 0.3			Corr. -0.147	20M/16stn	Msd 0.2	1 ↓	

Felt St Kilda (145).

				93/8507					93/8578
AUG 10	142806.4s	45.42S	166.71E	20km M=3.7	AUG 10	164743.9s	45.33S	166.76E	20km M=4.0
	1.0	0.03	0.05	R		1.2	0.03	0.09	R
Rsd 0.3s	12ph/8stn		Dmin 110km	Az.gap 291°	Rsd 0.5s	10ph/8stn		Dmin 112km	Az.gap 280°
Corr. 0.232	6M/6stn		Msd 0.2		Corr. 0.289	14M/9stn		Msd 0.5	
				93/8510					93/8579
AUG 10	143410.6s	45.21S	166.87E	20km M=4.1	AUG 10	165213.8s	45.27S	166.91E	20km M=3.8
	0.6	0.02	0.04	R		1.0	0.02	0.07	R
Rsd 0.2s	11ph/8stn		Dmin 103km	Az.gap 281°	Rsd 0.5s	11ph/7stn		Dmin 104km	Az.gap 274°
Corr. -0.649	22M/17stn		Msd 0.2		Corr. -0.154	13M/9stn		Msd 0.3	1 ↑
				93/8527					93/8580
AUG 10	150233.3s	45.17S	166.73E	20km M=3.7	AUG 10	165305.4s	45.32S	166.82E	20km M=3.6
	0.4	0.01	0.03	R		1.8	0.05	0.12	R
Rsd 0.2s	6ph/4stn		Dmin 110km	Az.gap 275°	Rsd 0.7s	8ph/5stn		Dmin 109km	Az.gap 285°
Corr. -0.298	16M/14stn		Msd 0.2	1 ↑	Corr. 0.117	7M/5stn		Msd 0.3	
				93/8529					93/8581
AUG 10	150442.9s	45.23S	166.70E	20km M=3.7	AUG 10	165546.7s	45.33S	166.66E	20km M=4.3
	0.8	0.02	0.05	R		0.6	0.02	0.04	R
Rsd 0.2s	11ph/9stn		Dmin 115km	Az.gap 287°	Rsd 0.2s	10ph/8stn		Dmin 118km	Az.gap 273°
Corr. -0.110	17M/14stn		Msd 0.3		Corr. -0.054	16M/11stn		Msd 0.3	1 ↓
				93/8536					93/8582
AUG 10	151502.0s	45.31S	166.88E	20km M=3.5	AUG 10	165609.0s	45.31S	166.93E	20km M=4.1
	1.0	0.03	0.08	R		1.4	0.03	0.10	R
Rsd 0.5s	10ph/7stn		Dmin 105km	Az.gap 257°	Rsd 0.3s	5ph/4stn		Dmin 103km	Az.gap 279°
Corr. 0.167	8M/6stn		Msd 0.2	1 ↓	Corr. 0.330	6M/6stn		Msd 0.5	
				93/8538					93/8591
AUG 10	151645.9s	38.59S	177.87E	56km M=3.5	AUG 10	170935.0s	45.22S	166.79E	20km M=3.8
	0.8	0.05	0.03	7		1.6	0.05	0.11	R
Rsd 0.4s	6ph/3stn		Dmin 15km	Az.gap 198°	Rsd 0.6s	9ph/6stn		Dmin 109km	Az.gap 286°
Corr. -0.227	4M/2stn		Msd 0.1	1 ↑	Corr. -0.185	8M/5stn		Msd 0.3	
				93/8547					93/8594
AUG 10	154316.7s	45.24S	166.94E	20km M=4.0	AUG 10	171543.1s	45.29S	166.77E	20km M=3.8
	1.7	0.04	0.13	R		1.5	0.04	0.10	R
Rsd 0.7s	8ph/6stn		Dmin 100km	Az.gap 258°	Rsd 0.6s	8ph/5stn		Dmin 113km	Az.gap 286°
Corr. -0.226	14M/10stn		Msd 0.2	1 ↓	Corr. 0.414	9M/6stn		Msd 0.2	
				93/8557					93/8598
AUG 10	155957.4s	45.12S	166.85E	20km M=3.8	AUG 10	172006.0s	45.25S	167.07E	20km M=4.3
	0.7	0.02	0.05	R		0.9	0.02	0.07	R
Rsd 0.4s	9ph/5stn		Dmin 99km	Az.gap 277°	Rsd 0.3s	8ph/6stn		Dmin 93km	Az.gap 267°
Corr. -0.367	14M/10stn		Msd 0.3		Corr. -0.683	23M/18stn		Msd 0.2	1 ↓
				93/8572					93/8605
AUG 10	163107.1s	38.14S	176.05E	170km M=4.8	AUG 10	174233.4s	45.22S	166.89E	20km M=3.9
	0.4	0.02	0.01	3		1.3	0.03	0.09	R
Rsd 0.3s	32ph/27stn		Dmin 33km	Az.gap 74°	Rsd 0.5s	10ph/5stn		Dmin 102km	Az.gap 281°
Corr. -0.197	9M/5stn		Msd 0.2	11 ↑ 2 ↓	Corr. -0.075	11M/7stn		Msd 0.4	
				93/8574					93/8632
AUG 10	163847.6s	45.36S	166.77E	20km M=4.2	AUG 10	183025.5s	45.28S	166.85E	20km M=4.5
	1.0	0.03	0.07	R		0.8	0.03	0.06	R
Rsd 0.4s	11ph/8stn		Dmin 109km	Az.gap 282°	Rsd 0.4s	12ph/9stn		Dmin 109km	Az.gap 254°
Corr. 0.291	15M/10stn		Msd 0.2		Corr. -0.389	8M/5stn		Msd 0.1	
				93/8575					93/8635
AUG 10	163933.7s	45.26S	166.84E	20km M=3.8	AUG 10	183741.1s	45.23S	166.83E	20km M=3.5
	1.4	0.04	0.09	R		2.7	0.06	0.20	R
Rsd 0.5s	7ph/5stn		Dmin 108km	Az.gap 284°	Rsd 0.9s	7ph/5stn		Dmin 107km	Az.gap 284°
Corr. 0.151	7M/5stn		Msd 0.2		Corr. -0.047	7M/6stn		Msd 0.3	1 ↓

Felt Manapouri (139).

93/8650					93/8733				
AUG 10 190803.4s	45.40S	166.71E	20km	M=3.9	AUG 10 221337.6s	45.33S	166.68E	20km	M=4.4
	0.7	0.02	0.05	R		1.4	0.04	0.10	R
Rsd 0.2s	11ph/8stn	Dmin 111km	Az.gap 285°		Rsd 0.5s	10ph/7stn	Dmin 117km	Az.gap 283°	
Corr. 0.456	13M/9stn	Msd 0.3			Corr. 0.310	15M/10stn	Msd 0.2		
93/8663					93/8752				
AUG 10 193806.7s	45.17S	166.79E	20km	M=3.8	AUG 10 225947.8s	45.30S	166.71E	20km	M=3.6
	1.0	0.03	0.07	R		0.9	0.02	0.06	R
Rsd 0.5s	11ph/8stn	Dmin 105km	Az.gap 274°		Rsd 0.3s	14ph/12stn	Dmin 117km	Az.gap 290°	
Corr. -0.422	12M/8stn	Msd 0.4			Corr. 0.156	19M/17stn	Msd 0.2		
93/8673					93/8756				
AUG 10 195502.6s	45.31S	166.78E	20km	M=4.1	AUG 10 230919.8s	45.33S	166.67E	20km	M=3.6
	1.4	0.04	0.10	R		0.8	0.02	0.05	R
Rsd 0.6s	10ph/8stn	Dmin 112km	Az.gap 279°		Rsd 0.2s	11ph/8stn	Dmin 118km	Az.gap 292°	
Corr. 0.141	14M/9stn	Msd 0.2			Corr. 0.182	13M/12stn	Msd 0.2		
93/8674					93/8759				
AUG 10 195756.2s	45.21S	166.82E	20km	M=3.6	AUG 10 231651.0s	45.17S	166.64E	20km	M=4.1
	1.5	0.04	0.12	R		0.7	0.02	0.04	R
Rsd 0.7s	8ph/6stn	Dmin 106km	Az.gap 275°		Rsd 0.3s	8ph/4stn	Dmin 116km	Az.gap 278°	
Corr. -0.033	8M/6stn	Msd 0.3	1 ↓		Corr. -0.285	22M/18stn	Msd 0.2	1 ↓	
93/8675					93/8763				
AUG 10 195817.7s	45.29S	166.80E	20km	M=3.6	AUG 10 232414.1s	45.21S	166.81E	20km	M=3.8
	2.1	0.06	0.14	R		1.0	0.03	0.06	R
Rsd 0.9s	8ph/4stn	Dmin 112km	Az.gap 286°		Rsd 0.3s	15ph/13stn	Dmin 106km	Az.gap 275°	
Corr. 0.156	6M/5stn	Msd 0.3			Corr. -0.364	19M/16stn	Msd 0.3		
93/8676					93/8766				
AUG 10 195947.5s	45.27S	166.67E	20km	M=3.7	AUG 10 232931.4s	45.29S	166.76E	20km	M=3.9
	1.6	0.05	0.10	R		0.7	0.02	0.04	R
Rsd 0.7s	7ph/4stn	Dmin 119km	Az.gap 292°		Rsd 0.2s	17ph/13stn	Dmin 115km	Az.gap 279°	
Corr. -0.184	8M/6stn	Msd 0.1			Corr. -0.265	19M/16stn	Msd 0.2		
93/8679					93/8776				
AUG 10 201132.2s	45.28S	166.76E	20km	M=3.7	AUG 10 234824.0s	45.29S	166.89E	20km	M=3.9
	2.2	0.05	0.15	R		0.8	0.02	0.05	R
Rsd 0.9s	7ph/5stn	Dmin 114km	Az.gap 287°		Rsd 0.2s	15ph/13stn	Dmin 107km	Az.gap 275°	
Corr. 0.113	9M/6stn	Msd 0.2	1 ↓		Corr. -0.512	21M/18stn	Msd 0.2		
93/8690					93/8787				
AUG 10 203657.0s	45.31S	166.82E	20km	M=3.6	AUG 11 002629.6s	45.52S	166.62E	20km	M=3.7
	1.4	0.03	0.10	R		0.7	0.03	0.05	R
Rsd 0.5s	8ph/5stn	Dmin 109km	Az.gap 285°		Rsd 0.2s	13ph/12stn	Dmin 111km	Az.gap 295°	
Corr. -0.106	9M/6stn	Msd 0.2			Corr. 0.692	18M/14stn	Msd 0.3		
93/8697					93/8793				
AUG 10 204602.9s	45.22S	166.69E	20km	M=3.5	AUG 11 003408.9s	38.54S	177.89E	58km	M=3.7
	0.6	0.01	0.04	R		0.3	0.01	0.02	3
Rsd 0.2s	7ph/5stn	Dmin 115km	Az.gap 291°		Rsd 0.2s	23ph/19stn	Dmin 16km	Az.gap 92°	
Corr. -0.192	8M/6stn	Msd 0.3			Corr. 0.101	19M/17stn	Msd 0.2	1 ↑	
93/8711					93/8800				
AUG 10 212104.8s	45.30S	166.68E	20km	M=3.9	AUG 11 005539.3s	45.17S	166.76E	12km	M=4.0
	1.7	0.04	0.12	R		0.8	0.02	0.05	R
Rsd 0.6s	10ph/7stn	Dmin 119km	Az.gap 291°		Rsd 0.4s	14ph/12stn	Dmin 107km	Az.gap 288°	
Corr. -0.218	10M/7stn	Msd 0.4			Corr. -0.145	23M/18stn	Msd 0.2	1 ↑ 1 ↓	
93/8726					93/8804				
AUG 10 220619.7s	45.19S	166.91E	20km	M=3.7	AUG 11 011002.2s	45.18S	166.85E	20km	M=3.7
	1.7	0.04	0.12	R		0.3	0.01	0.02	R
Rsd 0.8s	9ph/7stn	Dmin 98km	Az.gap 280°		Rsd 0.1s	14ph/12stn	Dmin 102km	Az.gap 278°	
Corr. -0.188	12M/9stn	Msd 0.3			Corr. -0.374	18M/13stn	Msd 0.2		

93/8815				93/8866			
AUG 11 013801.9s	45.33S	166.73E	20km M=3.8	AUG 11 040731.3s	38.62S	177.97E	50km M=3.9
	0.7	0.03	0.05 R		0.3	0.01	0.02 4
Rsd 0.2s	14ph/12stn	Dmin 114km	Az.gap 281°	Rsd 0.2s	25ph/21stn	Dmin 6km	Az.gap 98°
Corr. 0.197	18M/15stn	Msd 0.2	1 ↓	Corr. 0.101	23M/19stn	Msd 0.2	2 ↑ 1 ↓
93/8816				93/8867			
AUG 11 014551.1s	45.42S	166.62E	20km M=4.0	AUG 11 040745.5s	45.26S	166.60E	20km M=3.8
	1.0	0.03	0.07 R		0.5	0.01	0.03 R
Rsd 0.4s	7ph/4stn	Dmin 116km	Az.gap 288°	Rsd 0.2s	9ph/6stn	Dmin 123km	Az.gap 294°
Corr. 0.134	23M/18stn	Msd 0.2	1 ↑	Corr. -0.132	21M/19stn	Msd 0.2	
93/8824				93/8868			
AUG 11 015922.5s	45.28S	166.61E	20km M=4.4	AUG 11 040915.5s	45.24S	166.93E	20km M=5.6
	0.5	0.02	0.03 R		0.8	0.02	0.06 R
Rsd 0.2s	6ph/3stn	Dmin 124km	Az.gap 258°	Rsd 0.1s	14ph/14stn	Dmin 101km	Az.gap 261°
Corr. -0.073	21M/16stn	Msd 0.2	1 ↓	Corr. 0.820	23M/13stn	Msd 0.2	1 ↓
93/8844				Felt Earnslaw Station (121), Cromwell (133) and Dunedin (145) MM4.			
AUG 11 030126.2s	45.21S	166.90E	20km M=4.3	93/8871			
	0.8	0.02	0.06 R	AUG 11 041259.6s	45.35S	166.99E	20km M=3.7
Rsd 0.3s	16ph/14stn	Dmin 101km	Az.gap 261°		1.0	0.02	0.07 R
Corr. -0.120	21M/16stn	Msd 0.2	1 ↑ 5 ↓	Rsd 0.3s	17ph/13stn	Dmin 96km	Az.gap 276°
93/8847				Corr. -0.083	12M/12stn	Msd 0.2	
AUG 11 030432.5s	45.20S	166.87E	20km M=4.4	93/8874			
	0.9	0.02	0.06 R	AUG 11 041421.7s	45.29S	166.87E	20km M=3.6
Rsd 0.3s	17ph/14stn	Dmin 102km	Az.gap 272°		1.2	0.03	0.08 R
Corr. -0.570	17M/12stn	Msd 0.2	1 ↓	Rsd 0.4s	15ph/13stn	Dmin 108km	Az.gap 282°
93/8848				Corr. -0.177	14M/14stn	Msd 0.2	
AUG 11 031509.8s	45.22S	167.00E	20km M=3.7	93/8875			
	1.2	0.03	0.08 R	AUG 11 041436.0s	45.27S	166.77E	20km M=4.0
Rsd 0.3s	16ph/13stn	Dmin 96km	Az.gap 270°		0.3	0.01	0.02 R
Corr. -0.707	22M/17stn	Msd 0.2	1 ↓	Rsd 0.1s	9ph/5stn	Dmin 113km	Az.gap 287°
93/8853				Corr. 0.072	22M/17stn	Msd 0.2	
AUG 11 032600.0s	45.31S	167.01E	20km M=3.9	93/8876			
	0.8	0.02	0.05 R	AUG 11 041702.7s	45.26S	166.84E	20km M=3.9
Rsd 0.3s	15ph/14stn	Dmin 98km	Az.gap 272°		1.2	0.03	0.08 R
Corr. -0.218	21M/17stn	Msd 0.2	1 ↓	Rsd 0.4s	16ph/14stn	Dmin 107km	Az.gap 275°
93/8854				Corr. -0.124	20M/15stn	Msd 0.3	1 ↓
AUG 11 033023.7s	45.26S	166.81E	12km M=4.9	93/8877			
	0.4	0.01	0.03 R	AUG 11 041924.9s	45.22S	166.73E	20km M=4.0
Rsd 0.1s	13ph/11stn	Dmin 109km	Az.gap 265°		1.2	0.03	0.09 R
Corr. -0.206	14M/8stn	Msd 0.2	1 ↓	Rsd 0.4s	13ph/11stn	Dmin 112km	Az.gap 277°
Felt Dunedin (145) MM3.				Corr. -0.037	22M/17stn	Msd 0.2	
93/8855				93/8882			
AUG 11 033320.3s	45.23S	166.75E	20km M=3.9	AUG 11 043241.2s	45.27S	166.95E	20km M=3.9
	0.8	0.02	0.05 R		0.8	0.02	0.06 R
Rsd 0.3s	14ph/11stn	Dmin 112km	Az.gap 277°	Rsd 0.3s	15ph/13stn	Dmin 101km	Az.gap 273°
Corr. -0.109	19M/14stn	Msd 0.3	1 ↓	Corr. -0.550	22M/17stn	Msd 0.2	1 ↓
93/8856				93/8894			
AUG 11 034313.8s	45.28S	167.07E	20km M=3.7	AUG 11 050007.6s	45.43S	166.67E	20km M=4.5
	0.9	0.02	0.07 R		0.4	0.01	0.02 R
Rsd 0.3s	13ph/12stn	Dmin 95km	Az.gap 269°	Rsd 0.1s	15ph/14stn	Dmin 112km	Az.gap 276°
Corr. -0.353	20M/17stn	Msd 0.3	1 ↑ 1 ↓	Corr. 0.098	8M/5stn	Msd 0.1	1 ↑ 6 ↓
93/8857				93/8896			
AUG 11 034352.3s	45.22S	167.04E	20km M=5.3	AUG 11 050435.5s	45.23S	166.70E	20km M=3.7
	0.6	0.01	0.04 R		0.2	0.00	0.01 R
Rsd 0.1s	11ph/10stn	Dmin 93km	Az.gap 256°	Rsd 0.1s	8ph/4stn	Dmin 115km	Az.gap 278°
Corr. 0.225	22M/12stn	Msd 0.2		Corr. -0.353	11M/8stn	Msd 0.2	1 ↓

93/8909					93/8964				
AUG 11 052324.4s	45.38S	166.67E	20km	M=4.1	AUG 11 071722.2s	45.30S	166.74E	20km	M=3.7
	0.9	0.02	0.06	R		1.0	0.03	0.07	R
Rsd 0.3s	11ph/9stn	Dmin 115km	Az.gap 285°		Rsd 0.3s	9ph/7stn	Dmin 116km	Az.gap 265°	
Corr. 0.156	23M/18stn	Msd 0.2			Corr. 0.252	19M/14stn	Msd 0.2	1 ↑	
93/8918					93/8967				
AUG 11 054239.0s	45.32S	166.73E	20km	M=4.4	AUG 11 073507.9s	45.23S	166.98E	20km	M=4.6
	1.2	0.03	0.07	R		0.9	0.02	0.06	R
Rsd 0.3s	11ph/9stn	Dmin 115km	Az.gap 280°		Rsd 0.3s	14ph/12stn	Dmin 97km	Az.gap 259°	
Corr. -0.550	20M/15stn	Msd 0.2	1 ↓		Corr. -0.486	10M/6stn	Msd 0.2		
93/8919					93/8969				
AUG 11 054503.4s	45.34S	166.70E	20km	M=3.6	AUG 11 073920.9s	45.35S	166.69E	20km	M=3.6
	1.1	0.03	0.08	R		0.8	0.02	0.05	R
Rsd 0.4s	13ph/11stn	Dmin 115km	Az.gap 290°		Rsd 0.3s	9ph/5stn	Dmin 115km	Az.gap 291°	
Corr. 0.068	14M/12stn	Msd 0.1			Corr. 0.192	16M/14stn	Msd 0.2	1 ↑	
93/8922					93/8973				
AUG 11 055045.1s	45.23S	166.71E	20km	M=3.5	AUG 11 075832.6s	45.20S	166.94E	20km	M=4.0
	0.5	0.01	0.04	R		1.4	0.04	0.10	R
Rsd 0.2s	10ph/8stn	Dmin 115km	Az.gap 278°		Rsd 0.6s	15ph/13stn	Dmin 97km	Az.gap 270°	
Corr. -0.018	17M/14stn	Msd 0.2	1 ↓		Corr. -0.451	22M/17stn	Msd 0.2	1 ↓	
93/8931					93/8980				
AUG 11 060659.0s	45.33S	166.92E	20km	M=4.2	AUG 11 083247.0s	45.29S	166.86E	20km	M=3.6
	0.6	0.02	0.04	R		0.6	0.01	0.04	R
Rsd 0.3s	17ph/13stn	Dmin 102km	Az.gap 275°		Rsd 0.3s	18ph/13stn	Dmin 108km	Az.gap 282°	
Corr. -0.012	18M/13stn	Msd 0.2	1 ↓		Corr. 0.258	16M/14stn	Msd 0.1		
93/8941					93/8991				
AUG 11 062100.7s	45.21S	167.09E	20km	M=3.8	AUG 11 090227.4s	45.33S	166.66E	20km	M=4.0
	0.7	0.01	0.05	R		1.0	0.03	0.06	R
Rsd 0.3s	15ph/11stn	Dmin 89km	Az.gap 269°		Rsd 0.4s	6ph/4stn	Dmin 118km	Az.gap 292°	
Corr. -0.312	21M/16stn	Msd 0.3			Corr. 0.113	20M/15stn	Msd 0.2	1 ↓	
93/8945					93/8992				
AUG 11 062418.8s	38.37S	177.81E	42km	M=3.9	AUG 11 090347.6s	45.21S	166.91E	20km	M=3.7
	0.2	0.01	0.01	4		2.6	0.05	0.20	R
Rsd 0.2s	23ph/20stn	Dmin 34km	Az.gap 95°		Rsd 0.7s	13ph/12stn	Dmin 100km	Az.gap 281°	
Corr. 0.319	23M/20stn	Msd 0.3	1 ↑ 2 ↓		Corr. 0.145	18M/14stn	Msd 0.3		
93/8954					93/8996				
AUG 11 065712.0s	45.24S	166.67E	20km	M=3.8	AUG 11 091616.8s	45.30S	166.86E	20km	M=4.5
	0.8	0.02	0.05	R		0.7	0.02	0.04	R
Rsd 0.2s	14ph/12stn	Dmin 118km	Az.gap 257°		Rsd 0.2s	16ph/15stn	Dmin 108km	Az.gap 243°	
Corr. 0.130	19M/15stn	Msd 0.2			Corr. -0.101	9M/5stn	Msd 0.1	2 ↑ 10 ↓	
93/8956					93/9007				
AUG 11 070009.0s	45.33S	166.58E	20km	M=3.8	AUG 11 100523.6s	45.15S	166.71E	20km	M=3.6
	0.8	0.02	0.06	R		0.9	0.02	0.06	R
Rsd 0.3s	9ph/6stn	Dmin 124km	Az.gap 295°		Rsd 0.4s	6ph/4stn	Dmin 110km	Az.gap 276°	
Corr. 0.202	16M/14stn	Msd 0.1	1 ↑		Corr. -0.331	17M/15stn	Msd 0.2	1 ↑ 1 ↓	
93/8957					93/9009				
AUG 11 070236.5s	45.34S	166.64E	20km	M=3.6	AUG 11 100646.2s	45.23S	167.45E	118km	M=3.7
	1.0	0.03	0.06	R		0.4	0.01	0.02	3
Rsd 0.3s	6ph/4stn	Dmin 119km	Az.gap 268°		Rsd 0.2s	23ph/17stn	Dmin 72km	Az.gap 228°	
Corr. 0.301	16M/14stn	Msd 0.1	1 ↓		Corr. -0.121	16M/15stn	Msd 0.2	1 ↑	
93/8963					93/9011				
AUG 11 071547.4s	45.25S	166.77E	20km	M=3.7	AUG 11 100817.7s	45.32S	166.68E	20km	M=3.7
	1.0	0.03	0.06	R		0.9	0.02	0.06	R
Rsd 0.4s	17ph/13stn	Dmin 111km	Az.gap 256°		Rsd 0.3s	9ph/7stn	Dmin 118km	Az.gap 291°	
Corr. -0.027	19M/15stn	Msd 0.2	1 ↓		Corr. 0.129	14M/12stn	Msd 0.1		

				93/9012					93/9128		
AUG 11	100855.4s	45.32S	166.81E	20km	M=3.8	AUG 11	163710.6s	37.28S	176.65E	249km	M=3.9
	1.0	0.02	0.06	R			0.7	0.08	0.04	6	
Rsd	0.3s	10ph/8stn	Dmin 109km	Az.gap 282°		Rsd	0.3s	14ph/12stn	Dmin 113km	Az.gap 246°	
Corr.	-0.087	17M/15stn	Msd 0.2			Corr.	-0.100	11M/11stn	Msd 0.2	1 ↑	
				93/9026					93/9134		
AUG 11	105115.3s	45.21S	166.89E	20km	M=3.9	AUG 11	165103.5s	45.08S	166.50E	20km	M=3.6
	0.9	0.02	0.06	R			0.7	0.04	0.05	R	
Rsd	0.4s	16ph/15stn	Dmin 102km	Az.gap 272°		Rsd	0.2s	15ph/13stn	Dmin 122km	Az.gap 316°	
Corr.	-0.411	21M/16stn	Msd 0.2	3 ↑ 2 ↓		Corr.	-0.745	14M/13stn	Msd 0.3		
				93/9029					93/9142		
AUG 11	105702.2s	45.19S	166.92E	20km	M=3.7	AUG 11	171640.1s	44.93S	166.64E	20km	M=3.5
	0.6	0.01	0.03	R			0.2	0.02	0.02	R	
Rsd	0.2s	17ph/15stn	Dmin 98km	Az.gap 260°		Rsd	0.1s	16ph/13stn	Dmin 106km	Az.gap 318°	
Corr.	-0.250	17M/14stn	Msd 0.2			Corr.	-0.728	13M/13stn	Msd 0.2		
				93/9034					93/9145		
AUG 11	111724.0s	45.24S	166.86E	20km	M=3.6	AUG 11	173106.9s	45.23S	166.39E	20km	M=3.6
	0.8	0.02	0.05	R			1.5	0.07	0.09	R	
Rsd	0.3s	11ph/8stn	Dmin 105km	Az.gap 274°		Rsd	0.6s	8ph/4stn	Dmin 136km	Az.gap 315°	
Corr.	-0.017	17M/15stn	Msd 0.2	1 ↓		Corr.	-0.026	5M/5stn	Msd 0.2		
				93/9046					93/9147		
AUG 11	122520.1s	45.32S	166.53E	20km	M=3.7	AUG 11	173646.0s	45.18S	166.73E	20km	M=3.8
	0.6	0.02	0.04	R			0.5	0.02	0.03	R	
Rsd	0.3s	8ph/4stn	Dmin 128km	Az.gap 285°		Rsd	0.2s	10ph/7stn	Dmin 110km	Az.gap 294°	
Corr.	0.115	19M/17stn	Msd 0.2	1 ↓		Corr.	-0.443	8M/8stn	Msd 0.3		
				93/9054					93/9151		
AUG 11	124134.7s	45.29S	166.74E	20km	M=4.0	AUG 11	175110.2s	45.21S	166.61E	20km	M=3.6
	0.8	0.02	0.05	R			1.3	0.07	0.09	R	
Rsd	0.3s	13ph/9stn	Dmin 115km	Az.gap 280°		Rsd	0.5s	8ph/5stn	Dmin 120km	Az.gap 310°	
Corr.	-0.101	22M/17stn	Msd 0.2			Corr.	-0.477	7M/7stn	Msd 0.3		
				93/9063					93/9155		
AUG 11	130649.8s	38.54S	177.88E	42km	M=3.7	AUG 11	181415.3s	45.19S	166.62E	20km	M=4.2
	0.2	0.01	0.02	4			0.7	0.03	0.05	R	
Rsd	0.2s	21ph/18stn	Dmin 16km	Az.gap 92°		Rsd	0.3s	9ph/8stn	Dmin 118km	Az.gap 284°	
Corr.	0.193	22M/19stn	Msd 0.2	1 ↑ 1 ↓		Corr.	-0.167	17M/14stn	Msd 0.4	1 ↑	
				93/9088					93/9156		
AUG 11	141323.7s	45.47S	166.67E	20km	M=4.5	AUG 11	181530.7s	45.18S	166.76E	20km	M=3.8
	0.3	0.01	0.02	R			1.0	0.04	0.07	R	
Rsd	0.1s	14ph/12stn	Dmin 110km	Az.gap 278°		Rsd	0.4s	6ph/4stn	Dmin 108km	Az.gap 307°	
Corr.	0.367	24M/17stn	Msd 0.2			Corr.	-0.369	5M/4stn	Msd 0.5		
				93/9091					93/9168		
AUG 11	142537.2s	45.31S	166.78E	20km	M=4.4	AUG 11	201110.7s	45.05S	166.84E	20km	M=3.8
	0.9	0.02	0.06	R			1.4	0.06	0.10	R	
Rsd	0.3s	15ph/14stn	Dmin 112km	Az.gap 245°		Rsd	0.6s	7ph/4stn	Dmin 95km	Az.gap 309°	
Corr.	-0.254	20M/14stn	Msd 0.2	1 ↓		Corr.	-0.386	6M/5stn	Msd 0.2	1 ↑	
				93/9106					93/9170		
AUG 11	151717.8s	45.16S	166.77E	20km	M=4.0	AUG 11	202118.9s	44.90S	167.72E	81km	M=3.8
	3.2	0.19	0.24	R			0.4	0.02	0.03	3	
Rsd	0.1s	12ph/11stn	Dmin 106km	Az.gap 293°		Rsd	0.3s	11ph/6stn	Dmin 30km	Az.gap 222°	
Corr.	-0.993	18M/17stn	Msd 0.1			Corr.	-0.028	6M/5stn	Msd 0.1	3 ↑ 1 ↓	
				93/9114					93/9173		
AUG 11	155309.1s	45.34S	166.72E	20km	M=3.8	AUG 11	211105.9s	45.16S	166.70E	20km	M=3.7
	5.2	0.16	0.39	R			1.6	0.05	0.11	R	
Rsd	0.6s	13ph/12stn	Dmin 121km	Az.gap 257°		Rsd	0.8s	9ph/5stn	Dmin 111km	Az.gap 291°	
Corr.	-0.891	17M/15stn	Msd 0.2			Corr.	-0.072	8M/6stn	Msd 0.2		

				93/9187					93/9226
AUG 11 220849.7s	45.31S	166.73E	20km	M=5.2	AUG 12 002439.1s	45.38S	166.71E	12km	M=4.1
	0.9	0.03	0.06	R		0.4	0.01	0.01	2
Rsd 0.3s	8ph/5stn	Dmin 115km	Az.gap 269°		Rsd 0.1s	14ph/11stn	Dmin 36km	Az.gap 260°	
Corr. 0.323	16M/9stn	Msd 0.2	1 ↓		Corr. -0.095	27M/20stn	Msd 0.2	1 ↓	
				93/9188					93/9230
AUG 11 221445.5s	45.19S	167.06E	20km	M=4.0	AUG 12 003505.5s	45.40S	166.73E	11km	M=4.5
	1.0	0.02	0.07	R		0.3	0.01	0.01	1
Rsd 0.4s	10ph/6stn	Dmin 90km	Az.gap 265°		Rsd 0.1s	18ph/16stn	Dmin 34km	Az.gap 260°	
Corr. -0.436	15M/10stn	Msd 0.2			Corr. 0.063	8M/5stn	Msd 0.2	1 ↑ 2 ↓	
				93/9189					93/9231
AUG 11 221526.6s	45.16S	166.90E	20km	M=3.9	AUG 12 003725.4s	45.26S	166.92E	20km	M=4.1
	2.0	0.06	0.13	R		0.5	0.01	0.03	2
Rsd 0.9s	7ph/4stn	Dmin 98km	Az.gap 282°		Rsd 0.2s	19ph/14stn	Dmin 30km	Az.gap 254°	
Corr. -0.226	8M/5stn	Msd 0.4			Corr. -0.247	24M/17stn	Msd 0.2	1 ↓	
				93/9195					93/9253
AUG 11 222735.5s	45.22S	166.73E	20km	M=3.6	AUG 12 021336.1s	45.27S	166.70E	20km	M=4.0
	1.6	0.04	0.11	R		0.3	0.01	0.02	R
Rsd 0.7s	9ph/6stn	Dmin 113km	Az.gap 278°		Rsd 0.1s	11ph/8stn	Dmin 42km	Az.gap 282°	
Corr. 0.228	9M/6stn	Msd 0.2			Corr. -0.140	25M/18stn	Msd 0.3	2 ↑ 3 ↓	
				93/9200					93/9267
AUG 11 224516.3s	45.22S	166.92E	20km	M=3.5	AUG 12 025005.8s	45.11S	166.75E	20km	M=3.6
	1.0	0.02	0.07	R		0.5	0.01	0.04	R
Rsd 0.4s	15ph/13stn	Dmin 100km	Az.gap 280°		Rsd 0.2s	9ph/7stn	Dmin 51km	Az.gap 271°	
Corr. -0.317	17M/15stn	Msd 0.3	1 ↓		Corr. -0.403	20M/15stn	Msd 0.2	1 ↓	
				93/9203					93/9270
AUG 11 230109.1s	45.22S	166.87E	20km	M=3.7	AUG 12 025419.9s	45.38S	166.74E	20km	M=3.9
	0.9	0.02	0.06	R		0.6	0.03	0.04	R
Rsd 0.3s	16ph/14stn	Dmin 35km	Az.gap 264°		Rsd 0.2s	14ph/12stn	Dmin 34km	Az.gap 285°	
Corr. -0.206	21M/16stn	Msd 0.2	1 ↓		Corr. 0.506	23M/17stn	Msd 0.2	1 ↓	
				93/9204					93/9282
AUG 11 230210.4s	37.25S	177.12E	183km	M=3.7	AUG 12 031432.2s	45.27S	166.81E	22km	M=3.6
	0.6	0.07	0.04	5		1.2	0.03	0.09	5
Rsd 0.3s	11ph/9stn	Dmin 113km	Az.gap 281°		Rsd 0.4s	15ph/13stn	Dmin 35km	Az.gap 276°	
Corr. -0.492	10M/9stn	Msd 0.2			Corr. 0.542	21M/16stn	Msd 0.2	1 ↓	
				93/9208					93/9294
AUG 11 231136.2s	45.37S	166.80E	20km	M=3.7	AUG 12 034457.5s	37.29S	177.04E	200km	M=4.2
	0.3	0.01	0.02	R		0.5	0.04	0.03	4
Rsd 0.1s	19ph/15stn	Dmin 30km	Az.gap 281°		Rsd 0.3s	18ph/15stn	Dmin 108km	Az.gap 254°	
Corr. 0.249	21M/16stn	Msd 0.2			Corr. -0.273	20M/20stn	Msd 0.3	1 ↑	
				93/9212					93/9303
AUG 11 231707.3s	45.37S	166.64E	20km	M=3.9	AUG 12 040254.7s	45.21S	166.67E	14km	M=3.6
	0.5	0.02	0.03	R		0.7	0.03	0.05	5
Rsd 0.2s	13ph/10stn	Dmin 42km	Az.gap 286°		Rsd 0.3s	14ph/12stn	Dmin 47km	Az.gap 291°	
Corr. 0.007	25M/19stn	Msd 0.2			Corr. 0.508	18M/14stn	Msd 0.1	1 ↑	
				93/9217					93/9313
AUG 11 232208.0s	45.22S	166.74E	20km	M=3.6	AUG 12 041944.2s	45.30S	166.71E	10km	M=4.5
	0.5	0.02	0.03	R		0.3	0.01	0.01	2
Rsd 0.2s	12ph/8stn	Dmin 43km	Az.gap 287°		Rsd 0.1s	19ph/16stn	Dmin 40km	Az.gap 279°	
Corr. 0.135	19M/15stn	Msd 0.2	1 ↑ 1 ↓		Corr. 0.088	9M/5stn	Msd 0.1	1 ↓	
				93/9218					93/9339
AUG 11 232422.4s	45.30S	166.55E	20km	M=3.8	AUG 12 063349.8s	45.25S	166.61E	20km	M=3.8
	0.6	0.02	0.04	R		0.4	0.02	0.03	3
Rsd 0.2s	9ph/5stn	Dmin 50km	Az.gap 296°		Rsd 0.2s	11ph/8stn	Dmin 49km	Az.gap 260°	
Corr. 0.165	21M/16stn	Msd 0.2			Corr. 0.118	11M/6stn	Msd 0.3	1 ↓	

93/9345				93/9530			
AUG 12 065818.8s	45.24S	166.58E	12km M=3.9	AUG 12 181900.3s	45.34S	166.86E	24km M=3.9
	0.4	0.02	0.02		0.5	0.04	0.02
Rsd 0.2s	12ph/10stn	Dmin 52km	Az.gap 279°	Rsd 0.2s	19ph/16stn	Dmin 27km	Az.gap 254°
Corr. 0.316	11M/6stn	Msd 0.2	1 ↓	Corr. -0.534	11M/6stn	Msd 0.2	1 ↓
93/9347				93/9573			
AUG 12 070508.6s	38.80S	177.94E	48km M=3.7	AUG 12 213755.9s	45.29S	166.80E	12km M=4.4
	1.4	0.11	0.06		0.3	0.02	0.02
Rsd 0.9s	15ph/12stn	Dmin 22km	Az.gap 201°	Rsd 0.1s	20ph/15stn	Dmin 34km	Az.gap 278°
Corr. -0.313	13M/7stn	Msd 0.4	3 ↑ 2 ↓	Corr. 0.654	14M/8stn	Msd 0.2	
93/9362				93/9577			
AUG 12 073814.9s	45.42S	166.78E	20km M=4.6	AUG 12 220009.0s	45.37S	166.71E	16km M=3.6
	0.3	0.02	0.02		0.3	0.02	0.01
Rsd 0.2s	20ph/15stn	Dmin 30km	Az.gap 273°	Rsd 0.1s	20ph/15stn	Dmin 36km	Az.gap 282°
Corr. -0.097	14M/8stn	Msd 0.2	1 ↓	Corr. -0.024	8M/4stn	Msd 0.1	1 ↑ 5 ↓
93/9365				93/9591			
AUG 12 074524.6s	44.52S	168.44E	9km M=3.6	AUG 12 231638.2s	45.29S	166.66E	16km M=3.8
	0.2	0.01	0.01		0.4	0.03	0.03
Rsd 0.2s	27ph/20stn	Dmin 44km	Az.gap 151°	Rsd 0.2s	17ph/14stn	Dmin 44km	Az.gap 263°
Corr. -0.307	21M/15stn	Msd 0.2	3 ↑ 6 ↓	Corr. 0.300	12M/7stn	Msd 0.3	1 ↓
93/9396				93/9610			
AUG 12 090102.1s	45.38S	166.60E	12km M=3.8	AUG 13 013418.4s	45.34S	166.75E	22km M=3.8
	0.3	0.01	0.01		0.3	0.01	0.01
Rsd 0.1s	16ph/12stn	Dmin 44km	Az.gap 263°	Rsd 0.2s	11ph/6stn	Dmin 35km	Az.gap 315°
Corr. 0.327	9M/5stn	Msd 0.2	1 ↓	Corr. -0.218	11M/6stn	Msd 0.2	1 ↓
93/9418				93/9615			
AUG 12 104302.6s	45.36S	166.85E	13km M=3.6	AUG 13 015038.6s	45.17S	166.72E	14km M=3.6
	0.2	0.01	0.01		0.5	0.02	0.03
Rsd 0.1s	19ph/15stn	Dmin 27km	Az.gap 274°	Rsd 0.2s	10ph/8stn	Dmin 47km	Az.gap 268°
Corr. -0.047	8M/4stn	Msd 0.1	1 ↑	Corr. -0.232	11M/6stn	Msd 0.2	1 ↓
93/9423				93/9621			
AUG 12 111209.3s	45.35S	166.70E	12km M=4.4	AUG 13 023155.8s	45.18S	166.85E	25km M=3.7
	0.3	0.02	0.01		0.5	0.02	0.03
Rsd 0.1s	18ph/15stn	Dmin 38km	Az.gap 279°	Rsd 0.2s	11ph/8stn	Dmin 40km	Az.gap 262°
Corr. 0.293	14M/8stn	Msd 0.2	1 ↓	Corr. -0.037	12M/6stn	Msd 0.3	1 ↓
93/9433				93/9626			
AUG 12 113323.3s	45.31S	166.78E	15km M=3.7	AUG 13 030600.7s	45.23S	166.66E	21km M=3.9
	0.3	0.02	0.02		0.4	0.03	0.02
Rsd 0.2s	20ph/16stn	Dmin 34km	Az.gap 256°	Rsd 0.1s	11ph/8stn	Dmin 47km	Az.gap 274°
Corr. -0.136	9M/5stn	Msd 0.2	1 ↓	Corr. -0.251	12M/7stn	Msd 0.1	1 ↓
93/9454				93/9631			
AUG 12 125821.4s	45.27S	166.88E	26km M=3.6	AUG 13 032456.6s	45.32S	166.79E	23km M=3.7
	0.6	0.05	0.03		0.5	0.03	0.02
Rsd 0.2s	20ph/17stn	Dmin 31km	Az.gap 265°	Rsd 0.3s	12ph/6stn	Dmin 33km	Az.gap 274°
Corr. -0.560	10M/6stn	Msd 0.3	1 ↓	Corr. -0.184	11M/6stn	Msd 0.2	1 ↓
93/9516				93/9635			
AUG 12 172230.6s	45.24S	166.87E	23km M=3.5	AUG 13 033935.9s	45.23S	166.89E	23km M=3.6
	0.2	0.02	0.01		0.4	0.02	0.02
Rsd 0.1s	16ph/12stn	Dmin 34km	Az.gap 270°	Rsd 0.2s	12ph/7stn	Dmin 34km	Az.gap 261°
Corr. 0.093	9M/5stn	Msd 0.4	1 ↑ 1 ↓	Corr. -0.406	11M/6stn	Msd 0.2	1 ↓
93/9525				93/9658			
AUG 12 174358.2s	45.29S	166.71E	12km M=4.1	AUG 13 060619.5s	45.12S	166.30E	5km M=3.6
	0.2	0.01	0.01		0.4	0.03	0.02
Rsd 0.1s	20ph/17stn	Dmin 40km	Az.gap 257°	Rsd 0.2s	12ph/7stn	Dmin 77km	Az.gap 305°
Corr. 0.370	11M/6stn	Msd 0.2	2 ↑ 6 ↓	Corr. 0.113	8M/4stn	Msd 0.3	1 ↓

				93/9675					93/9754
AUG 13 080707.8s	45.34S	167.01E	26km	M=4.3	AUG 13 165745.0s	41.23S	172.54E	5km	M=3.9
	0.7	0.04	0.04	3		0.1	0.01	0.01	R
Rsd 0.5s	13ph/9stn	Dmin 18km	Az.gap 240°		Rsd 0.3s	26ph/17stn	Dmin 44km	Az.gap 131°	
Corr. -0.353	16M/9stn	Msd 0.2	1 ↓		Corr. -0.251	9M/5stn	Msd 0.2	2 ↑ 1 ↓	
				93/9680					93/9755
AUG 13 083442.2s	44.93S	166.40E	17km	M=3.6	AUG 13 165858.7s	41.22S	172.55E	5km	M=3.7
	0.4	0.02	0.02	5		0.1	0.01	0.01	R
Rsd 0.2s	10ph/6stn	Dmin 84km	Az.gap 316°		Rsd 0.2s	11ph/7stn	Dmin 44km	Az.gap 132°	
Corr. 0.177	8M/5stn	Msd 0.2	1 ↓		Corr. 0.068	8M/5stn	Msd 0.2	1 ↑	
				93/9685					93/9795
AUG 13 090139.0s	40.08S	173.67E	168km	M=3.6	AUG 13 221750.8s	45.25S	166.47E	19km	M=4.0
	0.4	0.02	0.02	4		0.4	0.02	0.02	3
Rsd 0.3s	29ph/21stn	Dmin 83km	Az.gap 188°		Rsd 0.2s	15ph/9stn	Dmin 59km	Az.gap 262°	
Corr. -0.235	14M/14stn	Msd 0.3	1 ↑ 2 ↓		Corr. -0.121	13M/7stn	Msd 0.2		
				93/9687					93/9798
AUG 13 092107.1s	45.28S	166.84E	14km	M=3.8	AUG 13 231006.4s	38.45S	176.05E	139km	M=3.7
	0.3	0.01	0.01	5		0.9	0.04	0.03	7
Rsd 0.1s	13ph/9stn	Dmin 32km	Az.gap 254°		Rsd 0.3s	14ph/11stn	Dmin 90km	Az.gap 231°	
Corr. -0.476	13M/7stn	Msd 0.2	1 ↓		Corr. -0.640	16M/14stn	Msd 0.3	1 ↑	
				93/9693					93/9805
AUG 13 094741.5s	45.32S	166.75E	22km	M=3.7	AUG 13 234903.7s	45.37S	166.70E	20km	M=3.5
	0.5	0.03	0.03	4		0.5	0.02	0.03	3
Rsd 0.3s	11ph/7stn	Dmin 36km	Az.gap 315°		Rsd 0.3s	13ph/8stn	Dmin 37km	Az.gap 266°	
Corr. -0.406	10M/5stn	Msd 0.2	1 ↑ 4 ↓		Corr. -0.336	11M/6stn	Msd 0.1	1 ↓	
				93/9695					93/9808
AUG 13 094906.2s	45.15S	166.69E	19km	M=3.7	AUG 14 000851.4s	38.52S	177.83E	33km	M=3.6
	0.4	0.02	0.02	4		0.2	0.01	0.01	1
Rsd 0.2s	10ph/5stn	Dmin 51km	Az.gap 275°		Rsd 0.2s	12ph/8stn	Dmin 4km		
Corr. -0.201	13M/7stn	Msd 0.3	1 ↓			Az.gap 99°			
				93/9704					93/9809
AUG 13 110223.0s	36.00S	178.80E	117km	M=6.5	AUG 14 001235.5s	36.06S	178.65E	117km	M=4.0
	0.5	0.03	0.03	7		0.9	0.08	0.06	24
Rsd 0.2s	27ph/24stn	Dmin 183km	Az.gap 282°		Rsd 0.3s	8ph/5stn	Dmin 174km	Az.gap 296°	
Corr. 0.665	15M/8stn	Msd 0.3	2 ↑ 5 ↓		Corr. 0.273	5M/3stn	Msd 0.5		
Felt Whakatane to Wellington.				93/9706					93/9812
AUG 13 111336.3s	35.98S	178.70E	153km	M=4.0	AUG 14 004351.6s	45.32S	166.80E	24km	M=3.8
	0.8	0.07	0.06	18		0.4	0.02	0.03	3
Rsd 0.4s	13ph/8stn	Dmin 183km	Az.gap 297°		Rsd 0.3s	13ph/7stn	Dmin 32km	Az.gap 280°	
Corr. 0.484	10M/8stn	Msd 0.2			Corr. -0.156	11M/6stn	Msd 0.2	3 ↑ 1 ↓	
				93/9728					93/9814
AUG 13 132601.1s	45.31S	166.58E	25km	M=3.5	AUG 14 010425.4s	45.30S	166.70E	20km	M=3.9
	1.1	0.07	0.07	4		0.2	0.01	0.01	2
Rsd 0.5s	9ph/6stn	Dmin 48km	Az.gap 323°		Rsd 0.2s	14ph/8stn	Dmin 40km	Az.gap 265°	
Corr. 0.050	10M/6stn	Msd 0.1	1 ↓		Corr. -0.372	13M/7stn	Msd 0.2	1 ↓	
				93/9751					93/9815
AUG 13 164324.8s	45.33S	166.79E	23km	M=3.7	AUG 14 013204.8s	45.14S	166.84E	24km	M=3.6
	0.4	0.02	0.02	2		0.5	0.03	0.03	5
Rsd 0.2s	12ph/7stn	Dmin 33km	Az.gap 313°		Rsd 0.3s	14ph/9stn	Dmin 44km	Az.gap 243°	
Corr. -0.304	11M/6stn	Msd 0.2	1 ↓		Corr. -0.570	12M/7stn	Msd 0.2	1 ↓	
				93/9753					93/9827
AUG 13 165731.0s	45.33S	166.76E	24km	M=3.9	AUG 14 033446.2s	45.19S	166.70E	21km	M=3.5
	0.4	0.03	0.02	2		0.3	0.01	0.02	2
Rsd 0.2s	11ph/6stn	Dmin 34km	Az.gap 295°		Rsd 0.2s	12ph/9stn	Dmin 47km	Az.gap 258°	
Corr. -0.212	12M/7stn	Msd 0.2	1 ↓		Corr. -0.388	10M/5stn	Msd 0.1	1 ↓	

93/9828				93/9897			
AUG 14 033552.5s	45.28S	166.73E	21km M=4.5	AUG 14 122923.2s	45.11S	166.86E	22km M=3.7
	0.4	0.03	0.03		0.5	0.03	0.03
Rsd 0.2s	12ph/9stn	Dmin 39km	Az.gap 257°	Rsd 0.4s	13ph/9stn	Dmin 46km	Az.gap 241°
Corr. -0.088	18M/10stn	Msd 0.1	1 ↓	Corr. -0.563	12M/6stn	Msd 0.2	2 ↑ 5 ↓
93/9832				93/9914			
AUG 14 035843.4s	45.26S	166.46E	13km M=3.6	AUG 14 151000.5s	44.93S	166.27E	20km M=4.0
	0.3	0.01	0.02		0.5	0.02	0.03
Rsd 0.1s	10ph/7stn	Dmin 59km	Az.gap 295°	Rsd 0.2s	15ph/7stn	Dmin 91km	Az.gap 307°
Corr. -0.024	16M/9stn	Msd 0.2	1 ↑ 2 ↓	Corr. -0.158	13M/7stn	Msd 0.2	1 ↓
93/9835				93/9916			
AUG 14 042933.7s	45.23S	166.87E	23km M=3.9	AUG 14 151832.3s	45.20S	166.77E	22km M=3.6
	0.6	0.03	0.04		0.4	0.02	0.02
Rsd 0.3s	13ph/11stn	Dmin 35km	Az.gap 253°	Rsd 0.3s	17ph/9stn	Dmin 42km	Az.gap 261°
Corr. -0.018	15M/8stn	Msd 0.2	1 ↑ 4 ↓	Corr. -0.385	12M/6stn	Msd 0.1	1 ↓
93/9838				93/9924			
AUG 14 045604.0s	45.24S	166.50E	16km M=4.9	AUG 14 154401.4s	38.50S	175.28E	239km M=4.4
	0.8	0.03	0.05		0.8	0.05	0.03
Rsd 0.3s	10ph/7stn	Dmin 57km	Az.gap 283°	Rsd 0.3s	21ph/17stn	Dmin 41km	Az.gap 161°
Corr. 0.452	19M/10stn	Msd 0.1	1 ↑ 1 ↓	Corr. -0.368	25M/22stn	Msd 0.3	3 ↑ 1 ↓
93/9839				93/9936			
AUG 14 050006.0s	45.24S	166.46E	16km M=4.0	AUG 14 171648.0s	40.81S	175.35E	25km M=4.0
	0.5	0.03	0.03		0.1	0.01	0.01
Rsd 0.2s	12ph/9stn	Dmin 60km	Az.gap 284°	Rsd 0.3s	28ph/22stn	Dmin 24km	Az.gap 108°
Corr. 0.113	8M/5stn	Msd 0.1	1 ↑	Corr. -0.536	10M/5stn	Msd 0.2	3 ↑ 2 ↓
93/9840				93/9948			
AUG 14 050315.9s	45.29S	166.59E	20km M=3.6	AUG 14 192652.9s	38.51S	177.83E	35km M=3.6
	1.1	0.05	0.07		0.2	0.01	0.01
Rsd 0.6s	10ph/7stn	Dmin 48km	Az.gap 310°	Rsd 0.2s	10ph/7stn	Dmin 22km	Az.gap 96°
Corr. 0.099	15M/9stn	Msd 0.2	1 ↓	Corr. -0.121	8M/4stn	Msd 0.2	1 ↑
93/9844				93/9963			
AUG 14 054844.0s	45.27S	166.52E	18km M=4.0	AUG 14 221059.2s	44.48S	168.23E	12km M=3.7
	0.3	0.01	0.02		0.2	0.01	0.01
Rsd 0.1s	12ph/10stn	Dmin 54km	Az.gap 278°	Rsd 0.2s	18ph/11stn	Dmin 32km	Az.gap 177°
Corr. -0.420	15M/8stn	Msd 0.2	1 ↑	Corr. -0.805	15M/8stn	Msd 0.2	
93/9859				93/9964			
AUG 14 075846.4s	41.36S	172.84E	124km M=4.1	AUG 14 221844.3s	36.12S	178.56E	95km M=3.9
	0.4	0.02	0.02		0.6	0.08	0.16
Rsd 0.3s	25ph/21stn	Dmin 45km	Az.gap 93°	Rsd 0.2s	7ph/3stn	Dmin 218km	Az.gap 339°
Corr. -0.323	22M/16stn	Msd 0.3	7 ↑ 1 ↓	Corr. -0.887	3M/2stn	Msd 0.3	
93/9869				93/9979			
AUG 14 095700.0s	45.24S	166.75E	23km M=3.6	AUG 15 001807.5s	45.25S	166.87E	18km M=3.7
	0.5	0.02	0.03		0.2	0.01	0.01
Rsd 0.3s	15ph/9stn	Dmin 41km	Az.gap 261°	Rsd 0.2s	19ph/11stn	Dmin 15km	Az.gap 221°
Corr. -0.166	11M/6stn	Msd 0.1	1 ↓	Corr. -0.088	13M/7stn	Msd 0.2	1 ↑ 7 ↓
93/9883				93/9983			
AUG 14 112347.3s	44.97S	166.28E	20km M=3.6	AUG 15 003250.2s	38.81S	174.93E	229km M=3.6
	0.4	0.02	0.02		0.7	0.10	0.04
Rsd 0.2s	14ph/8stn	Dmin 89km	Az.gap 297°	Rsd 0.2s	11ph/10stn	Dmin 206km	Az.gap 305°
Corr. -0.100	8M/5stn	Msd 0.2	1 ↓	Corr. 0.037	6M/6stn	Msd 0.2	
				Very poor station coverage.			
93/9889				93/10028			
AUG 14 115626.4s	45.31S	166.73E	23km M=3.6	AUG 15 033240.2s	35.91S	179.70W	33km M=5.3
	0.3	0.01	0.02		0.5	0.03	0.04
Rsd 0.2s	15ph/10stn	Dmin 38km	Az.gap 263°	Rsd 0.1s	25ph/21stn	Dmin 259km	Az.gap 302°
Corr. -0.204	11M/6stn	Msd 0.1	1 ↓	Corr. 0.238	16M/8stn	Msd 0.2	

93/10029				93/10233			
AUG 15 033434.0s	35.91S	179.67W	33km M=4.1	AUG 15 130326.2s	45.35S	166.72E	22km M=4.1
	0.5	0.03	0.04 R		0.3	0.01	0.02 1
Rsd 0.1s	12ph/9stn	Dmin 260km	Az.gap 302°	Rsd 0.2s	19ph/12stn	Dmin 12km	Az.gap 259°
Corr. -0.097	25M/25stn	Msd 0.2		Corr. -0.008	19M/10stn	Msd 0.2	1 ↑ 12↓
93/10037				93/10243			
AUG 15 034756.1s	44.93S	166.29E	24km M=4.2	AUG 15 132724.1s	36.03S	179.65W	120km M=3.8
	0.5	0.03	0.03 2		0.4	0.03	0.03 14
Rsd 0.3s	18ph/11stn	Dmin 68km	Az.gap 267°	Rsd 0.1s	9ph/6stn	Dmin 252km	Az.gap 318°
Corr. -0.051	17M/9stn	Msd 0.3	1 ↓	Corr. 0.166	3M/3stn	Msd 0.1	
93/10061				93/10265			
AUG 15 050225.4s	35.76S	179.80W	33km M=4.2	AUG 15 142144.2s	45.35S	166.70E	22km M=4.2
	0.3	0.03	0.04 R		0.2	0.01	0.01 1
Rsd 0.1s	7ph/4stn	Dmin 266km	Az.gap 349°	Rsd 0.2s	18ph/11stn	Dmin 13km	Az.gap 265°
Corr. -0.781	5M/3stn	Msd 0.5		Corr. -0.282	18M/10stn	Msd 0.2	1 ↑ 7↓
93/10074				93/10283			
AUG 15 052458.2s	35.96S	179.69W	33km M=4.2	AUG 15 150317.6s	40.33S	174.37E	90km M=3.5
	0.1	0.01	0.01 R		0.3	0.01	0.01 4
Rsd 0.0s	10ph/7stn	Dmin 255km	Az.gap 317°	Rsd 0.2s	31ph/24stn	Dmin 65km	Az.gap 91°
Corr. 0.037	12M/6stn	Msd 0.3		Corr. -0.025	15M/12stn	Msd 0.2	1 ↑
93/10084				93/10351			
AUG 15 055840.6s	45.14S	166.81E	26km M=3.5	AUG 15 175104.9s	35.97S	179.85W	33km M=3.9
	0.2	0.01	0.01 1		0.6	0.03	0.04 R
Rsd 0.2s	18ph/13stn	Dmin 23km	Az.gap 236°	Rsd 0.2s	10ph/8stn	Dmin 245km	Az.gap 315°
Corr. -0.622	16M/8stn	Msd 0.2	2 ↓	Corr. 0.226	5M/5stn	Msd 0.3	
93/10107				93/10353			
AUG 15 070435.9s	45.30S	166.76E	24km M=4.8	AUG 15 175806.6s	45.14S	166.81E	22km M=3.6
	0.2	0.01	0.01 1		0.2	0.01	0.01 1
Rsd 0.2s	20ph/12stn	Dmin 13km	Az.gap 241°	Rsd 0.1s	19ph/15stn	Dmin 23km	Az.gap 237°
Corr. -0.140	21M/12stn	Msd 0.2	1 ↑ 6↓	Corr. -0.665	18M/10stn	Msd 0.3	1 ↑ 5↓
93/10109				93/10391			
AUG 15 071145.2s	45.23S	166.82E	20km M=4.8	AUG 15 194817.8s	45.35S	166.70E	22km M=4.5
	0.2	0.01	0.01 1		0.2	0.01	0.01 1
Rsd 0.1s	15ph/8stn	Dmin 18km	Az.gap 225°	Rsd 0.2s	22ph/13stn	Dmin 13km	Az.gap 257°
Corr. -0.492	22M/12stn	Msd 0.2	1 ↑ 4↓	Corr. -0.151	19M/10stn	Msd 0.7	1 ↑ 10↓
93/10123				93/10397			
AUG 15 074058.1s	45.22S	166.81E	23km M=4.3	AUG 15 195525.4s	45.35S	166.70E	22km M=3.9
	0.2	0.01	0.02 1		0.2	0.01	0.01 1
Rsd 0.2s	19ph/13stn	Dmin 20km	Az.gap 240°	Rsd 0.2s	20ph/13stn	Dmin 14km	Az.gap 262°
Corr. -0.604	19M/10stn	Msd 0.2	2 ↓	Corr. -0.177	16M/8stn	Msd 0.3	2 ↑ 11↓
93/10142				93/10433			
AUG 15 083601.3s	38.50S	177.76E	46km M=3.8	AUG 15 213855.9s	45.19S	166.69E	23km M=3.6
	0.2	0.01	0.01 2		0.3	0.01	0.02 1
Rsd 0.3s	23ph/16stn	Dmin 10km	Az.gap 73°	Rsd 0.2s	15ph/12stn	Dmin 26km	Az.gap 253°
Corr. -0.293	9M/5stn	Msd 0.2	3 ↑ 4↓	Corr. -0.302	14M/7stn	Msd 0.1	1 ↑ 9↓
93/10151				93/10465			
AUG 15 091206.1s	45.14S	166.80E	19km M=3.8	AUG 15 231619.6s	45.21S	166.72E	24km M=4.0
	0.3	0.01	0.02 3		0.2	0.01	0.01 1
Rsd 0.2s	16ph/12stn	Dmin 25km	Az.gap 239°	Rsd 0.1s	16ph/13stn	Dmin 23km	Az.gap 252°
Corr. -0.517	19M/10stn	Msd 0.2	1 ↑	Corr. -0.630	16M/8stn	Msd 0.2	1 ↓
93/10228				93/10474			
AUG 15 125559.6s	45.36S	166.72E	22km M=3.7	AUG 15 234957.3s	44.97S	166.20E	25km M=3.6
	0.2	0.01	0.01 1		0.6	0.03	0.03 3
Rsd 0.2s	20ph/13stn	Dmin 11km	Az.gap 256°	Rsd 0.3s	17ph/12stn	Dmin 70km	Az.gap 278°
Corr. -0.403	17M/10stn	Msd 0.3	1 ↑ 11↓	Corr. -0.095	14M/8stn	Msd 0.1	2 ↑

				93/10528					93/10856
AUG 16 020837.2s	37.26S	175.90E	212km	M=3.7	AUG 16 225255.6s	39.73S	174.02E	238km	M=3.8
	1.0	0.04	0.06	10		0.4	0.03	0.02	4
Rsd 0.2s	12ph/11stn	Dmin 59km	Az.gap 145°		Rsd 0.2s	17ph/12stn	Dmin 119km	Az.gap 194°	
Corr. 0.489	8M/8stn	Msd 0.2			Corr. -0.266	6M/5stn	Msd 0.5	1 ↑	
				93/10627					93/10940
AUG 16 064649.7s	45.33S	166.78E	23km	M=3.8	AUG 17 061638.6s	45.31S	166.75E	25km	M=3.6
	0.3	0.01	0.02	1		0.1	0.01	0.01	1
Rsd 0.3s	18ph/13stn	Dmin 9km			Rsd 0.2s	19ph/12stn	Dmin 12km	Az.gap 217°	
	Az.gap 208°				Corr. -0.491	15M/8stn	Msd 0.3	2 ↑ 9↓	
Corr. -0.448	16M/8stn	Msd 0.2	2 ↑ 11↓						93/10955
				93/10634					93/10957
AUG 16 072003.2s	45.07S	167.33E	98km	M=3.6	AUG 17 065307.5s	45.29S	166.69E	24km	M=4.9
	0.2	0.01	0.01	2		0.3	0.01	0.01	1
Rsd 0.2s	21ph/18stn	Dmin 14km	Az.gap 136°		Rsd 0.2s	21ph/12stn	Dmin 17km	Az.gap 203°	
Corr. -0.328	8M/4stn	Msd 0.1	7 ↑ 6↓		Corr. -0.653	26M/14stn	Msd 0.2	2 ↓	
				93/10697					93/10967
AUG 16 111044.6s	38.47S	176.17E	153km	M=3.6	AUG 17 065600.1s	45.27S	166.69E	24km	M=3.8
	0.7	0.04	0.04	6		0.2	0.01	0.01	1
Rsd 0.4s	11ph/7stn	Dmin 85km	Az.gap 218°		Rsd 0.1s	11ph/8stn	Dmin 19km	Az.gap 230°	
Corr. -0.635	10M/10stn	Msd 0.4	1 ↑		Corr. -0.779	17M/9stn	Msd 0.3	1 ↓	
				93/10703					93/10971
AUG 16 112525.7s	44.85S	166.37E	23km	M=3.6	AUG 17 074047.4s	45.26S	166.68E	26km	M=4.7
	0.8	0.03	0.04	5		0.2	0.01	0.01	1
Rsd 0.4s	14ph/12stn	Dmin 69km	Az.gap 274°		Rsd 0.1s	14ph/11stn	Dmin 20km	Az.gap 205°	
Corr. -0.624	14M/8stn	Msd 0.2	1 ↑ 6↓		Corr. -0.695	22M/13stn	Msd 0.2	1 ↓	
				93/10751					93/10977
AUG 16 145535.1s	45.27S	166.66E	22km	M=4.1	AUG 17 074835.0s	45.26S	166.69E	25km	M=4.3
	0.2	0.01	0.01	1		0.1	0.01	0.01	1
Rsd 0.1s	19ph/11stn	Dmin 20km	Az.gap 222°		Rsd 0.1s	15ph/10stn	Dmin 20km	Az.gap 220°	
Corr. -0.406	17M/9stn	Msd 0.2	1 ↓		Corr. -0.341	15M/8stn	Msd 0.2	1 ↑ 8↓	
				93/10767					93/10984
AUG 16 155304.0s	45.19S	166.75E	23km	M=3.5	AUG 17 081415.9s	45.17S	166.66E	20km	M=3.5
	0.2	0.01	0.01	1		0.3	0.02	0.02	R
Rsd 0.2s	21ph/13stn	Dmin 24km	Az.gap 222°		Rsd 0.2s	10ph/6stn	Dmin 29km	Az.gap 240°	
Corr. -0.628	15M/8stn	Msd 0.2	7 ↑ 1↓		Corr. -0.660	10M/5stn	Msd 0.2		
				93/10812					93/10990
AUG 16 185119.3s	45.16S	166.81E	22km	M=3.7	AUG 17 084722.9s	45.24S	166.70E	25km	M=3.9
	0.2	0.01	0.01	1		0.1	0.01	0.01	1
Rsd 0.2s	19ph/13stn	Dmin 23km	Az.gap 215°		Rsd 0.1s	18ph/11stn	Dmin 20km	Az.gap 231°	
Corr. -0.659	17M/9stn	Msd 0.2	5 ↑ 1↓		Corr. -0.601	15M/8stn	Msd 0.2	1 ↓	
				93/10822					93/10995
AUG 16 194956.3s	45.30S	166.81E	26km	M=4.8	AUG 17 091257.0s	45.24S	166.66E	28km	M=5.2
	0.2	0.01	0.01	1		0.2	0.01	0.02	1
Rsd 0.2s	19ph/12stn	Dmin 10km	Az.gap 205°		Rsd 0.1s	14ph/11stn	Dmin 22km	Az.gap 219°	
Corr. -0.400	22M/13stn	Msd 0.1	2 ↓		Corr. -0.444	26M/15stn	Msd 0.2	1 ↓	
				93/10827					93/11001
AUG 16 201223.5s	45.36S	166.72E	21km	M=2.3	AUG 17 092658.9s	45.26S	166.72E	23km	M=3.9
	0.1	0.01	0.01	1		0.2	0.01	0.01	1
Rsd 0.1s	13ph/7stn	Dmin 11km	Az.gap 268°		Rsd 0.1s	23ph/17stn	Dmin 18km	Az.gap 218°	
Corr. -0.068	7M/6stn	Msd 0.2	1 ↑ 2↓		Corr. -0.534	15M/8stn	Msd 0.2	1 ↓	
	Felt Te Anau (130).								93/11066
				93/10831					93/11066
AUG 16 204120.7s	35.88S	178.74E	5km	M=3.7	AUG 17 125937.2s	38.52S	177.85E	36km	M=3.6
	0.5	0.03	0.03	R		0.2	0.01	0.01	2
Rsd 0.2s	11ph/7stn	Dmin 195km	Az.gap 300°		Rsd 0.2s	20ph/16stn	Dmin 3km	Az.gap 84°	
Corr. 0.615	4M/4stn	Msd 0.2			Corr. -0.195	8M/4stn	Msd 0.1	1 ↑	

93/11098				93/11405			
AUG 17 153437.6s	45.14S	166.72E	37km M=3.5	AUG 18 233516.6s	45.26S	166.68E	20km M=3.7
	0.2	0.01	0.01		0.2	0.01	0.01
Rsd 0.2s	16ph/10stn	Dmin 29km	Az.gap 235°	Rsd 0.2s	12ph/8stn	Dmin 44km	Az.gap 232°
Corr. -0.533	21M/15stn	Msd 0.3	1 ↓	Corr. -0.591	13M/7stn	Msd 0.2	1 ↑ 4 ↓
93/11101				93/11407			
AUG 17 153919.1s	40.58S	173.53E	129km M=3.7	AUG 18 235142.5s	45.27S	166.69E	20km M=4.0
	0.3	0.02	0.01		0.1	0.01	0.01
Rsd 0.2s	27ph/20stn	Dmin 42km	Az.gap 135°	Rsd 0.1s	15ph/11stn	Dmin 42km	Az.gap 229°
Corr. -0.246	12M/12stn	Msd 0.2	1 ↑	Corr. -0.463	15M/8stn	Msd 0.2	1 ↑ 7 ↓
93/11131				93/11423			
AUG 17 184149.5s	45.28S	166.74E	19km M=3.9	AUG 19 012839.0s	38.63S	175.75E	204km M=3.5
	0.3	0.02	0.02		0.4	0.03	0.04
Rsd 0.3s	21ph/15stn	Dmin 39km	Az.gap 224°	Rsd 0.2s	16ph/12stn	Dmin 62km	Az.gap 286°
Corr. -0.678	10M/5stn	Msd 0.2	1 ↓	Corr. -0.444	6M/5stn	Msd 0.2	
93/11161				93/11425			
AUG 17 220155.1s	45.28S	166.71E	21km M=3.7	AUG 19 014652.4s	45.27S	166.69E	12km M=3.8
	0.2	0.02	0.01		0.2	0.01	0.01
Rsd 0.1s	10ph/8stn	Dmin 41km	Az.gap 226°	Rsd 0.2s	17ph/11stn	Dmin 42km	Az.gap 230°
Corr. -0.749	11M/6stn	Msd 0.2	1 ↓	Corr. -0.515	13M/7stn	Msd 0.2	1 ↑ 7 ↓
93/11167				93/11442			
AUG 17 224850.5s	45.28S	166.69E	27km M=4.1	AUG 19 051103.1s	45.32S	166.66E	19km M=4.1
	0.2	0.01	0.01		0.2	0.01	0.01
Rsd 0.2s	13ph/8stn	Dmin 42km	Az.gap 228°	Rsd 0.2s	16ph/11stn	Dmin 41km	Az.gap 229°
Corr. -0.458	13M/7stn	Msd 0.2	1 ↑ 6 ↓	Corr. -0.563	15M/8stn	Msd 0.2	1 ↓
93/11182				93/11462			
AUG 17 235515.4s	45.26S	166.70E	20km M=3.9	AUG 19 074643.1s	45.21S	166.59E	20km M=4.3
	0.2	0.01	0.01		0.3	0.01	0.02
Rsd 0.2s	12ph/8stn	Dmin 43km	Az.gap 227°	Rsd 0.2s	14ph/11stn	Dmin 53km	Az.gap 230°
Corr. -0.429	13M/7stn	Msd 0.2	1 ↑ 4 ↓	Corr. -0.682	16M/9stn	Msd 0.1	2 ↑ 4 ↓
93/11192				93/11468			
AUG 18 003703.8s	45.18S	166.87E	12km M=4.6	AUG 19 081911.0s	45.26S	166.66E	12km M=4.0
	0.2	0.01	0.01		0.2	0.01	0.01
Rsd 0.2s	30ph/24stn	Dmin 39km	Az.gap 196°	Rsd 0.2s	17ph/12stn	Dmin 45km	Az.gap 223°
Corr. -0.663	20M/11stn	Msd 0.2	2 ↓	Corr. -0.539	15M/8stn	Msd 0.2	1 ↓
93/11214				93/11504			
AUG 18 022449.1s	45.29S	166.75E	13km M=3.6	AUG 19 130053.7s	45.20S	166.59E	16km M=3.6
	0.3	0.01	0.02		0.3	0.01	0.02
Rsd 0.3s	22ph/17stn	Dmin 37km	Az.gap 218°	Rsd 0.2s	14ph/9stn	Dmin 53km	Az.gap 245°
Corr. -0.506	9M/5stn	Msd 0.2	1 ↑ 7 ↓	Corr. -0.540	23M/16stn	Msd 0.2	2 ↑ 4 ↓
93/11236				93/11515			
AUG 18 045922.0s	45.25S	166.66E	12km M=3.5	AUG 19 150616.0s	45.23S	166.69E	21km M=3.5
	0.2	0.01	0.01		0.1	0.01	0.01
Rsd 0.1s	19ph/16stn	Dmin 45km	Az.gap 235°	Rsd 0.1s	16ph/10stn	Dmin 45km	Az.gap 232°
Corr. -0.677	12M/6stn	Msd 0.2	1 ↓	Corr. -0.313	10M/5stn	Msd 0.2	1 ↓
93/11268				93/11521			
AUG 18 083520.5s	45.37S	166.19E	15km M=3.8	AUG 19 160219.1s	38.43S	178.82E	33km M=4.3
	0.5	0.01	0.03		0.2	0.01	0.01
Rsd 0.3s	16ph/11stn	Dmin 48km	Az.gap 286°	Rsd 0.1s	17ph/12stn	Dmin 63km	Az.gap 272°
Corr. -0.037	12M/6stn	Msd 0.1	3 ↑ 1 ↓	Corr. 0.315	10M/6stn	Msd 0.2	2 ↑ 1 ↓
93/11328				93/11529			
AUG 18 144116.7s	45.21S	166.81E	21km M=3.6	AUG 19 164504.7s	45.05S	166.31E	20km M=3.5
	0.2	0.01	0.01		0.4	0.02	0.03
Rsd 0.2s	16ph/11stn	Dmin 39km	Az.gap 221°	Rsd 0.2s	14ph/10stn	Dmin 75km	Az.gap 272°
Corr. -0.578	22M/18stn	Msd 0.2	1 ↑ 8 ↓	Corr. -0.546	13M/8stn	Msd 0.2	1 ↑

93/11540				93/11831			
AUG 19 182312.8s	47.70S	165.36E	33km M=3.9	AUG 22 013622.1s	45.17S	166.66E	5km M=3.7
	0.5	0.03	R		0.3	0.01	R
Rsd 0.2s	19ph/15stn	Dmin 229km	Az.gap 320°	Rsd 0.2s	11ph/6stn	Dmin 51km	Az.gap 239°
Corr. 0.394	20M/16stn	Msd 0.3	1 ↓	Corr. -0.586	9M/5stn	Msd 0.2	1 ↓
93/11553				93/11834			
AUG 19 204641.3s	36.29S	178.01E	190km M=4.3	AUG 22 023833.2s	45.15S	166.57E	20km M=3.9
	0.5	0.05	8		0.3	0.01	R
Rsd 0.3s	14ph/11stn	Dmin 148km	Az.gap 299°	Rsd 0.2s	15ph/10stn	Dmin 58km	Az.gap 249°
Corr. 0.050	16M/14stn	Msd 0.2		Corr. -0.588	12M/7stn	Msd 0.2	2 ↑ 1 ↓
93/11585				93/11850			
AUG 20 025601.9s	38.40S	175.96E	158km M=4.0	AUG 22 062806.8s	45.20S	166.60E	20km M=3.5
	0.6	0.02	6		0.3	0.01	R
Rsd 0.3s	21ph/17stn	Dmin 26km	Az.gap 90°	Rsd 0.2s	12ph/10stn	Dmin 53km	Az.gap 243°
Corr. -0.203	26M/19stn	Msd 0.2	1 ↑	Corr. -0.471	10M/5stn	Msd 0.2	1 ↑
93/11645				93/11852			
AUG 20 131918.3s	37.08S	176.72E	402km M=4.8	AUG 22 065208.7s	45.40S	166.69E	23km M=3.9
	0.8	0.08	7		0.3	0.02	3
Rsd 0.2s	20ph/16stn	Dmin 97km	Az.gap 173°	Rsd 0.4s	12ph/9stn	Dmin 32km	Az.gap 218°
Corr. 0.261	13M/7stn	Msd 0.2	1 ↑	Corr. -0.386	10M/6stn	Msd 0.2	1 ↓
93/11707				93/11875			
AUG 20 231543.2s	41.13S	174.67E	57km M=4.0	AUG 22 113435.9s	45.15S	166.52E	20km M=4.1
	0.1	0.01	1		0.3	0.01	R
Rsd 0.1s	34ph/28stn	Dmin 12km	Az.gap 44°	Rsd 0.2s	13ph/10stn	Dmin 60km	Az.gap 236°
Corr. -0.317	18M/14stn	Msd 0.2	4 ↑ 8 ↓	Corr. -0.543	8M/5stn	Msd 0.1	1 ↑ 2 ↓
	Felt Kapiti Coast (65) and Wellington (68).						
93/11732				93/11905			
AUG 21 031820.1s	41.04S	175.02E	46km M=4.2	AUG 22 165922.6s	45.10S	166.85E	22km M=3.7
	0.1	0.01	2		0.2	0.01	2
Rsd 0.2s	30ph/27stn	Dmin 8km	Az.gap 48°	Rsd 0.2s	12ph/10stn	Dmin 44km	Az.gap 226°
Corr. -0.494	22M/16stn	Msd 0.3	9 ↑ 2 ↓	Corr. -0.653	12M/7stn	Msd 0.2	1 ↓
	Felt Wellington area (68), maximum intensity MM4 at Eastbourne.						
93/11735				93/11918			
AUG 21 035342.2s	45.29S	166.73E	21km M=4.0	AUG 22 204949.7s	35.96S	177.80E	190km M=3.6
	0.1	0.01	2		1.7	0.16	38
Rsd 0.2s	16ph/11stn	Dmin 39km	Az.gap 223°	Rsd 0.4s	9ph/7stn	Dmin 187km	Az.gap 325°
Corr. -0.448	11M/6stn	Msd 0.2	7 ↑ 2 ↓	Corr. -0.747	1M/1stn	Msd N.D.	
93/11741				93/11922			
AUG 21 053352.7s	45.05S	167.46E	92km M=3.9	AUG 22 214932.5s	38.20S	176.09E	237km M=3.5
	0.2	0.01	1		0.8	0.13	17
Rsd 0.2s	31ph/24stn	Dmin 13km	Az.gap 105°	Rsd 0.3s	13ph/10stn	Dmin 162km	Az.gap 262°
Corr. -0.502	9M/5stn	Msd 0.2	5 ↑ 9 ↓	Corr. -0.945	7M/7stn	Msd 0.1	
93/11747				93/11962			
AUG 21 063737.2s	35.85S	178.59E	140km M=3.8	AUG 23 070802.7s	38.49S	178.72E	29km M=3.9
	0.8	0.10	16		0.3	0.01	2
Rsd 0.3s	13ph/10stn	Dmin 196km	Az.gap 338°	Rsd 0.2s	13ph/10stn	Dmin 58km	Az.gap 240°
Corr. -0.646	14M/14stn	Msd 0.3		Corr. -0.061	9M/5stn	Msd 0.2	1 ↑ 2 ↓
93/11760				93/12018			
AUG 21 092418.6s	40.22S	173.47E	163km M=3.5	AUG 23 181302.9s	39.63S	174.45E	224km M=3.8
	0.3	0.02	3		0.4	0.02	4
Rsd 0.2s	24ph/18stn	Dmin 75km	Az.gap 188°	Rsd 0.2s	18ph/14stn	Dmin 45km	Az.gap 187°
Corr. -0.216	11M/11stn	Msd 0.2	1 ↓	Corr. -0.217	17M/15stn	Msd 0.3	1 ↑ 2 ↓
93/11777				93/12029			
AUG 21 143138.3s	38.03S	175.68E	85km M=3.5	AUG 24 003355.5s	38.23S	175.86E	150km M=3.5
	0.4	0.05	32		0.3	0.03	6
Rsd 0.2s	16ph/10stn	Dmin 166km	Az.gap 260°	Rsd 0.2s	12ph/8stn	Dmin 109km	Az.gap 250°
Corr. -0.937	6M/6stn	Msd 0.4	1 ↑	Corr. -0.880	8M/7stn	Msd 0.3	

93/12043					93/12185				
AUG 24	073117.5s	38.01S	177.30E	88km M=4.1	AUG 26	012958.6s	35.60S	178.30E	33km M=5.4
	0.3	0.02	0.01	2		1.2	0.08	0.05	R
Rsd 0.2s	31ph/25stn	Dmin 32km	Az.gap 108°		Rsd 0.4s	21ph/20stn	Dmin 222km	Az.gap 266°	
Corr. 0.443	11M/6stn	Msd 0.2	1 ↑		Corr. 0.685	19M/10stn	Msd 0.2		
93/12050					93/12186				
AUG 24	091344.7s	37.25S	176.83E	150km M=3.6	AUG 26	015548.6s	35.53S	178.45E	12km M=4.8
	0.4	0.04	0.03	5		1.7	0.10	0.11	R
Rsd 0.2s	13ph/10stn	Dmin 115km	Az.gap 256°		Rsd 0.6s	13ph/11stn	Dmin 230km	Az.gap 270°	
Corr. -0.580	18M/18stn	Msd 0.2			Corr. 0.804	12M/7stn	Msd 0.1		
93/12066					93/12188				
AUG 24	140127.4s	38.35S	177.16E	42km M=4.3	AUG 26	021118.5s	44.45S	167.97E	12km M=3.7
	0.1	0.01	0.01	2		0.3	0.02	0.01	R
Rsd 0.3s	34ph/28stn	Dmin 11km	Az.gap 75°		Rsd 0.2s	21ph/19stn	Dmin 25km	Az.gap 183°	
Corr. 0.409	11M/6stn	Msd 0.4	4 ↑ 13 ↓		Corr. -0.695	23M/18stn	Msd 0.2	1 ↑ 10 ↓	
93/12094					93/12189				
AUG 24	220546.9s	45.29S	166.80E	20km M=4.6	AUG 26	022235.6s	35.53S	177.64E	33km M=4.5
	0.2	0.01	0.01	R		1.8	0.11	0.19	R
Rsd 0.2s	11ph/8stn	Dmin 45km	Az.gap 212°		Rsd 0.5s	5ph/3stn	Dmin 288km	Az.gap 340°	
Corr. -0.613	13M/7stn	Msd 0.2	1 ↑ 6 ↓		Corr. -0.034	3M/2stn	Msd 0.3		
93/12096					93/12193				
AUG 24	224642.2s	45.22S	166.88E	33km M=3.5	AUG 26	030702.8s	37.06S	177.47E	146km M=4.1
	0.2	0.01	0.01	R		0.3	0.02	0.02	4
Rsd 0.2s	8ph/4stn	Dmin 55km	Az.gap 213°		Rsd 0.2s	12ph/9stn	Dmin 132km	Az.gap 227°	
Corr. -0.643	16M/11stn	Msd 0.2			Corr. 0.727	16M/11stn	Msd 0.3	1 ↑	
93/12098					93/12198				
AUG 24	230504.6s	42.06S	172.96E	68km M=3.8	AUG 26	041423.2s	35.77S	178.16E	12km M=4.1
	0.3	0.02	0.02	4		0.9	0.05	0.07	R
Rsd 0.3s	26ph/20stn	Dmin 33km	Az.gap 116°		Rsd 0.4s	8ph/5stn	Dmin 256km	Az.gap 261°	
Corr. -0.485	15M/11stn	Msd 0.3	2 ↑ 7 ↓		Corr. 0.556	3M/3stn	Msd 0.1		
93/12114					93/12202				
AUG 25	043957.9s	45.18S	166.80E	20km M=3.6	AUG 26	055243.8s	45.19S	166.90E	24km M=3.6
	0.4	0.02	0.02	R		0.2	0.01	0.01	3
Rsd 0.3s	9ph/5stn	Dmin 51km	Az.gap 225°		Rsd 0.2s	11ph/8stn	Dmin 43km	Az.gap 212°	
Corr. -0.582	21M/16stn	Msd 0.2	1 ↓		Corr. -0.514	21M/15stn	Msd 0.2	1 ↓	
93/12148					93/12204				
AUG 25	142810.7s	36.18S	177.26E	233km M=3.6	AUG 26	063759.2s	35.59S	177.75E	12km M=4.0
	1.5	0.20	0.22	14		1.1	0.06	0.11	R
Rsd 0.3s	6ph/5stn	Dmin 183km	Az.gap 319°		Rsd 0.2s	5ph/3stn	Dmin 279km	Az.gap 340°	
Corr. -0.877	3M/3stn	Msd 0.2			Corr. -0.413	2M/2stn	Msd 0.1		
93/12158					93/12206				
AUG 25	173040.3s	45.31S	166.74E	20km M=4.3	AUG 26	072608.3s	35.74S	178.03E	12km M=4.1
	0.2	0.01	0.01	R		3.0	0.20	0.27	R
Rsd 0.2s	11ph/8stn	Dmin 42km	Az.gap 213°		Rsd 0.9s	6ph/4stn	Dmin 208km	Az.gap 337°	
Corr. -0.622	10M/6stn	Msd 0.2	2 ↑ 5 ↓		Corr. -0.400	2M/2stn	Msd 0.3		
93/12178					93/12217				
AUG 25	231247.9s	35.78S	178.25E	12km M=4.7	AUG 26	085905.5s	43.03S	172.81E	28km M=3.8
	0.5	0.02	0.03	R		0.2	0.01	0.02	2
Rsd 0.2s	10ph/8stn	Dmin 202km	Az.gap 262°		Rsd 0.2s	27ph/20stn	Dmin 52km	Az.gap 139°	
Corr. 0.618	10M/6stn	Msd 0.1			Corr. -0.022	9M/5stn	Msd 0.2	1 ↓	
93/12183					93/12221				
AUG 26	004546.3s	38.71S	175.57E	175km M=3.6	AUG 26	095541.1s	45.13S	166.77E	25km M=4.3
	0.4	0.03	0.02	4		0.3	0.01	0.02	2
Rsd 0.1s	15ph/11stn	Dmin 52km	Az.gap 278°		Rsd 0.2s	11ph/8stn	Dmin 51km	Az.gap 205°	
Corr. 0.106	17M/14stn	Msd 0.2	1 ↑		Corr. -0.654	9M/5stn	Msd 0.3	1 ↓	

93/12829					93/12915				
SEP 04	090327.9s	39.70S	174.32E	212km M=3.6	SEP 06	052755.1s	45.14S	166.91E	5km M=3.6
	0.4	0.02	0.02	4		0.5	0.01	0.03	R
Rsd 0.1s	17ph/14stn	Dmin 119km	Az.gap 211°		Rsd 0.2s	18ph/14stn	Dmin 41km	Az.gap 264°	
Corr. -0.525	16M/12stn	Msd 0.1			Corr. -0.366	14M/12stn	Msd 0.1	1 ↓	
93/12846					93/12928				
SEP 04	164439.8s	45.17S	166.91E	12km M=3.6	SEP 06	100417.5s	41.22S	173.70E	80km M=3.8
	0.6	0.01	0.05	R		0.3	0.02	0.01	4
Rsd 0.2s	17ph/14stn	Dmin 38km	Az.gap 262°		Rsd 0.3s	25ph/20stn	Dmin 29km	Az.gap 84°	
Corr. -0.432	14M/12stn	Msd 0.2	1 ↓		Corr. -0.219	18M/12stn	Msd 0.2	1 ↑	
93/12848					93/12947				
SEP 04	185032.4s	45.18S	167.06E	16km M=3.7	SEP 06	214009.7s	37.41S	177.55E	112km M=4.1
	0.7	0.02	0.04	3		0.3	0.01	0.01	4
Rsd 0.3s	19ph/14stn	Dmin 32km	Az.gap 244°		Rsd 0.2s	13ph/8stn	Dmin 70km	Az.gap 174°	
Corr. -0.738	14M/12stn	Msd 0.2			Corr. 0.243	8M/4stn	Msd 0.1	1 ↑ 1 ↓	
93/12860					93/12948				
SEP 05	053545.2s	45.26S	166.72E	23km M=3.7	SEP 06	215758.9s	45.00S	167.44E	81km M=3.5
	0.7	0.02	0.04	3		0.2	0.01	0.01	2
Rsd 0.3s	13ph/8stn	Dmin 41km	Az.gap 289°		Rsd 0.2s	21ph/15stn	Dmin 53km	Az.gap 202°	
Corr. -0.107	15M/13stn	Msd 0.2	1 ↓		Corr. -0.547	15M/13stn	Msd 0.2	1 ↑ 4 ↓	
93/12865					93/12960				
SEP 05	080013.1s	42.92S	173.06E	12km M=3.8	SEP 07	061452.6s	35.68S	178.68E	12km M=3.8
	0.1	0.01	0.01	R		0.5	0.04	0.06	R
Rsd 0.2s	15ph/10stn	Dmin 66km	Az.gap 161°		Rsd 0.1s	10ph/6stn	Dmin 216km	Az.gap 344°	
Corr. -0.315	10M/5stn	Msd 0.1	1 ↑ 1 ↓		Corr. -0.543	6M/4stn	Msd 0.2	1 ↓	
93/12869					93/12983				
SEP 05	110725.6s	35.92S	178.30E	33km M=3.6	SEP 07	182328.7s	37.86S	176.14E	169km M=3.9
	1.1	0.06	0.05	R		0.5	0.03	0.02	4
Rsd 0.3s	5ph/3stn	Dmin 186km	Az.gap 292°		Rsd 0.2s	18ph/15stn	Dmin 96km	Az.gap 204°	
Corr. 0.388	2M/2stn	Msd 0.1			Corr. -0.195	25M/19stn	Msd 0.2	1 ↑	
93/12876					93/12995				
SEP 05	141143.1s	37.30S	176.55E	251km M=4.3	SEP 08	010522.2s	45.28S	166.79E	5km M=4.0
	1.2	0.12	0.14	8		0.4	0.01	0.03	R
Rsd 0.3s	12ph/11stn	Dmin 117km	Az.gap 242°		Rsd 0.1s	17ph/15stn	Dmin 112km	Az.gap 260°	
Corr. -0.794	20M/14stn	Msd 0.3			Corr. -0.174	17M/14stn	Msd 0.2	1 ↓	
93/12892					93/12998				
SEP 05	224648.5s	37.12S	176.82E	212km M=4.0	SEP 08	020141.1s	37.33S	176.80E	188km M=3.6
	0.5	0.03	0.03	4		0.6	0.05	0.05	5
Rsd 0.3s	13ph/8stn	Dmin 106km	Az.gap 179°		Rsd 0.2s	12ph/9stn	Dmin 106km	Az.gap 257°	
Corr. 0.326	10M/5stn	Msd 0.2			Corr. -0.630	11M/10stn	Msd 0.2		
93/12894					93/13002				
SEP 05	230832.9s	45.13S	167.36E	97km M=3.6	SEP 08	041614.4s	46.01S	166.86E	79km M=4.3
	0.3	0.01	0.01	2		0.2	0.01	0.03	3
Rsd 0.2s	21ph/16stn	Dmin 41km	Az.gap 199°		Rsd 0.1s	18ph/14stn	Dmin 85km	Az.gap 255°	
Corr. -0.315	12M/8stn	Msd 0.1	1 ↑		Corr. 0.127	32M/26stn	Msd 0.3	1 ↓	
93/12908					93/13018				
SEP 06	042400.2s	38.21S	176.24E	143km M=4.2	SEP 08	111816.7s	35.77S	178.14E	208km M=3.9
	0.4	0.02	0.01	4		0.7	0.09	0.14	13
Rsd 0.3s	24ph/20stn	Dmin 68km	Az.gap 86°		Rsd 0.2s	12ph/9stn	Dmin 204km	Az.gap 330°	
Corr. 0.146	10M/5stn	Msd 0.1	4 ↑ 2 ↓		Corr. -0.606	10M/10stn	Msd 0.3	1 ↑	
93/12909					93/13021				
SEP 06	051330.9s	40.89S	175.37E	24km M=3.8	SEP 08	121146.4s	44.94S	166.46E	12km M=3.6
	0.1	0.01	0.01	1		0.9	0.03	0.06	R
Rsd 0.3s	32ph/27stn	Dmin 31km	Az.gap 91°		Rsd 0.5s	19ph/16stn	Dmin 81km	Az.gap 260°	
Corr. -0.591	12M/7stn	Msd 0.1	2 ↑ 5 ↓		Corr. -0.325	15M/13stn	Msd 0.1	1 ↓	

	93/13272		93/13364				
SEP 13 123604.6s	38.44S 175.59E	163km M=3.6	SEP 16 002355.4s	36.61S 177.19E	227km M=3.4		
	0.8 0.05 0.09	12		0.6 0.12 0.05	9		
Rsd 0.4s	19ph/14stn	Dmin 134km	Az.gap 232°	Rsd 0.2s	5ph/3stn	Dmin 184km	Az.gap 328°
Corr. -0.768	14M/13stn	Msd 0.2		Corr. -0.028	2M/2stn	Msd 0.2	
			Felt Manukau city (16) MM3.				
	93/13274		93/13366				
SEP 13 132303.1s	45.37S 167.23E	59km M=3.5	SEP 16 005802.0s	45.25S 166.82E	12km M=4.0		
	0.2 0.01 0.02	2		0.3 0.01 0.02	R		
Rsd 0.1s	23ph/17stn	Dmin 12km	Az.gap 188°	Rsd 0.1s	18ph/15stn	Dmin 35km	Az.gap 273°
Corr. -0.102	15M/13stn	Msd 0.2	1 ↑ 2 ↓	Corr. 0.372	21M/16stn	Msd 0.2	1 ↑
	93/13283		93/13378				
SEP 13 162052.5s	45.22S 166.87E	12km M=3.7	SEP 16 064134.6s	36.78S 176.99E	258km M=4.3		
	0.6 0.01 0.04	R		0.6 0.07 0.07	6		
Rsd 0.2s	19ph/16stn	Dmin 36km	Az.gap 258°	Rsd 0.3s	11ph/9stn	Dmin 147km	Az.gap 277°
Corr. -0.128	16M/13stn	Msd 0.1		Corr. -0.660	11M/10stn	Msd 0.3	1 ↑
	93/13285		93/13388				
SEP 13 174328.5s	45.27S 166.71E	12km M=3.6	SEP 16 124203.3s	38.32S 176.17E	117km M=3.9		
	0.6 0.02 0.03	R		0.2 0.01 0.01	3		
Rsd 0.2s	16ph/12stn	Dmin 42km	Az.gap 267°	Rsd 0.2s	19ph/16stn	Dmin 82km	Az.gap 87°
Corr. 0.091	15M/13stn	Msd 0.1	1 ↓	Corr. 0.139	24M/19stn	Msd 0.3	1 ↓
	93/13288		93/13404				
SEP 14 002848.4s	37.55S 178.86E	25km M=3.5	SEP 16 201729.8s	37.00S 177.35E	143km M=3.7		
	0.3 0.01 0.02	1		0.2 0.02 0.01	2		
Rsd 0.1s	8ph/5stn	Dmin 50km	Az.gap 284°	Rsd 0.1s	8ph/6stn	Dmin 107km	Az.gap 279°
Corr. 0.305	4M/4stn	Msd 0.2	1 ↓	Corr. -0.416	10M/8stn	Msd 0.4	
	93/13311		93/13416				
SEP 14 171254.6s	37.14S 176.52E	238km M=4.0	SEP 17 024113.9s	38.96S 178.09E	30km M=3.5		
	0.6 0.06 0.06	6		0.7 0.04 0.03	2		
Rsd 0.3s	10ph/8stn	Dmin 135km	Az.gap 266°	Rsd 0.3s	10ph/7stn	Dmin 38km	Az.gap 220°
Corr. -0.672	9M/9stn	Msd 0.1	1 ↑	Corr. -0.669	10M/8stn	Msd 0.2	1 ↑
	93/13316		93/13417				
SEP 14 202929.6s	44.89S 166.52E	5km M=4.1	SEP 17 032141.2s	37.31S 177.53E	117km M=3.7		
	0.5 0.01 0.03	R		0.4 0.03 0.03	5		
Rsd 0.2s	11ph/8stn	Dmin 81km	Az.gap 279°	Rsd 0.2s	10ph/6stn	Dmin 75km	Az.gap 272°
Corr. -0.202	19M/13stn	Msd 0.1		Corr. -0.374	5M/3stn	Msd 0.3	1 ↑
	93/13332		93/13425				
SEP 15 102952.9s	38.32S 176.20E	146km M=3.7	SEP 17 094955.4s	47.55S 165.59E	12km M=3.6		
	0.9 0.04 0.04	9		0.4 0.03 0.03	R		
Rsd 0.3s	11ph/9stn	Dmin 73km	Az.gap 133°	Rsd 0.2s	13ph/10stn	Dmin 207km	Az.gap 318°
Corr. 0.463	16M/14stn	Msd 0.2	1 ↑	Corr. 0.196	13M/12stn	Msd 0.1	
	93/13344		93/13426				
SEP 15 163146.7s	37.24S 177.21E	5km M=3.6	SEP 17 113400.4s	37.50S 177.32E	130km M=4.0		
	0.2 0.02 0.01	R		0.3 0.02 0.01	3		
Rsd 0.3s	10ph/6stn	Dmin 104km	Az.gap 181°	Rsd 0.2s	21ph/18stn	Dmin 78km	Az.gap 157°
Corr. 0.547	8M/5stn	Msd 0.2		Corr. 0.238	13M/11stn	Msd 0.3	1 ↑
	93/13345		93/13437				
SEP 15 172926.8s	39.38S 174.92E	139km M=3.5	SEP 17 165427.3s	36.87S 177.43E	222km M=3.5		
	0.2 0.01 0.02	2		1.4 0.18 0.11	6		
Rsd 0.1s	22ph/18stn	Dmin 47km	Az.gap 186°	Rsd 0.2s	12ph/10stn	Dmin 157km	Az.gap 320°
Corr. -0.385	17M/17stn	Msd 0.2	1 ↑	Corr. -0.771	12M/12stn	Msd 0.2	
	93/13346		93/13440				
SEP 15 173221.3s	37.21S 177.22E	12km M=3.7	SEP 17 170350.5s	39.57S 175.92E	5km M=3.3		
	0.3 0.03 0.02	R		0.2 0.01 0.01	R		
Rsd 0.5s	9ph/6stn	Dmin 105km	Az.gap 185°	Rsd 0.3s	24ph/19stn	Dmin 41km	Az.gap 74°
Corr. 0.558	8M/5stn	Msd 0.3		Corr. 0.165	23M/22stn	Msd 0.3	1 ↑ 1 ↓
			Felt Moawhango (58) MM3.				

93/14011

OCT 02 105311.4s 37.96S 176.02E 189km M=3.6
 0.5 0.04 0.03 3
 Rsd 0.1s 11ph/9stn Dmin 102km Az.gap 230°
 Corr. -0.685 14M/13stn Msd 0.2 1 ↓

93/14013

OCT 02 113934.4s 41.31S 172.65E 194km M=3.5
 0.3 0.01 0.01 2
 Rsd 0.1s 17ph/14stn Dmin 54km Az.gap 114°
 Corr. -0.554 7M/7stn Msd 0.5 1 ↑

93/14028

OCT 03 053849.2s 45.28S 166.59E 12km M=3.6
 0.5 0.02 0.04 R
 Rsd 0.2s 16ph/13stn Dmin 49km Az.gap 295°
 Corr. 0.481 15M/13stn Msd 0.1 1 ↓

93/14035

OCT 03 115529.9s 45.10S 166.97E 5km M=3.7
 0.8 0.02 0.06 R
 Rsd 0.3s 15ph/13stn Dmin 43km Az.gap 257°
 Corr. -0.683 16M/13stn Msd 0.2 1 ↓

93/14068

OCT 04 133604.3s 38.28S 176.29E 317km M=3.6
 0.4 0.06 0.08 6
 Rsd 0.1s 11ph/9stn Dmin 192km Az.gap 221°
 Corr. -0.967 4M/4stn Msd 0.1

93/14070

OCT 04 150220.0s 37.68S 178.90E 12km M=3.9
 0.6 0.02 0.04 R
 Rsd 0.2s 12ph/9stn Dmin 54km Az.gap 276°
 Corr. -0.191 12M/11stn Msd 0.2 1 ↑

93/14071

OCT 04 151159.9s 37.29S 177.20E 146km M=3.6
 0.2 0.01 0.01 2
 Rsd 0.1s 7ph/5stn Dmin 103km Az.gap 175°
 Corr. 0.571 3M/2stn Msd 0.3

93/14072

OCT 04 163430.3s 38.75S 175.79E 128km M=3.9
 0.5 0.01 0.02 5
 Rsd 0.3s 30ph/23stn Dmin 51km Az.gap 72°
 Corr. -0.252 21M/16stn Msd 0.2 1 ↑

93/14075

OCT 04 185021.1s 45.22S 166.77E 12km M=3.6
 0.2 0.01 0.01 R
 Rsd 0.1s 17ph/14stn Dmin 40km Az.gap 283°
 Corr. 0.615 15M/13stn Msd 0.1

93/14090

OCT 05 111742.4s 45.27S 166.63E 12km M=4.7
 0.4 0.02 0.02 R
 Rsd 0.1s 18ph/14stn Dmin 46km Az.gap 265°
 Corr. -0.070 11M/6stn Msd 0.1 1 ↓

93/14091

OCT 05 120035.9s 38.90S 177.57E 53km M=3.7
 0.4 0.03 0.02 7
 Rsd 0.3s 11ph/9stn Dmin 51km Az.gap 207°
 Corr. -0.106 5M/3stn Msd 0.3 1 ↑ 2 ↓

93/14117

OCT 06 024719.5s 37.48S 177.30E 134km M=3.7
 0.8 0.06 0.06 7
 Rsd 0.4s 10ph/7stn Dmin 89km Az.gap 255°
 Corr. -0.707 6M/4stn Msd 0.3

93/14120

OCT 06 043028.1s 37.13S 179.60E 33km M=4.0
 0.7 0.03 0.06 R
 Rsd 0.2s 13ph/11stn Dmin 126km Az.gap 287°
 Corr. -0.027 13M/11stn Msd 0.3

93/14121

OCT 06 073135.1s 37.82S 179.03E 33km M=3.7
 1.7 0.06 0.12 R
 Rsd 0.7s 10ph/8stn Dmin 69km Az.gap 286°
 Corr. 0.070 7M/5stn Msd 0.5 1 ↓

93/14122

OCT 06 082245.8s 38.05S 179.17E 33km M=3.5
 0.8 0.03 0.06 R
 Rsd 0.4s 9ph/6stn Dmin 80km Az.gap 280°
 Corr. 0.236 5M/4stn Msd 0.4

93/14128

OCT 06 124038.2s 39.01S 176.26E 73km M=3.5
 0.3 0.01 0.01 3
 Rsd 0.3s 24ph/17stn Dmin 44km Az.gap 109°
 Corr. -0.109 12M/11stn Msd 0.3

93/14133

OCT 06 160645.5s 37.01S 176.79E 214km M=3.8
 1.6 0.17 0.14 13
 Rsd 0.4s 9ph/7stn Dmin 142km Az.gap 298°
 Corr. -0.720 5M/4stn Msd 0.5

93/14141

OCT 07 000940.0s 38.63S 176.27E 113km M=3.5
 1.3 0.12 0.08 12
 Rsd 0.5s 12ph/10stn Dmin 84km Az.gap 197°
 Corr. -0.928 6M/5stn Msd 0.3

93/14146

OCT 07 032732.1s 38.55S 175.93E 161km M=3.8
 0.5 0.02 0.03 4
 Rsd 0.2s 17ph/12stn Dmin 75km Az.gap 205°
 Corr. -0.425 15M/14stn Msd 0.3

93/14147

OCT 07 033933.8s 45.29S 166.73E 11km M=3.8
 0.6 0.01 0.02 3
 Rsd 0.2s 18ph/14stn Dmin 39km Az.gap 266°
 Corr. 0.039 17M/13stn Msd 0.1 1 ↓

93/14151

OCT 07 095524.9s 38.20S 176.17E 164km M=3.8
 0.5 0.02 0.02 5
 Rsd 0.3s 17ph/12stn Dmin 62km Az.gap 94°
 Corr. 0.024 20M/16stn Msd 0.2 4 ↑ 2 ↓

93/14158

OCT 07 143350.9s 38.47S 175.86E 170km M=3.8
 0.6 0.02 0.02 5
 Rsd 0.2s 21ph/17stn Dmin 81km Az.gap 159°
 Corr. 0.123 19M/17stn Msd 0.2 1 ↑

93/14562
OCT 20 020821.3s 37.68S 176.30E 288km M=4.0
 0.3 0.02 0.04 3
 Rsd 0.1s 13ph/11stn Dmin 96km Az.gap 255°
 Corr. -0.814 8M/8stn Msd 0.1

93/14569
OCT 20 084808.3s 37.76S 176.33E 164km M=3.6
 0.6 0.06 0.07 5
 Rsd 0.3s 10ph/7stn Dmin 88km Az.gap 246°
 Corr. -0.849 2M/2stn Msd 0.1

93/14578
OCT 20 193555.6s 45.30S 166.87E 10km M=4.1
 0.9 0.02 0.04 6
 Rsd 0.3s 18ph/15stn Dmin 29km Az.gap 254°
 Corr. 0.298 24M/18stn Msd 0.2 1 ↑ 2 ↓

93/14580
OCT 20 204620.7s 36.50S 177.69E 151km M=3.9
 0.2 0.02 0.02 3
 Rsd 0.1s 6ph/4stn Dmin 133km Az.gap 321°
 Corr. -0.434 3M/3stn Msd 0.4

93/14591
OCT 21 053647.6s 35.91S 178.25E 212km M=3.9
 0.7 0.07 0.13 9
 Rsd 0.2s 11ph/8stn Dmin 187km Az.gap 328°
 Corr. -0.641 11M/11stn Msd 0.2

93/14604
OCT 21 115731.2s 38.01S 175.52E 183km M=3.6
 0.5 0.04 0.07 8
 Rsd 0.3s 20ph/15stn Dmin 142km Az.gap 257°
 Corr. -0.815 8M/8stn Msd 0.2

93/14612
OCT 21 162525.9s 38.49S 175.99E 158km M=4.0
 0.6 0.02 0.02 5
 Rsd 0.3s 19ph/13stn Dmin 77km Az.gap 92°
 Corr. 0.034 22M/18stn Msd 0.3 4 ↑ 1 ↓

93/14621
OCT 21 221138.4s 45.23S 166.64E 5km M=4.0
 0.8 0.03 0.05 R
 Rsd 0.5s 10ph/7stn Dmin 48km Az.gap 283°
 Corr. 0.237 18M/13stn Msd 0.1 1 ↓

93/14627
OCT 22 015158.5s 37.89S 176.32E 177km M=4.0
 0.5 0.02 0.02 4
 Rsd 0.2s 16ph/13stn Dmin 64km Az.gap 169°
 Corr. -0.407 18M/14stn Msd 0.2 1 ↑

93/14631
OCT 22 063604.4s 37.23S 177.26E 5km M=3.5
 0.2 0.02 0.01 R
 Rsd 0.2s 6ph/4stn Dmin 101km Az.gap 184°
 Corr. 0.594 5M/4stn Msd 0.2

93/14644
OCT 22 144855.8s 45.23S 166.63E 12km M=3.7
 0.8 0.02 0.05 R
 Rsd 0.4s 8ph/6stn Dmin 49km Az.gap 294°
 Corr. -0.087 15M/13stn Msd 0.1 1 ↓

93/14651
OCT 22 183318.6s 45.44S 166.80E 20km M=5.0
 0.3 0.01 0.02 R
 Rsd 0.1s 18ph/16stn Dmin 28km Az.gap 256°
 Corr. 0.052 32M/17stn Msd 0.2 1 ↑ 2 ↓
 Felt Manapouri (139) MM4.

93/14660
OCT 22 205353.6s 44.79S 167.37E 5km M=3.6
 0.3 0.02 0.02 R
 Rsd 0.2s 21ph/16stn Dmin 46km Az.gap 215°
 Corr. -0.802 15M/13stn Msd 0.2 1 ↓

93/14669
OCT 23 022921.1s 37.84S 179.18E 28km M=3.7
 1.0 0.04 0.05 7
 Rsd 0.3s 10ph/9stn Dmin 82km Az.gap 289°
 Corr. -0.185 11M/10stn Msd 0.2 1 ↓

93/14690
OCT 23 122645.9s 41.45S 172.38E 5km M=4.1
 0.2 0.01 0.01 R
 Rsd 0.4s 59ph/39stn Dmin 56km Az.gap 136°
 Corr. -0.025 54M/27stn Msd 0.2 5 ↑ 7 ↓

93/14693
OCT 23 151633.3s 36.32S 177.92E 219km M=3.9
 1.0 0.10 0.13 12
 Rsd 0.4s 10ph/8stn Dmin 146km Az.gap 323°
 Corr. -0.646 3M/3stn Msd 0.0

93/14702
OCT 23 172430.7s 45.39S 166.70E 20km M=4.2
 0.6 0.02 0.04 R
 Rsd 0.2s 9ph/8stn Dmin 36km Az.gap 285°
 Corr. 0.265 25M/19stn Msd 0.2 1 ↓

93/14703
OCT 23 180814.3s 35.13S 178.17E 12km M=3.5
 1.4 0.08 0.23 R
 Rsd 0.4s 5ph/3stn Dmin 274km Az.gap 343°
 Corr. 0.252 2M/2stn Msd 0.2

93/14723
OCT 24 021927.6s 45.89S 168.52E 23km M=4.0
 0.1 0.01 0.00 1
 Rsd 0.1s 21ph/17stn Dmin 45km Az.gap 99°
 Corr. -0.146 15M/9stn Msd 0.3 1 ↑

93/14740
OCT 24 101130.4s 38.54S 175.93E 151km M=4.0
 0.6 0.02 0.02 6
 Rsd 0.3s 25ph/18stn Dmin 34km Az.gap 67°
 Corr. 0.030 29M/23stn Msd 0.3 1 ↑

93/14744
OCT 24 111227.9s 41.32S 172.62E 200km M=3.8
 0.2 0.01 0.02 2
 Rsd 0.3s 71ph/47stn Dmin 19km Az.gap 117°
 Corr. -0.153 30M/24stn Msd 0.2 2 ↑

93/14748
OCT 24 122100.3s 35.71S 177.74E 154km M=3.6
 0.7 0.08 0.08 14
 Rsd 0.2s 6ph/3stn Dmin 215km Az.gap 336°
 Corr. -0.469 3M/3stn Msd 0.2

93/14970
OCT 29 015307.0s 38.23S 178.45E 12km M=3.6
 0.6 0.02 0.04 R
 Rsd 0.5s 8ph/6stn Dmin 25km Az.gap 231°
 Corr. -0.230 9M/7stn Msd 0.3 1 ↑

93/14986
OCT 29 083741.7s 39.53S 174.21E 232km M=3.6
 0.2 0.01 0.01 2
 Rsd 0.1s 36ph/27stn Dmin 121km Az.gap 193°
 Corr. -0.300 17M/17stn Msd 0.2 1 ↑

93/14993
OCT 29 100610.8s 40.65S 174.22E 60km M=3.7
 0.2 0.01 0.01 3
 Rsd 0.3s 69ph/53stn Dmin 30km Az.gap 74°
 Corr. -0.280 27M/14stn Msd 0.2 6 ↑ 4 ↓

93/14994
OCT 29 111145.3s 38.81S 175.37E 229km M=3.5
 0.9 0.05 0.06 8
 Rsd 0.4s 16ph/11stn Dmin 46km Az.gap 203°
 Corr. -0.311 17M/17stn Msd 0.2

93/14996
OCT 29 115507.8s 36.94S 176.18E 334km M=3.6
 0.5 0.07 0.08 7
 Rsd 0.3s 9ph/7stn Dmin 168km Az.gap 261°
 Corr. -0.896 4M/4stn Msd 0.2

93/15003
OCT 29 140531.4s 40.65S 174.21E 62km M=3.7
 0.1 0.01 0.01 2
 Rsd 0.2s 61ph/47stn Dmin 30km Az.gap 75°
 Corr. -0.260 24M/13stn Msd 0.2 1 ↓

93/15021
OCT 29 212444.0s 39.17S 174.76E 195km M=4.1
 0.5 0.02 0.02 4
 Rsd 0.2s 38ph/30stn Dmin 68km Az.gap 138°
 Corr. 0.006 19M/11stn Msd 0.2 12 ↑ 2 ↓

93/15031
OCT 29 235447.7s 40.19S 178.87E 12km M=3.8
 0.7 0.03 0.06 R
 Rsd 0.3s 22ph/17stn Dmin 140km Az.gap 250°
 Corr. -0.734 34M/31stn Msd 0.1

93/15095
OCT 30 222525.7s 40.05S 174.46E 114km M=4.0
 0.2 0.01 0.01 2
 Rsd 0.2s 65ph/46stn Dmin 49km Az.gap 80°
 Corr. -0.060 23M/13stn Msd 0.2 13 ↑ 1 ↓

93/15099
OCT 31 000836.3s 37.14S 179.75E 12km M=4.0
 0.4 0.03 0.03 R
 Rsd 0.1s 13ph/11stn Dmin 138km Az.gap 286°
 Corr. -0.165 22M/20stn Msd 0.1

93/15100
OCT 31 002052.0s 36.50S 177.09E 275km M=3.8
 0.6 0.07 0.08 6
 Rsd 0.2s 7ph/4stn Dmin 195km Az.gap 313°
 Corr. -0.815 3M/3stn Msd 0.2

93/15105
OCT 31 062610.8s 36.70S 178.12E 23km M=4.3
 0.9 0.06 0.03 2
 Rsd 0.1s 15ph/12stn Dmin 101km Az.gap 263°
 Corr. 0.865 38M/31stn Msd 0.2 1 ↑ 1 ↓

93/15114
OCT 31 112707.7s 39.29S 175.00E 20km M=3.7
 0.1 0.01 0.01 1
 Rsd 0.2s 32ph/25stn Dmin 48km Az.gap 119°
 Corr. -0.044 15M/8stn Msd 0.1 1 ↑

93/15121
OCT 31 141319.3s 36.51S 178.57E 176km M=3.7
 1.1 0.15 0.13 12
 Rsd 0.4s 7ph/4stn Dmin 175km Az.gap 336°
 Corr. -0.713 2M/2stn Msd 0.2

93/15130
OCT 31 183019.9s 45.41S 166.73E 18km M=4.1
 0.2 0.01 0.01 1
 Rsd 0.1s 9ph/5stn Dmin 34km Az.gap 285°
 Corr. -0.042 22M/17stn Msd 0.2 1 ↓

93/15137
OCT 31 200752.2s 37.32S 179.78W 33km M=3.5
 1.0 0.09 0.08 R
 Rsd 0.3s 6ph/4stn Dmin 173km Az.gap 333°
 Corr. -0.451 2M/2stn Msd 0.1

93/15154
NOV 01 060300.0s 45.26S 166.66E 12km M=5.1
 0.4 0.01 0.02 R
 Rsd 0.2s 18ph/16stn Dmin 45km Az.gap 257°
 Corr. 0.183 36M/19stn Msd 0.1 2 ↑
 Felt Manapouri (139) and Riverton (149) MM4.

93/15166
NOV 01 130327.4s 35.18S 178.72E 265km M=4.0
 0.7 0.10 0.09 4
 Rsd 0.1s 7ph/6stn Dmin 271km Az.gap 343°
 Corr. -0.852 2M/2stn Msd 0.2

93/15203
NOV 02 011133.6s 45.39S 167.22E 105km M=3.6
 0.3 0.01 0.02 2
 Rsd 0.2s 20ph/15stn Dmin 10km Az.gap 184°
 Corr. -0.240 14M/13stn Msd 0.2 2 ↑ 1 ↓

93/15205
NOV 02 020005.5s 45.48S 166.78E 11km M=4.1
 0.4 0.01 0.01 2
 Rsd 0.1s 18ph/16stn Dmin 30km Az.gap 257°
 Corr. 0.346 8M/4stn Msd 0.1 1 ↓

93/15209
NOV 02 034839.5s 40.32S 173.66E 131km M=3.5
 0.3 0.02 0.01 3
 Rsd 0.2s 41ph/31stn Dmin 58km Az.gap 131°
 Corr. -0.053 12M/11stn Msd 0.2 1 ↑

93/15221
NOV 02 071525.5s 45.24S 166.54E 20km M=4.7
 1.6 0.04 0.11 R
 Rsd 0.6s 11ph/8stn Dmin 54km Az.gap 287°
 Corr. 0.215 13M/7stn Msd 0.1 1 ↓

<p>93/15570 NOV 08 224013.1s 36.80S 177.61E 174km M=3.9 0.2 0.01 0.01 2 Rsd 0.1s 10ph/8stn Dmin 107km Az.gap 234° Corr. 0.480 16M/16stn Msd 0.2 1 ↓</p>	<p>93/15764 NOV 13 125823.2s 41.25S 172.84E 141km M=3.9 0.2 0.01 0.01 2 Rsd 0.3s 76ph/50stn Dmin 2km Az.gap 83° Corr. -0.046 29M/15stn Msd 0.2 34 ↑2↓</p>
<p>93/15609 NOV 09 212003.8s 39.53S 177.42E 58km M=3.9 0.2 0.01 0.01 4 Rsd 0.2s 26ph/21stn Dmin 55km Az.gap 169° Corr. -0.386 20M/14stn Msd 0.2 1 ↑</p>	<p>93/15768 NOV 13 143821.7s 37.15S 178.00E 28km M=3.8 0.3 0.02 0.02 2 Rsd 0.1s 12ph/8stn Dmin 56km Az.gap 215° Corr. 0.768 11M/9stn Msd 0.2 1 ↓</p>
<p>93/15613 NOV 09 223648.5s 38.43S 176.08E 155km M=3.6 0.4 0.03 0.04 5 Rsd 0.2s 15ph/11stn Dmin 92km Az.gap 212° Corr. -0.854 11M/9stn Msd 0.2 1 ↑</p>	<p>93/15780 NOV 13 221938.4s 36.04S 178.14E 252km M=3.7 0.8 0.13 0.14 8 Rsd 0.2s 8ph/6stn Dmin 173km Az.gap 332° Corr. -0.839 3M/3stn Msd 0.1</p>
<p>93/15615 NOV 10 004702.8s 38.58S 177.88E 57km M=3.6 0.5 0.03 0.02 6 Rsd 0.2s 10ph/7stn Dmin 14km Az.gap 105° Corr. -0.610 8M/6stn Msd 0.3 1 ↑1↓</p>	<p>93/15792 NOV 14 051419.6s 38.22S 176.02E 160km M=3.8 0.7 0.04 0.03 6 Rsd 0.2s 16ph/14stn Dmin 96km Az.gap 224° Corr. -0.671 14M/13stn Msd 0.2 1 ↑</p>
<p>93/15618 NOV 10 031907.8s 38.33S 176.07E 157km M=3.8 0.5 0.03 0.03 4 Rsd 0.2s 14ph/10stn Dmin 91km Az.gap 215° Corr. -0.517 19M/19stn Msd 0.2 1 ↑</p>	<p>93/15799 NOV 14 084448.7s 38.28S 176.37E 110km M=4.0 0.3 0.01 0.01 3 Rsd 0.2s 28ph/24stn Dmin 13km Az.gap 45° Corr. 0.155 8M/4stn Msd 0.1 2 ↑1↓</p>
<p>93/15630 NOV 10 111046.1s 38.35S 175.36E 138km M=3.5 0.6 0.07 0.15 22 Rsd 0.3s 13ph/8stn Dmin 154km Az.gap 244° Corr. -0.944 5M/5stn Msd 0.8</p>	<p>93/15810 NOV 14 152616.7s 37.10S 177.39E 272km M=3.7 1.8 0.18 0.16 13 Rsd 0.6s 11ph/9stn Dmin 97km Az.gap 267° Corr. -0.741 13M/13stn Msd 0.2</p>
<p>93/15646 NOV 10 195426.4s 37.33S 179.91E 33km M=3.9 0.5 0.03 0.03 R Rsd 0.1s 10ph/8stn Dmin 145km Az.gap 301° Corr. 0.075 8M/8stn Msd 0.1</p>	<p>93/15814 NOV 14 172258.1s 38.66S 175.80E 157km M=3.6 1.1 0.04 0.04 9 Rsd 0.3s 16ph/14stn Dmin 45km Az.gap 205° Corr. -0.214 17M/17stn Msd 0.2 3 ↑1↓</p>
<p>93/15664 NOV 11 050309.9s 39.19S 173.79E 12km M=3.6 0.3 0.02 0.03 R Rsd 0.1s 27ph/23stn Dmin 117km Az.gap 183° Corr. -0.873 17M/9stn Msd 0.1</p>	<p>93/15824 NOV 14 204715.2s 37.36S 177.77E 195km M=3.5 0.8 0.06 0.08 1 Rsd 0.1s 11ph/10stn Dmin 115km Az.gap 344° Corr. -0.244 6M/6stn Msd 0.1</p>
<p>93/15676 NOV 11 110656.7s 37.39S 179.77W 33km M=3.6 1.1 0.08 0.08 R Rsd 0.5s 10ph/7stn Dmin 172km Az.gap 324° Corr. 0.046 5M/5stn Msd 0.2</p>	<p>93/15830 NOV 14 221719.2s 38.12S 175.90E 153km M=3.6 1.1 0.08 0.09 8 Rsd 0.4s 13ph/9stn Dmin 107km Az.gap 263° Corr. -0.836 12M/11stn Msd 0.2</p>
<p>93/15690 NOV 11 182646.4s 38.41S 175.78E 177km M=3.8 0.9 0.04 0.03 7 Rsd 0.3s 14ph/11stn Dmin 86km Az.gap 178° Corr. -0.188 29M/25stn Msd 0.3 1 ↑</p>	<p>93/15836 NOV 15 024811.2s 41.73S 172.25E 5km M=3.5 0.1 0.01 0.01 R Rsd 0.2s 47ph/39stn Dmin 10km Az.gap 107° Corr. -0.240 43M/23stn Msd 0.2 5 ↑2↓</p>
<p>93/15741 NOV 12 170636.2s 40.88S 172.83E 241km M=3.9 0.2 0.01 0.01 2 Rsd 0.2s 65ph/45stn Dmin 14km Az.gap 66° Corr. 0.010 28M/21stn Msd 0.2 2 ↑</p>	<p>93/15843 NOV 15 072616.1s 40.28S 173.53E 179km M=4.0 0.2 0.01 0.01 2 Rsd 0.2s 67ph/51stn Dmin 67km Az.gap 128° Corr. -0.172 24M/12stn Msd 0.2 15 ↑1↓</p>

93/15857
NOV 15 132800.2s 38.08S 176.56E 127km M=4.3
 0.3 0.01 0.01 2
 Rsd 0.2s 33ph/29stn Dmin 5km Az.gap 70°
 Corr. 0.115 10M/5stn Msd 0.1 1 ↑ 2↓

93/15860
NOV 15 151651.6s 35.21S 178.90E 281km M=4.2
 0.6 0.11 0.21 7
 Rsd 0.2s 11ph/7stn Dmin 323km Az.gap 332°
 Corr. -0.923 11M/11stn Msd 0.2

93/15869
NOV 15 210821.5s 38.34S 176.00E 169km M=4.7
 0.5 0.02 0.02 4
 Rsd 0.2s 28ph/26stn Dmin 23km Az.gap 66°
 Corr. -0.012 29M/15stn Msd 0.2 12 ↑ 1↓

93/15888
NOV 16 080153.7s 36.78S 177.23E 12km M=3.6
 0.5 0.05 0.03 R
 Rsd 0.4s 7ph/4stn Dmin 131km Az.gap 223°
 Corr. 0.754 4M/3stn Msd 0.2

93/15889
NOV 16 083506.0s 45.31S 167.24E 64km M=3.7
 0.3 0.01 0.02 2
 Rsd 0.1s 19ph/15stn Dmin 19km Az.gap 196°
 Corr. -0.044 15M/13stn Msd 0.1 2 ↑ 1↓

93/15902
NOV 16 162236.7s 39.97S 176.24E 46km M=4.7
 0.1 0.01 0.01 3
 Rsd 0.2s 47ph/41stn Dmin 31km Az.gap 85°
 Corr. -0.506 22M/13stn Msd 0.2 5 ↑ 11↓
 Felt Taihape (58) to Masterton (66), maximum intensity MM4.

93/15903
NOV 16 163404.3s 39.97S 176.28E 46km M=3.6
 0.1 0.01 0.01 3
 Rsd 0.2s 38ph/32stn Dmin 31km Az.gap 89°
 Corr. -0.108 27M/21stn Msd 0.2 4 ↑ 2↓

93/15915
NOV 16 180928.3s 46.04S 166.41E 12km M=3.6
 0.6 0.03 0.04 R
 Rsd 0.3s 8ph/6stn Dmin 87km Az.gap 274°
 Corr. 0.022 17M/13stn Msd 0.1 1 ↓

93/15921
NOV 17 011727.8s 36.85S 177.46E 143km M=3.5
 0.4 0.06 0.02 6
 Rsd 0.1s 5ph/3stn Dmin 153km Az.gap 322°
 Corr. -0.158 2M/2stn Msd 0.1

93/15939
NOV 17 121741.6s 38.37S 176.06E 174km M=3.7
 0.8 0.03 0.04 7
 Rsd 0.4s 18ph/14stn Dmin 93km Az.gap 181°
 Corr. 0.110 13M/11stn Msd 0.1 4 ↑ 1↓

93/15941
NOV 17 134525.4s 38.00S 176.39E 153km M=3.6
 0.4 0.04 0.02 3
 Rsd 0.2s 13ph/11stn Dmin 69km Az.gap 222°
 Corr. -0.686 10M/10stn Msd 0.3 1 ↑

93/15966
NOV 18 065419.7s 39.70S 174.03E 135km M=3.6
 0.3 0.01 0.01 4
 Rsd 0.2s 45ph/39stn Dmin 78km Az.gap 156°
 Corr. -0.451 23M/22stn Msd 0.3 1 ↑

93/15978
NOV 18 111240.3s 35.62S 178.90E 278km M=3.8
 0.3 0.05 0.11 4
 Rsd 0.1s 11ph/10stn Dmin 226km Az.gap 339°
 Corr. -0.862 8M/8stn Msd 0.1

93/15995
NOV 18 164214.7s 38.71S 175.93E 120km M=3.9
 0.5 0.01 0.02 5
 Rsd 0.3s 32ph/27stn Dmin 46km Az.gap 98°
 Corr. -0.520 30M/26stn Msd 0.2 6 ↑ 2↓

93/15999
NOV 18 173549.6s 37.95S 178.55E 31km M=3.8
 0.2 0.01 0.02 1
 Rsd 0.2s 13ph/11stn Dmin 29km Az.gap 232°
 Corr. -0.281 32M/30stn Msd 0.2 1 ↑

93/16010
NOV 19 011048.5s 37.60S 176.61E 162km M=4.0
 0.4 0.02 0.02 4
 Rsd 0.2s 13ph/11stn Dmin 85km Az.gap 130°
 Corr. 0.584 25M/22stn Msd 0.2 1 ↑

93/16022
NOV 19 084300.4s 41.83S 173.23E 89km M=3.6
 0.1 0.01 0.01 1
 Rsd 0.2s 74ph/44stn Dmin 23km Az.gap 47°
 Corr. -0.148 25M/13stn Msd 0.2 11 ↑ 8↓

93/16029
NOV 19 124821.5s 38.41S 176.05E 156km M=3.8
 0.9 0.04 0.03 7
 Rsd 0.2s 17ph/15stn Dmin 79km Az.gap 213°
 Corr. -0.416 17M/17stn Msd 0.2 1 ↑

93/16039
NOV 19 183804.3s 38.97S 176.10E 95km M=4.1
 0.4 0.01 0.01 4
 Rsd 0.3s 33ph/25stn Dmin 42km Az.gap 58°
 Corr. -0.281 9M/5stn Msd 0.3 3 ↑ 1↓

93/16051
NOV 20 022246.0s 37.12S 176.82E 237km M=4.1
 0.4 0.05 0.04 4
 Rsd 0.2s 14ph/12stn Dmin 129km Az.gap 269°
 Corr. -0.531 12M/12stn Msd 0.2

93/16062
NOV 20 083640.7s 38.30S 175.94E 155km M=4.2
 0.6 0.03 0.02 5
 Rsd 0.2s 20ph/17stn Dmin 85km Az.gap 187°
 Corr. -0.194 29M/23stn Msd 0.3 2 ↑ 1↓

93/16078
NOV 20 171640.7s 39.21S 174.99E 12km M=3.6
 0.1 0.01 0.01 R
 Rsd 0.2s 32ph/26stn Dmin 48km Az.gap 87°
 Corr. -0.226 12M/7stn Msd 0.3

93/18217
DEC 31 042925.9s 36.12S 178.64E 12km M=3.8
 0.7 0.04 0.04 R
 Rsd 0.1s 8ph/7stn Dmin 167km Az.gap 329°
 Corr. 0.461 6M/6stn Msd 0.3

93/18234
DEC 31 121801.8s 38.85S 176.15E 108km M=3.6
 0.6 0.02 0.02 6
 Rsd 0.2s 22ph/17stn Dmin 52km Az.gap 174°
 Corr. -0.250 21M/21stn Msd 0.2 2 ↑ 2↓

93/18230
DEC 31 095600.5s 38.49S 175.65E 167km M=3.7
 1.2 0.02 0.04 10
 Rsd 0.1s 20ph/18stn Dmin 66km Az.gap 131°
 Corr. -0.257 31M/28stn Msd 0.2 1 ↑ 2↓

93/18251
DEC 31 212837.9s 38.34S 175.26E 33km M=3.6
 0.5 0.03 0.04 R
 Rsd 0.2s 6ph/5stn Dmin 236km Az.gap 235°
 Corr. -0.728 2M/2stn Msd 0.2

HIGHER MAGNITUDE EARTHQUAKES

A chronological list of 1993 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 Institute.

In the following table, Rsd is as defined on page 34 and NP phases from NS recording stations have been used to determine the origins.

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
373	JAN 13	0512 37.5	39.16S	174.79E	220	5.0	0.3	53	35
435	JAN 15	0329 26.1	46.98S	165.32E	33R	5.2F	0.2	21	16
591	JAN 20	0957 40.2	37.92S	178.20E	59	5.1F	0.2	26	20
1303	FEB 16	0526 5.8	40.08S	176.97E	40	5.1F	0.2	44	33
2275	MAR 16	0618 38.4	38.45S	175.94E	157	5.3	0.2	44	32
2286	MAR 16	1054 14.4	37.63S	176.23E	280	5.8F	0.3	35	28
2356	MAR 18	1425 6.7	39.40S	174.58E	182	5.7F	0.2	41	34
3294	APR 11	0659 49.7	39.73S	176.71E	38	6.1F	0.3	37	33
4165	APR 27	1455 57.9	46.67S	165.38E	33R	5.5	0.2	28	21
4327	APR 30	1410 12.7	38.03S	177.15E	60	5.2F	0.2	24	22
4756	MAY 10	1708 9.6	42.80S	171.62E	5R	5.3F	0.1	14	11
5591	JUN 01	1343 12.3	38.86S	175.19E	242	5.2	0.3	34	27
5644	JUN 02	2042 53.5	36.06S	179.85E	93	6.1F	0.3	18	15
6118	JUN 20	0515 8.0	39.30S	175.22E	116	5.2F	0.2	46	37
6273	JUN 25	1323 9.9	37.13S	177.03E	240	5.3	0.2	20	17
6397	JUN 30	2034 34.0	37.42S	176.81E	421	5.2	0.2	23	19
6624	JUL 07	1521 16.7	36.36S	177.41E	276	5.4	0.3	22	18
6679	JUL 08	1947 55.9	39.07S	174.95E	219	5.2F	0.2	32	26
6685	JUL 09	0301 16.3	40.63S	174.59E	69	5.0F	0.2	36	28
6777	JUL 11	2030 10.5	37.06S	176.97E	224	5.5	0.2	21	16
7496	AUG 02	1810 13.1	37.39S	176.92E	235	5.9F	0.2	22	18
7828	AUG 10	0051 51.6	45.21S	166.71E	5R	6.7F	0.1	16	15
7830	AUG 10	0054 48.4	45.21S	166.83E	19	5.2	0.2	9	4
7832	AUG 10	0056 37.4	45.17S	166.81E	20R	5.4F	0.3	11	6
7885	AUG 10	0127 30.5	45.32S	166.95E	20R	5.1	0.3	11	10
7962	AUG 10	0235 32.8	45.39S	166.71E	20R	5.1	0.2	20	15
8200	AUG 10	0717 27.5	45.24S	166.86E	20R	5.1	0.2	16	15
8295	AUG 10	0946 39.9	38.53S	177.91E	46	6.3F	0.2	23	21
8857	AUG 11	0343 52.3	45.22S	167.04E	20R	5.3	0.1	11	10

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
8868	AUG 11	0409 15.5	45.24S	166.93E	20R	5.6F	0.1	14	14
9187	AUG 11	2208 49.7	45.31S	166.73E	20R	5.2	0.3	8	5
9704	AUG 13	1102 23.0	36.00S	178.80E	117	6.5F	0.2	27	24
10028	AUG 15	0332 40.2	35.91S	179.70W	33R	5.3	0.1	25	21
10995	AUG 17	0912 57.0	45.24S	166.66E	28	5.2F	0.1	14	11
12185	AUG 26	0129 58.6	35.60S	178.30E	33R	5.4	0.4	21	20
12669	SEP 01	1855 26.6	42.94S	173.07E	13	5.0F	0.1	20	17
12763	SEP 03	0852 29.9	42.91S	173.05E	16	5.2F	0.1	21	16
13990	OCT 01	2157 19.7	37.76S	176.27E	221	5.5	0.3	28	24
14870	OCT 27	0531 30.1	38.39S	175.82E	170	5.0	0.3	34	28
15156	NOV 01	0602 60.0	45.26S	166.66E	12R	5.1F	0.2	18	16
15303	NOV 03	2332 32.6	42.44S	173.28E	13	5.0F	0.2	50	37
16187	NOV 23	0040 26.4	40.15S	173.61E	205	5.3F	0.2	64	51
17957	DEC 26	0009 50.6	35.77S	179.34E	99	5.0	0.2	13	12

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 34 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 29.

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
003	JAN 01	0311 23.4	41.01S	174.06E	55	2.3	0.2	10	8
007	JAN 01	0552 44.0	41.57S	174.66E	28	2.3	0.1	10	8
010	JAN 01	0748 16.5	40.56S	174.53E	23	2.7	0.2	14	11
016	JAN 01	1154 32.1	40.90S	174.95E	57	2.1	0.0	11	7
029	JAN 01	2248 0.2	41.10S	173.64E	58	2.2	0.2	10	6
034	JAN 02	0437 22.8	40.51S	174.01E	86	3.3	0.2	39	21
054	JAN 02	1409 27.0	41.24S	174.41E	56	3.1	0.1	36	22
055	JAN 02	1410 22.0	40.63S	174.21E	67	2.3	0.1	12	7
056	JAN 02	1458 8.7	41.79S	173.91E	42	2.5	0.3	15	10
060	JAN 02	1729 17.7	40.98S	175.57E	24	2.5	0.2	16	10
062	JAN 02	1752 17.1	41.41S	174.44E	29	2.2	0.2	10	7
065	JAN 02	1953 17.1	41.83S	174.44E	27	2.5	0.2	11	8
067	JAN 02	2345 18.7	41.69S	174.33E	21	2.4	0.2	14	10
081	JAN 03	0911 10.0	40.51S	174.31E	49	2.3	0.2	13	7
104	JAN 03	1747 39.3	41.80S	174.33E	26	2.1	0.2	10	7
108	JAN 03	1812 55.2	40.78S	174.74E	46	2.1	0.2	10	7
112	JAN 03	2042 40.0	40.57S	175.67E	32	2.8	0.2	21	13
113	JAN 03	2113 31.6	41.39S	174.61E	44	2.8	0.1	14	11
116	JAN 03	2253 54.9	40.90S	175.70E	27	2.1	0.1	13	7
125	JAN 04	0317 24.3	41.39S	173.70E	55	2.3	0.2	9	5
147	JAN 04	1828 44.0	41.03S	174.84E	51	2.4	0.1	11	8
153	JAN 04	2156 33.8	40.93S	175.67E	23	2.7	0.2	21	13
156	JAN 05	0102 40.7	40.73S	174.36E	46	2.3	0.2	16	10
161	JAN 05	0530 0.6	40.74S	174.76E	36	2.2	0.1	13	8
167	JAN 05	1149 22.1	40.78S	174.13E	61	2.4	0.0	8	5
178	JAN 05	1956 46.4	40.75S	173.56E	98	2.7	0.3	9	7
186	JAN 05	2302 59.0	40.78S	175.64E	40	2.0	0.1	6	5
190	JAN 06	0142 45.2	40.57S	175.94E	30	2.5	0.2	16	9
202	JAN 06	0803 9.6	40.61S	175.75E	18	2.1	0.1	9	6
205	JAN 06	1208 43.3	40.92S	175.73E	24	3.2	0.4	21	15

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
207	JAN 06	1317 45.8	41.32S	174.58E	58	2.5	0.1	10	7
209	JAN 06	1405 17.0	41.20S	175.02E	23	2.2	0.2	14	10
210	JAN 06	1405 39.2	41.20S	175.01E	23	2.0	0.2	14	10
213	JAN 06	1535 30.1	40.57S	174.06E	77	3.1	0.2	16	11
214	JAN 06	1535 46.0	40.91S	175.72E	25	2.8	0.2	19	11
220	JAN 06	1919 20.9	40.63S	173.92E	79	2.7	0.2	12	7
236	JAN 07	1631 7.1	40.55S	175.10E	13	3.3	0.3	34	27
239	JAN 07	1906 25.5	41.27S	175.24E	28	2.8	0.1	18	11
240	JAN 07	1910 53.7	40.93S	175.42E	24	2.0	0.2	12	7
241	JAN 07	1918 11.9	40.54S	173.97E	109	2.5	0.0	9	6
249	JAN 08	0342 40.0	41.64S	174.25E	5R	2.6	0.2	20	11
256	JAN 08	0905 13.6	41.41S	174.49E	30	2.7	0.2	22	15
258	JAN 08	1123 17.1	40.79S	175.28E	27	2.1	0.1	13	6
259	JAN 08	1153 33.8	41.43S	174.48E	24	2.2	0.2	9	5
264	JAN 08	1531 24.0	41.05S	175.32E	14	3.1	0.2	31	19
273	JAN 09	0245 50.0	40.64S	175.25E	34	2.3	0.1	14	8
280	JAN 09	1228 11.2	41.56S	174.38E	32	2.8	0.2	24	15
282	JAN 09	1315 6.1	41.23S	174.84E	30	3.0	0.2	23	16
287	JAN 09	1459 57.1	41.20S	174.06E	58	2.1	0.1	9	6
294	JAN 10	0435 41.0	41.63S	175.34E	18	2.5	0.2	11	8
299	JAN 10	0735 42.1	41.36S	175.01E	27	2.2	0.1	12	9
300	JAN 10	1334 8.0	40.74S	173.63E	87	2.7	0.2	10	7
305	JAN 10	1754 7.3	41.42S	175.95E	33	2.5	0.1	5	3
309	JAN 10	1922 24.8	40.67S	174.83E	37	2.3	0.1	12	7
314	JAN 11	0215 20.5	41.38S	174.53E	29	2.1	0.1	8	6
318	JAN 11	1125 21.3	40.69S	175.93E	26	2.5	0.1	16	8
331	JAN 12	0040 9.4	40.92S	175.15E	28	2.3	0.1	16	11
345	JAN 12	0833 15.4	40.81S	173.79E	91	2.6	0.2	10	6
355	JAN 12	1550 20.1	41.27S	173.90E	60	2.2	0.1	5	3
357	JAN 12	1606 50.6	40.96S	175.43E	19	2.4	0.2	12	9
358	JAN 12	1614 55.4	41.20S	175.83E	27	2.4	0.2	10	7
361	JAN 12	1835 52.7	41.31S	173.87E	49	2.5	0.2	10	7
364	JAN 12	2125 0.6	40.64S	176.00E	26	3.1	0.3	26	19
367	JAN 13	0208 39.9	41.35S	173.80E	52	2.7	0.3	12	9
376	JAN 13	0950 55.9	40.91S	175.64E	25	2.3	0.2	17	9
398	JAN 13	2034 51.5	40.53S	173.68E	95	2.4	0.4	9	6
400	JAN 13	2156 11.4	40.75S	174.49E	75	2.1	0.2	17	10
402	JAN 14	0159 43.0	40.54S	174.78E	26	2.2	0.3	15	9
408	JAN 14	0802 52.5	41.27S	174.47E	35	2.2	0.1	11	8
415	JAN 14	1426 39.8	41.25S	174.96E	24	2.0	0.1	17	10
447	JAN 15	0908 21.9	40.75S	174.80E	16	2.3	0.4	14	9
448	JAN 15	0951 41.3	41.29S	175.17E	21	2.2	0.1	11	8
449	JAN 15	1036 17.9	41.08S	173.72E	55	2.3	0.2	10	7
457	JAN 15	1520 1.4	41.86S	174.14E	23	2.6	0.2	23	15
460	JAN 15	1635 1.2	40.58S	175.58E	31	2.3	0.2	12	6

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
465	JAN 15	1725 58.9	41.30S	175.02E	30	2.3	0.1	18	11
467	JAN 15	1834 15.1	41.10S	174.89E	30	2.6	0.2	20	13
471	JAN 15	1906 7.5	41.27S	174.89E	19	2.1	0.1	16	11
474	JAN 15	2237 32.6	40.62S	174.89E	32	2.2	0.1	16	10
485	JAN 16	0626 15.8	41.59S	174.65E	31	2.1	0.2	10	8
493	JAN 16	1302 23.9	41.32S	174.81E	31	3.1	0.2	29	18
501	JAN 16	1747 33.9	40.98S	174.81E	46	2.1	0.1	7	4
502	JAN 16	1814 50.6	40.75S	173.55E	122	3.2	0.2	29	17
509	JAN 17	0012 54.4	41.72S	174.32E	20	2.5	0.2	19	14
511	JAN 17	0050 9.8	41.14S	173.97E	50	2.2	0.2	8	6
521	JAN 17	1229 53.9	40.86S	174.98E	35	2.8	0.3	24	15
529	JAN 17	1635 41.9	40.64S	174.80E	46	3.7	0.2	31	23
534	JAN 17	2219 20.8	41.50S	173.51E	63	3.0	0.3	19	11
536	JAN 18	0141 13.7	40.70S	175.88E	22	2.4	0.2	14	7
546	JAN 18	0956 1.6	40.53S	174.05E	99	3.0	0.3	20	11
558	JAN 18	2345 48.9	41.06S	174.52E	43	2.7	0.2	17	13
565	JAN 19	0539 10.7	41.23S	175.26E	28	2.4	0.1	16	10
572	JAN 19	1217 44.8	41.65S	174.29E	3	2.5	0.2	17	12
573	JAN 19	1234 38.1	40.64S	174.77E	33	2.6	0.2	26	17
574	JAN 19	1322 5.5	41.06S	175.92E	31	2.5	0.1	18	10
586	JAN 20	0228 21.0	41.75S	174.54E	32	2.3	0.2	11	8
610	JAN 21	0121 35.4	40.59S	174.73E	33	2.1	0.2	14	7
615	JAN 21	1342 47.5	41.86S	175.18E	34	2.1	0.1	10	6
627	JAN 21	2031 23.9	41.12S	175.33E	21	2.1	0.3	10	7
629	JAN 22	0026 36.2	40.52S	174.87E	29	2.4	0.2	12	7
635	JAN 22	0716 29.5	40.63S	173.63E	146	2.6	0.1	10	7
638	JAN 22	0810 20.2	41.57S	173.81E	40	2.3	0.1	6	4
642	JAN 22	0927 7.9	40.52S	173.67E	95	2.9	0.3	16	11
643	JAN 22	1157 20.4	41.60S	173.99E	41	3.4	0.3	23	18
648	JAN 22	1834 5.2	40.64S	174.55E	58	2.9	0.2	16	11
650	JAN 22	1929 30.0	40.67S	174.43E	83	2.6	0.2	14	10
659	JAN 23	0031 50.2	40.92S	175.20E	23	2.1	0.2	11	8
665	JAN 23	0526 3.9	41.22S	175.26E	27	2.7	0.2	21	12
668	JAN 23	0823 13.0	41.61S	174.01E	40	3.5	0.2	27	19
676	JAN 23	1400 39.0	41.70S	174.62E	28	2.2	0.3	10	8
684	JAN 23	1633 35.2	41.19S	173.91E	49	2.1	0.2	8	6
698	JAN 24	0117 0.7	41.62S	174.04E	31	2.3	0.2	12	8
709	JAN 24	0903 8.4	40.85S	175.20E	31	2.1	0.2	16	10
710	JAN 24	0914 59.3	40.98S	175.42E	27	2.0	0.1	14	8
725	JAN 24	2017 23.5	41.10S	175.45E	13	2.2	0.1	15	9
728	JAN 24	2137 25.4	40.70S	174.46E	51	2.0	0.2	8	4
730	JAN 24	2258 30.2	40.85S	174.79E	17	2.0	0.1	9	4
739	JAN 25	0403 28.5	40.68S	175.96E	38	2.7	0.1	9	4
755	JAN 25	2329 34.4	41.57S	174.07E	7	2.4	0.3	17	11
760	JAN 26	0123 56.7	41.34S	174.89E	27	2.6	0.1	24	13

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
763	JAN 26	0535 8.3	40.62S	174.53E	56	2.9	0.3	14	11
770	JAN 26	1827 31.7	40.94S	175.20E	29	2.0	0.1	10	6
793	JAN 27	2057 54.9	41.22S	174.84E	28	2.0	0.1	11	7
799	JAN 27	2250 36.7	40.52S	174.93E	19	2.7	0.2	18	12
804	JAN 28	0234 46.0	40.94S	175.11E	34	2.1	0.1	7	4
825	JAN 28	1752 1.2	41.18S	174.07E	49	2.7	0.2	18	12
830	JAN 28	2352 2.1	41.89S	174.19E	12R	2.4	0.3	16	12
835	JAN 29	0336 54.4	41.29S	175.31E	29	2.1	0.1	10	8
837	JAN 29	0406 31.0	41.63S	174.98E	27	2.2	0.2	13	9
840	JAN 29	0522 30.3	41.53S	174.81E	27	2.2	0.1	12	9
858	JAN 29	2230 50.5	41.78S	174.45E	25	2.3	0.2	14	8
865	JAN 30	0536 55.9	40.77S	174.50E	21	2.0	0.1	8	5
874	JAN 30	1946 45.1	40.65S	174.86E	12R	2.1	0.1	13	7
875	JAN 30	1959 23.8	41.74S	174.86E	22	2.4	0.2	15	11
876	JAN 30	2110 3.2	41.73S	174.84E	24	2.5	0.2	19	14
877	JAN 30	2134 49.1	41.75S	174.85E	26	3.2	0.1	27	20
878	JAN 30	2137 33.8	41.72S	174.85E	22	2.3	0.2	9	7
880	JAN 30	2329 21.9	41.65S	174.75E	26	2.6	0.2	25	15
886	JAN 31	0234 47.2	41.78S	174.89E	20R	2.2	0.3	7	5
889	JAN 31	0513 21.9	41.72S	174.84E	22	2.4	0.2	10	8
890	JAN 31	0728 10.8	40.58S	174.26E	62	2.5	0.2	11	7
909	FEB 01	0905 28.8	41.03S	175.58E	28	2.5	0.1	14	9
910	FEB 01	1058 40.5	40.85S	174.71E	45	3.6	0.1	30	22
914	FEB 01	1756 31.6	41.03S	174.64E	50	2.0	0.0	7	5
922	FEB 02	0941 14.9	40.54S	175.47E	5R	2.1	0.2	11	7
941	FEB 02	2104 22.4	40.68S	174.12E	84	2.4	0.1	13	8
952	FEB 03	0428 2.4	41.05S	175.23E	15	2.7	0.3	17	11
962	FEB 03	0933 37.8	41.44S	174.17E	36	2.6	0.2	15	12
969	FEB 03	1749 32.2	41.47S	174.66E	51	2.6	0.2	19	11
979	FEB 04	0655 58.4	40.54S	174.56E	61	4.1	0.2	33	24
980	FEB 04	0708 58.4	41.54S	174.51E	17	2.2	0.1	12	9
981	FEB 04	0813 26.9	41.05S	175.23E	17	2.4	0.3	16	11
986	FEB 04	1203 28.2	41.72S	174.85E	26	2.1	0.1	10	8
1001	FEB 05	0132 21.3	41.63S	175.11E	43	2.4	0.1	12	7
1006	FEB 05	0730 47.3	41.61S	174.71E	29	2.5	0.2	12	10
1007	FEB 05	0907 5.9	40.96S	175.14E	31	2.4	0.1	8	7
1009	FEB 05	1011 32.3	41.36S	174.43E	54	2.7	0.2	15	12
1014	FEB 05	1319 20.9	41.07S	175.53E	27	2.1	0.1	13	7
1022	FEB 06	0044 35.7	40.88S	174.51E	54	2.8	0.2	20	13
1026	FEB 06	0331 6.0	41.65S	173.69E	51	4.4F	0.2	35	26
1034	FEB 06	1118 19.3	41.11S	175.88E	30	2.3	0.1	16	9
1060	FEB 07	1626 47.3	41.29S	175.28E	28	2.3	0.1	18	12
1064	FEB 07	1702 20.6	41.25S	175.34E	27	2.1	0.1	18	10
1073	FEB 07	2327 49.6	41.00S	175.42E	15	3.1	0.2	28	18
1087	FEB 08	0854 9.5	41.60S	174.02E	30	2.3	0.1	19	12

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
1089	FEB 08	1346 22.2	40.59S	174.73E	35	2.0	0.1	10	6
1090	FEB 08	2138 41.5	41.71S	174.59E	30	2.7	0.2	21	15
1100	FEB 09	0356 30.0	41.64S	174.29E	12R	2.5	0.2	16	12
1115	FEB 09	1705 25.1	41.79S	174.36E	28	2.3	0.2	17	12
1120	FEB 09	2043 33.1	41.04S	175.92E	31	2.4	0.1	15	8
1123	FEB 09	2117 26.8	41.04S	175.94E	30	2.3	0.1	13	6
1126	FEB 10	0110 1.2	41.36S	173.87E	49	2.2	0.1	8	6
1134	FEB 10	0454 30.1	41.19S	173.58E	92	2.5	0.3	15	10
1138	FEB 10	0823 44.0	40.55S	174.25E	78	2.3	0.2	11	6
1145	FEB 10	1223 56.1	41.03S	174.18E	49	2.3	0.2	12	7
1146	FEB 10	1246 37.2	41.36S	173.97E	48	2.5	0.2	19	12
1148	FEB 10	1643 10.6	41.38S	174.18E	21	2.4	0.2	20	15
1151	FEB 10	1830 39.6	41.28S	175.73E	19	2.3	0.1	13	8
1152	FEB 10	2036 51.0	40.92S	175.99E	27	2.9	0.3	24	14
1154	FEB 10	2055 60.0	40.92S	176.00E	30	2.0	0.2	12	9
1161	FEB 11	0012 5.0	40.98S	175.58E	28	2.0	0.1	13	8
1165	FEB 11	0357 46.6	41.92S	174.33E	22	2.4	0.1	14	10
1175	FEB 11	0920 22.8	41.92S	174.32E	18	2.4	0.3	10	6
1177	FEB 11	1424 16.6	41.27S	173.84E	57	2.8	0.2	21	16
1178	FEB 11	1554 42.6	41.23S	175.03E	21	2.1	0.0	8	5
1184	FEB 11	1740 10.8	41.07S	174.78E	28	2.8	0.1	21	12
1191	FEB 12	0318 25.9	40.52S	174.71E	24	2.1	0.3	16	9
1200	FEB 12	0946 45.6	41.75S	173.76E	41	2.5	0.3	17	13
1214	FEB 12	2358 52.5	40.80S	175.28E	28	2.4	0.1	17	11
1218	FEB 13	0312 18.4	41.91S	174.18E	12R	2.8	0.4	21	18
1222	FEB 13	0741 39.9	41.81S	174.48E	38	2.6	0.2	14	11
1225	FEB 13	1410 49.3	41.04S	174.68E	64	2.2	0.1	13	9
1234	FEB 13	2314 59.8	41.93S	174.83E	27	2.5	0.1	9	7
1236	FEB 14	0004 3.4	40.70S	175.20E	9	2.1	0.1	12	6
1238	FEB 14	0145 37.5	41.20S	173.71E	83	3.6	0.2	33	19
1241	FEB 14	0548 4.9	41.27S	174.24E	40	3.2	0.3	31	20
1242	FEB 14	0555 20.6	40.70S	173.98E	61	2.4	0.2	9	5
1249	FEB 14	1539 58.3	40.95S	175.42E	19	2.2	0.2	18	10
1281	FEB 15	1214 54.9	41.08S	173.96E	61	2.3	0.2	14	8
1285	FEB 15	1609 50.3	41.21S	174.34E	34	2.2	0.2	13	8
1293	FEB 15	2117 59.0	41.02S	174.00E	60	2.7	0.3	17	13
1296	FEB 16	0052 53.6	40.62S	174.31E	79	2.7	0.2	18	12
1299	FEB 16	0218 0.1	41.61S	174.45E	12	2.0	0.2	15	10
1305	FEB 16	0544 37.1	41.67S	174.29E	5R	2.1	0.3	17	12
1324	FEB 16	1814 24.6	41.30S	175.20E	29	2.1	0.1	12	7
1325	FEB 16	1948 33.4	41.60S	174.87E	38	2.2	0.2	10	7
1341	FEB 17	1346 31.4	41.37S	173.53E	91	2.2	0.2	12	8
1343	FEB 17	1522 31.3	41.94S	174.27E	26	2.3	0.1	12	8
1348	FEB 17	1829 19.5	41.13S	173.51E	96	2.7	0.3	18	10
1351	FEB 17	2138 4.6	40.89S	173.59E	137	2.8	0.3	14	8

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
1357	FEB 18	0241 6.6	41.65S	174.75E	24	2.2	0.1	10	8
1382	FEB 18	1914 11.3	41.93S	174.84E	25	2.8	0.2	22	16
1383	FEB 18	1917 34.3	41.91S	174.82E	28	2.1	0.2	8	7
1384	FEB 18	2010 50.2	40.56S	175.79E	27	2.5	0.2	20	11
1393	FEB 19	0002 54.5	41.92S	174.84E	25	2.8	0.2	19	15
1434	FEB 20	0857 41.2	41.02S	175.57E	23	2.6	0.1	20	13
1442	FEB 20	1846 27.5	41.22S	175.40E	19	2.9	0.1	21	12
1447	FEB 20	2032 6.7	41.22S	175.39E	18	2.0	0.2	14	10
1465	FEB 21	1248 5.8	41.54S	175.34E	20	2.2	0.3	10	7
1466	FEB 21	1251 18.7	41.16S	175.23E	29	2.1	0.1	10	7
1476	FEB 22	0038 31.8	41.53S	174.05E	9	2.2	0.3	17	11
1482	FEB 22	0319 46.3	40.92S	175.64E	26	2.5	0.1	17	9
1485	FEB 22	0336 44.9	40.57S	175.75E	24	2.7	0.3	18	12
1488	FEB 22	0942 35.9	41.15S	174.66E	33	3.2	0.2	29	21
1496	FEB 22	1855 48.4	40.88S	174.58E	55	2.9	0.1	19	12
1500	FEB 22	2129 40.3	41.66S	174.60E	33R	2.0	0.2	6	5
1503	FEB 22	2206 40.3	40.60S	175.39E	33	2.2	0.1	10	6
1532	FEB 23	1550 56.7	41.47S	174.36E	12R	2.8	0.3	22	18
1538	FEB 23	2121 50.4	41.31S	174.53E	55	2.8	0.1	22	17
1550	FEB 24	0731 56.3	40.59S	174.43E	63	2.1	0.1	7	4
1568	FEB 24	2200 26.1	41.64S	174.36E	5R	2.1	0.3	19	12
1570	FEB 24	2330 42.5	41.63S	174.34E	5R	2.3	0.3	24	15
1573	FEB 24	2350 49.7	40.66S	174.63E	42	2.2	0.1	11	6
1582	FEB 25	0323 31.8	40.98S	175.56E	30	2.5	0.1	15	10
1590	FEB 25	0835 44.7	41.04S	175.02E	31	2.6	0.2	23	15
1596	FEB 25	1121 7.4	41.77S	174.60E	30	2.4	0.2	22	15
1612	FEB 26	0035 56.8	41.66S	174.92E	22	2.1	0.2	10	8
1618	FEB 26	0422 25.6	41.03S	174.58E	53	2.2	0.1	11	7
1641	FEB 26	2113 29.4	40.75S	173.82E	86	3.1	0.2	29	18
1644	FEB 27	0013 21.2	41.54S	173.75E	52	3.1	0.2	30	19
1650	FEB 27	0612 57.3	41.66S	175.35E	12R	2.0	0.2	12	8
1702	FEB 28	1924 46.3	41.57S	175.35E	21	2.3	0.2	19	11
1704	FEB 28	2024 57.0	40.81S	175.79E	26	2.5	0.2	21	12
1706	FEB 28	2153 12.6	41.66S	174.00E	40	2.4	0.2	16	13
1734	MAR 01	1554 3.0	41.80S	173.75E	65	2.0	0.0	10	5
1737	MAR 01	1601 29.3	40.87S	175.37E	25	2.1	0.2	18	10
1739	MAR 01	1705 41.2	40.57S	174.66E	17	2.6	0.2	22	15
1748	MAR 02	0141 42.1	41.63S	174.31E	7	2.4	0.2	22	14
1753	MAR 02	0438 13.3	40.90S	175.45E	26	2.2	0.1	15	9
1755	MAR 02	0624 26.0	41.52S	173.99E	34	2.5	0.2	15	10
1757	MAR 02	0745 40.9	40.64S	173.85E	89	3.2	0.3	28	21
1764	MAR 02	1053 56.9	41.50S	175.65E	30	2.5	0.2	11	7
1774	MAR 02	1857 14.5	41.37S	174.94E	23	2.0	0.3	12	9
1776	MAR 02	2101 55.2	40.78S	175.36E	28	2.1	0.1	11	8
1778	MAR 02	2141 6.8	40.55S	175.05E	5R	2.1	0.2	12	8

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
1404	FEB 19	0703 14.2	41.93S	174.83E	27	2.7	0.2	16	12
1405	FEB 19	0816 31.4	40.60S	174.04E	41	2.2	0.3	10	7
1409	FEB 19	1122 47.9	40.86S	175.85E	30	2.6	0.2	16	11
1410	FEB 19	1309 49.8	41.53S	174.43E	14	2.4	0.2	15	10
1428	FEB 20	0609 54.4	41.16S	173.55E	84	2.9	0.3	26	14
1780	MAR 03	0053 32.6	41.21S	173.77E	79	2.6	0.2	12	8
1783	MAR 03	0136 14.3	40.52S	175.56E	34	2.1	0.1	13	7
1784	MAR 03	0250 14.4	41.73S	174.62E	30	3.6	0.2	27	19
1787	MAR 03	0435 28.0	41.57S	174.70E	28	2.1	0.1	11	8
1791	MAR 03	1002 14.8	41.92S	174.11E	21	2.6	0.2	22	17
1792	MAR 03	1013 1.2	41.41S	174.44E	33	2.2	0.2	12	8
1800	MAR 03	1701 51.0	40.68S	175.92E	31	2.3	0.1	16	9
1805	MAR 03	1838 35.5	41.65S	173.96E	9	3.0	0.2	24	16
1832	MAR 04	0958 46.1	41.49S	174.36E	14	3.9	0.2	29	22
1833	MAR 04	1008 28.3	41.47S	174.34E	15	2.3	0.2	12	9
1839	MAR 04	1449 50.7	41.46S	174.35E	16	2.4	0.2	17	15
1852	MAR 05	0101 14.8	41.70S	174.25E	13	2.9	0.2	29	19
1853	MAR 05	0218 40.0	41.47S	174.39E	19	2.4	0.2	22	14
1855	MAR 05	0322 33.0	40.73S	175.13E	31	2.4	0.1	17	10
1860	MAR 05	0415 56.2	41.61S	174.04E	8	2.3	0.2	15	11
1865	MAR 05	0537 17.4	41.07S	174.90E	30	2.4	0.1	21	13
1872	MAR 05	0953 0.1	41.63S	174.76E	28	2.0	0.2	11	9
1875	MAR 05	1152 45.2	41.65S	175.36E	16	2.2	0.2	14	10
1880	MAR 05	1456 43.0	40.96S	175.21E	21	2.1	0.2	19	10
1882	MAR 05	1519 53.0	41.20S	174.02E	60	2.6	0.2	21	14
1883	MAR 05	1530 40.2	41.72S	174.61E	29	2.4	0.2	24	15
1886	MAR 05	1825 22.3	40.55S	175.48E	32	2.2	0.1	10	6
1890	MAR 06	0326 40.5	41.53S	174.38E	5R	2.3	0.3	11	8
1899	MAR 06	0924 34.6	41.20S	174.41E	55	2.6	0.1	23	15
1903	MAR 06	1135 16.9	40.57S	174.33E	59	2.5	0.3	15	9
1930	MAR 07	0711 6.8	41.50S	174.35E	13	2.3	0.3	17	13
1933	MAR 07	0827 53.0	41.47S	174.35E	18	2.0	0.2	11	9
1935	MAR 07	1008 59.1	41.49S	174.37E	10	2.4	0.3	18	15
1955	MAR 07	1630 3.9	40.88S	175.62E	23	2.3	0.2	20	11
1960	MAR 07	2133 56.7	40.55S	174.16E	65	2.6	0.2	18	10
1964	MAR 07	2329 34.3	41.41S	174.37E	24	2.0	0.0	8	5
1965	MAR 07	2354 44.9	40.88S	175.12E	30	4.1F	0.3	33	29
1968	MAR 08	0244 57.8	41.26S	173.58E	75	2.5	0.1	14	7
1969	MAR 08	0330 6.4	41.88S	174.09E	17	2.4	0.2	18	12
1972	MAR 08	0444 54.1	40.54S	174.19E	81	2.5	0.1	10	6
1977	MAR 08	0606 28.1	41.77S	174.53E	27	2.6	0.2	25	16
1980	MAR 08	0701 11.2	41.49S	174.68E	12	2.3	0.3	19	14
1982	MAR 08	0735 16.0	40.61S	174.30E	71	3.4	0.2	39	26
1992	MAR 08	1147 32.5	41.48S	174.69E	18	2.4	0.2	19	13
1993	MAR 08	1151 19.1	41.91S	174.24E	12R	2.6	0.3	25	19

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
1995	MAR 08	1238 40.6	41.48S	174.35E	16	4.3F	0.2	24	22
1996	MAR 08	1310 27.8	41.19S	174.07E	45	2.1	0.1	12	8
1999	MAR 08	1325 42.9	41.97S	173.99E	5R	2.2	0.1	8	6
2001	MAR 08	1406 10.4	40.59S	173.56E	101	2.4	0.2	16	9
2005	MAR 08	1455 33.6	41.49S	174.69E	12	2.6	0.3	27	16
2008	MAR 08	1602 14.5	41.19S	174.57E	20	2.2	0.2	21	13
2016	MAR 08	1931 23.4	41.78S	173.82E	17	2.4	0.2	11	9
2018	MAR 08	2021 41.2	41.49S	174.36E	15	3.4	0.2	28	21
2021	MAR 08	2316 54.2	40.78S	175.76E	27	2.2	0.1	11	7
2027	MAR 09	0130 38.6	40.58S	174.86E	37	2.7	0.2	21	15
2028	MAR 09	0140 24.3	41.71S	173.80E	5R	2.8	0.2	27	19
2029	MAR 09	0212 52.7	41.47S	174.35E	18	2.1	0.2	12	10
2038	MAR 09	1137 45.3	41.31S	173.87E	64	2.2	0.1	6	4
2065	MAR 10	0618 36.1	41.67S	174.11E	30	2.6	0.3	27	17
2071	MAR 10	0930 36.9	41.55S	173.91E	56	2.3	0.1	12	8
2075	MAR 10	1026 22.7	40.83S	175.03E	57	2.0	0.1	8	6
2077	MAR 10	1102 55.9	40.75S	174.22E	61	2.3	0.2	15	11
2095	MAR 10	2206 37.9	41.74S	173.77E	17	2.2	0.2	11	9
2102	MAR 11	0728 26.1	41.84S	174.46E	28	2.7	0.2	26	15
2104	MAR 11	0802 0.1	41.83S	174.48E	27	2.4	0.1	11	8
2105	MAR 11	0925 30.6	41.82S	174.50E	24	2.5	0.2	20	13
2106	MAR 11	0935 18.8	41.84S	174.48E	28	2.4	0.1	11	8
2111	MAR 11	1124 32.4	41.84S	174.48E	30	2.0	0.1	6	4
2112	MAR 11	1216 37.0	41.36S	174.37E	15	2.5	0.3	23	16
2124	MAR 11	1914 10.0	40.52S	175.83E	30	2.3	0.2	10	4
2126	MAR 12	0246 8.2	40.52S	175.67E	33R	2.6	0.3	7	4
2132	MAR 12	0640 33.6	41.24S	174.31E	40	2.8	0.2	17	14
2137	MAR 12	1219 1.9	41.04S	175.89E	33	2.4	0.2	8	6
2146	MAR 12	2109 59.4	40.56S	174.17E	74	2.3	0.1	9	5
2149	MAR 12	2148 28.3	40.60S	175.49E	30	2.5	0.3	18	11
2151	MAR 12	2237 39.1	41.53S	174.21E	18	2.4	0.2	13	9
2154	MAR 12	2346 13.2	40.59S	175.49E	31	2.7	0.2	22	14
2155	MAR 13	0009 42.6	41.37S	174.93E	26	2.0	0.1	13	9
2158	MAR 13	0250 27.3	41.83S	174.49E	24	2.1	0.2	10	7
2163	MAR 13	0545 11.6	40.59S	175.97E	30	2.6	0.2	19	11
2167	MAR 13	0702 40.9	41.67S	174.37E	30	2.8	0.2	25	18
2169	MAR 13	0729 57.2	40.59S	175.97E	31	2.3	0.1	17	10
2171	MAR 13	0743 41.3	41.06S	173.64E	81	3.1	0.2	26	17
2199	MAR 14	0613 8.8	41.28S	174.50E	53	2.2	0.1	13	8
2202	MAR 14	0640 39.2	41.61S	174.63E	28	2.3	0.2	15	11
2203	MAR 14	0645 13.6	41.30S	174.52E	53	2.3	0.1	12	9
2205	MAR 14	0731 49.8	41.68S	174.56E	30	2.1	0.1	9	7
2216	MAR 14	1207 36.1	40.80S	174.13E	59	2.2	0.2	13	9
2247	MAR 15	1016 51.3	40.61S	174.40E	27	2.0	0.2	14	7
2253	MAR 15	1403 8.1	40.86S	175.11E	47	2.1	0.5	12	8

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
2266	MAR 16	0032 35.7	41.69S	173.68E	50	2.3	0.3	15	9
2284	MAR 16	1022 48.7	40.64S	174.95E	65	2.1	0.1	11	7
2287	MAR 16	1136 24.5	40.95S	174.86E	47	2.7	0.2	20	14
2290	MAR 16	1321 6.6	40.64S	174.18E	86	2.7	0.2	13	11
2291	MAR 16	1339 7.4	40.83S	174.58E	55	2.2	0.1	10	8
2295	MAR 16	1600 30.3	40.65S	175.49E	31	2.2	0.1	8	5
2297	MAR 16	1653 24.4	40.55S	174.83E	27	2.2	0.2	14	11
2299	MAR 16	1919 42.6	41.04S	174.46E	65	2.0	0.1	8	6
2304	MAR 17	0117 58.2	41.17S	175.84E	27	2.1	0.2	8	5
2307	MAR 17	0233 28.8	41.61S	174.47E	5R	2.3	0.2	14	11
2308	MAR 17	0311 14.6	41.28S	174.99E	25	2.1	0.1	13	9
2322	MAR 17	1432 56.5	40.67S	175.92E	37	2.2	0.1	10	4
2324	MAR 17	2047 2.8	40.89S	175.98E	28	2.3	0.3	12	9
2325	MAR 17	2149 3.2	40.98S	173.80E	82	2.5	0.2	11	7
2328	MAR 18	0019 58.9	40.62S	174.57E	47	2.3	0.2	8	6
2329	MAR 18	0055 1.6	40.96S	176.00E	29	2.9	0.2	17	13
2337	MAR 18	0532 45.2	41.01S	174.95E	43	2.2	0.2	13	10
2338	MAR 18	0537 54.4	40.53S	173.97E	101	2.4	0.3	11	8
2345	MAR 18	0701 18.0	40.73S	173.86E	85	2.5	0.2	14	10
2347	MAR 18	0859 29.5	41.59S	174.69E	31	2.2	0.2	10	8
2360	MAR 18	1711 0.0	41.05S	174.73E	54	2.1	0.1	8	6
2364	MAR 19	0017 13.3	41.28S	175.29E	30	2.2	0.1	14	10
2365	MAR 19	0105 55.8	41.38S	173.62E	95	2.7	0.1	9	7
2368	MAR 19	0142 53.3	41.22S	175.48E	20	2.3	0.1	14	10
2374	MAR 19	0604 7.5	41.38S	174.17E	39	3.9F	0.2	29	25
2375	MAR 19	0606 55.9	40.94S	175.46E	33R	2.4	0.3	14	11
2379	MAR 19	0732 50.7	41.09S	175.38E	30	2.0	0.1	11	8
2382	MAR 19	1015 35.3	41.38S	174.17E	35	2.3	0.2	10	8
2390	MAR 19	1429 55.3	41.09S	175.82E	32	2.2	0.1	11	8
2391	MAR 19	1537 1.9	41.62S	175.26E	21	2.1	0.3	11	8
2394	MAR 19	1609 5.2	40.63S	174.96E	17	2.0	0.2	11	8
2397	MAR 19	1711 12.3	40.88S	174.72E	46	2.0	0.3	10	7
2406	MAR 20	0237 17.4	41.92S	174.57E	23	2.5	0.3	12	10
2408	MAR 20	0504 48.8	41.85S	174.45E	24	2.2	0.1	10	8
2413	MAR 20	1002 45.8	41.42S	174.36E	33R	2.0	0.4	7	6
2414	MAR 20	1017 31.8	41.46S	174.35E	15	2.3	0.3	15	12
2416	MAR 20	1148 37.3	40.65S	175.90E	28	2.1	0.2	9	6
2423	MAR 20	1419 57.9	41.51S	174.40E	17	2.7	0.2	18	15
2428	MAR 20	1453 20.4	40.78S	175.29E	29	3.1	0.1	18	16
2433	MAR 20	1737 41.3	40.77S	174.82E	43	3.1	0.2	23	21
2437	MAR 20	2025 25.8	41.08S	175.19E	26	2.1	0.2	11	8
2441	MAR 20	2254 4.1	41.47S	174.33E	18	2.6	0.2	15	13
2448	MAR 21	0713 49.6	41.35S	174.15E	38	2.5	0.2	10	8
2450	MAR 21	0836 45.9	40.72S	175.47E	30	2.3	0.2	10	8
2470	MAR 22	0043 27.7	40.94S	175.50E	19	2.5	0.2	17	12

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
2475	MAR 22	0331 17.2	40.79S	175.29E	26	2.7	0.1	16	13
2489	MAR 22	1122 41.9	41.37S	173.78E	76	2.2	0.1	7	5
2505	MAR 22	1936 49.8	41.49S	174.47E	54	2.2	0.1	8	5
2506	MAR 22	2031 14.4	40.80S	175.29E	30	2.8	0.2	16	13
2509	MAR 22	2239 15.1	40.95S	173.96E	77	2.2	0.3	10	7
2515	MAR 23	0153 11.4	41.66S	174.24E	18	2.2	0.2	15	12
2554	MAR 23	2158 10.7	40.64S	175.57E	30	2.3	0.3	13	10
2574	MAR 24	0838 48.0	41.84S	174.14E	25	2.2	0.2	11	8
2576	MAR 24	1155 20.0	41.25S	174.88E	25	2.6	0.2	17	13
2593	MAR 24	2132 1.7	40.79S	175.98E	31	2.4	0.3	14	10
2595	MAR 24	2215 49.4	40.57S	173.94E	89	2.4	0.1	9	8
2597	MAR 24	2337 21.6	41.47S	174.97E	46	2.5	0.2	16	12
2601	MAR 25	0247 47.7	41.06S	175.23E	27	3.1	0.2	20	17
2612	MAR 25	0937 11.2	41.41S	174.46E	55	2.3	0.1	10	9
2615	MAR 25	1039 7.2	41.28S	174.82E	28	2.1	0.2	10	8
2630	MAR 25	1709 6.8	41.62S	175.37E	20	2.5	0.3	13	10
2631	MAR 25	1747 26.5	41.61S	175.37E	21	2.6	0.3	15	10
2637	MAR 25	2050 53.7	41.23S	175.50E	23	3.1	0.2	23	17
2638	MAR 25	2058 28.1	41.69S	175.35E	11	2.2	0.2	9	6
2642	MAR 25	2253 3.9	41.63S	175.36E	18	2.4	0.2	13	10
2649	MAR 26	0703 2.2	40.75S	175.08E	32	2.2	0.1	13	10
2659	MAR 26	1247 48.1	41.61S	175.37E	20	2.3	0.2	17	12
2664	MAR 26	1630 13.6	41.63S	175.28E	21	2.9	0.2	22	14
2666	MAR 26	1649 33.7	41.60S	175.36E	20	2.5	0.3	16	10
2667	MAR 26	1731 7.3	40.60S	175.51E	32	2.0	0.1	9	7
2677	MAR 27	0019 6.9	41.57S	175.26E	19	2.3	0.4	13	11
2681	MAR 27	0231 8.9	41.63S	175.35E	17	2.3	0.2	11	8
2688	MAR 27	0506 3.5	41.67S	174.95E	24	2.3	0.2	10	8
2695	MAR 27	0941 53.3	41.26S	175.29E	31	2.6	0.2	18	14
2702	MAR 27	1315 59.7	40.93S	173.52E	92	2.8	0.3	14	9
2708	MAR 27	1822 24.7	41.64S	175.37E	18	2.3	0.3	10	7
2721	MAR 28	0511 55.7	40.73S	175.05E	37	2.0	0.2	10	7
2723	MAR 28	0546 46.7	41.28S	173.86E	59	3.0	0.2	23	16
2726	MAR 28	0752 24.3	41.01S	175.57E	26	2.9	0.2	19	15
2730	MAR 28	1026 11.9	41.23S	173.78E	81	2.7	0.2	15	11
2752	MAR 28	1709 33.9	40.62S	174.43E	58	2.8	0.3	15	12
2760	MAR 28	1945 42.5	41.40S	174.45E	12	2.0	0.3	9	7
2777	MAR 29	0159 4.4	41.65S	175.39E	23	2.8	0.3	17	13
2778	MAR 29	0235 25.0	41.47S	173.96E	33	2.1	0.2	9	7
2791	MAR 29	0733 35.5	40.85S	175.12E	32	2.2	0.2	17	13
2793	MAR 29	0815 13.9	41.25S	175.32E	29	2.0	0.3	11	8
2797	MAR 29	1009 4.6	40.56S	175.67E	31	2.1	0.2	13	9
2798	MAR 29	1020 0.8	41.41S	175.09E	23	2.2	0.1	20	14
2799	MAR 29	1034 12.4	40.63S	173.71E	135	2.4	0.1	9	7
2806	MAR 29	1338 58.6	41.65S	175.37E	9	2.1	0.3	7	5

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2807	MAR 29	1442 56.6	40.63S	175.48E	30	2.1	0.1	7	5
2827	MAR 30	0250 19.5	41.62S	174.21E	5R	2.3	0.3	12	10
2834	MAR 30	1020 30.2	41.68S	175.34E	10	2.2	0.2	9	6
2859	MAR 31	0639 45.9	41.62S	175.27E	21	2.7	0.2	19	13
2865	MAR 31	1235 46.9	41.73S	173.50E	42	2.4	0.3	7	4
2879	MAR 31	1849 19.1	40.67S	174.38E	61	3.0	0.2	14	11
2880	MAR 31	1918 10.4	40.69S	174.19E	69	3.4	0.2	28	23
2885	MAR 31	2129 49.6	40.90S	175.47E	28	2.2	0.1	11	8
2893	MAR 31	2329 59.0	41.65S	174.01E	40	2.1	0.2	9	6
2898	APR 01	0354 0.4	41.40S	174.06E	36	2.4	0.2	9	6
2899	APR 01	0500 10.4	40.95S	175.09E	32	2.6	0.1	14	10
2902	APR 01	0616 39.3	41.48S	174.40E	31	2.5	0.1	9	7
2903	APR 01	0621 5.6	40.51S	174.99E	5R	2.8	0.2	18	12
2906	APR 01	0800 5.3	40.89S	175.61E	22	2.1	0.2	12	9
2924	APR 01	1952 18.3	41.66S	175.40E	25	3.7	0.2	22	17
2925	APR 01	1955 43.8	41.74S	175.37E	12R	2.1	0.2	7	6
2926	APR 01	1955 49.3	41.67S	175.35E	12	2.5	0.2	11	7
2927	APR 01	1958 5.6	41.50S	174.66E	12	2.0	0.3	8	6
2929	APR 01	2044 20.4	41.62S	175.36E	18	2.3	0.2	13	10
2933	APR 02	0020 3.4	41.60S	174.62E	29	2.5	0.2	17	14
2936	APR 02	0124 59.1	41.71S	175.35E	12	2.3	0.2	11	8
2951	APR 02	0541 42.8	41.65S	175.38E	24	3.2	0.3	20	15
2953	APR 02	0614 25.1	41.64S	175.39E	23	2.8	0.3	19	14
2956	APR 02	0843 10.0	41.70S	174.51E	27	2.4	0.2	18	15
2957	APR 02	0854 54.7	41.71S	174.51E	27	2.9	0.2	20	16
2968	APR 02	1300 31.5	41.61S	175.37E	20	2.4	0.3	14	10
2985	APR 02	2202 21.5	41.63S	175.36E	17	2.5	0.2	11	9
2992	APR 03	0337 44.2	41.62S	175.36E	18	2.3	0.2	13	10
2993	APR 03	0354 6.9	41.69S	175.36E	14	2.3	0.2	10	7
2994	APR 03	0354 47.8	41.64S	175.35E	14	2.0	0.2	8	5
2995	APR 03	0417 21.1	41.60S	175.35E	20	2.4	0.3	11	10
2996	APR 03	0437 7.4	41.01S	174.92E	48	2.0	0.1	6	5
3008	APR 03	1029 55.4	40.62S	174.53E	72	2.2	0.2	9	7
3013	APR 03	1109 8.1	40.72S	175.33E	28	2.2	0.2	13	10
3020	APR 03	1316 38.7	41.63S	175.38E	27	2.6	0.2	14	12
3021	APR 03	1350 44.7	40.91S	174.90E	40	2.2	0.2	15	12
3022	APR 03	1415 57.7	40.77S	174.33E	56	3.1	0.3	27	22
3026	APR 03	1652 0.8	41.65S	175.27E	21	2.4	0.2	14	10
3027	APR 03	1750 45.3	41.64S	175.38E	24	3.0	0.3	19	13
3030	APR 03	1834 35.0	41.65S	175.39E	24	2.9	0.3	12	10
3034	APR 03	2140 49.1	41.64S	175.38E	18	2.4	0.2	11	10
3035	APR 03	2140 54.3	41.56S	175.35E	21	2.6	0.3	15	10
3037	APR 03	2304 36.1	41.65S	175.40E	25	3.3	0.3	19	14
3038	APR 03	2305 6.0	41.70S	175.36E	12R	2.4	0.2	8	6
3046	APR 04	0143 24.6	41.62S	175.36E	22	2.4	0.3	14	10

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
3048	APR 04	0202 24.1	41.79S	174.36E	26	2.2	0.2	11	10
3051	APR 04	0342 21.0	40.67S	175.07E	31	2.3	0.2	15	12
3058	APR 04	0719 41.7	41.61S	175.23E	21	3.0	0.3	18	15
3060	APR 04	0722 16.3	41.61S	175.22E	22	3.0	0.3	18	14
3064	APR 04	0821 37.0	41.58S	175.22E	21	2.1	0.3	11	9
3077	APR 04	1807 1.9	40.57S	173.68E	102	2.6	0.3	21	15
3078	APR 04	1900 21.3	41.23S	174.52E	56	2.0	0.1	8	7
3081	APR 04	2015 21.2	41.63S	175.37E	19	2.2	0.2	13	10
3082	APR 04	2145 57.6	41.41S	175.09E	21	2.2	0.1	14	11
3083	APR 04	2148 5.0	40.91S	175.85E	30	2.4	0.1	15	10
3088	APR 05	0023 8.8	41.49S	175.55E	27	2.4	0.3	16	11
3100	APR 05	0520 4.0	40.51S	175.80E	33R	2.1	0.1	6	3
3107	APR 05	0848 22.8	40.63S	174.16E	71	2.6	0.2	11	9
3116	APR 05	1543 3.5	40.99S	175.59E	30	3.4	0.2	22	19
3126	APR 05	2241 24.5	40.77S	174.83E	26	2.1	0.3	9	6
3143	APR 06	0629 33.7	40.63S	174.05E	33R	2.9	0.7	7	5
3146	APR 06	0901 13.9	41.37S	174.63E	22	2.4	0.2	12	10
3156	APR 06	1216 52.0	41.66S	175.34E	9	2.1	0.2	10	7
3157	APR 06	1228 36.4	40.87S	174.98E	53	2.2	0.2	13	9
3160	APR 06	1312 42.3	41.67S	175.35E	12R	2.1	0.1	9	7
3161	APR 06	1347 34.6	41.11S	174.57E	33	2.2	0.2	11	9
3169	APR 06	1715 22.1	41.40S	174.73E	48	2.1	0.2	11	8
3184	APR 07	0245 55.0	41.30S	173.60E	66	2.7	0.2	17	11
3186	APR 07	0411 0.5	41.38S	174.61E	22	2.3	0.2	8	7
3195	APR 07	1037 41.0	40.66S	173.83E	79	3.3	0.4	27	19
3197	APR 07	1146 56.8	40.85S	173.76E	79	2.7	0.2	16	11
3199	APR 07	1451 59.1	40.86S	174.76E	14	3.0	0.3	23	18
3201	APR 07	1535 56.2	40.72S	175.85E	29	2.2	0.2	11	9
3211	APR 08	0252 38.4	40.76S	174.90E	57	2.3	0.1	7	6
3225	APR 08	1428 41.2	40.52S	175.16E	5R	2.7	0.2	17	14
3241	APR 09	0007 6.3	41.04S	175.34E	13	2.4	0.2	14	11
3248	APR 09	0856 29.3	40.97S	174.64E	48	3.3	0.2	23	17
3258	APR 09	1648 8.0	41.66S	175.37E	13	2.0	0.2	8	6
3266	APR 10	0036 26.7	41.10S	173.98E	47	3.0	0.2	15	14
3277	APR 10	0935 54.6	41.81S	174.40E	24	2.7	0.2	14	10
3292	APR 11	0647 16.0	40.75S	174.44E	33R	2.0	0.3	6	3
3302	APR 11	0951 28.7	40.67S	175.40E	31	2.4	0.2	10	7
3320	APR 11	2125 42.7	41.47S	173.66E	46	2.3	0.2	12	8
3327	APR 12	0229 50.1	40.83S	174.55E	27	2.1	0.2	12	8
3328	APR 12	0302 49.0	40.65S	174.24E	33R	2.1	0.3	11	7
3331	APR 12	0342 57.7	41.46S	174.67E	19	2.3	0.2	16	13
3340	APR 12	1044 34.1	40.77S	173.61E	86	2.8	0.2	10	7
3380	APR 13	0408 30.5	41.52S	174.21E	13	2.5	0.3	12	9
3386	APR 13	0852 45.3	40.89S	175.16E	27	3.9F	0.3	39	31
3388	APR 13	1044 12.1	40.80S	175.58E	21	2.7	0.1	18	13

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3414	APR 13	2313 23.2	41.64S	173.92E	11	2.2	0.2	14	10
3428	APR 14	0707 54.4	40.96S	174.10E	72	2.3	0.2	9	6
3444	APR 14	1126 50.7	40.66S	175.57E	5R	2.1	0.1	6	3
3456	APR 14	1309 29.3	41.09S	174.55E	33	2.5	0.2	18	12
3474	APR 14	2055 46.6	40.60S	174.29E	5R	2.7	0.2	14	10
3476	APR 14	2230 14.5	41.10S	173.74E	76	2.8	0.3	13	9
3477	APR 14	2239 28.5	40.51S	174.19E	69	2.4	0.3	8	6
3487	APR 15	0305 11.4	41.66S	173.98E	5R	2.4	0.3	14	11
3539	APR 16	0533 57.3	41.64S	175.36E	15	2.1	0.2	11	9
3544	APR 16	0758 51.4	40.54S	175.91E	54	2.5	0.1	7	4
3549	APR 16	1025 14.3	41.50S	174.22E	5R	2.0	0.2	9	7
3597	APR 16	1348 29.8	40.52S	174.00E	101	2.6	0.2	12	9
3666	APR 16	1646 34.6	41.50S	174.24E	62	2.1	0.1	7	5
3671	APR 16	1702 24.8	41.13S	173.94E	77	2.8	0.3	15	11
3673	APR 16	1722 57.6	41.75S	174.64E	27	3.2	0.2	24	18
3695	APR 17	0911 57.0	40.67S	175.64E	12R	2.0	0.3	6	3
3699	APR 17	1007 16.2	40.67S	175.69E	12R	2.0	0.3	6	3
3726	APR 17	1814 10.0	41.53S	174.03E	77	2.1	0.2	7	5
3732	APR 17	2223 51.7	41.11S	174.63E	39	3.6	0.2	31	23
3746	APR 18	0916 10.7	41.93S	174.07E	34	2.5	0.2	15	13
3750	APR 18	1256 35.0	41.71S	174.61E	22	2.2	0.1	7	5
3758	APR 18	1530 22.6	41.00S	175.56E	27	2.4	0.1	13	10
3771	APR 18	2231 0.9	40.62S	175.03E	34	2.1	0.1	11	8
3798	APR 19	1523 21.6	40.77S	174.78E	20	2.1	0.2	10	6
3802	APR 19	1631 19.0	40.97S	174.54E	24	2.1	0.3	10	6
3811	APR 19	1915 52.5	41.71S	173.89E	69	2.5	0.2	7	5
3817	APR 19	2232 25.1	41.35S	174.12E	38	2.5	0.3	16	13
3819	APR 20	0112 42.7	41.24S	175.56E	21	2.9	0.1	23	16
3822	APR 20	0125 13.9	41.76S	174.49E	30	2.6	0.2	17	14
3837	APR 20	0935 7.3	40.83S	175.78E	32	2.2	0.1	10	8
3871	APR 21	0235 31.4	41.08S	174.45E	58	2.4	0.0	7	5
3876	APR 21	0836 1.7	40.99S	175.24E	20	2.3	0.3	15	10
3884	APR 21	1331 33.6	41.68S	174.09E	12R	2.2	0.2	8	6
3885	APR 21	1428 20.6	40.53S	175.72E	32	2.2	0.1	11	8
3887	APR 21	1525 23.3	40.63S	174.00E	131	2.5	0.1	7	6
3916	APR 22	0559 42.4	41.09S	175.41E	16	2.1	0.1	14	10
3931	APR 22	1226 49.3	40.92S	175.94E	20	2.1	0.2	11	8
3969	APR 23	0628 4.0	41.90S	174.51E	31	2.5	0.1	12	11
3970	APR 23	0641 32.7	40.90S	174.10E	50	2.3	0.2	9	7
3994	APR 23	2125 19.6	40.61S	174.97E	37	3.0	0.3	21	17
4028	APR 24	1322 27.3	41.05S	175.20E	17	2.3	0.3	13	11
4029	APR 24	1353 32.9	41.05S	175.19E	17	2.2	0.3	13	11
4030	APR 24	1430 9.3	41.06S	175.21E	23	2.7	0.2	17	14
4034	APR 24	1440 3.3	41.06S	175.20E	25	3.1	0.2	18	16
4082	APR 25	1520 20.6	40.87S	175.97E	26	2.5	0.2	16	11

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4107	APR 26	0416 49.3	41.73S	174.35E	5R	2.8	0.2	20	14
4111	APR 26	0543 24.4	41.21S	174.61E	30	2.0	0.1	12	10
4114	APR 26	0612 17.7	40.61S	175.49E	30	2.1	0.2	9	6
4117	APR 26	0722 11.0	41.08S	174.96E	31	3.1	0.2	17	14
4125	APR 26	1246 53.4	41.14S	174.64E	32	2.0	0.1	9	8
4129	APR 26	1316 37.7	41.32S	174.92E	29	2.3	0.1	12	10
4146	APR 27	0435 52.0	41.19S	174.71E	48	2.1	0.1	6	5
4153	APR 27	0704 32.2	41.77S	174.53E	36	2.7	0.1	10	9
4154	APR 27	0840 20.7	41.28S	174.15E	51	3.3	0.2	25	19
4156	APR 27	0917 50.0	41.17S	175.38E	15	2.0	0.1	11	8
4183	APR 27	1806 59.2	40.60S	174.27E	33R	2.2	0.2	8	5
4199	APR 27	2241 17.1	40.89S	175.72E	26	2.4	0.1	15	10
4204	APR 27	2357 8.3	40.72S	174.49E	79	4.2F	0.2	35	27
4205	APR 28	0013 22.0	40.52S	174.12E	91	2.7	0.3	13	9
4238	APR 28	1101 11.1	40.86S	174.23E	81	2.9	0.3	24	18
4251	APR 28	1733 0.9	40.66S	174.46E	76	2.3	0.2	13	10
4279	APR 29	0500 37.7	41.62S	175.02E	30	2.6	0.1	16	13
4281	APR 29	0605 2.0	41.79S	174.21E	21	2.3	0.2	8	7
4290	APR 29	0900 6.4	40.76S	173.83E	84	2.4	0.3	13	8
4307	APR 29	1849 23.4	40.92S	174.77E	54	2.9	0.1	20	14
4315	APR 30	0254 38.7	40.71S	174.36E	58	2.5	0.2	10	7
4317	APR 30	0359 1.8	40.68S	174.48E	70	3.0	0.1	12	9
4341	APR 30	2357 3.0	40.89S	175.68E	31	2.2	0.2	8	5
4343	MAY 01	0107 6.3	41.00S	175.88E	29	2.5	0.1	11	8
4359	MAY 01	1106 21.3	41.52S	174.12E	61	2.2	0.1	8	5
4370	MAY 01	1917 20.8	41.28S	174.99E	24	2.4	0.2	16	11
4372	MAY 01	1928 23.0	41.17S	175.08E	27	2.5	0.2	15	13
4374	MAY 01	1949 49.0	41.28S	174.98E	25	2.3	0.1	13	9
4379	MAY 01	2315 17.3	40.71S	175.27E	29	2.5	0.2	12	9
4381	MAY 01	2332 23.5	41.23S	174.33E	41	2.0	0.1	11	8
4386	MAY 02	0344 10.0	40.59S	174.16E	48	2.3	0.3	11	8
4402	MAY 02	1237 38.0	41.73S	173.87E	12R	2.2	0.2	8	6
4414	MAY 02	2010 50.0	40.91S	175.99E	30	2.1	0.2	10	8
4415	MAY 02	2012 48.3	40.92S	175.97E	29	2.5	0.2	13	10
4420	MAY 03	0004 7.1	41.55S	174.14E	35	3.0	0.2	23	20
4426	MAY 03	0338 51.5	40.84S	175.66E	23	2.3	0.1	13	10
4481	MAY 04	1456 17.6	40.86S	175.14E	34	2.2	0.2	15	10
4487	MAY 04	1904 34.2	40.75S	174.79E	43	3.6	0.1	26	23
4496	MAY 05	0125 38.3	41.52S	174.20E	32	2.5	0.3	15	13
4498	MAY 05	0225 1.0	40.66S	174.54E	12R	3.2	0.2	25	20
4514	MAY 05	1049 43.7	41.03S	174.83E	52	2.7	0.1	19	13
4539	MAY 06	0327 33.7	41.08S	174.83E	56	3.1	0.2	24	19
4540	MAY 06	0350 25.5	40.76S	174.46E	63	4.0F	0.2	29	25
4544	MAY 06	0554 42.2	41.29S	174.56E	31	2.6	0.2	16	14
4560	MAY 06	1907 0.4	41.51S	175.17E	42	2.0	0.1	9	7

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
4563	MAY 06	2106 28.5	41.15S	174.37E	11	2.0	0.1	8	5
4567	MAY 07	0024 19.8	40.88S	174.74E	15	2.1	0.1	8	5
4569	MAY 07	0110 30.3	41.63S	174.34E	5R	2.3	0.3	13	9
4575	MAY 07	0301 17.4	41.20S	174.61E	32	3.2	0.2	21	18
4582	MAY 07	0620 23.1	41.16S	173.63E	74	2.5	0.2	17	11
4591	MAY 07	0927 22.9	40.77S	175.35E	28	2.2	0.2	11	8
4594	MAY 07	1051 0.5	41.38S	175.12E	24	2.3	0.1	15	10
4600	MAY 07	1257 31.3	40.90S	175.83E	30	2.0	0.1	9	6
4621	MAY 07	2229 57.0	41.29S	175.21E	28	2.6	0.2	15	11
4623	MAY 07	2256 4.2	40.61S	175.96E	15	2.1	0.2	11	8
4633	MAY 08	0149 54.8	41.46S	174.19E	19	2.1	0.3	10	8
4642	MAY 08	0655 54.9	41.99S	174.32E	33	2.4	0.1	8	5
4666	MAY 08	1733 32.0	40.66S	175.89E	32	3.0	0.2	19	16
4672	MAY 08	2103 54.9	40.76S	175.36E	30	2.2	0.1	10	7
4675	MAY 08	2214 11.6	41.47S	174.41E	32	2.2	0.1	8	6
4676	MAY 08	2227 31.9	40.55S	174.26E	26	2.3	0.2	6	5
4679	MAY 08	2315 48.6	40.92S	175.76E	32	2.0	0.1	9	7
4683	MAY 09	0354 58.8	41.86S	173.84E	41	2.6	0.3	11	8
4694	MAY 09	1116 27.4	41.55S	174.32E	29	2.3	0.1	11	9
4695	MAY 09	1127 20.9	41.57S	173.70E	46	3.0	0.3	20	15
4698	MAY 09	1158 49.5	40.74S	174.86E	35	2.5	0.1	16	11
4699	MAY 09	1223 7.9	41.05S	173.98E	53	2.1	0.1	6	4
4703	MAY 09	1352 30.5	41.06S	174.05E	54	2.5	0.2	11	8
4704	MAY 09	1414 55.5	40.65S	175.79E	28	2.9	0.3	20	16
4712	MAY 09	2043 25.1	41.02S	174.80E	30	2.7	0.1	18	14
4717	MAY 09	2129 19.7	41.15S	174.01E	49	2.7	0.2	17	13
4724	MAY 10	0013 53.5	41.65S	174.56E	26	2.4	0.1	11	9
4727	MAY 10	0147 52.2	40.61S	175.61E	30	2.5	0.3	17	13
4734	MAY 10	0628 55.2	41.08S	174.86E	58	2.3	0.1	13	10
4737	MAY 10	0706 36.3	41.59S	175.56E	24	2.4	0.3	13	9
4743	MAY 10	0953 40.3	41.62S	174.57E	28	2.2	0.1	9	8
4755	MAY 10	1650 58.9	40.58S	174.61E	69	4.5F	0.2	38	26
4778	MAY 11	0656 11.3	41.02S	174.79E	30	2.3	0.1	9	8
4780	MAY 11	0711 32.8	41.00S	175.40E	19	2.0	0.2	7	5
4781	MAY 11	0806 42.1	40.51S	174.54E	44	2.2	0.2	10	7
4785	MAY 11	1015 12.1	41.53S	174.19E	34	2.3	0.2	12	9
4792	MAY 11	1647 23.4	40.65S	174.42E	61	3.8	0.2	34	22
4795	MAY 11	1921 46.6	41.04S	174.16E	51	2.3	0.1	8	6
4825	MAY 12	1808 28.8	40.88S	175.78E	33	2.4	0.2	13	9
4849	MAY 13	1040 33.6	41.19S	175.51E	20	2.1	0.1	16	12
4860	MAY 13	1707 16.5	41.41S	173.72E	41	2.4	0.3	6	4
4869	MAY 13	2201 51.0	40.60S	175.02E	33	2.1	0.1	8	6
4878	MAY 14	0246 21.8	41.08S	174.15E	51	2.1	0.1	7	5
4887	MAY 14	0733 29.4	40.93S	174.52E	57	3.8	0.2	33	25
4892	MAY 14	1038 17.4	40.71S	175.94E	27	3.0	0.3	21	17

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
4894	MAY 14	1133 36.4	41.36S	174.57E	26	2.4	0.2	15	13
4907	MAY 14	1929 33.2	41.45S	174.44E	19	2.6	0.2	21	16
4915	MAY 14	2351 14.7	40.68S	175.86E	24	2.3	0.2	6	3
4921	MAY 15	0559 32.5	41.03S	175.56E	26	2.5	0.1	15	10
4929	MAY 15	1628 3.2	41.38S	174.89E	26	2.5	0.1	14	11
4931	MAY 15	1641 31.1	40.84S	174.54E	23	2.2	0.0	9	7
4940	MAY 16	0442 37.1	40.72S	174.39E	46	2.3	0.1	7	5
4966	MAY 17	0814 59.2	40.85S	175.17E	29	2.6	0.3	17	14
4978	MAY 17	1404 33.9	40.72S	174.35E	60	2.7	0.2	9	8
4988	MAY 17	2039 37.0	40.61S	174.32E	52	3.0	0.2	12	10
4992	MAY 17	2242 24.7	40.64S	175.82E	34	2.1	0.0	5	3
5009	MAY 18	0809 17.7	41.07S	175.39E	22	2.1	0.2	15	9
5018	MAY 18	1454 32.8	41.22S	173.54E	77	2.7	0.2	15	9
5022	MAY 18	1717 17.8	41.13S	174.54E	33	2.1	0.1	11	7
5023	MAY 18	1743 47.1	40.67S	175.40E	27	2.4	0.2	11	8
5027	MAY 18	2118 12.2	40.59S	174.40E	53	3.1	0.3	23	15
5032	MAY 19	0700 2.4	41.72S	174.54E	29	2.1	0.2	11	9
5042	MAY 19	1251 45.4	41.27S	174.16E	44	2.3	0.1	7	5
5043	MAY 19	1255 36.3	41.08S	174.24E	49	2.1	0.1	7	5
5044	MAY 19	1340 27.7	40.94S	174.78E	52	2.2	0.1	8	7
5076	MAY 20	0102 28.7	41.84S	173.84E	43	2.3	0.2	14	9
5098	MAY 20	1434 53.4	41.15S	174.48E	39	3.3	0.2	32	22
5102	MAY 20	1623 33.8	40.54S	174.20E	73	2.6	0.2	7	5
5109	MAY 20	2108 28.1	41.28S	174.07E	49	2.2	0.2	9	6
5122	MAY 21	0404 4.6	41.29S	173.79E	66	2.6	0.2	12	9
5139	MAY 21	1007 25.0	40.84S	175.26E	28	3.3	0.3	25	18
5144	MAY 21	1404 15.7	41.70S	173.92E	22	2.1	0.3	9	7
5155	MAY 21	1849 17.3	40.98S	173.98E	70	2.2	0.2	7	6
5161	MAY 21	2001 42.1	40.52S	175.70E	33	2.1	0.2	10	7
5189	MAY 22	0736 37.3	41.66S	174.32E	5R	2.4	0.2	20	14
5195	MAY 22	1018 54.1	41.27S	175.28E	23	2.7	0.2	17	12
5206	MAY 22	1409 45.0	40.62S	175.43E	64	2.6	0.1	9	6
5207	MAY 22	1430 34.0	41.08S	174.43E	53	2.4	0.1	9	7
5212	MAY 22	1645 9.4	41.30S	175.28E	27	2.1	0.1	11	8
5217	MAY 22	1902 35.8	41.37S	175.41E	27	2.2	0.0	9	8
5232	MAY 23	1019 7.0	40.97S	174.09E	55	2.1	0.1	6	4
5233	MAY 23	1035 42.8	41.01S	175.36E	20	2.4	0.2	14	10
5235	MAY 23	1111 21.5	41.14S	174.99E	30	2.1	0.2	14	10
5238	MAY 23	1220 53.1	41.57S	175.41E	31	2.2	0.1	10	8
5252	MAY 23	1644 39.6	41.59S	174.48E	50	2.7	0.1	21	13
5254	MAY 23	1808 40.3	41.71S	174.54E	28	2.0	0.3	9	8
5257	MAY 23	1857 41.0	41.32S	175.70E	17	2.1	0.1	9	7
5268	MAY 24	0012 52.2	41.56S	174.15E	18	2.0	0.1	8	6
5271	MAY 24	0210 35.2	40.70S	175.92E	26	2.8	0.3	19	15
5272	MAY 24	0218 37.8	41.13S	175.45E	27	3.1	0.2	20	14

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
5273	MAY 24	0226 6.9	40.81S	174.73E	16	2.4	0.3	12	8
5280	MAY 24	0659 16.2	41.67S	174.33E	5R	2.2	0.2	13	9
5287	MAY 24	1130 44.7	41.55S	174.68E	30	2.0	0.1	8	6
5291	MAY 24	1350 47.0	40.86S	174.67E	5R	2.1	0.3	10	8
5308	MAY 25	0218 41.4	40.87S	175.61E	23	4.5F	0.2	31	28
5311	MAY 25	0247 4.0	40.87S	175.62E	22	2.3	0.1	13	10
5313	MAY 25	0251 17.7	40.87S	175.62E	23	2.2	0.1	11	8
5316	MAY 25	0441 44.2	41.18S	174.79E	53	2.9	0.1	22	17
5318	MAY 25	0528 26.4	40.85S	175.62E	25	2.1	0.1	11	8
5320	MAY 25	0945 12.2	41.17S	174.87E	32	2.3	0.2	14	11
5326	MAY 25	1216 32.3	40.81S	175.81E	25	2.1	0.1	7	5
5331	MAY 25	1428 55.7	40.86S	175.62E	23	3.1	0.3	19	15
5344	MAY 25	2000 3.3	40.76S	174.59E	41	2.7	0.2	14	10
5348	MAY 25	2105 18.7	40.57S	174.11E	66	2.1	0.3	10	7
5366	MAY 26	1202 3.4	40.87S	175.61E	19	2.4	0.2	15	12
5383	MAY 26	1952 57.4	40.69S	174.51E	23	2.5	0.3	11	8
5388	MAY 26	2126 48.0	41.40S	174.53E	30	2.1	0.2	8	6
5408	MAY 27	0529 32.2	41.20S	175.10E	17	2.0	0.2	11	8
5412	MAY 27	0901 34.4	40.65S	173.85E	85	3.4	0.2	23	16
5413	MAY 27	1051 38.8	41.75S	174.50E	24	2.5	0.1	10	7
5416	MAY 27	1133 39.6	41.56S	174.03E	9	3.1	0.2	27	17
5453	MAY 28	1930 18.6	41.70S	174.35E	22	2.2	0.1	11	8
5454	MAY 28	1949 23.6	41.02S	174.90E	46	2.7	0.1	12	10
5462	MAY 29	0245 57.1	41.22S	175.22E	22	2.7	0.2	18	13
5463	MAY 29	0246 56.2	40.90S	175.20E	33R	2.2	0.2	7	5
5464	MAY 29	0247 49.0	40.91S	175.21E	27	2.5	0.2	16	11
5466	MAY 29	0337 18.6	40.82S	174.82E	5R	2.1	0.2	11	8
5468	MAY 29	0424 6.8	41.70S	174.26E	27	2.2	0.1	10	7
5469	MAY 29	0424 26.9	41.73S	174.26E	31	2.2	0.1	6	5
5471	MAY 29	0446 14.5	41.36S	174.65E	22	3.3	0.2	23	18
5472	MAY 29	0452 20.9	40.90S	175.47E	24	2.3	0.2	12	9
5474	MAY 29	0514 26.1	40.82S	174.82E	5R	2.3	0.3	11	8
5477	MAY 29	0738 45.2	40.83S	174.82E	5R	3.1	0.3	24	18
5494	MAY 29	1630 22.5	41.28S	175.26E	26	2.5	0.2	14	10
5497	MAY 29	1750 31.0	40.98S	174.53E	5R	2.0	0.1	11	9
5500	MAY 29	1905 15.2	40.92S	175.22E	23	2.9	0.4	20	14
5501	MAY 29	1917 52.1	40.91S	175.22E	25	2.4	0.2	16	11
5508	MAY 29	2157 45.9	41.31S	174.69E	56	2.2	0.1	7	6
5511	MAY 30	0025 53.6	40.98S	175.14E	31	2.0	0.2	6	5
5512	MAY 30	0123 22.3	40.98S	175.15E	27	2.2	0.1	12	10
5513	MAY 30	0220 45.5	40.85S	175.88E	31	2.0	0.2	8	6
5520	MAY 30	0748 22.1	41.63S	173.65E	61	2.7	0.1	12	9
5530	MAY 30	1412 59.2	41.07S	174.46E	36	2.0	0.3	10	8
5548	MAY 31	0749 33.7	41.63S	174.67E	30	3.5	0.1	22	18
5549	MAY 31	0749 53.3	41.55S	174.66E	31	2.9	0.3	14	8

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5551	MAY 31	0907 49.2	41.42S	174.60E	29	2.0	0.1	10	8
5557	MAY 31	1444 24.2	40.86S	175.61E	24	2.5	0.1	13	9
5562	MAY 31	1644 4.1	40.86S	175.61E	23	2.6	0.1	16	12
5565	MAY 31	1755 8.3	41.26S	175.25E	27	2.1	0.2	12	9
5567	MAY 31	1852 50.1	40.86S	175.63E	23	2.3	0.1	10	7
5575	MAY 31	2342 58.3	41.09S	175.18E	24	2.4	0.2	10	8
5576	JUN 01	0050 24.5	40.69S	175.66E	25	2.8	0.2	15	12
5578	JUN 01	0228 33.8	41.62S	174.66E	31	2.6	0.2	17	13
5604	JUN 01	1955 57.3	41.68S	174.23E	23	2.0	0.2	9	7
5606	JUN 01	2218 24.1	41.87S	174.12E	31	2.8	0.2	24	18
5610	JUN 02	0203 49.9	40.82S	175.61E	28	2.0	0.1	11	8
5611	JUN 02	0234 58.5	40.68S	174.68E	12R	2.5	0.2	14	9
5613	JUN 02	0416 5.2	40.62S	175.04E	33	2.0	0.2	8	4
5614	JUN 02	0429 9.3	40.51S	175.15E	34	2.5	0.2	14	11
5619	JUN 02	0644 16.1	41.17S	174.04E	12R	2.2	0.3	11	8
5622	JUN 02	0756 41.7	41.88S	174.17E	13	2.2	0.3	12	9
5623	JUN 02	0807 27.5	41.46S	174.56E	19	2.2	0.1	15	12
5627	JUN 02	1121 47.9	40.63S	175.88E	33R	2.6	0.1	7	3
5634	JUN 02	1442 10.9	40.63S	175.65E	41	2.6	0.3	9	6
5636	JUN 02	1535 36.3	41.86S	174.53E	23	2.5	0.2	12	7
5646	JUN 02	2058 13.3	40.59S	174.41E	40	2.0	0.2	7	6
5648	JUN 03	0020 42.2	40.54S	174.24E	58	2.3	0.2	9	5
5677	JUN 03	1822 29.2	40.90S	175.69E	28	2.3	0.1	12	8
5689	JUN 04	0529 8.3	41.01S	175.40E	25	2.3	0.1	11	8
5693	JUN 04	1132 25.3	41.22S	174.59E	35	2.5	0.1	16	14
5696	JUN 04	1551 18.9	41.72S	174.42E	5R	2.3	0.2	13	10
5727	JUN 05	1554 37.1	41.70S	174.55E	28	2.4	0.3	11	9
5734	JUN 05	1952 45.5	40.93S	175.99E	30	3.1	0.3	16	12
5735	JUN 05	1954 35.6	40.93S	175.99E	31	2.7	0.2	13	10
5741	JUN 05	2159 8.2	40.64S	174.54E	36	2.4	0.2	11	9
5747	JUN 06	0658 2.9	40.51S	173.70E	130	2.6	0.1	13	10
5753	JUN 06	1234 43.5	41.49S	173.66E	89	3.1	0.2	10	7
5760	JUN 06	1634 45.7	41.17S	175.07E	11	2.3	0.2	15	10
5766	JUN 06	1925 48.3	41.09S	173.53E	94	2.2	0.1	7	5
5772	JUN 07	0015 52.9	41.62S	173.91E	14	2.6	0.3	18	13
5777	JUN 07	0454 5.3	41.80S	174.36E	12R	2.1	0.2	10	8
5778	JUN 07	0513 9.4	40.60S	175.02E	33	2.6	0.1	17	12
5787	JUN 07	1316 4.4	41.05S	175.50E	34	2.5	0.1	13	9
5790	JUN 07	1833 17.0	40.85S	175.64E	20	2.4	0.1	13	10
5794	JUN 07	2353 10.2	40.98S	174.69E	32	2.4	0.1	11	9
5804	JUN 08	1248 25.8	40.55S	174.52E	31	2.0	0.1	6	5
5805	JUN 08	1314 6.3	41.58S	174.66E	28	2.3	0.2	10	8
5816	JUN 09	0655 58.0	40.82S	174.55E	24	2.4	0.2	12	8
5817	JUN 09	0720 7.4	40.86S	174.32E	73	2.9	0.2	15	11
5821	JUN 09	1113 36.6	41.39S	175.08E	26	2.2	0.1	12	9

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
5828	JUN 09	1807 37.1	41.71S	174.05E	37	3.7	0.3	25	20
5831	JUN 09	2251 45.5	41.59S	174.65E	31	2.4	0.2	10	9
5846	JUN 10	0819 1.5	41.58S	174.66E	34	2.3	0.2	6	5
5849	JUN 10	1304 58.6	41.62S	174.25E	40	2.1	0.2	7	5
5852	JUN 10	1712 33.1	40.75S	174.74E	14	2.4	0.3	11	8
5853	JUN 10	1849 4.7	41.77S	174.33E	24	2.2	0.0	10	7
5854	JUN 10	2035 2.8	41.24S	174.97E	22	2.0	0.2	9	7
5856	JUN 10	2059 39.0	41.23S	174.98E	23	2.4	0.2	16	12
5863	JUN 11	0457 45.6	41.48S	174.37E	17	2.5	0.2	16	13
5870	JUN 11	0802 13.4	41.21S	174.96E	25	2.3	0.1	13	9
5873	JUN 11	1308 18.8	41.23S	174.57E	23	2.4	0.2	16	13
5876	JUN 11	1500 36.3	41.30S	175.20E	23	2.1	0.2	11	9
5882	JUN 11	2148 10.3	41.70S	174.53E	29	2.2	0.2	12	9
5883	JUN 11	2151 25.2	40.54S	175.96E	31	2.2	0.2	9	3
5884	JUN 11	2200 39.2	40.55S	175.97E	32	2.3	0.2	6	3
5887	JUN 12	0052 1.3	40.89S	175.19E	35	2.4	0.2	11	8
5891	JUN 12	0349 23.2	41.11S	175.13E	27	2.5	0.1	15	11
5894	JUN 12	0548 57.9	40.57S	174.94E	29	2.1	0.1	11	7
5896	JUN 12	0832 27.5	41.85S	174.10E	31	2.7	0.3	12	8
5907	JUN 12	1932 12.7	40.84S	174.17E	61	2.8	0.2	13	9
5911	JUN 13	0356 25.2	41.26S	175.30E	28	2.3	0.1	10	8
5914	JUN 13	0716 59.4	41.21S	174.40E	53	2.7	0.1	8	7
5916	JUN 13	0943 12.9	41.83S	174.12E	30	2.8	0.2	10	8
5920	JUN 13	1705 14.8	40.97S	175.62E	33	2.1	0.1	9	7
5923	JUN 13	1806 41.1	41.02S	174.75E	32	2.2	0.1	11	9
5924	JUN 13	1819 52.4	41.09S	174.62E	32	2.2	0.1	12	10
5928	JUN 13	2214 59.2	41.22S	175.77E	24	3.1	0.2	17	13
5933	JUN 14	0418 18.7	41.54S	174.30E	5R	2.4	0.2	11	7
5935	JUN 14	0424 7.1	40.53S	174.41E	46	2.7	0.3	17	10
5938	JUN 14	0918 22.3	40.56S	174.42E	72	2.5	0.2	11	7
5939	JUN 14	1048 42.8	40.51S	175.48E	61	2.5	0.0	5	3
5940	JUN 14	1153 56.9	40.91S	175.70E	28	2.8	0.1	14	10
5952	JUN 14	2006 13.3	41.30S	175.28E	30	2.7	0.1	15	11
5953	JUN 14	2058 52.9	40.90S	174.97E	45	2.1	0.1	7	6
5954	JUN 14	2152 5.8	41.28S	174.83E	23	2.6	0.2	17	13
5957	JUN 15	0052 34.7	41.18S	173.75E	52	2.7	0.2	9	6
5958	JUN 15	0244 33.7	40.66S	175.93E	29	2.5	0.2	9	6
5960	JUN 15	0353 50.0	41.63S	174.26E	53	2.3	0.1	9	7
5965	JUN 15	1123 9.2	41.53S	174.15E	33	2.5	0.2	13	10
5970	JUN 15	2025 53.6	41.30S	175.28E	29	2.5	0.1	15	10
5975	JUN 16	0253 8.3	41.25S	175.24E	23	2.4	0.2	16	10
5985	JUN 16	0639 59.6	41.18S	173.59E	99	2.8	0.2	14	11
5987	JUN 16	0750 4.8	41.88S	174.19E	12R	2.3	0.2	11	9
5994	JUN 16	1707 21.7	41.69S	173.64E	52	2.9	0.3	24	16
5998	JUN 16	2105 6.8	40.79S	175.67E	25	2.6	0.1	13	10

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6005	JUN 17	0349 49.0	40.77S	174.90E	36	2.1	0.2	9	7
6019	JUN 17	1027 8.8	40.99S	174.01E	61	2.4	0.1	8	6
6021	JUN 17	1112 23.7	40.54S	175.94E	29	2.3	0.3	11	7
6037	JUN 17	2143 38.7	41.86S	173.99E	18	2.7	0.1	18	13
6040	JUN 18	0119 26.5	40.76S	174.84E	12	2.3	0.2	14	11
6052	JUN 18	0723 58.3	41.86S	174.47E	25	2.4	0.2	12	9
6053	JUN 18	0839 38.2	40.98S	175.36E	29	2.9	0.2	21	16
6057	JUN 18	1418 13.2	41.15S	174.59E	35	2.0	0.1	12	8
6069	JUN 18	2102 28.6	40.97S	175.45E	23	2.2	0.1	7	6
6073	JUN 19	0018 27.7	40.73S	174.80E	19	2.1	0.2	10	7
6076	JUN 19	0053 29.4	41.04S	174.54E	33	2.2	0.2	10	8
6079	JUN 19	0232 29.3	40.72S	174.39E	48	2.5	0.1	10	7
6080	JUN 19	0300 58.3	40.74S	175.81E	29	2.3	0.2	12	9
6082	JUN 19	0415 23.8	41.13S	173.90E	55	2.7	0.2	8	6
6083	JUN 19	0449 42.6	41.09S	174.45E	62	2.1	0.1	10	8
6085	JUN 19	0632 47.7	40.75S	174.83E	21	2.2	0.2	10	7
6090	JUN 19	1036 5.7	40.73S	174.80E	16	2.1	0.3	11	8
6097	JUN 19	1525 8.0	41.58S	173.89E	12R	2.1	0.2	12	10
6099	JUN 19	1619 51.4	40.68S	175.45E	29	2.2	0.2	14	10
6104	JUN 19	2039 20.8	40.57S	174.45E	46	2.6	0.2	15	11
6114	JUN 20	0226 59.1	40.98S	175.20E	26	2.2	0.1	8	7
6120	JUN 20	0640 38.4	40.69S	174.22E	101	2.4	0.2	9	7
6125	JUN 20	0936 38.6	40.98S	174.61E	57	2.2	0.1	10	8
6146	JUN 21	0059 4.8	41.09S	174.08E	51	2.0	0.2	7	5
6156	JUN 21	0832 44.3	40.86S	175.23E	25	2.7	0.2	23	17
6161	JUN 21	1453 19.5	41.50S	174.63E	30	2.2	0.2	9	7
6180	JUN 22	0301 13.2	40.81S	175.37E	30	4.0F	0.2	27	22
6181	JUN 22	0401 39.4	40.79S	175.33E	30	2.8	0.2	15	11
6183	JUN 22	0540 56.4	40.85S	175.13E	34	2.3	0.1	12	10
6191	JUN 22	0949 51.7	41.71S	174.53E	30	2.8	0.2	16	14
6194	JUN 22	1112 39.3	40.83S	174.60E	35	2.6	0.2	16	11
6198	JUN 22	1534 33.8	41.83S	175.64E	33	2.1	0.1	9	7
6210	JUN 23	0101 1.2	40.93S	175.56E	29	2.3	0.1	12	8
6212	JUN 23	0130 1.5	41.65S	174.08E	22	2.1	0.1	9	6
6239	JUN 24	0055 22.1	40.79S	175.34E	29	2.1	0.1	11	9
6252	JUN 24	1204 40.4	40.61S	174.24E	73	2.8	0.2	13	10
6253	JUN 24	1227 22.9	41.08S	174.93E	29	2.1	0.1	15	10
6255	JUN 24	1614 30.6	40.68S	175.50E	28	3.0	0.3	18	14
6259	JUN 24	2145 9.5	41.31S	175.27E	28	2.0	0.1	11	8
6261	JUN 24	2241 1.9	40.66S	175.52E	28	2.5	0.1	12	9
6264	JUN 25	0301 24.1	41.89S	174.50E	22	2.7	0.2	16	12
6265	JUN 25	0303 53.6	41.90S	174.53E	20	2.4	0.1	9	7
6271	JUN 25	1045 21.0	41.39S	174.37E	35	3.0	0.2	20	17
6274	JUN 25	1343 9.5	40.89S	174.93E	62	2.9	0.1	19	14
6276	JUN 25	1432 46.5	41.18S	175.07E	8	2.1	0.1	12	8

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6285	JUN 26	0034 42.3	41.65S	175.36E	10	2.1	0.1	10	8
6287	JUN 26	0241 25.9	41.84S	174.30E	13	2.7	0.3	18	14
6297	JUN 26	0839 13.7	41.00S	175.62E	27	2.1	0.1	12	9
6298	JUN 26	1049 33.0	40.90S	175.53E	23	3.3	0.3	22	17
6301	JUN 26	1241 23.6	40.89S	175.54E	26	2.2	0.1	10	7
6302	JUN 26	1255 27.7	40.91S	175.54E	23	4.3F	0.3	33	26
6303	JUN 26	1256 6.2	40.90S	175.56E	23	3.3	0.2	10	7
6304	JUN 26	1256 34.5	40.89S	175.54E	25	2.5	0.1	6	4
6305	JUN 26	1300 10.0	40.89S	175.52E	24	2.2	0.1	14	10
6307	JUN 26	1319 48.2	40.88S	175.54E	26	2.2	0.1	12	9
6308	JUN 26	1320 8.0	40.89S	175.53E	25	2.3	0.1	11	8
6309	JUN 26	1332 2.0	40.89S	175.53E	22	2.9	0.2	22	17
6310	JUN 26	1333 39.2	40.89S	175.52E	24	2.3	0.1	14	10
6312	JUN 26	1406 16.2	40.88S	175.55E	27	2.1	0.1	12	9
6314	JUN 26	1559 24.6	40.89S	175.53E	27	2.4	0.1	14	11
6316	JUN 26	1649 16.4	40.89S	175.52E	24	2.9	0.2	17	13
6320	JUN 26	2032 20.0	40.78S	175.75E	28	2.8	0.2	15	12
6322	JUN 27	0126 41.8	41.70S	173.98E	42	2.3	0.1	8	6
6323	JUN 27	0405 59.1	41.54S	174.46E	22	2.0	0.1	7	5
6325	JUN 27	0422 43.5	41.43S	174.36E	31	2.4	0.1	8	6
6336	JUN 27	1615 43.5	40.95S	175.17E	25	2.2	0.3	8	6
6337	JUN 27	1649 35.9	40.62S	175.09E	33	2.4	0.1	12	9
6344	JUN 28	0429 40.2	41.26S	173.86E	64	3.3	0.3	27	19
6345	JUN 28	0457 50.2	41.12S	174.49E	58	2.9	0.0	11	9
6348	JUN 28	0543 3.5	40.99S	174.89E	56	2.1	0.2	7	6
6350	JUN 28	0801 8.6	40.63S	174.42E	59	2.9	0.2	24	16
6352	JUN 28	1053 38.8	40.79S	174.66E	50	2.6	0.3	17	12
6354	JUN 28	1505 20.3	40.50S	175.76E	44	2.4	0.2	6	3
6355	JUN 28	1625 54.9	41.04S	174.56E	49	2.5	0.1	8	7
6358	JUN 28	2013 53.3	41.00S	175.04E	30	2.0	0.3	8	6
6369	JUN 29	1214 56.2	41.78S	174.29E	12R	3.1	0.3	22	19
6370	JUN 29	1324 18.3	41.01S	174.50E	46	2.0	0.0	6	5
6380	JUN 30	0222 20.4	41.45S	175.02E	22	2.3	0.2	13	10
6390	JUN 30	1505 2.5	41.23S	175.59E	25	2.3	0.1	11	8
6394	JUN 30	1905 40.8	41.91S	174.08E	22	2.3	0.3	6	4
6398	JUN 30	2215 50.6	40.53S	174.30E	64	2.2	0.2	6	4
6399	JUN 30	2222 17.2	41.07S	174.86E	29	2.4	0.2	15	11
6402	JUL 01	0203 57.1	41.40S	175.04E	28	2.7	0.2	17	12
6413	JUL 01	0508 10.3	40.57S	174.55E	38	2.3	0.1	9	6
6417	JUL 01	0659 13.0	41.13S	175.38E	14	2.1	0.1	12	8
6423	JUL 01	1341 28.6	40.99S	174.99E	46	2.5	0.1	17	12
6424	JUL 01	1352 40.0	41.25S	174.44E	60	2.7	0.1	17	12
6442	JUL 02	0116 3.6	40.53S	174.38E	82	3.5	0.3	26	17
6446	JUL 02	0826 7.3	40.66S	174.72E	26	2.0	0.2	10	8
6447	JUL 02	0827 0.6	40.51S	174.21E	91	3.1	0.3	19	14

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6449	JUL 02	1105 11.9	40.67S	174.45E	59	2.9	0.3	13	11
6452	JUL 02	1340 24.2	41.29S	175.02E	30	2.3	0.1	14	10
6477	JUL 03	0901 54.6	41.12S	173.76E	86	2.1	0.2	8	6
6480	JUL 03	1104 47.2	41.74S	174.59E	26	2.0	0.2	9	8
6484	JUL 03	1245 18.3	40.86S	175.12E	31	2.3	0.2	13	9
6492	JUL 03	1946 26.4	41.45S	174.24E	61	2.6	0.1	19	14
6498	JUL 04	0051 2.3	40.88S	175.08E	32	2.6	0.3	14	11
6502	JUL 04	0440 32.1	41.69S	174.32E	5R	2.4	0.2	13	10
6508	JUL 04	0734 36.2	40.75S	175.10E	32	2.8	0.2	14	9
6509	JUL 04	0747 26.3	40.87S	174.73E	13	2.1	0.1	8	6
6512	JUL 04	1358 54.0	41.62S	173.56E	76	2.5	0.2	8	6
6520	JUL 04	1714 23.3	41.08S	175.84E	31	2.6	0.2	11	8
6523	JUL 04	2048 59.9	41.67S	174.29E	14	2.6	0.2	17	12
6535	JUL 05	0525 57.9	41.69S	174.27E	17	2.1	0.1	11	8
6536	JUL 05	0547 21.3	41.12S	175.43E	24	2.3	0.2	12	8
6539	JUL 05	1113 30.3	41.25S	173.82E	83	2.4	0.1	6	4
6540	JUL 05	1215 28.5	40.69S	175.29E	29	2.2	0.2	10	7
6543	JUL 05	1447 23.1	41.23S	173.83E	60	2.3	0.3	10	7
6555	JUL 06	0122 9.8	41.31S	174.53E	60	3.6	0.1	33	24
6558	JUL 06	0541 48.9	40.78S	175.36E	28	2.1	0.1	11	8
6562	JUL 06	0844 5.2	41.47S	173.81E	58	2.6	0.2	9	6
6563	JUL 06	0918 11.0	41.19S	173.61E	97	2.6	0.2	14	9
6568	JUL 06	1032 28.4	41.67S	174.33E	5R	2.4	0.3	19	14
6571	JUL 06	1226 44.1	41.63S	174.29E	5R	2.1	0.3	13	9
6577	JUL 06	1537 57.7	40.57S	173.85E	104	3.5	0.3	28	20
6578	JUL 06	1542 41.3	41.28S	175.02E	24	2.5	0.1	15	11
6581	JUL 06	1605 39.2	41.16S	174.55E	34	2.7	0.2	13	11
6584	JUL 06	1805 1.2	40.55S	174.97E	24	2.2	0.2	12	8
6585	JUL 06	1826 54.5	41.15S	175.08E	8	2.7	0.2	15	12
6591	JUL 07	0118 23.7	41.77S	174.34E	28	2.5	0.2	16	12
6652	JUL 08	0717 8.7	41.69S	175.03E	30	2.9	0.2	18	13
6656	JUL 08	0824 57.7	40.59S	175.44E	59	3.3	0.2	18	13
6657	JUL 08	0917 40.5	40.95S	175.42E	20	2.3	0.2	12	9
6658	JUL 08	0918 50.6	40.95S	175.43E	23	2.6	0.2	13	10
6659	JUL 08	0919 47.0	40.95S	175.43E	22	2.0	0.1	10	7
6661	JUL 08	0941 37.4	41.13S	174.78E	54	2.4	0.1	11	8
6663	JUL 08	1005 1.0	41.16S	175.40E	17	2.6	0.1	15	11
6665	JUL 08	1242 2.4	41.37S	175.13E	24	2.0	0.1	9	8
6669	JUL 08	1341 12.5	41.09S	173.63E	80	2.7	0.3	12	9
6682	JUL 09	0038 0.3	40.67S	174.52E	52	2.4	0.2	7	6
6685	JUL 09	0301 16.3	40.63S	174.59E	69	5.0F	0.2	36	28
6695	JUL 09	1029 32.3	41.33S	174.77E	27	2.2	0.2	15	11
6706	JUL 09	2156 38.3	41.41S	174.98E	29	2.3	0.1	18	12
6720	JUL 10	1015 44.3	41.50S	174.94E	14	2.2	0.2	13	9
6744	JUL 11	0134 9.1	40.89S	175.53E	24	2.0	0.1	10	7

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6746	JUL 11	0309 32.5	41.68S	174.28E	15	2.1	0.2	11	8
6747	JUL 11	0322 34.9	41.69S	174.28E	17	2.2	0.1	16	12
6751	JUL 11	0603 21.1	41.22S	174.54E	58	2.3	0.1	10	8
6760	JUL 11	1242 35.6	41.06S	174.17E	52	3.5	0.2	25	22
6764	JUL 11	1438 21.0	41.05S	174.17E	47	2.7	0.1	18	14
6765	JUL 11	1441 17.1	41.07S	174.14E	51	2.2	0.1	9	7
6766	JUL 11	1510 39.6	41.02S	174.48E	42	2.1	0.1	8	6
6767	JUL 11	1518 58.8	41.31S	174.23E	40	2.3	0.1	12	9
6771	JUL 11	1802 29.1	41.32S	173.78E	69	3.5	0.3	23	19
6775	JUL 11	1936 11.7	41.87S	174.06E	18	2.4	0.3	14	12
6776	JUL 11	1950 41.7	41.40S	174.96E	29	2.0	0.1	8	7
6781	JUL 11	2240 9.9	41.00S	175.40E	12R	2.3	0.2	13	9
6784	JUL 12	0502 10.8	41.57S	173.96E	12R	2.2	0.3	9	7
6805	JUL 12	1823 37.1	41.07S	174.13E	48	2.2	0.2	8	6
6811	JUL 12	2208 16.4	40.93S	174.46E	40	2.1	0.2	9	7
6813	JUL 13	0131 8.4	40.75S	173.70E	135	2.5	0.4	11	9
6817	JUL 13	0318 40.9	40.91S	174.73E	61	2.1	0.1	6	5
6819	JUL 13	0602 10.0	41.50S	174.60E	18	2.0	0.2	9	8
6823	JUL 13	0830 5.7	40.90S	174.33E	64	2.1	0.1	8	5
6826	JUL 13	0938 23.5	41.65S	174.59E	30	2.0	0.1	6	5
6835	JUL 13	1743 46.1	41.57S	174.56E	44	2.6	0.2	21	16
6843	JUL 14	0130 56.5	40.61S	174.19E	95	2.7	0.2	16	13
6844	JUL 14	0142 34.1	41.76S	173.80E	14	2.7	0.4	19	16
6848	JUL 14	0528 47.1	40.98S	175.57E	31	2.1	0.1	12	9
6862	JUL 14	1124 0.3	41.71S	174.49E	28	2.0	0.3	11	8
6885	JUL 15	0128 20.3	41.98S	173.69E	43	2.5	0.3	18	11
6886	JUL 15	0203 10.1	41.43S	174.99E	29	3.1	0.2	20	15
6891	JUL 15	0306 3.2	41.40S	175.01E	26	2.1	0.2	16	12
6908	JUL 15	0659 39.7	41.18S	175.75E	19	2.1	0.2	13	9
6949	JUL 16	0735 41.8	40.51S	174.44E	50	2.1	0.1	8	6
6950	JUL 16	0759 5.5	40.60S	175.51E	32	2.0	0.1	7	5
6953	JUL 16	1237 56.9	40.90S	175.74E	29	2.5	0.2	12	9
6961	JUL 16	1637 48.1	40.52S	174.70E	30	2.0	0.2	11	7
6973	JUL 16	2258 50.6	40.64S	175.48E	30	2.3	0.2	11	8
6975	JUL 16	2335 11.5	40.72S	173.54E	113	3.1	0.3	24	15
6980	JUL 17	0531 21.9	41.17S	175.08E	26	2.6	0.2	17	12
6981	JUL 17	0832 58.2	41.07S	174.62E	59	2.3	0.1	13	9
6982	JUL 17	0918 23.3	41.26S	175.34E	27	2.5	0.1	14	10
6990	JUL 17	1528 38.1	40.80S	174.95E	36	2.2	0.2	14	11
6993	JUL 17	2036 21.5	41.78S	175.21E	42	3.1	0.2	25	18
6996	JUL 17	2210 35.0	40.56S	174.55E	47	2.4	0.2	13	10
7008	JUL 18	1458 3.3	41.75S	174.03E	35	3.4	0.3	30	22
7012	JUL 18	1800 32.9	40.67S	174.58E	69	2.8	0.2	23	16
7014	JUL 18	1901 45.4	41.37S	173.57E	86	2.3	0.4	6	4
7018	JUL 18	2133 17.5	41.65S	173.98E	13	2.2	0.2	12	8

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
7020	JUL 18	2323 43.3	41.57S	173.99E	5R	2.3	0.3	15	12
7021	JUL 18	2330 9.2	41.63S	174.79E	28	2.9	0.3	19	14
7022	JUL 18	2337 43.6	41.59S	174.79E	29	2.3	0.1	12	9
7023	JUL 19	0104 9.6	40.89S	175.48E	33R	2.0	0.3	5	4
7049	JUL 19	1801 59.4	41.18S	174.51E	34	2.2	0.1	11	9
7055	JUL 20	0047 26.3	41.00S	174.53E	60	2.0	0.1	8	5
7058	JUL 20	0128 1.1	41.07S	174.16E	50	3.4	0.2	25	20
7070	JUL 20	0941 52.1	40.73S	174.74E	38	2.1	0.1	8	6
7084	JUL 20	1551 44.0	41.03S	174.19E	46	2.7	0.2	18	14
7085	JUL 20	1609 59.5	40.99S	174.78E	29	2.8	0.2	20	15
7089	JUL 20	1808 4.0	41.37S	175.79E	19	2.2	0.2	14	10
7090	JUL 20	1814 49.9	40.67S	175.49E	27	2.7	0.2	18	14
7093	JUL 20	1917 10.0	40.53S	174.46E	32	2.7	0.3	24	17
7095	JUL 20	1955 45.2	41.58S	174.49E	55	2.7	0.2	21	15
7110	JUL 21	0521 2.7	41.54S	173.60E	84	2.3	0.1	11	7
7111	JUL 21	0522 8.5	41.86S	174.45E	27	2.5	0.2	14	12
7115	JUL 21	1022 43.7	40.84S	175.08E	33	2.1	0.1	8	6
7134	JUL 22	0418 24.1	40.83S	175.00E	35	2.3	0.1	9	7
7135	JUL 22	0458 49.6	41.38S	173.82E	62	2.4	0.2	11	8
7139	JUL 22	1105 59.6	41.37S	174.83E	20	2.1	0.1	11	9
7147	JUL 22	1825 47.2	40.93S	174.70E	59	2.5	0.1	15	11
7148	JUL 22	1832 5.7	40.59S	174.32E	53	2.4	0.1	10	7
7149	JUL 22	1945 55.1	41.60S	174.44E	17	2.4	0.2	14	10
7150	JUL 22	1950 44.8	41.46S	174.97E	27	2.1	0.2	8	7
7153	JUL 22	2323 14.8	41.39S	175.71E	16	2.2	0.1	7	5
7154	JUL 23	0123 4.5	41.05S	173.51E	99	3.0	0.3	15	10
7158	JUL 23	0706 49.9	41.15S	174.63E	31	2.2	0.1	12	11
7160	JUL 23	0907 43.3	40.87S	175.12E	31	2.1	0.2	7	6
7162	JUL 23	1255 46.0	40.55S	175.02E	34	2.3	0.1	11	7
7167	JUL 23	1505 13.6	41.26S	174.65E	26	2.2	0.1	12	10
7168	JUL 23	1541 53.0	41.51S	174.75E	23	3.2	0.3	23	18
7169	JUL 23	1612 0.1	41.76S	174.29E	21	2.8	0.4	22	16
7170	JUL 23	1751 37.9	41.44S	174.25E	31	2.3	0.2	12	9
7172	JUL 23	1908 13.5	40.89S	175.21E	28	2.4	0.3	14	11
7180	JUL 24	0833 49.9	40.56S	175.72E	30	2.7	0.2	14	11
7185	JUL 24	1307 5.2	41.78S	174.37E	25	2.1	0.3	10	8
7187	JUL 24	1329 25.1	40.74S	174.12E	62	2.3	0.1	11	7
7220	JUL 25	1811 35.0	40.85S	174.73E	17	2.5	0.3	18	13
7221	JUL 25	1930 47.8	41.17S	175.33E	24	2.6	0.2	14	11
7227	JUL 26	0658 32.5	40.60S	174.67E	48	3.4	0.2	27	21
7236	JUL 26	1200 51.4	40.96S	176.00E	31	2.3	0.2	10	7
7241	JUL 26	1319 48.6	40.55S	175.46E	34	3.7	0.2	26	22
7243	JUL 26	1326 24.8	40.55S	175.41E	32	2.4	0.1	8	7
7246	JUL 26	1358 15.8	40.52S	175.40E	30	2.1	0.2	7	5
7248	JUL 26	1543 59.9	40.54S	175.43E	32	2.7	0.2	18	14

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7251	JUL 26	2005 54.2	40.55S	175.42E	32	2.7	0.2	13	10
7255	JUL 26	2358 46.1	41.59S	173.91E	12R	2.5	0.2	14	12
7266	JUL 27	0624 24.1	41.85S	173.60E	59	2.8	0.2	13	11
7269	JUL 27	0738 37.9	41.37S	175.13E	26	2.2	0.1	10	8
7274	JUL 27	1124 4.8	41.34S	174.73E	12	3.2F	0.2	21	16
7282	JUL 27	1546 23.6	40.81S	175.10E	32	2.2	0.1	9	6
7288	JUL 28	0359 0.9	41.09S	174.63E	54	2.4	0.1	9	7
7289	JUL 28	0506 15.0	40.89S	175.87E	31	2.2	0.2	13	9
7292	JUL 28	0628 29.9	40.61S	174.33E	37	2.3	0.2	10	8
7307	JUL 28	1537 52.7	40.91S	175.61E	29	2.7	0.1	12	9
7311	JUL 28	1726 33.6	41.10S	175.81E	31	2.2	0.1	13	8
7347	JUL 29	1409 8.0	41.15S	174.63E	38	3.4	0.2	26	22
7348	JUL 29	1428 56.5	41.14S	174.59E	39	2.3	0.2	14	11
7360	JUL 29	2022 20.8	41.18S	174.80E	52	3.5	0.2	28	22
7364	JUL 29	2243 14.1	40.74S	174.99E	5R	2.6	0.4	17	13
7365	JUL 29	2322 23.6	40.86S	174.75E	17	2.2	0.3	13	9
7370	JUL 30	0242 54.5	41.15S	174.82E	56	2.8	0.1	21	17
7374	JUL 30	0412 3.5	40.81S	174.82E	17	2.0	0.1	7	5
7390	JUL 30	1508 50.5	41.63S	174.41E	5R	2.3	0.2	7	5
7396	JUL 30	2027 20.0	41.38S	175.06E	29	2.1	0.2	10	8
7406	JUL 31	0507 2.3	41.58S	175.12E	29	2.0	0.2	6	5
7409	JUL 31	0638 17.5	41.28S	175.20E	29	2.1	0.1	12	8
7412	JUL 31	0847 54.4	41.21S	173.97E	67	2.4	0.1	7	5
7420	JUL 31	1449 58.4	40.61S	175.93E	32	2.5	0.2	12	8
7423	JUL 31	1652 17.3	41.13S	175.29E	24	2.8	0.1	15	10
7436	AUG 01	0450 8.2	41.28S	175.30E	26	2.4	0.1	13	9
7444	AUG 01	0801 8.4	41.34S	174.17E	35	2.4	0.2	12	9
7446	AUG 01	1006 27.3	41.18S	174.30E	5	2.4	0.1	12	8
7459	AUG 01	1854 44.3	41.84S	174.64E	5R	2.1	0.2	7	5
7476	AUG 02	0530 2.1	41.76S	174.31E	29	2.4	0.1	13	10
7482	AUG 02	0831 22.7	40.86S	175.18E	30	2.4	0.2	17	13
7484	AUG 02	0844 48.4	41.80S	174.35E	28	3.1	0.2	25	20
7493	AUG 02	1730 4.8	41.69S	174.55E	28	2.3	0.3	13	12
7504	AUG 03	0206 6.7	40.98S	174.95E	59	2.9	0.1	16	12
7505	AUG 03	0318 24.3	41.25S	175.32E	25	2.1	0.1	10	8
7506	AUG 03	0414 32.4	41.78S	174.57E	30	2.2	0.3	12	9
7515	AUG 03	0719 16.5	41.50S	175.60E	27	2.1	0.1	8	6
7518	AUG 03	0829 4.5	40.58S	175.67E	11	2.1	0.2	8	6
7536	AUG 03	1400 17.9	40.94S	175.99E	30	2.4	0.2	12	9
7574	AUG 04	0359 48.5	41.43S	175.01E	28	3.3	0.2	23	17
7577	AUG 04	0640 47.0	40.86S	175.57E	19	2.3	0.3	15	9
7585	AUG 04	1325 16.1	40.79S	175.66E	24	2.2	0.1	9	6
7591	AUG 04	1735 44.5	41.04S	174.46E	64	2.3	0.0	8	6
7598	AUG 04	2312 57.9	40.90S	175.33E	21	2.3	0.2	15	11
7601	AUG 05	0036 50.4	41.66S	174.29E	5R	2.4	0.2	15	12

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7604	AUG 05	0255 58.9	40.74S	174.66E	65	2.9	0.1	14	11
7619	AUG 05	1149 54.2	40.57S	175.13E	34	2.3	0.2	12	8
7631	AUG 05	1730 0.1	41.23S	173.88E	55	2.3	0.1	7	5
7632	AUG 05	1957 21.3	41.05S	175.34E	19	2.2	0.1	12	9
7643	AUG 06	0342 3.5	40.90S	175.80E	28	2.0	0.1	11	8
7652	AUG 06	0749 30.0	41.21S	173.86E	61	2.7	0.1	16	12
7653	AUG 06	0750 37.2	41.06S	174.88E	51	2.1	0.1	11	8
7665	AUG 06	1551 49.2	40.69S	174.38E	60	2.4	0.3	11	8
7666	AUG 06	1606 11.5	40.59S	175.41E	34	2.1	0.1	6	4
7668	AUG 06	1626 44.3	41.11S	174.10E	54	2.4	0.1	10	7
7693	AUG 06	2309 54.2	41.16S	173.87E	68	3.2	0.3	25	18
7701	AUG 07	0357 37.3	40.69S	174.79E	57	2.0	0.2	6	4
7706	AUG 07	0821 52.2	41.82S	174.56E	31	3.4	0.2	29	20
7720	AUG 07	1453 18.4	40.85S	175.83E	29	2.3	0.2	12	8
7731	AUG 07	2248 18.2	40.94S	176.00E	34	2.7	0.1	12	8
7733	AUG 07	2343 40.7	41.15S	174.65E	33	2.5	0.1	15	11
7739	AUG 08	0243 22.9	40.85S	175.14E	31	2.0	0.2	13	9
7742	AUG 08	0502 33.2	40.64S	174.57E	55	2.9	0.2	13	10
7763	AUG 08	1612 31.4	41.69S	174.30E	20	2.1	0.2	8	6
7776	AUG 08	2058 11.0	40.64S	174.59E	28	2.8	0.2	16	12
7785	AUG 09	0302 35.2	40.51S	174.20E	79	2.7	0.3	12	8
7786	AUG 09	0412 51.4	41.62S	173.57E	87	2.6	0.3	18	12
7815	AUG 09	1701 10.5	41.11S	174.41E	62	2.5	0.1	15	12
7820	AUG 09	1839 11.6	40.66S	175.89E	33R	2.1	0.1	6	3
7821	AUG 09	1927 54.3	41.74S	173.77E	33R	2.4	0.4	15	11
7826	AUG 09	2359 0.0	40.74S	174.85E	59	2.6	0.1	13	10
8119	AUG 10	0523 30.4	40.70S	175.03E	5R	2.6	0.2	17	14
8131	AUG 10	0531 18.9	40.84S	174.10E	58	2.2	0.2	10	6
8520	AUG 10	1451 45.3	41.02S	174.89E	30	2.3	0.1	19	14
8620	AUG 10	1811 24.0	41.32S	173.52E	88	2.1	0.2	7	6
8636	AUG 10	1838 51.6	40.57S	175.36E	54	2.6	0.1	19	16
9109	AUG 11	1532 22.4	41.59S	173.96E	15	2.9	0.2	26	18
9137	AUG 11	1657 31.6	41.49S	175.38E	19	2.5	0.2	21	13
9159	AUG 11	1829 42.2	41.74S	174.43E	22	2.2	0.2	11	9
9281	AUG 12	0308 42.1	40.87S	175.75E	29	2.5	0.2	15	11
9344	AUG 12	0653 49.3	41.94S	174.35E	23	2.8	0.2	27	19
9483	AUG 12	1505 33.1	40.53S	174.32E	82	2.6	0.3	14	10
9622	AUG 13	0236 10.6	40.52S	175.00E	32	2.4	0.2	18	12
9654	AUG 13	0517 2.2	41.40S	173.62E	72	3.0	0.3	23	18
9666	AUG 13	0709 9.5	41.18S	174.58E	32	2.0	0.1	10	8
9678	AUG 13	0825 19.2	40.52S	174.32E	91	2.5	0.2	9	6
9800	AUG 13	2332 14.8	41.06S	175.43E	32	2.1	0.1	6	5
9931	AUG 14	1624 43.3	41.15S	173.54E	60	2.8	0.2	15	10
9936	AUG 14	1716 48.0	40.81S	175.35E	25	4.0	0.3	28	22
9937	AUG 14	1717 49.6	40.79S	175.33E	26	3.2	0.2	20	15

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9958	AUG 14	2135 20.3	40.61S	175.10E	32	2.4	0.2	15	11
9973	AUG 14	2341 42.2	40.82S	174.95E	34	2.3	0.1	11	10
10007	AUG 15	0227 16.6	40.78S	175.33E	23	2.0	0.2	7	5
10024	AUG 15	0317 28.8	40.67S	174.10E	61	2.4	0.3	8	6
10249	AUG 15	1336 28.0	41.12S	175.04E	26	2.0	0.1	7	6
10316	AUG 15	1608 30.4	40.75S	175.93E	29	2.9	0.3	11	8
10388	AUG 15	1942 9.3	40.78S	175.32E	28	2.1	0.1	9	7
10570	AUG 16	0409 14.5	41.85S	174.48E	19	2.5	0.3	16	13
10631	AUG 16	0706 42.7	41.86S	174.49E	20	2.4	0.3	14	11
10655	AUG 16	0828 52.9	40.68S	175.46E	25	2.2	0.3	12	9
10862	AUG 16	2318 17.2	40.51S	174.26E	59	2.7	0.2	15	10
10863	AUG 16	2319 22.2	40.55S	174.34E	27	2.1	0.1	8	5
10989	AUG 17	0835 52.1	41.08S	174.87E	54	2.3	0.2	11	10
11101	AUG 17	1539 19.1	40.58S	173.53E	129	3.7	0.2	27	20
11103	AUG 17	1545 18.1	40.78S	174.24E	53	2.6	0.3	10	8
11272	AUG 18	0915 55.3	41.05S	174.50E	34	2.5	0.2	16	13
11297	AUG 18	1118 10.4	41.25S	175.21E	26	2.0	0.1	6	5
11366	AUG 18	1916 12.2	41.09S	174.88E	51	2.5	0.1	12	10
11432	AUG 19	0419 18.6	40.81S	175.29E	24	2.2	0.2	11	8
11507	AUG 19	1341 20.3	40.60S	175.84E	32	2.2	0.2	10	7
11534	AUG 19	1723 9.3	41.56S	173.99E	14	3.2	0.3	25	18
11545	AUG 19	1907 34.9	41.01S	174.61E	60	2.5	0.1	13	11
11577	AUG 20	0134 57.9	40.76S	174.00E	65	2.9	0.2	14	11
11578	AUG 20	0142 24.3	41.62S	174.83E	25	2.1	0.1	7	6
11587	AUG 20	0305 34.5	41.18S	175.02E	13	2.0	0.2	7	4
11617	AUG 20	0814 30.9	41.42S	175.02E	27	2.1	0.0	9	8
11624	AUG 20	0945 49.8	40.95S	174.95E	48	2.7	0.1	16	13
11644	AUG 20	1250 55.9	40.51S	174.68E	78	2.4	0.1	14	11
11705	AUG 20	2254 58.9	41.79S	174.53E	30	2.5	0.2	17	13
11707	AUG 20	2315 43.2	41.13S	174.67E	57	4.0F	0.1	34	28
11715	AUG 21	0042 36.1	41.11S	174.81E	30	3.2	0.1	21	16
11732	AUG 21	0318 20.1	41.04S	175.02E	46	4.2F	0.2	30	27
11733	AUG 21	0319 20.6	41.01S	174.99E	47	2.9	0.1	12	9
11748	AUG 21	0637 58.5	41.68S	174.39E	28	2.0	0.2	11	10
11751	AUG 21	0652 11.8	41.27S	175.24E	25	2.1	0.1	15	10
11781	AUG 21	1457 5.2	41.21S	173.52E	101	3.0	0.2	15	12
11793	AUG 21	1730 49.9	41.13S	174.99E	27	2.5	0.2	16	13
11812	AUG 21	2102 30.2	41.40S	175.10E	23	2.7	0.2	18	14
11828	AUG 22	0058 23.5	40.62S	175.78E	32	2.5	0.0	5	3
11836	AUG 22	0343 14.7	40.92S	174.99E	33	2.3	0.2	14	12
11839	AUG 22	0419 15.3	41.62S	174.65E	25	2.1	0.1	8	7
11887	AUG 22	1348 3.8	41.12S	174.66E	55	2.4	0.1	10	9
11898	AUG 22	1520 25.0	41.60S	174.68E	28	2.3	0.1	10	8
11907	AUG 22	1738 27.3	41.15S	174.60E	58	2.5	0.1	10	8
11909	AUG 22	1802 20.9	41.54S	173.50E	69	3.1	0.3	17	14

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11977	AUG 23	0948 27.0	40.70S	174.97E	36	2.1	0.1	7	5
11987	AUG 23	1147 6.9	41.45S	174.22E	19	2.1	0.1	8	6
12004	AUG 23	1544 29.6	41.53S	174.26E	12R	2.1	0.2	8	6
12010	AUG 23	1650 41.5	41.10S	175.23E	48	2.0	0.1	9	7
12104	AUG 24	2336 2.6	41.24S	174.54E	34	2.0	0.0	8	7
12108	AUG 25	0231 8.6	41.99S	174.08E	21	2.1	0.1	8	7
12139	AUG 25	1158 39.4	41.82S	174.83E	34	2.3	0.2	8	7
12196	AUG 26	0410 20.5	40.75S	174.29E	56	2.4	0.2	8	6
12219	AUG 26	0919 51.1	41.00S	175.04E	41	2.7	0.1	19	14
12224	AUG 26	1136 12.1	40.60S	174.21E	79	3.2	0.3	28	20
12229	AUG 26	1237 11.8	40.83S	174.55E	26	2.5	0.2	14	10
12235	AUG 26	1423 2.7	40.64S	175.87E	31	2.4	0.2	7	4
12266	AUG 27	0226 42.9	40.54S	175.69E	36	2.8	0.2	17	13
12286	AUG 27	0937 25.7	41.57S	174.97E	22	2.3	0.2	12	9
12289	AUG 27	1015 59.7	40.63S	175.73E	52	2.3	0.1	7	6
12296	AUG 27	1259 48.4	40.52S	174.35E	87	2.6	0.1	9	7
12310	AUG 27	1706 33.1	40.99S	174.84E	32	2.3	0.2	10	8
12315	AUG 27	1944 49.1	40.90S	175.72E	28	2.0	0.1	10	7
12319	AUG 27	2107 23.9	41.42S	174.14E	52	3.6F	0.2	28	20
12363	AUG 28	1500 32.9	41.19S	173.61E	93	2.8	0.2	15	10
12364	AUG 28	1504 16.0	41.52S	174.03E	5R	2.0	0.2	6	4
12395	AUG 28	2327 36.7	41.03S	174.82E	30	2.3	0.1	16	12
12396	AUG 28	2334 58.5	41.56S	174.02E	36	2.3	0.3	17	12
12402	AUG 29	0251 50.8	41.57S	174.16E	17	2.1	0.2	11	8
12441	AUG 29	1333 8.7	41.90S	174.06E	14	2.3	0.2	11	9
12459	AUG 29	1744 32.5	41.27S	175.16E	21	2.1	0.2	12	9
12460	AUG 29	1744 54.0	40.75S	175.05E	34	2.1	0.1	10	7
12461	AUG 29	1758 45.3	41.19S	174.50E	14	2.0	0.2	11	9
12471	AUG 29	2202 57.3	41.24S	173.95E	55	2.9	0.2	13	11
12473	AUG 29	2310 55.9	41.26S	175.33E	27	2.2	0.1	11	8
12481	AUG 30	0152 22.7	41.63S	174.76E	25	2.1	0.0	6	4
12483	AUG 30	0245 25.4	40.70S	175.13E	33	2.0	0.1	14	10
12484	AUG 30	0318 37.2	41.57S	174.08E	5R	3.0	0.3	22	17
12495	AUG 30	0727 41.4	41.04S	175.33E	42	2.2	0.1	10	7
12496	AUG 30	0731 57.2	40.75S	175.13E	36	2.6	0.1	13	10
12522	AUG 30	1544 52.9	40.66S	174.44E	71	2.5	0.2	13	10
12549	AUG 31	0105 14.0	40.83S	175.80E	31	2.2	0.1	10	7
12556	AUG 31	0149 59.9	41.60S	174.39E	5R	2.4	0.3	14	12
12558	AUG 31	0200 51.7	41.06S	174.76E	47	2.2	0.1	10	8
12560	AUG 31	0256 54.2	40.94S	173.94E	72	3.7	0.3	29	22
12570	AUG 31	0824 27.9	41.07S	174.89E	27	2.1	0.2	12	9
12613	AUG 31	2221 25.6	40.82S	175.64E	17	2.1	0.2	11	8
12615	AUG 31	2229 21.2	40.82S	175.63E	16	2.4	0.2	16	12
12616	AUG 31	2306 33.9	40.67S	175.50E	28	2.8	0.3	16	12
12635	SEP 01	0443 56.4	40.80S	175.04E	35	2.3	0.1	9	7

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
12655	SEP 01	1157 6.7	40.90S	175.82E	29	2.1	0.1	7	5
12657	SEP 01	1302 33.0	41.20S	174.62E	33	2.0	0.1	9	8
12677	SEP 01	1926 30.2	40.96S	173.89E	67	2.6	0.2	12	9
12693	SEP 02	0059 35.2	40.96S	174.55E	55	2.1	0.2	7	5
12703	SEP 02	0454 39.1	40.51S	174.51E	37	2.4	0.2	12	9
12711	SEP 02	0735 20.9	41.04S	174.17E	51	2.6	0.2	14	10
12724	SEP 02	1229 33.9	40.67S	174.99E	24	2.6	0.3	15	11
12739	SEP 02	2019 35.0	41.06S	174.73E	52	2.7	0.1	14	12
12756	SEP 03	0449 17.4	40.82S	175.36E	28	3.2	0.2	23	19
12784	SEP 03	1322 51.8	41.19S	174.92E	29	2.0	0.1	9	8
12804	SEP 03	2339 19.3	41.35S	174.61E	48	2.5	0.2	14	11
12847	SEP 04	1828 7.8	41.16S	175.11E	27	2.4	0.1	10	7
12856	SEP 05	0041 0.8	40.93S	174.58E	37	2.6	0.1	9	7
12858	SEP 05	0259 11.8	41.19S	175.54E	25	2.5	0.1	11	9
12867	SEP 05	0806 11.6	40.54S	173.94E	105	3.4	0.3	19	14
12880	SEP 05	1643 1.8	41.15S	175.63E	20	2.6	0.2	13	10
12895	SEP 05	2342 14.1	40.87S	175.35E	25	2.6	0.2	16	13
12898	SEP 06	0054 54.9	41.32S	174.85E	29	2.2	0.1	9	8
12900	SEP 06	0119 20.4	40.89S	175.36E	23	3.2	0.3	21	17
12901	SEP 06	0121 47.2	40.87S	175.34E	25	2.6	0.2	16	12
12903	SEP 06	0127 37.5	40.87S	175.34E	27	2.0	0.1	5	4
12906	SEP 06	0251 36.3	41.57S	174.33E	24	2.5	0.1	14	11
12909	SEP 06	0513 30.9	40.89S	175.37E	24	3.8	0.3	32	27
12913	SEP 06	0516 27.5	40.87S	175.36E	25	2.8	0.2	18	15
12917	SEP 06	0533 16.3	40.87S	175.35E	26	2.6	0.2	16	13
12919	SEP 06	0544 58.4	40.86S	175.34E	30	2.3	0.2	10	7
12920	SEP 06	0545 46.3	40.87S	175.35E	32	2.3	0.1	8	6
12922	SEP 06	0551 54.4	40.87S	175.35E	26	2.9	0.2	18	14
12924	SEP 06	0711 37.3	40.99S	175.51E	16	2.1	0.1	11	8
12927	SEP 06	0905 22.7	40.85S	175.83E	32	2.3	0.2	9	7
12928	SEP 06	1004 17.5	41.22S	173.70E	80	3.8	0.3	25	20
12936	SEP 06	1420 3.4	40.62S	174.44E	74	2.8	0.2	15	10
12949	SEP 06	2228 4.0	40.89S	175.37E	24	2.5	0.2	12	9
12955	SEP 07	0043 34.6	41.24S	174.97E	23	2.0	0.1	8	7
12971	SEP 07	1022 8.5	41.72S	173.59E	72	2.9	0.3	20	15
12982	SEP 07	1701 30.1	40.74S	174.60E	41	2.4	0.2	17	9
12987	SEP 07	1930 19.5	41.28S	175.27E	21	2.2	0.2	10	9
13009	SEP 08	0809 17.0	41.70S	174.86E	21	2.0	0.2	8	7
13026	SEP 08	1355 36.9	41.12S	175.44E	25	2.3	0.1	13	10
13031	SEP 08	1637 14.1	41.11S	174.45E	37	2.3	0.1	12	11
13033	SEP 08	1838 54.7	41.28S	175.18E	29	2.1	0.1	11	9
13039	SEP 08	2200 50.5	41.68S	174.27E	7	2.1	0.2	16	13
13048	SEP 09	0311 53.1	41.37S	175.04E	24	2.5	0.2	11	9
13054	SEP 09	0540 6.6	40.87S	175.34E	22	2.2	0.2	13	9
13095	SEP 09	1638 38.9	41.68S	174.87E	24	2.0	0.3	9	8

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
13097	SEP 09	1748 2.4	41.71S	174.87E	23	2.0	0.3	9	7
13103	SEP 09	1936 30.2	40.71S	174.36E	42	2.2	0.2	12	8
13104	SEP 09	2000 7.0	40.98S	174.79E	5R	2.2	0.2	13	10
13105	SEP 09	2022 19.1	40.95S	175.92E	19	2.4	0.2	13	11
13113	SEP 10	0032 49.9	41.18S	174.58E	33	2.0	0.1	10	8
13114	SEP 10	0040 18.7	41.98S	174.01E	21	3.3	0.2	23	17
13122	SEP 10	0301 45.2	41.95S	174.00E	18	2.3	0.2	15	12
13132	SEP 10	0559 3.7	41.07S	174.36E	67	2.5	0.1	10	8
13138	SEP 10	0722 29.9	41.12S	175.88E	31	2.8	0.1	15	11
13140	SEP 10	0857 48.2	41.42S	174.46E	32	2.9	0.2	23	19
13146	SEP 10	1057 55.5	41.46S	174.20E	65	2.6	0.1	18	14
13159	SEP 10	1655 8.1	41.77S	174.05E	59	2.2	0.1	10	9
13170	SEP 10	2104 38.5	40.52S	175.74E	29	2.9	0.2	18	14
13179	SEP 11	0242 29.6	41.58S	175.23E	23	2.7	0.2	18	13
13187	SEP 11	0708 4.6	41.21S	175.87E	22	2.2	0.3	12	8
13200	SEP 11	1613 10.2	40.51S	175.42E	34	2.5	0.2	11	8
13221	SEP 12	0340 39.1	40.77S	175.89E	26	2.8	0.1	9	4
13256	SEP 12	2339 43.9	40.82S	175.68E	27	2.6	0.1	15	11
13257	SEP 13	0019 31.7	41.47S	174.44E	27	2.3	0.1	8	6
13262	SEP 13	0702 59.8	40.66S	175.77E	26	2.9	0.3	16	13
13263	SEP 13	0709 58.0	40.65S	175.73E	32	2.5	0.1	7	4
13265	SEP 13	0810 6.2	41.52S	173.55E	69	3.4	0.3	22	19
13287	SEP 14	0023 16.6	40.76S	174.76E	44	2.6	0.1	10	8
13292	SEP 14	0241 54.6	40.90S	174.27E	48	2.4	0.1	8	6
13294	SEP 14	0446 30.7	40.55S	175.76E	29	2.4	0.3	13	9
13296	SEP 14	0639 0.4	40.97S	175.58E	27	2.1	0.1	12	8
13300	SEP 14	0802 6.3	41.60S	174.12E	5R	2.4	0.3	19	15
13312	SEP 14	1826 3.8	41.30S	173.99E	46	3.1	0.2	14	12
13315	SEP 14	1900 11.7	41.41S	175.75E	20	2.9	0.2	14	11
13318	SEP 14	2118 55.1	41.71S	174.53E	29	2.4	0.2	11	10
13320	SEP 14	2347 9.3	41.13S	174.60E	34	2.4	0.1	9	8
13328	SEP 15	0602 32.9	40.97S	175.58E	27	2.5	0.1	13	10
13331	SEP 15	1008 5.1	40.97S	175.98E	24	2.3	0.3	13	9
13333	SEP 15	1049 51.5	40.52S	174.98E	5R	3.0	0.2	21	16
13335	SEP 15	1112 28.3	40.93S	175.17E	28	2.2	0.2	13	10
13340	SEP 15	1532 32.4	41.76S	174.54E	30	2.6	0.2	12	11
13343	SEP 15	1626 34.5	40.64S	175.92E	36	2.2	0.2	5	3
13355	SEP 15	2108 29.6	41.06S	174.78E	30	2.1	0.1	8	7
13383	SEP 16	0943 58.7	40.75S	174.56E	59	3.0	0.2	16	12
13385	SEP 16	1150 54.0	41.47S	173.79E	51	2.5	0.1	7	5
13386	SEP 16	1232 35.2	40.63S	174.46E	52	2.3	0.3	8	7
13392	SEP 16	1440 26.3	40.70S	173.89E	81	2.9	0.3	21	14
13415	SEP 17	0229 4.4	40.81S	175.06E	35	2.1	0.1	6	5
13421	SEP 17	0651 32.1	40.62S	175.90E	35	2.4	0.1	7	4
13434	SEP 17	1552 6.2	41.43S	173.85E	55	2.4	0.1	11	7

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13446	SEP 17	2144 8.4	40.76S	175.52E	167	2.5	0.2	5	5
13449	SEP 17	2244 40.7	40.90S	173.93E	62	2.7	0.3	13	10
13455	SEP 18	0640 42.4	41.05S	175.57E	30	2.4	0.2	14	10
13458	SEP 18	0712 37.5	41.61S	173.92E	15	2.2	0.2	12	11
13459	SEP 18	0732 49.3	41.16S	174.61E	60	2.4	0.1	8	7
13461	SEP 18	0801 32.3	41.67S	174.15E	12	2.3	0.3	12	10
13462	SEP 18	0820 23.2	41.66S	174.16E	19	3.1	0.3	23	18
13464	SEP 18	0854 22.1	41.28S	174.05E	49	2.6	0.1	9	7
13478	SEP 18	1726 17.1	40.92S	175.51E	24	2.2	0.2	11	8
13483	SEP 18	2019 48.3	40.74S	175.52E	38	2.4	0.3	9	7
13501	SEP 19	0825 10.5	41.26S	175.22E	18	2.3	0.3	9	7
13505	SEP 19	1110 15.5	40.57S	174.90E	12R	3.0	0.4	17	14
13508	SEP 19	1158 13.0	40.70S	174.94E	42	2.5	0.2	15	11
13510	SEP 19	1222 42.4	40.67S	174.59E	67	2.3	0.1	10	7
13511	SEP 19	1234 41.0	40.77S	175.84E	30	2.1	0.2	6	3
13518	SEP 19	1627 30.6	41.90S	174.11E	15	2.8	0.3	17	16
13520	SEP 19	1731 25.9	41.01S	175.22E	18	2.5	0.3	13	10
13521	SEP 19	1816 54.6	41.01S	174.80E	32	2.0	0.1	13	8
13531	SEP 20	0317 27.7	41.50S	174.11E	32	2.2	0.3	11	7
13542	SEP 20	1154 37.3	41.41S	174.27E	62	2.4	0.1	7	5
13559	SEP 21	0007 38.4	41.76S	174.51E	33	2.4	0.1	6	5
13574	SEP 21	1313 0.2	41.15S	173.67E	85	3.1	0.2	23	16
13577	SEP 21	1506 22.0	41.30S	175.28E	28	2.3	0.1	14	10
13580	SEP 21	1704 43.8	40.68S	174.46E	74	2.6	0.1	13	9
13584	SEP 21	1752 34.3	40.64S	174.19E	79	3.3	0.2	28	21
13604	SEP 22	0352 31.5	40.61S	175.84E	26	2.6	0.3	13	9
13605	SEP 22	0416 0.7	41.01S	174.53E	53	2.5	0.1	8	7
13612	SEP 22	0649 31.1	41.67S	174.31E	13	2.7	0.2	19	16
13616	SEP 22	0821 22.8	41.50S	173.94E	43	2.6	0.3	19	16
13624	SEP 22	1520 52.9	40.84S	174.73E	17	2.0	0.3	8	5
13633	SEP 22	1809 53.3	40.56S	174.32E	72	2.3	0.1	12	8
13634	SEP 22	1817 7.7	41.15S	174.05E	54	2.3	0.2	9	8
13637	SEP 22	1916 2.1	41.09S	174.66E	32	2.3	0.2	11	9
13655	SEP 23	0639 28.9	40.84S	174.74E	18	2.2	0.2	9	6
13658	SEP 23	0725 37.2	41.53S	173.62E	83	2.5	0.1	8	6
13665	SEP 23	1259 36.6	41.03S	173.57E	115	2.8	0.3	13	9
13684	SEP 24	0019 14.1	40.71S	175.32E	28	2.2	0.2	12	8
13686	SEP 24	0100 17.6	41.00S	174.91E	30	2.4	0.1	14	11
13690	SEP 24	0408 19.4	41.82S	174.10E	35	2.8	0.3	17	13
13700	SEP 24	0939 30.6	41.23S	173.69E	82	2.4	0.3	7	5
13702	SEP 24	1219 10.8	40.81S	175.36E	27	2.8	0.2	17	13
13711	SEP 24	1734 2.8	41.18S	174.67E	34	2.0	0.1	7	5
13715	SEP 24	1918 56.5	40.54S	174.31E	81	3.1	0.3	20	15
13719	SEP 24	2110 40.7	40.66S	174.04E	78	3.1	0.2	16	11
13736	SEP 25	1010 21.1	41.13S	173.64E	89	2.7	0.2	14	10

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13739	SEP 25	1144 16.4	40.81S	174.50E	42	2.2	0.1	8	6
13740	SEP 25	1215 47.7	41.05S	175.40E	29	2.0	0.1	10	6
13748	SEP 25	1431 21.9	41.39S	173.82E	53	2.5	0.2	13	9
13749	SEP 25	1520 43.6	40.57S	174.10E	71	2.1	0.2	8	5
13750	SEP 25	1621 54.1	41.04S	173.91E	54	2.6	0.3	11	9
13752	SEP 25	1656 59.0	40.52S	174.19E	57	2.4	0.3	10	7
13768	SEP 26	0334 22.0	41.73S	174.49E	29	2.3	0.1	8	6
13782	SEP 26	1107 7.7	41.06S	175.17E	28	2.3	0.2	15	10
13793	SEP 26	1938 40.2	41.35S	174.30E	27	2.1	0.1	6	4
13798	SEP 26	2335 24.2	41.12S	174.93E	20	2.1	0.3	11	9
13800	SEP 26	2345 1.3	41.40S	175.00E	25	2.6	0.2	14	11
13801	SEP 26	2352 42.9	41.26S	174.35E	64	2.5	0.1	10	9
13809	SEP 27	0850 41.6	41.43S	174.73E	30	2.3	0.2	10	9
13837	SEP 28	0021 58.9	41.51S	174.36E	12R	2.6	0.2	15	14
13846	SEP 28	0731 6.7	41.11S	175.34E	27	2.3	0.2	9	5
13854	SEP 28	1349 20.4	40.84S	174.08E	50	2.1	0.2	8	5
13858	SEP 28	1650 56.3	41.37S	173.58E	74	2.6	0.3	14	11
13861	SEP 28	1759 9.2	40.87S	173.64E	91	2.6	0.3	14	11
13863	SEP 28	2051 52.2	41.64S	173.86E	22	2.3	0.3	9	8
13871	SEP 29	0043 33.5	41.61S	173.92E	14	2.5	0.3	16	14
13879	SEP 29	0521 27.7	40.54S	174.32E	87	3.1	0.3	29	20
13880	SEP 29	0630 17.2	40.69S	174.05E	96	2.9	0.3	16	10
13881	SEP 29	0639 16.4	40.58S	174.34E	87	2.5	0.1	12	9
13896	SEP 29	1353 21.8	41.62S	174.79E	27	2.3	0.2	16	12
13907	SEP 29	2043 5.2	41.16S	173.87E	56	2.1	0.2	7	5
13932	SEP 30	1039 54.5	41.57S	174.53E	52	3.5	0.2	30	21
13938	SEP 30	1606 30.4	41.14S	173.77E	56	2.0	0.2	9	6
13939	SEP 30	1636 55.3	41.21S	174.64E	54	2.1	0.1	9	8
13944	SEP 30	1753 45.3	40.69S	175.38E	29	2.3	0.1	13	10
13970	OCT 01	0812 6.5	41.26S	174.34E	36	2.9	0.2	22	18
13975	OCT 01	0945 25.3	40.72S	175.88E	22	2.3	0.2	15	10
13984	OCT 01	1358 8.9	40.63S	175.32E	32	2.6	0.2	15	13
13994	OCT 02	0205 15.3	41.45S	173.58E	68	2.2	0.4	10	7
13998	OCT 02	0428 23.8	41.14S	173.59E	55	2.4	0.3	9	6
14000	OCT 02	0506 42.1	41.17S	174.54E	34	2.0	0.1	8	6
14004	OCT 02	0652 27.3	40.88S	174.54E	48	3.2	0.3	23	18
14010	OCT 02	1040 19.5	40.69S	174.60E	64	2.5	0.2	9	7
14014	OCT 02	1438 19.0	41.11S	175.02E	28	2.0	0.1	10	7
14019	OCT 02	1920 7.9	40.67S	173.52E	130	3.0	0.4	15	12
14041	OCT 03	1544 24.5	41.18S	175.66E	22	2.1	0.2	9	6
14048	OCT 03	2047 18.6	40.72S	174.91E	34	2.1	0.1	10	8
14050	OCT 03	2142 46.4	40.98S	174.86E	31	2.0	0.2	13	9
14057	OCT 04	0328 58.4	40.90S	174.07E	55	3.4	0.2	21	14
14059	OCT 04	0352 15.7	40.68S	175.44E	29	2.3	0.1	7	5
14081	OCT 04	2315 49.8	40.64S	174.47E	80	2.3	0.2	8	5

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14083	OCT 05	0245 54.3	40.99S	174.00E	40	3.0	0.2	20	14
14085	OCT 05	0733 59.3	40.94S	175.53E	22	2.3	0.2	11	8
14098	OCT 05	1423 43.8	41.63S	174.26E	12R	2.2	0.4	10	8
14106	OCT 05	1802 1.0	40.96S	174.54E	13	2.1	0.1	6	3
14109	OCT 05	2101 9.4	41.62S	174.18E	5R	2.3	0.2	16	11
14111	OCT 05	2247 25.8	40.76S	174.67E	68	2.5	0.1	8	6
14124	OCT 06	0903 24.5	41.59S	174.68E	28	2.3	0.1	7	5
14132	OCT 06	1522 7.9	40.80S	174.39E	12R	2.1	0.2	5	3
14135	OCT 06	1703 23.7	40.88S	174.98E	36	2.2	0.1	7	5
14139	OCT 06	2208 55.1	40.93S	175.94E	26	2.5	0.0	5	3
14140	OCT 06	2326 16.5	40.94S	175.20E	31	2.4	0.2	9	7
14144	OCT 07	0146 2.5	41.70S	174.75E	29	3.1	0.2	21	15
14145	OCT 07	0249 0.6	41.05S	174.88E	29	2.5	0.1	15	11
14149	OCT 07	0453 16.3	41.79S	174.06E	36	2.9	0.3	18	14
14155	OCT 07	1356 59.4	41.21S	173.54E	88	2.4	0.2	7	5
14171	OCT 07	2124 4.0	40.98S	175.57E	24	2.4	0.1	13	9
14175	OCT 07	2350 38.9	40.74S	174.78E	9	2.7	0.2	14	11
14193	OCT 08	1612 52.6	40.56S	173.75E	97	2.3	0.3	7	5
14197	OCT 08	2038 17.1	40.94S	175.52E	24	2.1	0.2	11	8
14210	OCT 09	0558 59.2	41.74S	175.07E	23	2.2	0.3	9	8
14211	OCT 09	0559 3.5	41.71S	175.06E	31	2.2	0.1	9	8
14212	OCT 09	0611 44.6	41.09S	173.88E	61	2.3	0.2	10	6
14219	OCT 09	0941 34.9	41.29S	173.51E	90	2.5	0.1	9	6
14234	OCT 09	2218 28.0	41.04S	174.81E	29	2.5	0.1	13	11
14235	OCT 09	2313 20.1	40.53S	174.14E	70	2.8	0.1	11	6
14236	OCT 09	2325 13.1	40.83S	174.75E	16	2.7	0.3	16	12
14240	OCT 10	0347 3.9	41.06S	175.56E	29	2.2	0.1	11	7
14247	OCT 10	0749 20.8	40.99S	174.50E	12	2.3	0.1	5	3
14251	OCT 10	1045 5.3	40.87S	173.89E	67	2.6	0.3	14	9
14258	OCT 10	1558 29.7	41.09S	174.85E	26	2.3	0.1	7	6
14287	OCT 12	0532 34.8	41.28S	175.21E	16	2.0	0.1	10	7
14289	OCT 12	0544 20.8	40.97S	174.53E	12R	2.1	0.2	7	6
14295	OCT 12	0806 1.2	41.68S	174.20E	12	2.0	0.2	11	9
14296	OCT 12	0920 0.7	41.09S	174.08E	78	2.9	0.2	19	14
14302	OCT 12	1039 18.4	40.53S	175.85E	30	3.4	0.3	22	18
14348	OCT 13	1521 59.8	40.62S	175.29E	31	2.3	0.3	12	10
14357	OCT 13	2319 10.9	41.25S	173.75E	59	2.8	0.1	8	5
14359	OCT 14	0103 50.3	41.04S	175.29E	25	2.1	0.1	8	6
14377	OCT 14	1644 9.2	40.50S	174.27E	90	3.6	0.2	21	16
14379	OCT 14	1825 39.6	41.27S	175.22E	15	2.1	0.1	10	8
14383	OCT 14	2023 53.6	41.28S	175.22E	17	2.4	0.1	9	7
14385	OCT 14	2256 8.2	41.52S	175.40E	21	3.0	0.2	15	12
14389	OCT 15	0208 31.3	41.28S	175.22E	16	2.1	0.1	8	6
14393	OCT 15	0449 14.6	40.55S	173.50E	177	3.4	0.1	13	11
14395	OCT 15	0607 20.2	40.57S	175.95E	33R	2.2	0.1	5	3

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
14401	OCT 15	0957 21.4	40.58S	175.10E	34	2.2	0.3	10	7
14410	OCT 15	1616 41.8	41.79S	174.13E	32	2.7	0.3	18	14
14414	OCT 15	1945 8.3	41.05S	175.36E	26	2.8	0.3	17	12
14420	OCT 15	2343 37.6	40.62S	175.84E	31	2.2	0.1	8	6
14425	OCT 16	0117 42.7	41.12S	174.93E	24	2.3	0.3	13	9
14430	OCT 16	0412 17.0	40.73S	175.91E	18	2.2	0.2	5	3
14466	OCT 16	1944 15.1	40.88S	175.33E	21	3.0	0.3	19	15
14468	OCT 16	2021 26.6	40.98S	174.65E	32	2.1	0.1	10	9
14469	OCT 16	2024 35.3	40.72S	174.44E	75	2.5	0.2	10	7
14471	OCT 16	2147 57.9	40.67S	175.90E	21	2.5	0.2	12	8
14473	OCT 17	0115 34.7	40.72S	175.84E	27	2.4	0.1	10	8
14476	OCT 17	0614 54.9	41.76S	174.50E	35	2.4	0.1	11	9
14479	OCT 17	0918 46.6	40.60S	174.60E	79	2.5	0.2	8	7
14481	OCT 17	0945 29.5	41.31S	174.81E	28	2.2	0.1	7	6
14482	OCT 17	1140 32.7	40.97S	175.22E	26	2.2	0.2	13	10
14485	OCT 17	1337 30.4	41.01S	175.53E	30	2.2	0.1	11	8
14492	OCT 17	2105 9.7	40.86S	174.51E	49	2.1	0.1	11	7
14494	OCT 17	2130 42.8	41.67S	174.33E	11	2.6	0.2	21	16
14495	OCT 17	2148 32.9	40.72S	175.82E	29	2.1	0.1	10	8
14499	OCT 18	0047 57.4	41.05S	174.22E	48	2.5	0.1	7	5
14500	OCT 18	0224 42.8	40.73S	174.23E	53	2.3	0.1	11	7
14501	OCT 18	0315 18.8	41.01S	174.36E	29	2.0	0.3	8	6
14508	OCT 18	0836 56.6	40.71S	174.43E	100	2.7	0.3	5	5
14514	OCT 18	1138 50.7	40.65S	175.90E	21	2.0	0.2	9	7
14516	OCT 18	1201 44.1	40.72S	173.90E	74	3.3	0.2	23	17
14520	OCT 18	1431 48.9	41.02S	173.86E	55	2.2	0.4	6	4
14530	OCT 18	2017 15.4	40.78S	174.00E	67	2.8	0.1	11	6
14532	OCT 18	2109 22.6	40.86S	173.61E	109	3.0	0.3	20	16
14534	OCT 18	2225 2.8	41.12S	174.72E	56	2.8	0.2	15	12
14536	OCT 18	2234 31.3	41.39S	173.64E	50	2.6	0.2	12	8
14537	OCT 18	2247 11.3	41.34S	174.04E	41	2.7	0.2	11	8
14545	OCT 19	0516 2.2	41.13S	174.92E	23	2.1	0.2	11	8
14550	OCT 19	1002 56.8	40.67S	175.89E	22	2.6	0.2	11	8
14556	OCT 19	1741 57.9	40.70S	175.52E	26	3.0	0.3	16	12
14570	OCT 20	0901 11.7	40.90S	175.80E	29	2.2	0.1	9	6
14584	OCT 20	2328 16.5	40.52S	175.90E	26	2.9	0.4	26	21
14596	OCT 21	0708 3.1	41.79S	174.53E	30	2.7	0.3	37	24
14599	OCT 21	0738 53.3	41.42S	174.98E	28	2.8	0.2	28	19
14600	OCT 21	0745 45.6	41.41S	174.97E	29	2.6	0.2	25	18
14623	OCT 21	2249 47.6	40.83S	174.77E	14	2.3	0.3	15	12
14633	OCT 22	0830 8.2	41.06S	174.82E	29	2.3	0.1	15	11
14668	OCT 23	0203 47.6	41.72S	173.80E	18	2.2	0.2	23	13
14673	OCT 23	0435 18.1	41.69S	174.56E	30	2.2	0.2	8	7
14676	OCT 23	0636 39.9	40.87S	175.13E	30	2.5	0.5	5	5
14717	OCT 24	0014 33.8	41.46S	174.76E	11	2.1	0.3	15	12

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
14718	OCT 24	0046 7.7	40.71S	174.11E	62	2.5	0.2	16	11
14734	OCT 24	0847 1.9	40.97S	174.89E	29	2.6	0.2	22	16
14745	OCT 24	1134 2.9	41.24S	175.34E	27	2.3	0.2	14	10
14746	OCT 24	1206 46.8	40.56S	174.73E	21	2.8	0.2	36	32
14752	OCT 24	1326 38.4	41.31S	173.64E	59	2.4	0.3	18	13
14764	OCT 24	1816 34.7	41.79S	173.60E	42	4.4F	0.2	71	50
14765	OCT 24	1818 34.9	41.04S	173.96E	44	2.8	0.4	35	27
14795	OCT 25	1104 41.2	40.83S	174.17E	54	2.3	0.3	21	14
14824	OCT 26	0001 46.2	41.64S	173.87E	33R	2.1	0.3	8	4
14837	OCT 26	0743 19.2	40.57S	175.26E	32	2.2	0.2	10	8
14842	OCT 26	1106 22.2	41.17S	173.60E	89	3.3	0.3	71	48
14847	OCT 26	1255 9.6	40.89S	175.53E	24	2.0	0.1	12	8
14883	OCT 27	1043 30.1	40.73S	175.35E	30	2.3	0.1	13	10
14896	OCT 27	1346 32.7	41.26S	175.23E	27	2.0	0.1	12	9
14916	OCT 28	0401 42.5	41.78S	173.87E	14	2.0	0.0	6	3
14921	OCT 28	0731 47.9	41.00S	174.35E	52	2.6	0.2	25	19
14933	OCT 28	1352 5.3	40.92S	175.08E	31	2.8	0.2	24	18
14942	OCT 28	1513 10.1	40.87S	174.90E	57	2.3	0.1	11	9
14951	OCT 28	1746 41.0	40.53S	174.79E	60	3.4	0.2	58	45
14953	OCT 28	1846 31.8	40.80S	175.36E	28	2.6	0.2	19	14
14956	OCT 28	2028 30.1	41.20S	174.62E	29	2.6	0.3	32	24
14957	OCT 28	2033 35.9	40.81S	175.36E	27	2.9	0.2	28	21
14986	OCT 29	0821 49.6	41.15S	173.61E	72	2.1	0.2	14	8
14989	OCT 29	0907 22.3	40.63S	175.39E	30	2.8	0.3	23	18
14990	OCT 29	0908 26.2	40.64S	175.39E	32	2.0	0.2	9	7
14991	OCT 29	0911 49.9	40.63S	175.33E	33	2.1	0.0	5	3
14993	OCT 29	1005 18.8	40.94S	175.53E	23	2.7	0.2	19	15
14994	OCT 29	1006 10.8	40.65S	174.22E	60	3.7	0.3	69	53
14999	OCT 29	1210 50.2	40.94S	175.52E	24	2.2	0.1	14	10
15000	OCT 29	1246 39.9	41.88S	174.50E	29	2.0	0.1	14	9
15003	OCT 29	1332 2.0	40.67S	174.21E	58	2.4	0.3	23	18
15004	OCT 29	1405 31.4	40.65S	174.21E	62	3.7	0.2	61	47
15011	OCT 29	1642 44.1	41.76S	174.47E	28	3.3	0.2	63	44
15012	OCT 29	1702 22.5	41.74S	174.46E	26	2.0	0.1	14	9
15016	OCT 29	1752 17.3	40.64S	174.21E	59	2.4	0.2	20	15
15017	OCT 29	1827 19.5	41.24S	175.26E	28	2.7	0.2	25	21
15024	OCT 29	2125 53.8	41.16S	175.10E	30	2.8	0.1	15	10
15036	OCT 30	0110 6.5	40.99S	175.08E	28	2.6	0.2	22	16
15039	OCT 30	0255 43.0	41.86S	174.45E	29	2.7	0.2	49	34
15041	OCT 30	0413 26.6	41.18S	174.47E	53	2.0	0.1	8	6
15057	OCT 30	0632 25.3	40.56S	175.16E	32	2.5	0.2	14	11
15059	OCT 30	0706 50.4	41.71S	174.58E	28	2.2	0.2	19	15
15072	OCT 30	0848 18.1	41.68S	174.16E	28	2.3	0.2	36	26
15073	OCT 30	0941 35.8	41.32S	175.00E	29	2.6	0.2	22	16
15103	OCT 31	0037 46.5	41.89S	173.73E	32	2.7	0.2	51	33

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
15106	OCT 31	0505 27.5	41.75S	174.03E	33	2.2	0.3	16	11
15134	OCT 31	1926 17.4	40.61S	174.36E	17	2.8	0.3	24	17
15147	OCT 31	2351 20.7	41.23S	175.34E	16	2.0	0.1	7	5
15151	NOV 01	0337 17.3	41.03S	174.44E	74	3.1	0.2	44	30
15167	NOV 01	1246 56.9	41.14S	174.82E	46	2.3	0.1	8	6
15204	NOV 02	0103 58.5	41.67S	173.89E	12	2.2	0.3	24	13
15208	NOV 02	0250 3.0	41.17S	173.68E	77	2.6	0.2	33	22
15231	NOV 02	1118 16.1	40.91S	175.69E	26	2.9	0.2	22	16
15237	NOV 02	1401 35.2	40.63S	174.21E	64	2.5	0.2	28	19
15252	NOV 02	2149 53.7	40.51S	175.71E	34	3.1	0.3	20	17
15263	NOV 03	0527 33.7	41.55S	174.08E	13	2.1	0.2	26	21
15272	NOV 03	0951 29.2	41.37S	175.57E	18	2.3	0.2	14	10
15275	NOV 03	1149 53.6	40.50S	175.42E	31	2.3	0.2	16	12
15284	NOV 03	1517 35.9	40.96S	175.47E	30	2.6	0.1	21	15
15293	NOV 03	1744 22.0	40.87S	174.18E	50	2.2	0.2	17	14
15336	NOV 04	0754 44.2	40.87S	174.98E	53	2.4	0.2	18	13
15339	NOV 04	1206 12.6	40.72S	174.31E	52	2.9	0.3	41	31
15379	NOV 05	0603 49.9	41.24S	175.19E	14	2.2	0.2	16	12
15384	NOV 05	0653 26.4	40.61S	174.03E	70	2.5	0.3	24	15
15398	NOV 05	1120 48.9	40.59S	174.59E	5R	2.2	0.4	12	11
15401	NOV 05	1248 59.8	41.29S	174.54E	60	2.9	0.2	55	38
15413	NOV 05	1841 10.4	41.01S	174.85E	30	2.1	0.1	16	12
15414	NOV 05	1941 6.9	41.44S	174.19E	32	2.5	0.3	39	31
15419	NOV 05	2103 34.4	41.22S	174.44E	36	2.0	0.2	12	9
15421	NOV 05	2138 4.0	41.14S	174.81E	29	2.3	0.2	25	18
15433	NOV 06	0452 49.6	41.28S	175.00E	26	2.0	0.1	10	8
15435	NOV 06	0511 14.0	41.33S	173.62E	52	2.0	0.0	6	3
15440	NOV 06	0828 39.0	41.40S	173.74E	74	2.2	0.3	10	7
15466	NOV 06	1837 46.0	41.23S	173.61E	83	2.3	0.2	14	10
15472	NOV 07	0004 58.2	41.53S	175.60E	28	3.1	0.2	45	35
15474	NOV 07	0016 44.4	41.54S	175.57E	28	2.4	0.2	11	9
15495	NOV 07	0633 11.4	41.25S	174.34E	37	2.2	0.2	17	12
15504	NOV 07	1003 12.0	40.87S	175.34E	25	2.2	0.1	16	11
15505	NOV 07	1005 20.9	40.87S	175.35E	25	2.8	0.2	31	22
15517	NOV 07	1332 9.1	41.41S	174.82E	21	2.3	0.2	29	21
15522	NOV 07	1421 29.4	41.19S	174.84E	46	2.1	0.1	10	8
15524	NOV 07	1633 25.5	41.72S	174.49E	30	2.0	0.2	13	10
15526	NOV 07	1737 9.7	40.63S	174.36E	35	2.1	0.2	9	6
15531	NOV 07	2109 14.9	41.01S	173.52E	83	2.3	0.1	17	10
15534	NOV 07	2158 54.5	41.38S	175.02E	24	2.1	0.0	5	4
15538	NOV 08	0021 31.1	40.68S	174.24E	54	2.9	0.3	33	24
15540	NOV 08	0050 18.2	40.65S	173.64E	93	2.4	0.1	7	4
15549	NOV 08	0507 38.0	41.58S	174.65E	32	2.1	0.1	15	11
15553	NOV 08	1027 45.2	41.61S	173.88E	15	2.2	0.3	21	13
15554	NOV 08	1056 31.6	41.02S	174.51E	60	2.3	0.0	7	6

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
15569	NOV 08	1907 27.5	41.35S	174.24E	14	2.5	0.3	33	25
15570	NOV 08	1922 14.0	41.00S	174.19E	76	2.7	0.2	19	14
15575	NOV 09	0014 5.1	41.07S	174.89E	48	2.2	0.1	10	8
15585	NOV 09	0610 16.0	41.51S	173.55E	64	2.0	0.2	8	5
15588	NOV 09	0740 57.8	41.27S	174.99E	25	2.3	0.2	27	18
15596	NOV 09	1115 43.2	41.18S	174.68E	31	2.1	0.1	9	7
15599	NOV 09	1335 33.4	41.38S	174.28E	35	2.1	0.2	17	14
15607	NOV 09	1744 27.7	41.14S	174.36E	57	2.2	0.1	12	8
15610	NOV 09	2025 1.0	41.34S	174.76E	46	2.5	0.1	11	8
15616	NOV 09	2301 24.1	40.73S	173.65E	91	2.2	0.1	10	6
15621	NOV 10	0405 58.8	41.06S	174.87E	51	2.9	0.2	27	19
15650	NOV 10	2048 1.7	41.22S	174.45E	33	2.5	0.2	26	19
15669	NOV 11	0651 53.9	40.69S	174.42E	43	2.2	0.2	17	12
15672	NOV 11	0811 33.1	41.20S	175.20E	21	2.1	0.3	19	13
15679	NOV 11	1141 5.2	40.97S	174.90E	33	2.1	0.2	12	10
15695	NOV 11	1859 20.0	41.61S	173.88E	15	2.0	0.2	18	10
15697	NOV 11	2000 19.1	40.72S	174.34E	50	2.3	0.2	13	10
15705	NOV 11	2314 29.9	41.20S	175.21E	29	2.2	0.2	20	14
15713	NOV 12	0251 12.1	41.45S	174.10E	17	2.2	0.2	21	12
15719	NOV 12	0512 53.2	41.23S	173.78E	59	2.2	0.2	14	11
15722	NOV 12	0646 21.0	41.97S	174.01E	12R	2.4	0.3	10	6
15723	NOV 12	0648 16.5	41.97S	174.04E	13	2.2	0.3	9	5
15724	NOV 12	0659 55.9	40.60S	175.45E	33	2.5	0.2	14	11
15727	NOV 12	0751 47.7	41.92S	174.02E	9	2.1	0.3	11	6
15728	NOV 12	0815 24.7	41.54S	174.85E	28	2.4	0.2	18	13
15734	NOV 12	1125 37.0	41.00S	175.61E	29	2.5	0.1	20	14
15736	NOV 12	1222 15.3	41.83S	174.10E	30	2.1	0.3	13	10
15740	NOV 12	1520 16.8	41.22S	175.15E	29	2.2	0.2	14	11
15747	NOV 12	1850 23.3	41.07S	175.18E	26	2.2	0.2	14	9
15753	NOV 13	0254 27.2	41.06S	174.98E	48	2.5	0.2	16	12
15755	NOV 13	0842 26.4	40.91S	175.25E	24	2.2	0.2	17	13
15757	NOV 13	0910 9.3	40.74S	173.61E	89	2.3	0.2	15	11
15761	NOV 13	1043 59.0	40.99S	174.54E	64	2.2	0.2	13	10
15774	NOV 13	1622 57.3	41.51S	174.30E	5R	2.8	0.3	50	46
15776	NOV 13	1712 23.5	41.52S	174.31E	5R	2.4	0.3	33	24
15778	NOV 13	1747 41.4	41.27S	174.98E	25	2.2	0.2	13	9
15779	NOV 13	1820 54.4	41.51S	174.31E	5R	2.5	0.3	38	33
15781	NOV 13	2033 43.6	41.52S	174.30E	5R	2.2	0.3	24	20
15787	NOV 14	0006 58.0	41.53S	174.32E	5R	2.7	0.3	40	35
15788	NOV 14	0029 46.7	41.52S	174.32E	5R	2.4	0.3	29	23
15790	NOV 14	0106 43.4	41.08S	173.60E	51	2.2	0.1	7	4
15797	NOV 14	0652 17.4	41.39S	173.52E	62	2.0	0.3	13	7
15798	NOV 14	0717 10.2	40.86S	175.63E	30	2.1	0.1	11	8
15805	NOV 14	1004 7.6	41.18S	173.99E	48	2.9	0.2	42	38
15841	NOV 15	0601 13.9	41.53S	174.31E	5R	2.1	0.3	21	16

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
15867	NOV 15	1708 26.2	40.53S	174.52E	28	2.2	0.3	25	17
15876	NOV 15	2331 35.8	40.96S	175.50E	23	2.1	0.1	12	8
15877	NOV 15	2332 46.3	41.67S	173.89E	15	2.1	0.2	30	23
15878	NOV 15	2346 14.9	40.96S	175.51E	24	2.1	0.2	15	11
15887	NOV 16	0517 32.6	40.95S	175.51E	25	2.2	0.2	19	14
15900	NOV 16	1413 40.6	40.53S	175.03E	5R	2.4	0.2	14	11
15925	NOV 17	0139 25.3	41.20S	175.80E	27	2.3	0.3	10	7
15926	NOV 17	0140 55.7	40.75S	173.96E	87	2.7	0.2	21	14
15929	NOV 17	0427 14.6	40.70S	174.35E	53	2.6	0.3	28	19
15930	NOV 17	0538 5.1	40.53S	174.22E	50	2.1	0.2	7	4
15935	NOV 17	0923 34.0	41.60S	173.89E	16	2.2	0.2	22	16
15947	NOV 17	1501 41.3	41.41S	175.10E	23	2.1	0.1	11	9
15961	NOV 18	0102 33.1	41.53S	174.31E	5R	2.2	0.2	23	18
15969	NOV 18	0757 42.4	41.32S	175.79E	23	2.2	0.3	14	10
15970	NOV 18	0803 34.9	41.55S	174.21E	5R	2.1	0.3	31	23
15972	NOV 18	0831 18.9	40.57S	173.50E	121	2.8	0.3	24	19
15973	NOV 18	0856 54.4	41.33S	175.77E	17	2.3	0.3	15	10
15981	NOV 18	1135 42.8	40.88S	174.02E	75	2.4	0.2	16	11
16003	NOV 18	1856 38.2	40.80S	174.23E	54	2.9	0.2	33	26
16004	NOV 18	1859 58.2	40.79S	174.22E	53	2.4	0.3	28	19
16005	NOV 18	1905 8.3	40.52S	174.27E	58	2.5	0.3	20	14
16039	NOV 19	1803 37.0	41.66S	173.92E	18	2.3	0.2	12	7
16045	NOV 19	2121 15.9	40.67S	175.58E	28	2.1	0.1	10	8
16055	NOV 20	0239 51.7	41.56S	174.22E	5R	2.2	0.3	23	15
16056	NOV 20	0435 35.5	40.76S	173.53E	88	2.5	0.3	17	12
16062	NOV 20	0652 28.9	41.37S	174.57E	20	2.9	0.3	42	30
16071	NOV 20	1150 13.0	40.60S	174.37E	42	2.4	0.3	8	6
16072	NOV 20	1349 38.6	40.94S	175.36E	34	2.4	0.3	10	8
16086	NOV 20	2103 50.5	41.18S	173.83E	56	2.6	0.2	26	18
16087	NOV 20	2140 39.3	41.33S	174.99E	29	2.9	0.2	28	21
16090	NOV 20	2226 24.1	41.06S	174.82E	51	2.2	0.1	10	8
16092	NOV 21	0014 21.4	41.68S	174.95E	24	2.2	0.2	7	5
16093	NOV 21	0146 18.0	40.93S	175.13E	30	2.1	0.1	10	8
16100	NOV 21	0627 43.9	41.39S	174.38E	16	2.8	0.3	42	28
16126	NOV 21	2001 0.7	41.62S	174.30E	8	4.5F	0.2	56	40
16127	NOV 21	2006 36.5	41.61S	174.29E	8	2.2	0.3	22	15
16128	NOV 21	2041 2.3	41.45S	174.30E	19	2.2	0.2	15	10
16132	NOV 21	2147 55.2	41.65S	174.27E	9	2.5	0.2	28	24
16133	NOV 21	2148 12.5	41.64S	174.27E	5R	2.1	0.1	17	14
16135	NOV 21	2221 52.5	41.61S	174.29E	8	2.1	0.2	26	18
16136	NOV 21	2222 23.7	41.62S	174.30E	8	3.4	0.3	60	42
16138	NOV 21	2329 37.7	41.31S	174.96E	26	2.1	0.1	6	5
16140	NOV 22	0136 1.1	41.63S	174.29E	5R	2.1	0.3	22	17
16141	NOV 22	0200 55.2	41.37S	174.56E	21	3.1	0.3	46	37
16153	NOV 22	0742 45.2	41.73S	173.58E	43	2.8	0.3	43	29

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
16157	NOV 22	0946 36.1	40.94S	175.53E	23	2.7	0.2	20	16
16159	NOV 22	0948 40.4	40.98S	175.57E	17	2.4	0.3	13	9
16173	NOV 22	2017 18.6	41.26S	175.25E	28	2.8	0.2	25	19
16174	NOV 22	2017 24.2	41.34S	175.28E	30	2.7	0.2	10	8
16176	NOV 22	2023 58.2	41.68S	174.96E	25	2.4	0.2	12	9
16188	NOV 23	0115 57.6	41.27S	175.25E	26	2.3	0.2	19	14
16197	NOV 23	0418 1.6	41.07S	175.85E	32	2.5	0.1	15	11
16198	NOV 23	0429 5.6	41.65S	174.35E	6	2.1	0.3	20	17
16205	NOV 23	0629 7.6	40.69S	175.55E	27	3.6	0.2	45	37
16206	NOV 23	0630 52.9	40.64S	175.52E	28	2.2	0.2	11	8
16214	NOV 23	1256 55.4	41.13S	174.66E	32	2.0	0.1	12	9
16215	NOV 23	1332 38.9	41.28S	175.20E	22	2.1	0.3	14	11
16231	NOV 23	2108 29.0	41.20S	174.54E	34	2.4	0.2	18	14
16235	NOV 24	0138 14.3	41.09S	174.44E	16	2.3	0.2	17	12
16240	NOV 24	0335 25.4	41.13S	174.03E	52	2.4	0.2	16	10
16246	NOV 24	0523 3.3	40.94S	175.52E	22	2.2	0.2	12	9
16254	NOV 24	0852 55.7	41.61S	174.28E	5R	2.5	0.3	44	33
16259	NOV 24	1025 53.8	40.60S	174.06E	74	2.4	0.2	11	8
16264	NOV 24	1212 16.9	40.72S	175.14E	31	2.7	0.2	28	22
16292	NOV 24	2154 33.6	40.87S	174.85E	58	2.1	0.1	7	5
16311	NOV 25	0918 40.2	40.94S	175.52E	21	2.0	0.2	14	11
16320	NOV 25	1550 43.7	41.61S	174.29E	7	2.3	0.3	47	34
16326	NOV 25	1752 37.4	40.52S	175.15E	32	2.2	0.2	16	12
16337	NOV 26	0111 59.9	41.53S	174.58E	49	2.1	0.1	7	5
16342	NOV 26	0248 8.6	41.61S	173.88E	15	2.1	0.2	25	14
16354	NOV 26	0714 35.5	41.16S	173.55E	81	2.4	0.2	9	6
16357	NOV 26	1241 15.2	40.66S	175.53E	28	2.7	0.2	21	17
16359	NOV 26	1341 36.4	40.55S	174.65E	29	2.1	0.4	12	8
16368	NOV 26	1634 19.3	41.05S	175.80E	34	2.0	0.2	10	8
16375	NOV 26	2303 56.8	40.65S	175.85E	27	3.0	0.3	30	25
16393	NOV 27	0829 58.5	40.62S	174.56E	37	2.1	0.2	10	8
16397	NOV 27	1004 3.4	40.70S	175.43E	32	2.1	0.2	7	4
16398	NOV 27	1008 46.6	41.30S	175.27E	28	2.4	0.2	17	13
16405	NOV 27	1355 49.4	40.68S	174.15E	60	2.1	0.2	11	8
16406	NOV 27	1407 34.5	41.38S	174.94E	26	2.2	0.2	25	18
16413	NOV 27	1732 28.4	41.11S	174.52E	61	3.0	0.2	56	41
16430	NOV 27	2333 35.5	40.72S	174.17E	53	2.5	0.2	16	12
16432	NOV 28	0047 10.6	41.40S	174.09E	38	2.4	0.3	23	15
16444	NOV 28	0537 0.1	41.67S	174.59E	28	2.4	0.2	18	13
16495	NOV 28	1334 6.6	41.08S	174.05E	52	2.2	0.0	5	3
16507	NOV 28	1514 27.7	40.60S	175.34E	29	2.4	0.2	13	10
16520	NOV 28	1831 58.2	41.40S	174.89E	28	2.9	0.2	42	28
16528	NOV 29	0016 33.7	41.76S	174.14E	16	3.4	0.3	60	46
16533	NOV 29	0213 57.3	41.58S	173.99E	40	2.5	0.1	6	3
16535	NOV 29	0406 45.3	40.80S	175.68E	24	2.1	0.1	7	5

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
16542	NOV 29	0721 6.8	41.35S	173.62E	58	2.9	0.3	51	36
16551	NOV 29	1240 28.7	41.75S	174.24E	15	2.1	0.2	22	15
16558	NOV 29	1707 45.4	41.21S	175.27E	48	2.0	0.1	8	7
16580	NOV 30	0854 52.5	41.08S	174.67E	31	2.1	0.2	8	6
16586	NOV 30	1239 56.2	41.37S	173.55E	61	2.3	0.2	8	4
16587	NOV 30	1250 22.9	41.17S	173.50E	12R	2.2	0.3	29	20
16597	NOV 30	1804 38.5	41.44S	174.01E	70	2.7	0.2	42	31
16620	DEC 01	0820 21.7	40.54S	174.73E	35	2.1	0.2	11	9
16633	DEC 01	1603 29.0	41.04S	174.74E	63	2.8	0.2	45	35
16634	DEC 01	1606 2.4	40.75S	175.85E	28	2.4	0.1	7	4
16640	DEC 01	2050 12.8	40.69S	175.03E	22	2.0	0.3	12	7
16646	DEC 01	2233 16.0	41.21S	175.73E	28	2.1	0.2	10	7
16650	DEC 01	2325 16.5	41.01S	173.86E	63	2.4	0.2	14	7
16652	DEC 02	0000 50.2	40.64S	175.89E	35	2.2	0.2	5	3
16655	DEC 02	0431 57.1	40.68S	174.84E	47	4.4	0.2	61	56
16656	DEC 02	0518 6.4	41.53S	174.27E	12	2.2	0.3	26	22
16659	DEC 02	0624 8.5	41.02S	174.90E	29	2.1	0.1	7	6
16663	DEC 02	1002 15.8	41.08S	174.45E	59	2.7	0.2	9	6
16664	DEC 02	1055 24.9	41.45S	174.05E	38	3.4	0.4	55	43
16666	DEC 02	1133 45.0	41.41S	175.07E	27	2.2	0.2	8	7
16670	DEC 02	1423 23.8	40.83S	174.30E	46	2.6	0.3	19	16
16671	DEC 02	1440 12.4	40.61S	173.50E	124	2.2	0.0	5	4
16676	DEC 02	2023 30.8	41.76S	174.57E	29	2.4	0.2	21	15
16681	DEC 02	2301 41.2	41.49S	174.63E	12R	2.5	0.3	11	9
16691	DEC 03	0715 46.9	41.42S	174.98E	27	2.6	0.2	28	20
16693	DEC 03	0925 55.4	41.75S	174.45E	25	2.5	0.2	36	28
16705	DEC 03	1449 14.3	40.63S	174.33E	11	2.8	0.3	24	18
16709	DEC 03	1748 0.4	40.98S	175.31E	24	2.2	0.2	13	10
16739	DEC 04	1126 54.1	40.99S	174.28E	45	2.6	0.3	43	33
16743	DEC 04	1451 33.7	40.55S	175.03E	5R	2.0	0.3	8	5
16752	DEC 05	0047 32.2	41.19S	174.47E	31	2.7	0.4	38	29
16753	DEC 05	0051 42.5	41.02S	174.72E	53	2.8	0.1	14	10
16762	DEC 05	0557 5.0	40.78S	175.07E	37	2.2	0.1	12	8
16775	DEC 05	1138 44.6	41.80S	174.40E	29	2.2	0.2	15	10
16787	DEC 05	1544 28.6	40.68S	175.47E	26	2.5	0.2	17	13
16790	DEC 05	1750 21.6	41.15S	175.21E	24	2.5	0.2	22	16
16805	DEC 06	0252 36.0	41.15S	175.22E	25	2.3	0.1	14	9
16830	DEC 06	1612 43.8	40.98S	173.64E	12R	2.0	0.2	6	3
16831	DEC 06	1648 52.3	41.74S	174.47E	24	2.4	0.2	20	12
16834	DEC 06	1822 33.3	40.62S	175.55E	31	2.3	0.1	7	5
16848	DEC 07	0246 13.7	40.84S	174.37E	92	2.2	0.0	4	3
16852	DEC 07	0528 20.8	41.06S	174.66E	60	2.9	0.2	26	19
16854	DEC 07	0656 47.9	41.66S	174.22E	15	2.1	0.2	26	20
16855	DEC 07	0714 43.2	40.74S	174.72E	36	2.0	0.1	9	8
16860	DEC 07	0843 35.7	41.66S	174.30E	8	2.2	0.2	28	24

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
16866	DEC 07	1100 32.4	40.52S	173.75E	98	3.4	0.2	65	49
16871	DEC 07	1427 27.6	40.52S	173.85E	114	2.8	0.2	12	10
16881	DEC 07	1848 3.1	41.02S	174.86E	30	2.6	0.2	36	27
16885	DEC 07	2158 30.7	41.88S	174.47E	27	2.9	0.3	51	35
16886	DEC 07	2325 14.9	40.86S	174.45E	81	2.1	0.2	6	4
16888	DEC 08	0021 58.9	41.29S	173.68E	52	2.5	0.2	25	16
16892	DEC 08	0204 15.5	41.28S	175.24E	28	3.5	0.2	42	37
16895	DEC 08	0209 30.4	41.27S	175.25E	28	2.8	0.2	28	20
16896	DEC 08	0210 43.1	41.26S	175.25E	27	2.7	0.2	21	15
16897	DEC 08	0216 14.5	41.27S	175.25E	26	2.5	0.2	22	15
16898	DEC 08	0216 42.9	41.27S	175.25E	27	2.3	0.1	16	11
16899	DEC 08	0318 4.7	41.28S	175.25E	27	2.4	0.2	13	9
16900	DEC 08	0349 11.6	41.27S	175.24E	27	2.0	0.2	13	10
16902	DEC 08	0403 27.2	41.28S	175.25E	28	2.1	0.1	10	8
16904	DEC 08	0453 22.7	41.27S	175.25E	27	2.6	0.2	25	18
16906	DEC 08	0543 17.0	41.27S	175.25E	27	2.2	0.2	18	13
16908	DEC 08	0654 37.0	41.27S	175.25E	26	2.2	0.2	19	14
16909	DEC 08	0701 16.4	41.57S	175.42E	19	2.6	0.2	24	16
16911	DEC 08	0743 19.7	41.28S	175.24E	26	2.0	0.2	10	8
16914	DEC 08	0809 6.0	41.27S	175.25E	28	2.5	0.2	23	16
16923	DEC 08	1425 8.8	40.98S	174.94E	5R	2.3	0.2	27	19
16925	DEC 08	1450 50.7	40.84S	174.55E	26	2.2	0.2	12	8
16935	DEC 08	1950 35.5	41.32S	174.99E	29	2.3	0.2	21	15
16948	DEC 09	0520 30.2	41.26S	175.25E	27	2.3	0.2	20	14
16952	DEC 09	0608 1.5	41.38S	174.81E	19	2.0	0.2	17	13
16967	DEC 09	1057 53.9	41.45S	174.05E	39	2.2	0.2	23	16
16971	DEC 09	1246 5.9	41.27S	175.25E	27	2.3	0.2	21	15
16972	DEC 09	1326 4.9	40.67S	175.86E	32	2.3	0.2	7	4
16979	DEC 09	1610 59.8	41.28S	175.21E	27	2.1	0.2	20	15
16988	DEC 09	1922 26.2	41.15S	175.13E	9	2.4	0.2	22	17
16990	DEC 09	2039 2.4	41.36S	174.24E	14	2.1	0.2	23	17
16996	DEC 10	0055 2.1	40.50S	174.22E	57	2.5	0.3	20	18
17008	DEC 10	0344 34.3	41.33S	173.75E	50	2.3	0.2	25	17
17010	DEC 10	0630 27.7	41.04S	174.40E	64	2.2	0.1	11	8
17052	DEC 10	1540 36.9	41.09S	175.48E	31	4.0F	0.2	63	56
17053	DEC 10	1543 28.3	41.08S	175.47E	29	2.5	0.1	20	14
17056	DEC 10	1548 12.9	41.09S	175.46E	26	2.0	0.1	10	8
17057	DEC 10	1551 21.4	40.60S	175.69E	29	3.4	0.2	38	36
17061	DEC 10	1603 13.7	41.08S	175.47E	29	2.4	0.2	22	15
17062	DEC 10	1615 16.7	41.08S	175.47E	28	2.0	0.1	13	10
17069	DEC 10	1705 14.1	41.09S	175.46E	30	2.0	0.2	10	7
17076	DEC 10	1952 44.0	41.27S	175.24E	27	2.4	0.2	21	15
17082	DEC 10	2218 22.2	41.61S	173.90E	15	2.8	0.2	54	44
17084	DEC 10	2226 44.1	41.61S	173.89E	16	3.1	0.2	62	48
17093	DEC 11	0245 59.7	40.94S	175.34E	20	2.0	0.2	17	13

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
17097	DEC 11	0343 27.1	41.08S	175.47E	29	2.1	0.1	14	10
17106	DEC 11	0834 47.2	40.94S	174.70E	68	2.7	0.2	43	32
17129	DEC 11	1818 6.3	40.79S	174.70E	29	2.5	0.3	36	27
17136	DEC 11	2217 4.0	40.83S	175.57E	20	2.4	0.2	14	11
17143	DEC 12	0022 50.4	40.58S	174.14E	61	2.6	0.2	13	10
17145	DEC 12	0157 24.1	40.66S	174.80E	29	2.7	0.2	34	30
17188	DEC 12	0930 39.4	41.02S	175.48E	26	2.1	0.2	21	15
17209	DEC 12	1323 7.6	41.11S	174.78E	35	2.1	0.1	13	10
17257	DEC 13	0104 56.1	41.37S	174.31E	32	2.2	0.2	20	13
17263	DEC 13	0342 6.1	41.27S	175.24E	27	2.1	0.2	15	11
17269	DEC 13	0556 12.2	41.68S	174.56E	29	2.8	0.3	39	33
17297	DEC 13	2134 33.5	41.18S	173.58E	79	2.3	0.1	11	7
17306	DEC 14	0502 23.8	41.66S	174.21E	5R	2.4	0.3	30	22
17314	DEC 14	0849 36.6	41.80S	173.59E	38	2.2	0.1	10	5
17334	DEC 14	1410 33.9	41.75S	173.85E	17	2.2	0.4	20	15
17335	DEC 14	1412 42.8	41.72S	173.83E	10	2.4	0.3	39	28
17346	DEC 14	1941 18.0	41.45S	174.19E	29	2.1	0.3	17	12
17351	DEC 14	2350 39.5	41.16S	175.21E	25	2.2	0.2	17	12
17354	DEC 15	0020 11.0	41.17S	174.51E	31	3.2	0.3	58	42
17363	DEC 15	0339 26.0	40.98S	175.62E	29	2.7	0.2	16	10
17369	DEC 15	0526 35.9	41.27S	175.30E	30	2.1	0.1	15	11
17374	DEC 15	0724 55.2	40.84S	175.74E	27	2.4	0.2	15	11
17378	DEC 15	0827 35.2	41.27S	175.24E	25	2.1	0.1	15	11
17379	DEC 15	0828 45.5	41.45S	173.70E	48	2.3	0.2	29	24
17388	DEC 15	1214 44.5	40.63S	174.23E	78	2.1	0.2	11	8
17402	DEC 15	1700 27.1	41.03S	174.84E	26	2.6	0.2	32	23
17434	DEC 16	0802 55.6	40.77S	175.07E	33	2.4	0.2	17	14
17440	DEC 16	1024 16.9	40.66S	174.49E	75	2.5	0.1	25	20
17454	DEC 16	1332 29.2	40.51S	175.75E	32	2.5	0.2	18	15
17473	DEC 16	1707 46.9	41.15S	174.61E	62	2.9	0.2	49	37
17491	DEC 16	2302 12.0	40.99S	174.55E	53	2.3	0.1	9	7
17496	DEC 17	0026 57.3	41.44S	175.87E	26	2.8	0.3	22	17
17505	DEC 17	0822 40.9	42.00S	174.75E	38	2.4	0.2	14	11
17510	DEC 17	0939 46.7	41.56S	173.55E	52	2.2	0.2	22	12
17516	DEC 17	1216 50.5	41.62S	175.30E	11	2.0	0.2	14	11
17522	DEC 17	1549 1.7	41.65S	174.20E	5R	2.5	0.2	45	37
17523	DEC 17	1549 26.8	41.67S	174.20E	5R	2.0	0.3	14	10
17527	DEC 17	1837 56.2	41.56S	173.61E	78	2.5	0.2	32	21
17533	DEC 17	2234 23.8	40.95S	173.94E	59	2.1	0.2	12	9
17534	DEC 17	2332 21.0	41.53S	173.92E	36	2.5	0.2	26	17
17536	DEC 18	0020 6.3	41.27S	175.01E	23	2.1	0.2	11	7
17537	DEC 18	0032 44.2	41.78S	174.36E	25	2.2	0.2	24	18
17540	DEC 18	0322 18.0	41.63S	175.32E	16	2.4	0.2	18	13
17546	DEC 18	0634 3.4	40.82S	173.61E	75	2.0	0.2	6	4
17547	DEC 18	0703 0.0	41.50S	174.78E	24	2.3	0.1	14	12

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
17555	DEC 18	1053 38.4	41.71S	174.20E	28	2.1	0.3	28	22
17556	DEC 18	1053 40.4	41.71S	174.19E	28	2.7	0.3	33	25
17562	DEC 18	1146 14.1	40.61S	173.66E	5R	2.1	0.1	5	3
17564	DEC 18	1158 58.2	41.27S	175.25E	27	2.4	0.2	21	15
17583	DEC 18	1457 55.0	41.22S	175.39E	21	2.4	0.2	19	14
17593	DEC 18	1738 20.8	41.13S	175.64E	20	2.0	0.1	17	12
17594	DEC 18	1848 20.2	41.54S	174.25E	5R	2.2	0.3	33	25
17598	DEC 18	2203 3.2	40.84S	175.58E	34	2.8	0.2	23	18
17607	DEC 19	0227 24.0	41.70S	174.35E	20	3.0	0.3	50	42
17610	DEC 19	0345 52.0	41.32S	174.49E	56	3.3	0.2	77	51
17611	DEC 19	0423 28.6	41.70S	174.36E	17	2.8	0.3	61	46
17617	DEC 19	0631 20.6	41.60S	175.20E	20	2.0	0.2	16	12
17618	DEC 19	0632 4.1	41.58S	175.20E	22	2.9	0.2	33	27
17621	DEC 19	0902 8.8	40.82S	175.18E	31	2.8	0.2	27	20
17623	DEC 19	0950 5.8	41.04S	174.79E	31	2.0	0.4	9	8
17637	DEC 19	1659 4.3	40.68S	174.00E	59	2.2	0.3	16	13
17640	DEC 19	1819 13.9	40.65S	175.53E	29	2.7	0.2	23	18
17643	DEC 19	1922 12.2	41.08S	173.96E	52	2.1	0.1	9	7
17655	DEC 20	0156 9.7	41.76S	174.56E	22	2.1	0.1	6	4
17669	DEC 20	0852 2.4	41.41S	174.39E	14	2.2	0.3	25	19
17677	DEC 20	1222 22.4	40.79S	175.20E	35	2.0	0.1	8	6
17682	DEC 20	1444 1.1	40.87S	175.34E	24	2.2	0.2	20	14
17698	DEC 20	1829 21.6	41.26S	175.33E	28	2.0	0.2	14	11
17709	DEC 21	0036 29.1	41.23S	175.42E	24	2.9	0.2	31	25
17714	DEC 21	0146 28.0	41.17S	174.60E	60	2.9	0.2	42	29
17717	DEC 21	0324 4.2	41.23S	175.40E	23	2.1	0.2	14	9
17737	DEC 21	1237 53.8	41.28S	173.75E	52	2.6	0.2	30	24
17741	DEC 21	1449 58.1	40.68S	174.76E	36	2.1	0.2	6	5
17743	DEC 21	1512 41.5	41.42S	175.28E	13	2.0	0.2	11	10
17773	DEC 22	0130 59.9	40.99S	175.31E	15	2.1	0.2	18	13
17775	DEC 22	0229 12.2	41.67S	173.92E	15	2.1	0.2	29	19
17779	DEC 22	0323 32.5	41.34S	173.61E	80	2.8	0.3	42	26
17790	DEC 22	0859 14.2	41.66S	173.89E	15	2.6	0.2	58	38
17809	DEC 22	1815 43.9	40.81S	174.73E	5R	2.7	0.3	42	30
17814	DEC 22	2104 39.7	41.67S	174.25E	13	2.1	0.2	22	16
17821	DEC 22	2318 44.4	41.42S	175.11E	28	2.1	0.2	15	10
17822	DEC 23	0220 48.5	40.85S	175.71E	27	2.4	0.1	7	6
17825	DEC 23	0403 19.0	41.68S	173.83E	18	2.1	0.1	7	4
17826	DEC 23	0406 28.5	41.72S	173.83E	12R	2.0	0.0	5	3
17834	DEC 23	0652 26.9	41.69S	173.84E	17	2.3	0.2	24	16
17835	DEC 23	0656 52.2	41.67S	173.84E	15	2.3	0.2	25	19
17838	DEC 23	0719 6.9	41.67S	173.85E	15	3.2	0.3	58	40
17839	DEC 23	0721 6.3	41.66S	173.85E	15	2.8	0.3	35	25
17840	DEC 23	0722 7.4	41.68S	173.82E	17	2.3	0.2	7	4
17841	DEC 23	0722 28.0	41.66S	173.83E	17	2.4	0.2	21	17

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
17842	DEC 23	0858 40.8	41.68S	173.84E	17	2.1	0.2	22	14
17846	DEC 23	1356 34.9	40.83S	175.15E	29	2.7	0.2	22	17
17848	DEC 23	1407 58.6	41.15S	173.95E	53	3.0	0.3	37	25
17850	DEC 23	1454 24.2	40.55S	175.84E	28	3.0	0.4	10	7
17858	DEC 23	1811 11.2	40.77S	174.97E	5R	2.1	0.2	8	5
17862	DEC 23	2051 39.5	41.67S	173.83E	15	2.1	0.3	16	9
17864	DEC 23	2120 8.0	40.58S	174.08E	69	2.7	0.2	22	15
17868	DEC 24	0009 55.9	41.69S	173.93E	17	2.1	0.1	11	6
17879	DEC 24	0750 45.5	40.96S	175.60E	33	2.5	0.2	17	12
17880	DEC 24	0837 38.2	40.66S	174.80E	34	2.2	0.1	14	9
17895	DEC 24	1619 17.7	41.53S	174.03E	12R	2.5	0.3	47	35
17897	DEC 24	1705 20.7	41.58S	174.41E	32	2.4	0.2	26	20
17903	DEC 24	1823 53.6	41.60S	175.20E	23	2.7	0.2	34	28
17905	DEC 24	1916 59.2	41.60S	175.21E	23	2.7	0.3	32	27
17906	DEC 24	1918 50.1	41.58S	175.20E	21	2.2	0.3	18	14
17907	DEC 24	1936 55.9	41.58S	175.19E	19	2.0	0.2	14	11
17908	DEC 24	1944 10.2	41.58S	175.21E	23	2.8	0.3	34	26
17909	DEC 24	1946 0.1	40.82S	175.22E	31	2.4	0.2	20	15
17911	DEC 24	2008 36.0	41.60S	175.22E	23	2.1	0.2	18	13
17918	DEC 24	2344 15.2	41.59S	175.22E	23	2.6	0.3	30	23
17935	DEC 25	0945 39.5	41.44S	174.05E	39	2.1	0.3	21	15
17937	DEC 25	1055 3.8	40.86S	175.87E	29	2.4	0.3	15	11
17940	DEC 25	1301 45.8	40.84S	175.55E	18	2.3	0.2	19	14
17952	DEC 25	2204 47.1	40.94S	174.82E	31	2.9	0.3	38	31
17981	DEC 26	1437 11.2	41.61S	175.31E	13	2.1	0.3	16	14
17984	DEC 26	1646 28.4	41.01S	174.87E	32	2.6	0.2	30	23
17985	DEC 26	2126 49.7	40.79S	175.33E	28	2.2	0.2	15	12
17986	DEC 26	2128 33.6	40.79S	175.32E	27	2.0	0.1	7	4
17989	DEC 26	2343 22.6	40.93S	175.20E	25	2.3	0.2	20	14
18008	DEC 27	0841 36.7	40.98S	174.69E	59	2.4	0.1	26	19
18009	DEC 27	1211 2.9	41.61S	173.85E	43	2.8	0.3	50	42
18010	DEC 27	1222 52.8	41.02S	174.10E	52	2.7	0.3	38	34
18018	DEC 27	1507 31.4	41.80S	173.60E	39	2.3	0.2	34	25
18024	DEC 27	1556 35.5	41.71S	174.62E	30	2.3	0.3	27	22
18027	DEC 27	1620 39.2	41.31S	175.70E	19	2.1	0.2	14	10
18031	DEC 27	1743 17.0	41.68S	174.20E	5R	2.6	0.2	46	39
18038	DEC 27	1840 48.7	41.68S	174.21E	5R	2.7	0.3	42	36
18061	DEC 28	0505 42.4	41.58S	175.30E	11	2.0	0.3	15	12
18078	DEC 28	1502 19.8	41.37S	174.73E	51	2.1	0.1	8	6
18093	DEC 28	2348 18.4	41.04S	174.65E	48	2.3	0.2	15	13
18098	DEC 29	0130 28.3	41.67S	173.83E	16	2.1	0.2	28	20
18101	DEC 29	0258 40.2	41.61S	174.28E	5R	2.2	0.3	27	21
18105	DEC 29	0355 44.8	40.53S	174.55E	42	2.0	0.1	6	5
18112	DEC 29	0837 56.0	41.60S	173.88E	17	2.1	0.2	28	18
18125	DEC 29	1016 21.5	40.56S	174.13E	76	2.8	0.3	61	43

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
18135	DEC 29	1713 11.3	40.89S	174.14E	50	2.3	0.2	14	11
18144	DEC 29	2047 47.0	41.61S	174.29E	12R	2.0	0.2	24	17
18151	DEC 29	2249 22.6	41.48S	174.96E	41	2.1	0.1	9	8
18153	DEC 29	2354 49.5	41.03S	174.43E	36	2.5	0.3	32	25
18161	DEC 30	0338 1.0	41.66S	173.84E	14	2.6	0.2	53	41
18162	DEC 30	0339 21.8	40.83S	175.75E	28	2.0	0.2	11	8
18164	DEC 30	0437 4.1	41.69S	174.35E	20	2.2	0.3	24	21
18165	DEC 30	0509 18.4	41.13S	174.60E	32	2.1	0.1	14	11
18169	DEC 30	0724 21.7	41.34S	174.17E	44	3.2	0.2	55	43
18170	DEC 30	0737 3.1	40.56S	174.32E	5R	2.8	0.3	34	29
18174	DEC 30	0937 12.3	41.26S	175.16E	27	2.1	0.2	18	13
18179	DEC 30	1224 31.0	40.92S	173.65E	80	3.2	0.2	64	53
18184	DEC 30	1528 10.6	41.00S	174.23E	44	2.4	0.3	26	22
18187	DEC 30	1604 9.0	40.57S	174.16E	72	2.3	0.2	22	17
18193	DEC 30	1844 34.1	41.73S	174.47E	28	2.0	0.2	27	16
18195	DEC 30	1939 15.7	41.84S	174.80E	34	2.7	0.2	33	25
18197	DEC 30	2014 18.3	40.55S	175.77E	32	3.6	0.2	41	39
18200	DEC 30	2050 25.7	41.37S	174.26E	35	2.7	0.3	42	34
18201	DEC 30	2053 44.8	41.65S	174.59E	23	2.0	0.2	20	14
18204	DEC 30	2222 38.9	40.63S	175.48E	31	2.2	0.1	12	9
18207	DEC 30	2313 10.3	40.52S	175.70E	37	2.2	0.1	7	4
18229	DEC 31	0836 12.0	40.97S	175.63E	26	2.3	0.2	16	11
18231	DEC 31	0920 46.3	41.63S	174.30E	8	2.1	0.2	25	18
18237	DEC 31	1241 47.9	41.29S	175.31E	29	2.0	0.2	16	12
18238	DEC 31	1241 51.2	41.66S	173.88E	15	2.0	0.2	26	17
18243	DEC 31	1618 32.1	40.86S	174.67E	52	3.0	0.2	52	46
18250	DEC 31	2038 19.3	40.81S	175.13E	32	2.3	0.2	15	12
18251	DEC 31	2041 11.6	41.40S	174.74E	53	2.4	0.2	20	15
18257	DEC 31	2251 35.4	40.93S	175.64E	31	2.4	0.1	13	10

NON-INSTRUMENTAL DATA

THE FELT REPORTING SYSTEM

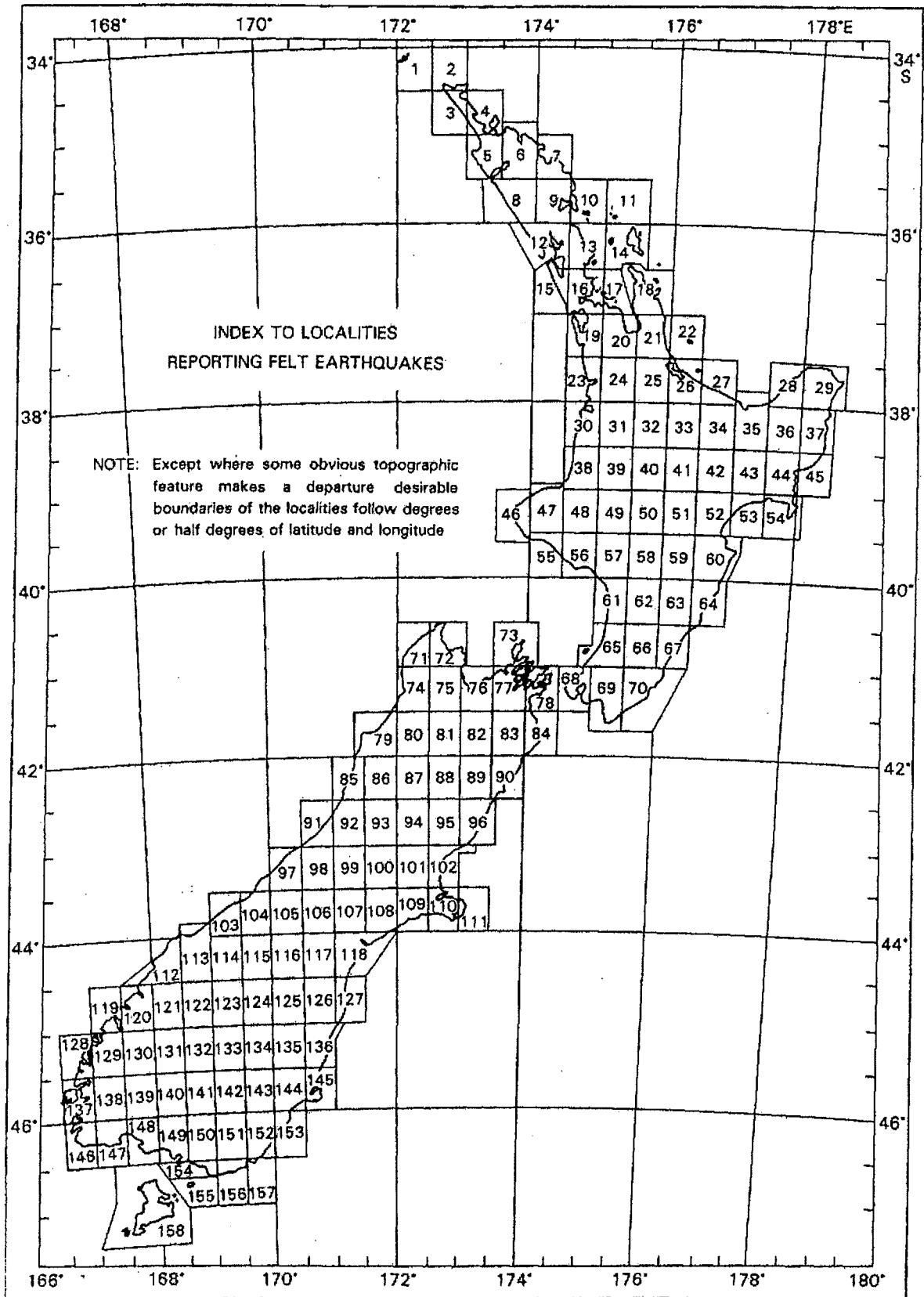
The Institute has recruited a network of about 600 volunteer observers spread throughout the country, who use a standard form to describe the effects of any earthquake they feel. The Institute also collects casual reports from newspapers, meteorological observers, postmasters and members of the local 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 Institute 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 Institute 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 geographical 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.

INDEX OF 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	Waiholā
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		

FELT REPORTS FROM OUTSIDE NEW ZEALAND

The Institute 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 Institute.

DATE	TIME	INTENSITY	PLACE
Jan 08	22h 48m	MM 3	Raoul Island
Jan 25	22h 22m	MM 4	Raoul Island
Feb 02	17h 15m	'MM 4'	Raoul Island
Feb 02	18h 18m	'MM 4'	Raoul Island
Mar 08	13h 23m	MM 4	Raoul Island
Mar 08	13h 53m	MM 4	Raoul Island
Mar 08	14h 40m	MM 4	Raoul Island
Mar 08	14h 42m	MM 4	Raoul Island
Mar 08	15h 35m	MM 4	Raoul Island
Mar 08	15h 37m	MM 4	Raoul Island
Mar 08	15h 39m	MM 4	Raoul Island
Mar 08	16h 00m	MM 4	Raoul Island
Mar 08	16h 17m	MM 4	Raoul Island
Mar 08	17h 04m	MM 4	Raoul Island
Mar 08	17h 45m	MM 6	Raoul Island
Mar 08	18h 34m	MM 6	Raoul Island
Mar 08	20h 45m	MM 5	Raoul Island
Mar 09	09h 02m	MM 4	Raoul Island
Mar 11	10h 36m	'MM 3'	Raoul Island
Mar 12	23h 09m	'MM 3'	Raoul Island
Mar 12	23h 15m	'MM 2'	Raoul Island
Mar 13	19h 45m	'MM 2'	Raoul Island
Mar 14	13h 41m	'MM 3'	Raoul Island
Mar 14	13h 46m	'MM 4'	Raoul Island
Mar 15	00h 58m	'MM 4'	Raoul Island
Mar 15	00h 59m	'MM 2'	Raoul Island
Mar 15	01h 06m	'MM 3'	Raoul Island
Mar 15	01h 58m	MM 3	Raoul Island
Mar 15	01h 59m	MM 4	Raoul Island
Mar 15	02h 07m	MM 3	Raoul Island
Mar 26	12h 15m	MM 4	Raoul Island
Mar 31	07h 40m	MM 4	Raoul island
Mar 31	07h 49m	MM 4	Raoul Island
Mar 31	07h 54m	'MM 2'	Raoul Island
Mar 31	09h 32m	'MM 3'	Raoul Island
Mar 31	10h 18m	'MM 2'	Raoul Island
Mar 31	17h 36m	'MM 2'	Raoul Island
Mar 31	22h 43m	'MM 3'	Raoul Island
Mar 31	22h 46m	'MM 3'	Raoul Island

DATE	TIME	INTENSITY	PLACE
Mar 31	22h 50m	'MM 4'	Raoul Island
Mar 31	22h 55m	'MM 2'	Raoul Island
Mar 31	23h 18m	'MM 3'	Raoul Island
Apr 01	02h 09m	'MM 3'	Raoul Island
Apr 25	20h 18m	MM 4	Raoul Island
Apr 25	20h 20m	MM 4	Raoul Island
Apr 26	00h 06m	MM 3	Raoul Island
Apr 26	00h 37m	MM 4	Raoul Island
Apr 26	00h 47m	MM 3	Raoul Island
Apr 26	09h 12m	MM 4	Raoul Island
May 19	11h 56m	MM 4	Raoul Island
May 25	08h 27m	MM 3	Raoul Island
May 27	08h 52m	MM 4	Raoul Island
Jun 18	17h 40m	MM 4	Raoul Island
Jun 18	17h 59m	MM 4	Raoul Island
Jun 18	11h 53m	MM 4	Raoul Island
Aug 11	00h 35m	MM 3	Raoul Island
Aug 24	01h 32m	MM 3	Raoul Island
Sep 07	01h 31m	'MM 2'	
Sep 13	12h 38m	MM 4	Raoul Island
Sep 13	14h 11m	MM 4	Raoul Island
Sep 13	20h 59m	MM 3	Raoul Island
Sep 14	01h 08m	'MM 3'	Raoul Island
Sep 14	01h 23m	'MM 3'	Raoul Island
Sep 14	01h 43m	'MM 3'	Raoul Island
Sep 14	12h 17m	'MM 3'	Raoul Island
Sep 14	20h 54m	'MM 2'	Raoul Island
Sep 15	00h 46m	'MM 4'	Raoul Island
Sep 15	02h 30m	'MM 2'	Raoul Island
Sep 15	05h 41m	'MM 4'	Raoul Island
Oct 04	16h 36m	MM 4	Raoul Island
Oct 21	12h 46m	MM 4	Raoul Island
Oct 22	08h 09m	MM 4	Raoul Island
Nov 09	23h 45m	MM 4	Raoul Island
Nov 21	17h 56m	MM 4	Raoul Island
Nov 29	02h 22m	MM 3	Raoul Island
Dec 08	09h 08m	MM 3	Raoul Island
Dec 14	07h 24m	MM 4	Raoul Island

PUBLICATIONS BY STAFF MEMBERS

The following papers by members of the Seismological Institute staff were published in 1993.

Anderson, H.; Webb, T.; Jackson, J. Focal mechanisms of large earthquakes in the South Island of New Zealand: implications for the accommodation of Pacific-Australia plate motion. *Geophysical journal international*. 115(3):1032-1054.

The plate motion model NUVEL-1 predicts oblique convergence between the Pacific and Australian plates in the South Island of New Zealand. We used P and SH body waveform analysis to constrain the focal mechanisms of the 15 largest earthquakes ($M_s > 5.8$) that have occurred in this region since 1964, in order to see how the plate motion is accommodated. At the southern end of the Alpine Fault, convergence is achieved by oblique slip movement along a concentrated zone of deformation. In the southern offshore region one event may be related to thrusting of the Australian plate beneath the Pacific plate, and another strike-slip event probably demonstrates movement on an active strike-slip fault system parallel to, but offset from, the southern limit of the Alpine Fault. This geometry provides a possible mechanism for the rapid uplift of the Fiordland region. Deformation in the northern South Island is more distributed. In the south-west Marlborough region partitioning occurs between strike-slip faulting in the SE and reverse faulting farther NW in the Buller region. We suggest that the partitioning developed as a consequence of an increasing component of shortening that was accommodated by slip on reactivated pre-existing normal faults in the Buller region. Shortening in the Buller region may have deflected the NE end of the Alpine Fault towards the NW, forming the prominent bend. The Marlborough Fault System, with its youngest and most active faults to the SE, probably developed in an attempt to maintain a through-going strike-slip structure as each of the strike-slip faults was transported towards the north-west. Partitioning of the opposite polarity (with reverse faulting SE of the strike-slip faulting) occurs in north-east Marlborough. The boundary between the two different styles of partitioning in NE and SW Marlborough appears to coincide with a change in the nature of the downgoing slab and a change in strike of faults of the Marlborough Fault System. A normal faulting earthquake on the northern edge of the Chatham rise probably results from a complex interaction of the buoyant continental crust in that region with the subduction zone and the overlying Marlborough Fault System.

Anderson, H.; Zhang, J. Coseismic slip in the mantle: evidence from the 1989 Macquarie Ridge earthquake. *Annali di geofisica*. 36(2):45-53

The rupture process of the M_s 8.2, 23 May, 1989, Macquarie Ridge earthquake was studied using a surface wave inversion procedure that incorporated detailed source-time functions obtained from shorter-period body waves. The seismic-source model obtained using this method is consistent with observations of both body waves and long-period Rayleigh waves from the earthquake. The Macquarie Ridge earthquake rupture has a centroid time of 28s and a right-lateral strike-slip fault mechanism with a rake of 175° , on a vertical fault plane striking N 38° E. This mechanism is consistent with P-wave first motions of the event. Allowing for uncertainty in attenuation, the long-period Rayleigh waves (periods from 150 to 300s) indicate that the Macquarie Ridge earthquake had a seismic moment of between 1.7 and 2.1×10^{21} Nm and a corresponding centroid depth of between 15 and 28 km. The centroid depth range, combined with the lack of resolvable directivity of the earthquake rupture, suggests that significant slip occurred beneath the Moho, which has a maximum depth of about 16 km in the epicentral region. We infer that the mantle slip component preferentially radiated long-period seismic energy because the shorter-period body wave observations indicate shallower centroid depths and lower moment values than those determined from the surface wave inversion. Similar studies of other great earthquakes in oceanic crust, (e.g. 1977 Sumba and 1977 Tonga) indicate that these also had moment release concentrated in the upper part of the plate but that significantly deeper moment release was required to explain the surface waves. Thus some great earthquakes appear to rupture a significant thickness of the lithosphere, although the slip distribution is probably modified by the different rheological properties of the plate. Recognition of this phenomenon has important implications for seismic hazard.

Anderson, H.; Webb, T. New Zealand seismicity: do the faults matter? In Froggatt, P. Geological Society of New Zealand 1993 annual conference, Victoria University of Wellington, 6-10 December: programme and abstracts. 157 p. Geological Society of New Zealand; Lower Hutt. *Geological Society of New Zealand miscellaneous publication*; 79a: 26 p.

Anderson, H.J.; Webb, T. New Zealand seismicity: patterns revealed by the upgraded national seismic network. In New Zealand Geophysical Society Energy and environment: Abstracts [of the] Geophysical Symposium 1993, 26-27 August 1993, Victoria University of Wellington. [28] p.

Denham, D.; Smith, W.D. Earthquake hazard assessment in the Australian Southwest Pacific region: a

review of the status quo. *Annali di geofisica*. 36 (3-4):27-39

Since the late 1960s earthquake hazard has been assessed quantitatively for five countries in the region, which for this review comprises the continent of Australia and the active plate margin countries of Indonesia and Papua New Guinea through the Solomon Islands to Fiji and New Zealand. In each country the methods used in the assessments are invariably different and the final hazard maps display different risk parameters so it is difficult to compare levels of risk between each of the countries. For example, the most recent maps for New Zealand display expected Modified Mercalli Intensities for a number of return periods (MMVI-MMIX for 5-2000 years) whereas for Papua New Guinea the hazard is expressed as 20 year return periods for peak acceleration at 5% damping for a range of natural periods. There is a clear need to apply common methodologies and data bases throughout the whole region so that hazard estimates are consistent from country to country.

Downes, G.L. The 1904 Cape Turnagain earthquake In: New Zealand Geophysical Society Energy and environment: Abstracts [of the] Geophysical Symposium 1993, 26-27 August 1993, Victoria University of Wellington. [28] p.

Gledhill, K.R. Shear waves recorded on close-spaced seismographs. I, Shear-wave splitting results. *Canadian journal of exploration geophysics*. 29(1):285-298.

The shear waves from local earthquakes were recorded on an L-shaped network of three-component digital seismographs with station spacings of about one kilometre. Analysis of the shear-wave splitting observed confirms the existence of at least two anisotropic regions on the Wellington Peninsula and identifies two of the boundaries between the regions to within about 0.5 km. The spatial coherence observed for P-phase arrivals is generally not seen for shear-wave arrivals, suggesting that there is a fundamental difference in the propagation for the two wave types in the study area which is most likely due to seismic anisotropy. The split shear-wave delays measured on two nearby (within one kilometre) stations which displayed similar shear-wave polarizations varied by up to a factor of two. Often the polarity of what was assumed to be the slower shear-wave arrival was different on the two stations. This suggests that great care must be taken when using split shear-wave delay times. Using similar earthquakes separated in time by as much as 14 months, no evidence for any change in the shear-wave splitting parameters was found. The uncertainties in the measurement of split shear-wave delay times leads to the suggestion that if temporal changes in the shear-wave splitting parameters are to be identified then sources other than earthquakes will need to be used.

Gledhill, K.R. Shear waves recorded on close-spaced seismographs. II, The complex anisotropic structure of the Wellington Peninsula, New Zealand. *Canadian journal of exploration geophysics*. 29(1):299-314.

Shear waveforms are used to map the complex anisotropic structure of the Wellington Peninsula, New Zealand. The shear waves from local earthquakes were recorded on a close-spaced L-shaped network of seismographs. Three anisotropic regions are identified on the peninsula, two of which show hexagonal symmetry with near-orthogonal horizontal symmetry axes at azimuths of 140° and 230°. The existence of the two regions with orthogonal horizontal symmetry axes allows an estimate of the depth extent of the anisotropy to be made; this is not possible for arbitrary differences in the symmetry axes because then the measured polarizations rely only on the symmetry of the material underlying the recording station. Modelling using synthetic seismograms and a block structure for the Wellington Peninsula gives an estimate of 4 km for the depth extent of the anisotropy with a shear-wave velocity anisotropy of approximately 6%. The most likely cause of the observed seismic anisotropies aligned cracks and microcracks in the Earth's crust. Both crack-induced anisotropy and periodic thin-layer anisotropy (PTL) can be used to model the observed shear-wave splitting. Both mechanisms produce an effectively anisotropic medium with hexagonal symmetry and a similar pattern of shear-wave delays. However, the lack of correlation between the measured bedding azimuths and the observed shear-wave polarization alignments suggest that it is unlikely that the observed anisotropy is caused by PTL.

Haines, A.J.; Holt, W.E. A procedure for obtaining the complete horizontal motions within zones of distributed deformation from the inversion of strain rate data. *Journal of geophysical research*. 98(B7):12,057-12,082.

We present a new method for obtaining relative horizontal motions on the surface of a sphere from strain rate data. Strain rates can be obtained from the summation of earthquake moment tensors or from estimates of Quaternary rates of deformation on major faults. The method is particularly useful for determining the kinematics within zones of distributed continental deformation, or any region where there is distributed strain. All relative motions, including rotation rates about the vertical axis, are uniquely determined when the three rates of horizontal strain [...] are everywhere defined within the region of interest. The forward problem is set up such that all relative velocities u on the surface of the sphere are defined by [...] where [...] is the three-dimensional rotation vector that describes the velocities [...] and [...] at all points on the surface of Earth of radius r with position unit radial vectors [...]. The three-dimensional rotation vector [...] is expressed as an infinite power series expansion, truncated at finite order $N-1$.

Coefficients of this polynomial are sought in a damped least squares inversion such that the strain rates [...] which define all of the coefficients in the power series expansion of [...] are optimally matched by the smooth polynomial function. Formal uncertainties are introduced that take into account observational error as well as the inability of the polynomial function to accommodate the more rapid spatial variations of the rate-of-strain field. We demonstrate the method on a deforming part of Asia. Strain rates for the region were obtained from the summation of moment tensor elements of moderate and large-sized earthquakes in this century. Solutions, both velocity fields and rotation rates, are investigated as a function of polynomial smoothing and polynomial order. We demonstrate that the velocity field, obtained by the polynomial fitting of the regions where strain rates were averaged, is by nature extremely robust and is almost independent of the amount of polynomial smoothing. The rotation rate field on the other hand shows the same order of smoothing as the polynomials used in the fitting procedure.

Haines, A.J. Developments in computer modelling of microzonation effects. *In* Conference technical papers: New Zealand National Society for Earthquake Engineering technical conference and AGM, Wairakei Hotel, Taupo. p. 125-133.

New Zealand National Society for Earthquake Engineering; Wellington New Zealand developments in computer modelling of microzonation effects are ahead of overseas research. 2-dimensional modelling of nonlinear seismic wave propagation in soft sediments is being undertaken at Department of Civil Engineering, University of Auckland. At Institute of Geological and Nuclear Sciences Limited results are being obtained from the first two sets of computer programs for multi-source studies of linear propagation in general 3-dimensional problems, involving in one case irregular, heterogeneous soil layers and in the other case surface topography. This paper illustrates these three areas of local expertise, with examples from projects for Earthquake and War Damage Commission. Mention is made of progress overseas. The paper concludes with an explanation of the current direction of research here to quantify how much microzonation effects at individual sites change from one earthquake to another, depending on the properties of the sites and the earthquakes.

Holt, W.E.; Haines, A.J. Velocity fields in deforming Asia from the inversion of earthquake-released strains. *Tectonics*. 12(1):1-20.

Average strain rates in sectors of deforming Asia are matched by a fifth-order polynomial function, and that function integrated, to obtain the relative velocities and rotations occurring within east Tibet, western Sichuan, Yunnan, and south China. The method was applied to strain rates obtained from moment tensor summation of

both modern and historic earthquakes but can be applied as well to strains obtained from Quaternary slip rates on major faults. If south China has negligible motion relative to Siberia, then the velocity results indicate that nearly all of the expected motion between India and the south China portion of Eurasia has, in the last 85 years, been accommodated by distributed intraplate deformation in east Burma, Yunnan, western Sichuan, and east Tibet. Calculations indicate that these regions constitute a zone of distributed right-lateral shear that accommodates an overall north-south sense of relative motion between east Tibet and south China and India and south China. Line elements parallel to both right-lateral and left-lateral faults in east Burma and western Yunnan are rotating clockwise relative to south China, with the line elements parallel to left-lateral faults rotating most rapidly ($2.0 \pm 0.5 \text{ deg./m.y.}$). In eastern Tibet and the Gansu-Ningxia. NW-SE trending left-lateral faults give rotation clockwise relative to south China ($1-2.5 \text{ deg./m.y.}$). In central Tibet and western Sichuan, right-lateral faults give slight counterclockwise rotation rates relative to south China ($0.5-0.75 \text{ deg./m.y.}$). Instantaneous rotation rates within the deforming region, extrapolated over a 20-40 m.y. time period, are in rough agreement with the paleomagnetic rotations measured in Cretaceous-aged rocks.

Holt, W.E.; Haines, A.J. Reply [to R. Westaway's comment on "Velocity fields in deforming Asia from the inversion of earthquake-released strains" by W.E. Holt and A.J. Haines]. *Tectonics*. 12(6):1489-1491.

Westaway's comment primarily addresses the uniform fault model presented in Appendix B of Holt and Haines (1993). However, because Westaway also comments on our velocity fields, we first briefly review how the general velocity fields were derived and then review in more detail how the uniform fault model is used only as a tool to investigate some characteristics of our general solutions. We then address specific comments of Westaway.

Holt, W.E.; Haines, A.J. On the kinematics of southern California and New Zealand. *Eos. Supplement*. 74 (43):59-60.

Houston, H.; Anderson, H.J.; Beck, S.L.; Zhang, J.; Schwartz, S. The 1986 Kermadec earthquake and its relation to plate segmentation. *Pure and applied geophysics*. 140(2):331-364.

To evaluate the tectonic significance of the October 20, 1986 Kermadec earthquake ($M_w=7.7$), we performed a comprehensive analysis of source parameters using surface waves, body waves, and relocated aftershocks. Amplitude and phase spectra from up to 93 Rayleigh waves were inverted for centroid time, depth, and moment tensor in a two-step algorithm. In some of the inversions, the time function was parameterized to include

information from the body-wave time function. The resulting source parameters were stable with respect to variations in the velocity and attenuation models assumed, the parameterization of the time function, and the set of Rayleigh waves included. The surface wave focal mechanism derived (strike =275°, dip =61°, rake =156°) is an oblique-compressional mechanism that is not easy to interpret in terms of subduction tectonics. A seismic moment of 4.5×10^{20} N-m, a centroid depth of 45 ± 5 km, and a centroid time of 13 ± 3 s were obtained. Directivity was not resolvable from the surface waves. The short source duration is in significant contrast to many large earthquakes. We performed a simultaneous inversion of P and SH body waves for focal mechanism and time function. The focal mechanism agreed roughly with the surface wave mechanism. Multiple focal mechanisms remain a possibility, but could not be resolved. The body waves indicate a short duration of slip (15 to 20 s), with secondary moment release 60 s later. Seismically radiated energy was computed from the body-wave source spectrum. The stress drop computed from the seismic energy is about 30 bars. Sixty aftershocks that occurred within three months of the mainshock were relocated using the method of Joint Hypocentral Determination (JHD). Most of the aftershocks have underthrusting focal mechanisms and appear to represent triggered slip on the main thrust interface. The depth, relatively high stress drop, short duration of slip, and paucity of true aftershocks are consistent with intraplate faulting within the downgoing plate. Although it is not clear on which nodal plane slip occurred, several factors favour the roughly E-W trending plane. The event occurred near a major segmentation in the downgoing plate at depth, near a bend in the trench, and near a right-lateral offset of the volcanic arc by 80 km along an E-W direction. Also, all events in the region from 1977 to 1991 with CMT focal mechanisms similar to that of the mainshock occurred near the mainshock epicenter, rather than forming an elongate zone parallel to the trench as did the aftershock activity. We interpret this event as part of the process of segmentation or tearing of the subducting slab. This segmentation appears to be related to the subduction of the Louisville Ridge, which may act as an obstacle to subduction through its buoyancy.

Maunder, D.E. New Zealand seismological report 1991. Institute of Geological & Nuclear Sciences science report 93/44.

Ravens, J.M.; O'Connor, R.; Zhu, Hai; Anderson, H. Deep seismic reflection profiling in east Taranaki using standard oil-industry acquisition parameters. *New Zealand journal of geology and geophysics*. 36(1):69-75.

Acquisition of seismic reflection data designed to image the lower crust is usually an expensive operation. By taking advantage of current petroleum industry surveying, however, and with only slight changes to the acquisition

parameters, 51km of reflection profiles, capable of being processed as deep crustal seismic sections, have been recorded in east Taranaki at negligible additional acquisition cost. The quality of the processed sections is encouraging, and the data show a zone of marked reflectivity between 10 and 12s two-way time with a north-trending apparent dip of between 5 and 10 degrees. Two factors make interpretation of the data difficult: the short length of the profiles prevents them from being adequately migrated; and their orientation subparallel to the strike of a major fault may be giving rise to spurious, out-of-plane events on the seismic sections.

Reyners, M.; Cowan, H. The transition from subduction to continental collision: crustal structure in the North Canterbury region, New Zealand. *Geophysical journal international*. 115(3):1124-1136

The North Canterbury region marks the transition from Pacific plate subduction to continental collision in the South Island of New Zealand. Details of the seismicity, structure and tectonics of this region have been revealed by an 11-week microearthquake survey using 24 portable digital seismographs. Arrival time data from a well-recorded subset of microearthquakes have been combined with those from three explosions at the corners of the microearthquake network in a simultaneous inversion for both hypocentres and velocity structure. The velocity structure is consistent with the crust in North Canterbury being an extension of the converging Chatham Rise. The crust is about 27 km thick, and consists of an 11 km thick seismic upper crust and 7 km thick seismic lower crust, with the middle part of the crust being relatively aseismic. Seismic velocities are consistent with the upper and middle crust being composed of greywacke and schist respectively, while several lines of evidence suggest that the lower crust is the lower part of the old oceanic crust on which the overlying rocks were originally deposited. The distribution of relocated earthquakes deeper than 15 km indicates that the seismic lower crust changes dip markedly near 43° S. To the south-west it is subhorizontal, while to the north-east it dips north-west at about 10°. Fault-plane solutions for these earthquakes also change near 43° S. For events to the south, P-axes trend approximately normal to the plate boundary (reflecting continental collision), while for events to the north, T-axes are aligned down the dip of the subducted plate (reflecting slab pull). While lithospheric subduction is continuous across the transition, it is not clear whether the lower crust near 43° S is flexed or torn.

Reyners, M.; Robinson, R. Seismicity and structure of the Fiordland subduction zone, New Zealand. *Eos. Supplement*. 74(43):96.

Reyners, M. The seismic hazard of the Alpine Fault revisited. *In* Conference technical papers: New Zealand National Society for Earthquake Engineering technical conference and AGM, Wairakei Hotel, Taupo. p. 88-93.

Previous estimates of earthquake hazard in New Zealand have assumed that seismicity in the central part of the Alpine Fault obeys the Gutenberg-Richter magnitude-frequency relationship. However, geological and seismological data indicate that a characteristic earthquake model may be more appropriate for this region. Rather than the area being a seismic gap, it is experiencing exactly the low level of seismicity expected for a region containing a major fault which ruptures in characteristic earthquakes. A redetermination of seismic hazard for the South Island using a characteristic earthquake model for the central part of the Alpine Fault and the Gutenberg-Richter model elsewhere leads to a marked reduction in mean return period for higher intensities in the central South Island.

Robinson, R. Radon monitoring at Kelburn, 1982-present. *In* New Zealand Geophysical Society Energy and environment: Abstracts [of the] Geophysical Symposium 1993, 26-27 August 1993, Victoria University of Wellington.

Smith, W.D. Principal earthquakes in New Zealand in 1992. *Bulletin of the New Zealand National Society for Earthquake Engineering*, 26(1):1

The pattern of earthquakes in New Zealand during 1992 was a little unusual, in that the latter half of the year was very quiet. There were 13 shocks of magnitude 5.0 or greater during the year: only four of these were in the July-December period, the largest only 5.4. In contrast,

the nine shocks in the first half of the year included one of magnitude 6.4 and four others of 5.5 or greater.

Smith, W.D. The Seismological Observatory: a division of the Institute of Geological and Nuclear Sciences. *Tephra*, 12(1):6-9

In DSIR days, the Seismological Observatory was part of the Geology and Geophysics Division. Under the new Crown Research Institute structure, the Institute is part of GNS Science (Formerly the Institute of Geological and Nuclear Sciences).

The functions of this Institute are in large part the same as those of the old DSIR Geology and Geophysics. From an operational point of view, the Observatory continues to maintain earthquake monitoring over the country in a similar manner as in the past. It enjoys a close working relationship with the Ministry of Civil Defence.

Smith, W.D. Seismology and nuclear disarmament. *New Zealand science monthly*, 4(11):5

In February, the Ad Hoc Group of Scientific Experts to Consider International Cooperative Measures to Detect and Identify Seismic Events meets in Geneva to advise the Conference on Disarmament on how a nuclear test ban might be monitored. The group meets twice yearly and, although New Zealand is not an official member of the conference, we participate in the group's scientific discussions.

Webb, T.H. Further studies of New Zealand foreshocks. *In* New Zealand Geophysical Society Energy and environment: Abstracts [of the] Geophysical Symposium 1993, 26-27 August 1993, Victoria University of Wellington.

INSTITUTE SERVICES

PUBLICATIONS

The New Zealand seismological reports are a continuing series of E-bulletins published in the science report series from GNS Science. 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 Institute practices.

Copies of this material may be purchased from:

Publications Sales
GNS Science
PO Box 30-368
Lower Hutt
New Zealand.

EARTHQUAKE CATALOGUE

The entire New Zealand regional earthquake hypocentre catalogue is available from the GeoNet website www.geonet.org.nz. It consists of approximately 200,000 events dating from 1460 until the present day, including origin times, locations and magnitudes, together with indicators of the quality of the data used. The retrieval facility allows users to restrict their interest by origin time, geographical location, focal depth, magnitude and/or quality.

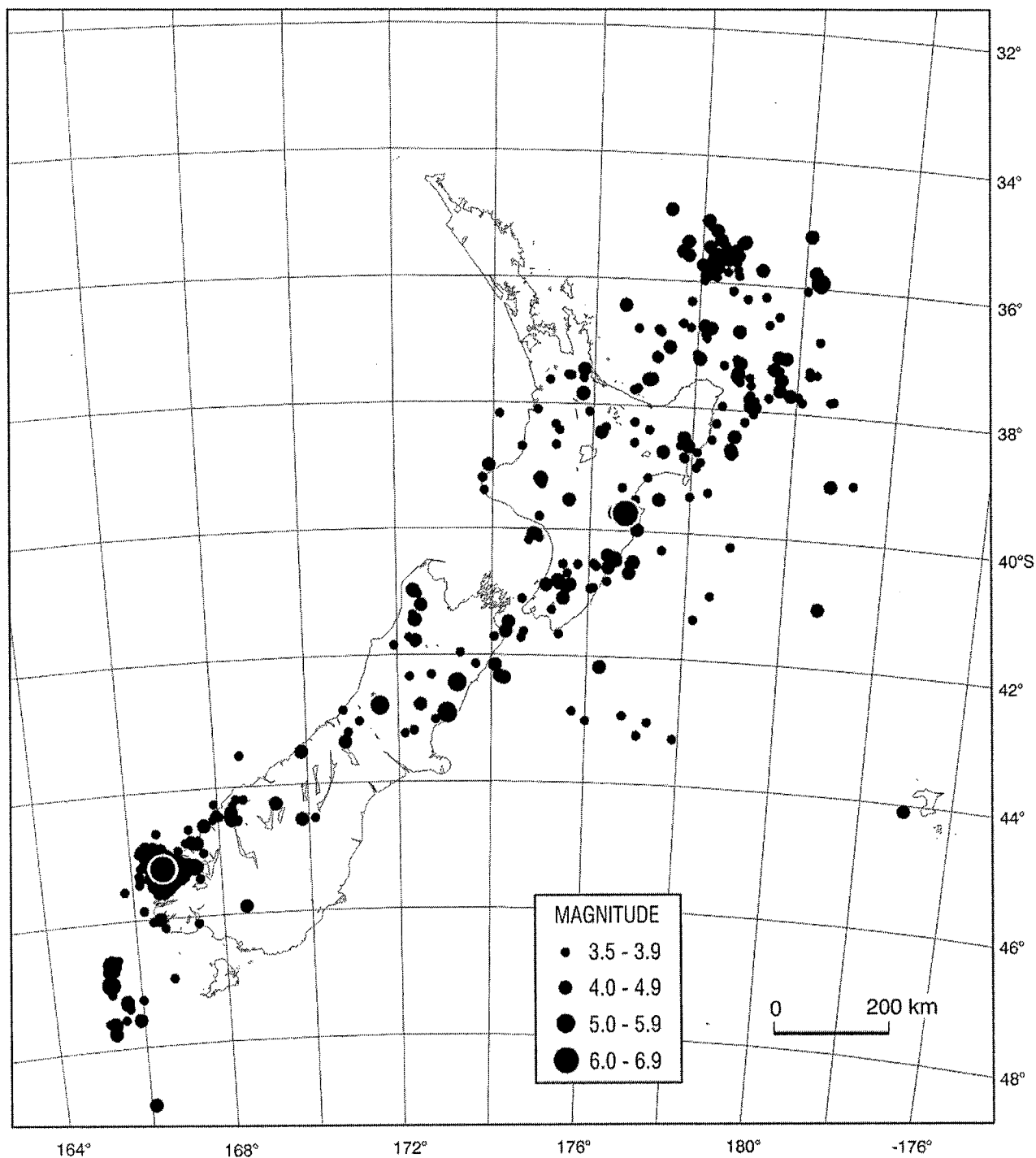
The Institute can also offer a service to search for earthquakes likely to have produced Modified Mercalli Intensities above a specified minimum at a particular place, and to list reports of intensities above a given minimum for events occurring in chosen felt reporting localities.

Waveforms of earthquakes recorded by digital seismographs are also archived and are freely available through the GeoNet web site.

EPICENTRE MAPS 1993

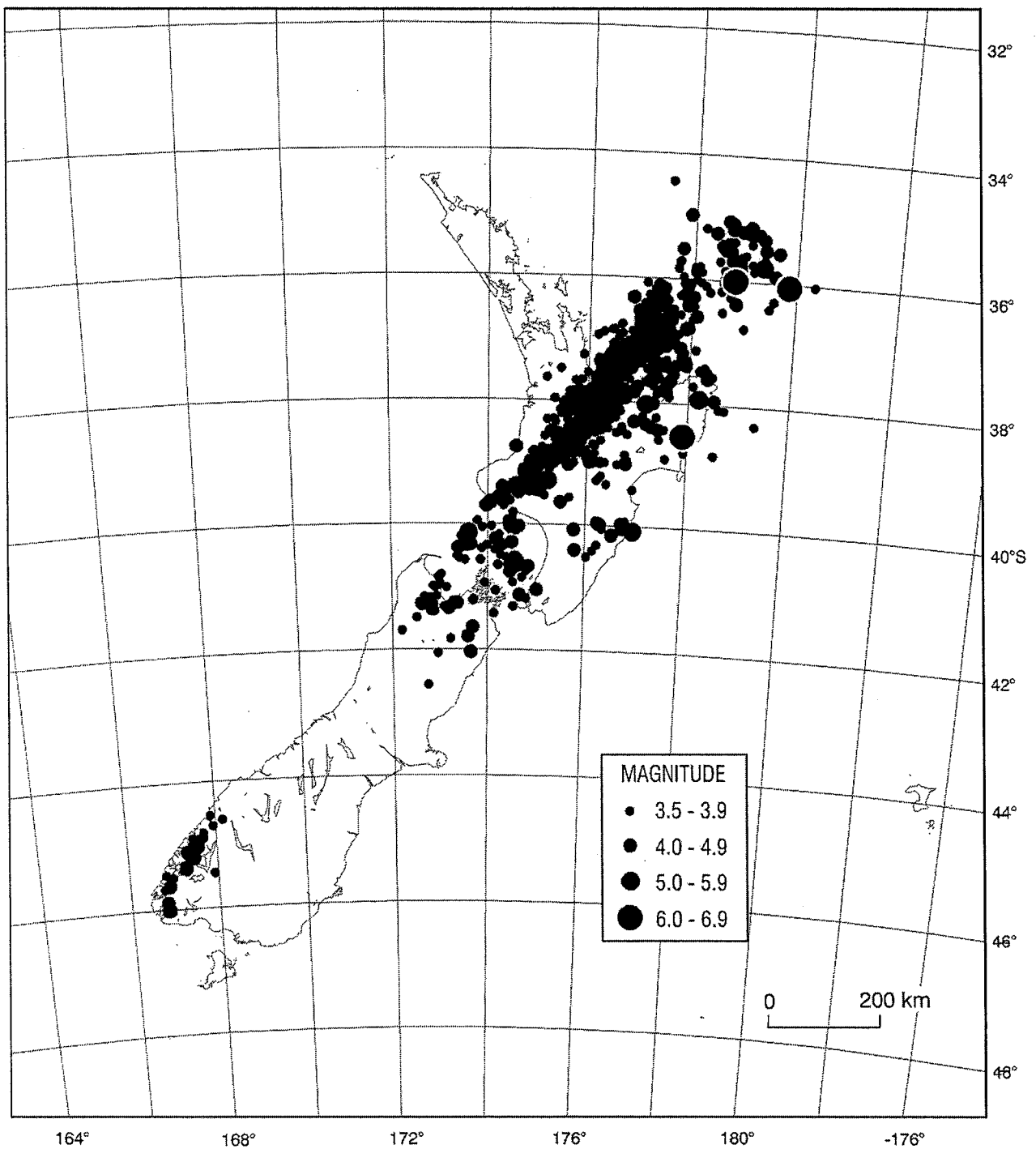
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REGIONAL SHALLOW EARTHQUAKES



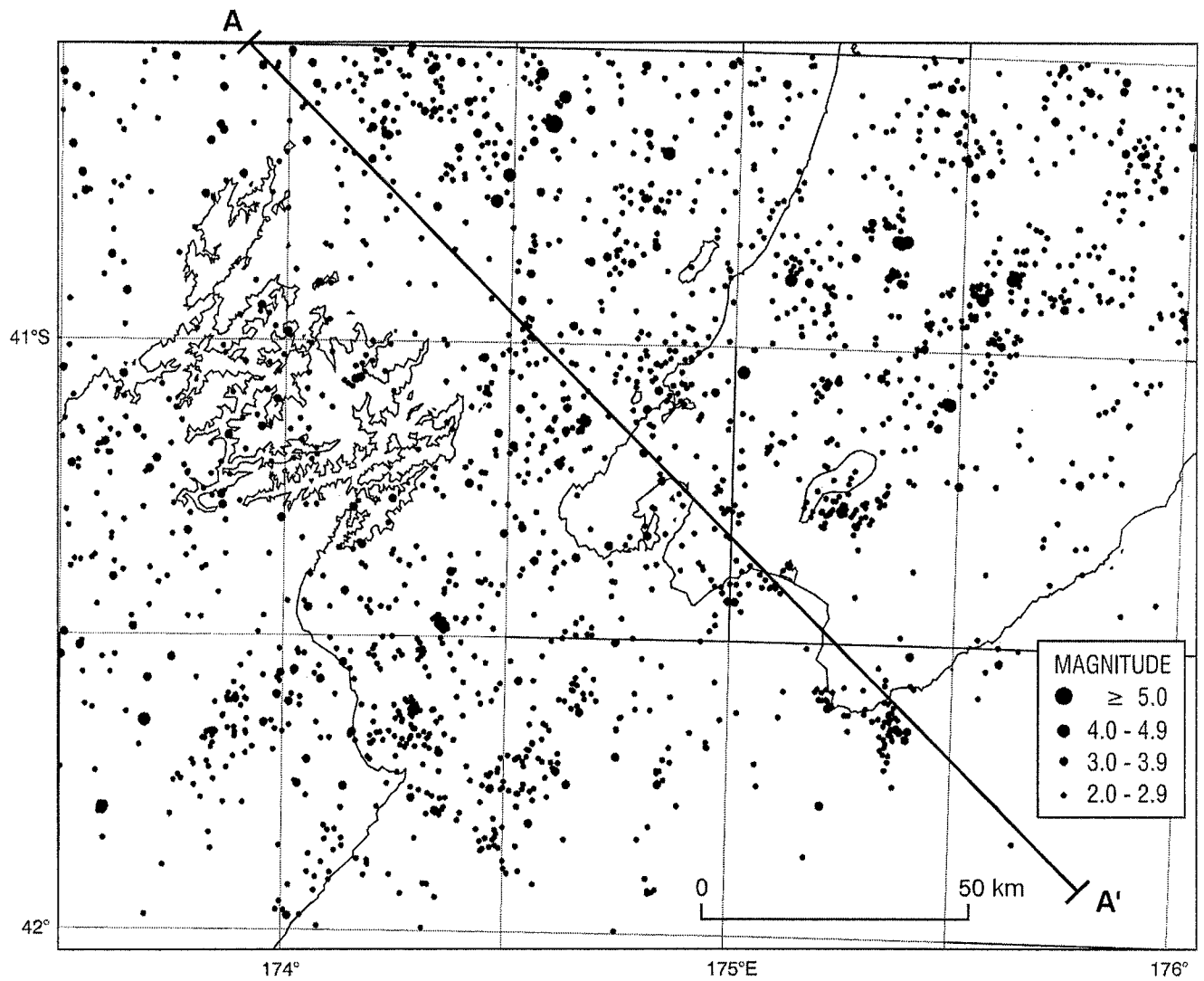
Epicentres of all earthquakes of $M_L \geq 3.5$ with focal depths less than 40 km. When several shocks have the same epicentre, the largest is shown.

REGIONAL DEEP EARTHQUAKES



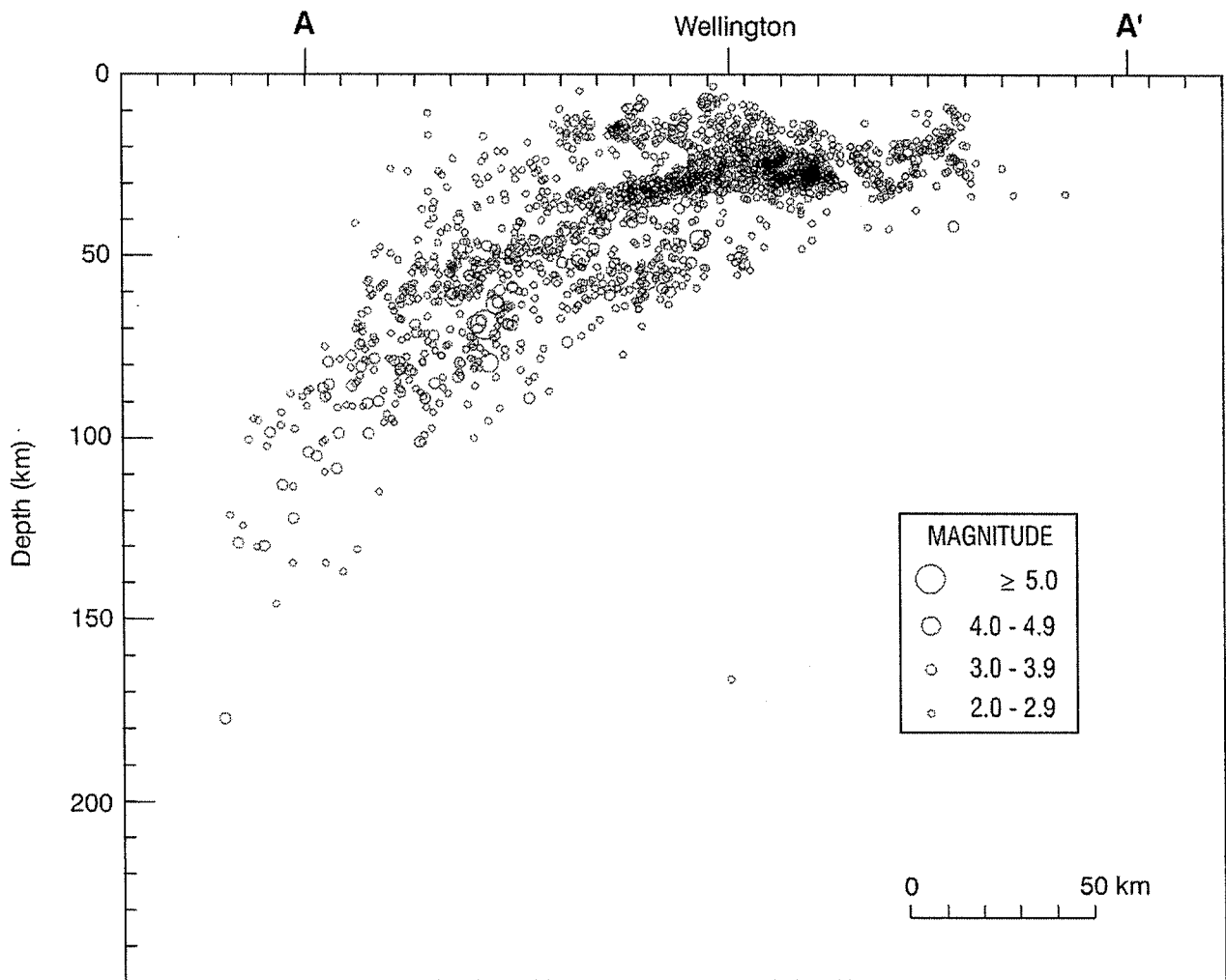
Epicentres of all earthquakes of $M_L \geq 3.5$ with focal depths of 40 km or more. When several shocks have the same epicentre, the largest is shown.

WELLINGTON AREA EPICENTRES

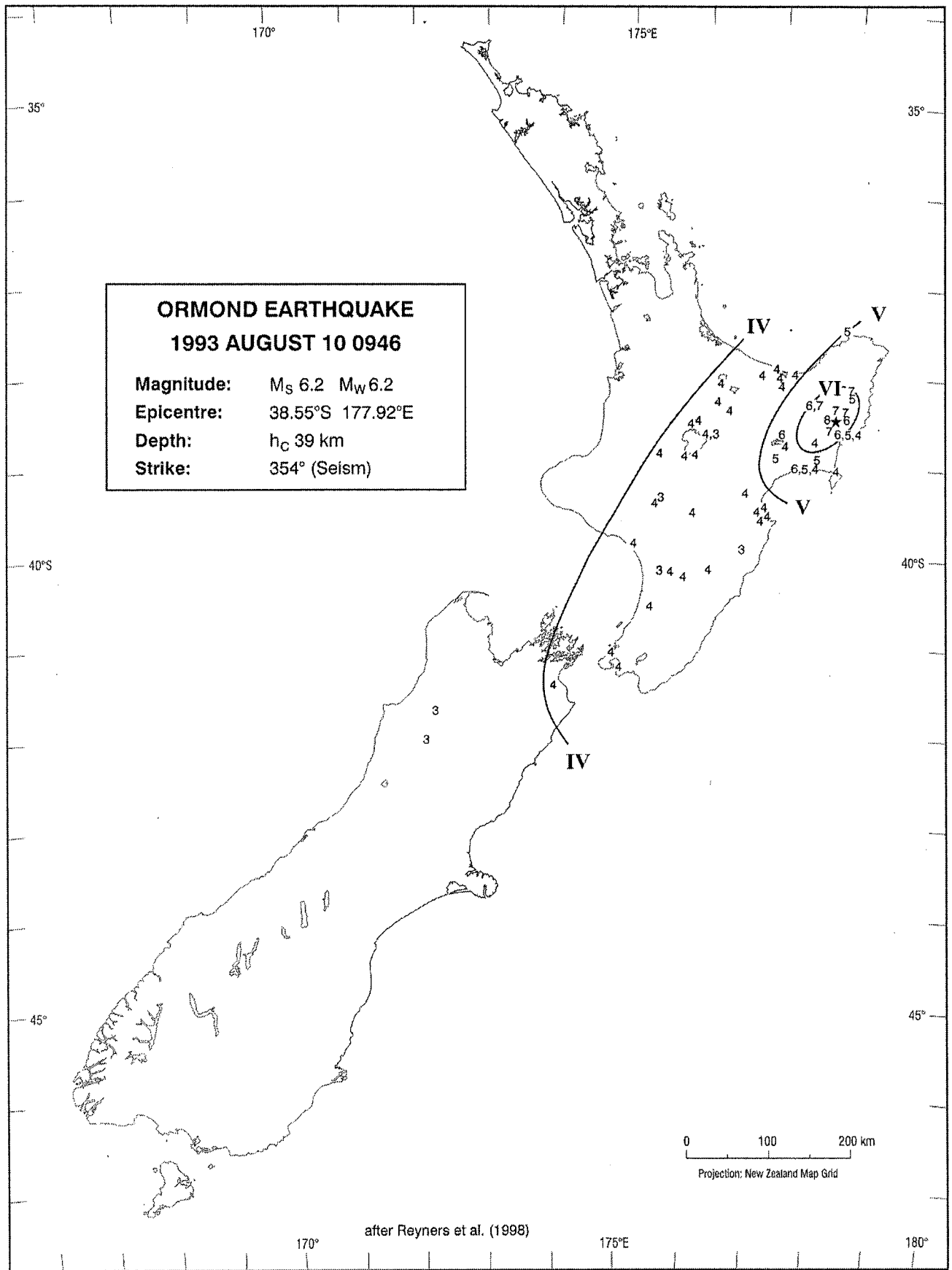


Epicentres of all earthquakes of $M_L \geq 2.0$ in the Wellington area. The distribution of these earthquakes in depth is shown on the next page, where the hypocentres have been projected onto a vertical plane passing through the line A-A'.

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.



Modified Mercalli intensities for the Ormond earthquake 1993 August 10 0946. The data is derived from reports from the 'felt' reporter network.